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CONTENTS

| | Page |
|---|-------------|
| GENERAL INFORMATION | xi |
| PREFACE | xiii |
| 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 (4); The establishment of the Commonwealth of Australia (5); The External Territories of Australia (6); The Constitution of the Commonwealth (7). | |
| <i>Plate—1, Map of Australia (frontispiece).</i> | |
| CHAPTER 2. CLIMATE AND PHYSICAL GEOGRAPHY OF AUSTRALIA | 9 |
| General description of Australia (9); Position and area (9); Land forms (9); Climate (10); Climatic controls (11); rainfall (11); temperature (18); humidity (25); sunshine, cloud and fog (25); global radiation (25); evaporation (26); winds (26); floods, droughts (26); climatic discomfort (31); climatological tables (32). | |
| <i>Plates—2-7, Rainfall (12-16); 8, Thunderdays (19); 9-13, Temperatures (19-21); 14, Frost Period (23); 15-16, Global Radiation (27); 17-20, Wind roses (28-29); 21, Drought Incidence (30).</i> | |
| CHAPTER 3. GENERAL GOVERNMENT | 41 |
| Parliamentary government (41); The Sovereign (41); The Governor-General (41); Governors (42); The Cabinet and executive government (42); Ministries (42); Parliaments and elections (44); Referendums (48); Outlay on parliamentary government (50); Commonwealth government departments (50); Enactments of the parliaments (51). | |
| CHAPTER 4. DEFENCE | 53 |
| Current defence policy (53); Higher defence organisation (53); Higher defence machinery (54); Equipment for the defence force (55); Defence manpower (55); Defence co-operation (56); Defence representation overseas (57); Defence force activities overseas (57); Royal Australian Navy (57); Australian Army (58); Royal Australian Air Force (59); Defence science and technology (61); Natural Disasters Organisation (62); Defence production functions of Department of Productivity (63). | |
| CHAPTER 5. INTERNATIONAL RELATIONS | 65 |
| Relations with—the Great Powers (65), Asia and the Pacific (65-66), Western Europe (66), Indian Ocean (66), Other countries (66); United Nations (66); The Commonwealth (67); Nuclear issues (67); Law of the Sea (67); Antarctica (67); Consular activities (67); Treaties (67); Australia's official development assistance to less-developed countries (68); Diplomatic representation overseas (72); Australian missions overseas (72); Diplomatic representation to Australia (73). | |
| CHAPTER 6. DEMOGRAPHY | 75 |
| Population—the population census (75), Estimates (76), Size and growth (76), Projections (77), Location (79), General characteristics (80), The Aboriginal population (83), Internal migration (84); Vital statistics (85), Births and fertility (86), Mortality (91), Life expectancy (94), Marriages (95), Divorce (97); International movements (99), Migration to Australia (101), Refugees (103), Citizenship (104). | |
| <i>Plate—22, Age pyramid of the population, 1977 (82).</i> | |

CHAPTER 7. PRICES AND HOUSEHOLD EXPENDITURE 107

Retail prices and price indexes—Consumer Price Index (107); Previous retail price indexes (111), Wholesale price indexes (112), Price index of materials used in house building (112), Price index of materials used in building other than house building (113), Price index of materials used in manufacturing industry (114), Price index of articles produced by manufacturing industry (115); Export price indexes—current (116); Previous wholesale price indexes (117); Prices Justification Tribunal (117); Household expenditure surveys (119).

CHAPTER 8. MANPOWER 125

The labour force—the population census (125), The population survey (125), The labour force survey (126), Population survey reports (135); Commonwealth Employment Service (136); Labour turnover (139); Industrial conciliation and arbitration (139); Rates of wage (140); Standard hours of work (143); Evening and night work (143); Male average weekly earnings (143); Surveys of income, earnings and hours (144); Earnings and hours of employees, October 1977 (150); Weekly earnings of employees (distribution) August 1977 (152), Income distribution, 1973-74 (155); Annual leave (155); Long service leave (155); Industrial disputes (156); Labour organisations—trade unions (160), Employer and employee organisations registered under Industrial Arbitration Acts, etc. (161), Central labour organisations (162); International Labour Organisation (162).

Plates—23, *Labour force participation rates* (129); 24, *Unemployment rates* (130); 25, *Working days lost—industries* (158).

CHAPTER 9. SOCIAL SECURITY AND WELFARE 163

Commonwealth Government expenditure on social security services (163); Age and invalid pensions (164), Sheltered employment allowance (166), Widows' pensions (167), Supporting parent's benefit (168), Fringe benefits (169), Funeral benefits (169), Portability of social service payment (169), Maternity allowances (170), Family allowances (170), Double orphan's pension (171), Handicapped child's allowance (171), Unemployment and sickness benefits (171), Special benefit (172), Appeals tribunals (172), Reciprocal social services agreements with other countries (172), Commonwealth Rehabilitation Service (173), Compassionate allowances (173), Commonwealth Government assistance to welfare organisations (174), Commonwealth Government assistance to States (176); Children's services (177); Other services of the Department of Social Security (177), The role of voluntary agencies (178), Establishment of Social Welfare Policy Secretariat (179); Aboriginal welfare (179); Migrant welfare—accommodation for migrants (180), Ethnic affairs and migrant settlement (180); Veterans' Affairs (181), Disability and dependants' pensions (182), Service pensions (185), Medical Treatment for veterans and dependants (187), General repatriation benefits and miscellaneous (188), The Services Canteens Trust Fund (190).

CHAPTER 10. HEALTH 193

National health services—quarantine, human, animal and plant (193-194); Personal health services and subsidies—National health benefits (194), Nursing home benefits (195); Health program grants (196); Federal authorities expenditure—Pharmaceutical benefits (197), Cash benefits to persons (197), Tuberculosis (197); Immunisation campaigns (198); National health services organisation (198); Commonwealth Government health advisory organisations (198); Other Commonwealth Government subsidies and grants to States (200); Commonwealth Government grants to organisations associated with public health (201); State Government activities (including Commonwealth Government activities in the N.T. and the A.C.T.)—Public health legislation and administration (202), Supervision and care of infant life (204), Hospitals and notifiable diseases—public and private hospitals and nursing homes (204), Repatriation hospitals (204), Hansenite hospitals (204), Mental health institutions (205), Hospital morbidity statistics (205), Notifiable diseases (205), Health-related surveys conducted by the ABS (206); Deaths—causes and perinatal (206); Cremation (208).

CHAPTER 11. LAW AND ORDER 209

Federal Courts—High Court of Australia (209); Appeal to the Privy Council (210), Federal Court of Australia (211), Australian Industrial Court and Federal Court of Bankruptcy (211); Family Law Act (211); Legal aid—Australian Legal Aid Office (212); Administrative law—Australian Law Reform Commission (213), Administrative Appeals Tribunal (213), Commonwealth Ombudsman (213); Bankruptcy (213); Patents (214); Trade marks and designs (214); Copyright (214); Police (215); Commonwealth police force (215); Selected crime reported to police (215); Drug offences (218); Convicted prisoners (220).

CHAPTER 12. EDUCATION 221

State and Commonwealth Government responsibilities in education (221); General characteristics of schools (221); Primary and secondary education (222); Post-secondary education—Technical and further education (224), Colleges of advanced education (224), Universities (225), Teacher education (225); Migrant education (226); Financial assistance (226); Administrative structure of education at the national level (227); Major current issues in education—The Committee of Inquiry into Education and Training (229), Supply of and demand for teachers (229), The transition from secondary education to employment (229), Schemes introduced to assist young Australians seeking employment (230), National Inquiry into Teacher Education (230), Study leave in universities and colleges of advanced education (230), The Committee on Nurse Education and Training (231), Australian Maritime College (231), National Aboriginal Education Committee (231); Education statistics—summary tables (231), Schools (233), Technical and further education (235), Colleges of Advanced Education (238), Universities (241), Overseas students (243); Expenditure on education (244).

Plate—26, Grades in Government Schools, States and Territories (234).

CHAPTER 13. RURAL INDUSTRY 257

Sources of statistics and definitions of units (257); Structural statistics (258); Financial statistics (260); Gross value of agricultural commodities produced and indexes of quantum and average unit gross values (262); Apparent consumption of foodstuffs and nutrients (265); Land tenure (267); Land utilisation in Australia (268); Crops (268); Cereal grains (270)—Wheat (271), Coarse grains (276), Oats (276), Barley (276), Grain sorghum (277), Maize (278), Rice (278); Oilseeds—Linseed (278), Rapeseed (279), Safflower (279), Sunflower (279), Soybeans (279), Peanuts (279), Lupins (279), Cotton (280); Sugar (280); Vegetables (282); Fruit (excluding grapevines) (284); Grapevines (286); Miscellaneous crops (289)—Fodder crops (289), Tobacco (290), Hops (290), Mushrooms (291), Nurseries (291); Livestock—Cattle (292), Sheep (293), Pigs (295), Poultry (296); Meat production, slaughterings and other disposals (297)—Mutton and lamb (298), Beef and veal (298), Pig-meat (298), Poultry (298), Exports of live animals (299), Consumption (300), The Australian Meat and Livestock Corporation (300), The Beef Industry (Incentive Payments) Scheme (301); Wool (301); Dairying (305); Beekeeping (307); Eggs and egg products (308); Rural Improvements (309); Rural employment (312); Regulation of Australian agricultural industries (313).

Plates—27, Gross values of agricultural Commodities (263); 28, Gross value: sheep and wool industry (295); 29, Production of meat (297); 30, Sheep numbers and wool production (302); 31, Milk production and utilisation (306).

CHAPTER 14. FORESTRY AND FISHERIES 315

Forestry—Source of statistics (315), Objects (315), General account of forests and timbers (315), Extent of forested areas (315), Plantations (316), Administration and research (317), Employment (319), Production (319), Timber and timber products (320); Fisheries—Collection and presentation of statistics (322), Resources and their commercial exploitation (323), Administration and research (324), Boats and equipment used in fisheries (325), Employment (326), Production, processing and domestic marketing of fisheries products (327), Consumption of edible fisheries products (330), Overseas trade in fisheries products (331).

CHAPTER 15. WATER RESOURCES, SEWERAGE AND DRAINAGE 333

Water resources—geographic background (333), Surface supplies (334), Groundwater supplies (334), Drainage divisions and the conjunctive use of surface and groundwaters (335), Major dams and reservoirs (337), Water quality (339), Water management (340), Research and continuing assessment (341), International aspects (341), National and inter-state schemes (342), States and Territories—New South Wales (343), Victoria (344), Queensland (345), South Australia (347), Western Australia (348), Tasmania (349), Northern Territory (350), Australian Capital Territory (352).

Plate—32, Australia: Drainage Divisions (335).

CHAPTER 16. MINERAL INDUSTRY 353

Geology and mineral resources (353); Administration (353); Government assistance—Commonwealth Government (356), State Government (358); Research (359); International relations (361); Mineral industry statistics—Mining industry (362), Mineral production (364); Foreign participation in mining industry (369); Mineral exploration (other than for petroleum) (369); Petroleum exploration (369), Mineral processing and treatment (370); Overseas trade (371); Review of recent developments in the Australian mineral industry (374).

CHAPTER 17. MANUFACTURING AND INTERNAL TRADE 379

Manufacturing—Introduction (379), Industry statistics—1901 to 1967–68 (382), from 1968–69 (382), Multi-establishment enterprises and single establishment manufacturing enterprises with four or more persons employed (384), Single establishment manufacturing enterprises with less than four persons employed (388), Electricity and gas establishments (389), Principal manufacturing commodities (391), Australian Standard Commodity Classification (395), Enterprise and industry concentration statistics (396), Foreign ownership and control (396); Internal trade—Wholesale trade (396), Retail trade (396).

CHAPTER 18. ELECTRIC POWER 399

Introduction—Distribution of population and location of electric power resources in Australia (399), Electric power generation and distribution (399); Snowy Mountains Hydro-Electric Scheme (400); States and Territories—New South Wales (402), Victoria (403), Queensland (405), South Australia (406), Western Australia (406), Tasmania (407), Australian Territories (407).

Plate—33, The Snowy Mountains Scheme—map (401).

CHAPTER 19. HOUSING AND CONSTRUCTION 409

Housing—Census dwellings (409), Government activities in the housing field (410), Advances to home purchasers (420); Construction—Building (424), Construction (other than building) (428).

Plates—34, New Houses: Australia (425); 35, New Other Dwellings: Australia (426).

CHAPTER 20. TRANSPORT AND COMMUNICATION 431

The Australian Transport Advisory Council (431); Shipping—Control of shipping (432), Collection and presentation of statistics (435), Overseas shipping (437), Interstate shipping (437), Australian trading vessels (438), Harbour boards and trusts (438), Shipping at principal ports (438), Shipping cargo (440), Vessels registered in Australia (443), Miscellaneous (443); Railways—Government railways (444), Operations of government railway systems (446), Non-government railways (450); Tram, bus and ferry services—Systems in operation (450), Government and municipal tram and bus services (451); Motor vehicles—Survey of motor vehicle usage (452), Motor vehicles on register (453), Registrations of new motor vehicles (454), Drivers' and riders' licences (454); Road traffic accidents (455); Roads and bridges (457)—Expenditure on roads and bridges (457); Air transport—Department of Transport (458), Regular air services within Australia (459), International activity (460),

Aerodromes (461), Airway facilities (461), Air transport registrations, licences, etc., in force in Australia (461), Accidents and casualties (461); Postal, telecommunication and radiocommunication services (461), Postal and Telecommunications Department—General (462), Australian Postal Commission (462), Telecommunications services within Australia (466), Overseas telecommunications services (468), Radiocommunication stations authorised (470); Broadcasting and television—The Commercial Broadcasting and Television Service (470), The Special Broadcasting Service (470), Broadcasting services (471), Television services (472).

CHAPTER 21. PRIVATE FINANCE 475

Money—Currency (475), Volume of money (475); Financial regulation—Commonwealth legislation for economic management (476), Other Commonwealth legislation directly affecting financial institutions (477), State legislation (477); Banks—Reserve Bank of Australia (477), Trading banks (479), Savings banks (482), Development banks (483); Registered building societies—Permanent building societies (484), Terminating building societies (485); Credit unions (486); Short term money market—Authorised money market corporations (486), Money market corporations (487); Finance companies (487); Financial corporation statistics (489); Life insurance (490); Pension and superannuation schemes—private superannuation, pension and retiring allowance schemes (494), Public authority pension and superannuation schemes (495); General insurance (497); Unit trusts, land trusts and mutual funds (498); Australian Industry Development Corporation (498); Instalment credit for retail sales (499); Housing finance for owner occupation (500); New capital raisings by companies listed on Australian stock exchanges (502); Lotteries and betting—Lotteries (504), Betting (505).

CHAPTER 22. PUBLIC FINANCE 507

Commonwealth Government Finance—provisions of the Constitution (507), Budget (507); Federal Authorities—general (509), receipts and outlay (511), main components of outlay (513), main components of receipts (522); State authorities—general (543), receipts and outlay (544), main components of outlay (547), main components of receipts (548); Local authorities—general (550), area, population, dwellings, rates and penalties (550), receipts and outlay (552); All public authorities—receipts and outlays (554), main components of outlay (556), main components of receipts (557), level of government (558); Public sector borrowing (560); Commonwealth Government and States: Government securities on issue (560); State and local authorities, borrowings (562).

Plates—36, Federal Authorities, 1976–77 (510); 37, State Authorities, 1976–77 (546); 38, All Public Authorities, 1976–77 (555).

CHAPTER 23. NATIONAL ACCOUNTS 565

Description of National Income and Expenditure Accounts (565); National income and expenditure tables (568).

Plate—39, Articulation of Australian National Accounts (566).

CHAPTER 24. OVERSEAS TRANSACTIONS 573

Overseas trade—Constitutional provisions and legislation (573), Government authorities (575), Trade relations (575), Trade services (579), Collection and presentation of statistics (581), Total overseas trade (583), Classified summary of overseas trade (587), Exports, by industrial group (589), Imports of merchandise, by economic class (590), Direction of overseas trade (591), Ships' and aircraft stores (598), Overseas trade by State (598), Total import clearances, dutiable clearances, and customs duties collected (598), Excise (599); Private foreign investment (599); Balance of payments (603); Foreign control (609); Value of exports and imports of merchandise at constant prices (610).

Plates—40, Overseas trade, 1957–58 to 1977–78 (584); 41, Value of exports and imports, proportion by country, 1973–74 to 1977–78 (586).

CHAPTER 25. SCIENCE AND TECHNOLOGY 613

Overview (613); Advice and co-ordination—Australian Science and Technology Council (613), National Energy Advisory Committee (614), Department of Science and the Environment (615), Other organisations (615), Expenditure and manpower, Project SCORE (616); Resources and services—Soil resources (616), Fauna and flora resources (617), Fauna and flora conservation (617), Environmental protection (617), Meteorology (617), Ionospheric Prediction Service (618), Scientific and Technological Information Services (618); Major government research agencies, The Commonwealth Scientific and Industrial Research Organization (618), The Australian Atomic Energy Commission (619), The Antarctic Division, Department of Science (620), Australian Institute of Marine Science (620), Defence Science (620); Research in private industry (620); Research in universities and colleges (621); Social science research (622); International activities (622).

CHAPTER 26. CULTURE, RECREATION AND TRAVEL 625

Cultural organisations and financial assistance for the arts (625); The National Estate (626); The performing arts (627); Music (628); Film (628); Art (629); Crafts (630); Museums (630); Literature (630); Libraries (631); Archives (633); Botanical and zoological gardens (634); Recreation—Community recreation (636), Sports development (636), Youth affairs (636); Tourism (636); Travel—Internal (639), Overseas (639).

CHAPTER 27. THE TERRITORIES OF AUSTRALIA 643

The Northern Territory—general description (643), population (644), Aboriginal affairs (644), production (646), trade, transport and communication (652), education (654), finance (656); The Australian Capital Territory—general description (657), National Capital Development Commission (657), works and services (658), production (659), commercial practices (660), transport and communication (660), social (661), tourism (663), finance (663); Norfolk Island (664); Heard Island and McDonald Islands (666); Australian Antarctic Territory (667); Cocos (Keeling) Islands (667); Christmas Island (668); Coral Sea Islands (670).

STATISTICAL SUMMARY, 1901-02 to 1977-78 671**DIARY OF PRINCIPAL ECONOMIC EVENTS, JANUARY 1978 TO DECEMBER 1978 689****LIST OF SPECIAL ARTICLES AND MISCELLANEOUS MATTER CONTAINED IN PREVIOUS ISSUES 699****GENERAL INDEX 707**

GENERAL INFORMATION

Symbols

The following *symbols*, where shown in columns of figures or elsewhere in tables mean:

- n.a. not available
- n.y.a. not yet available
 - nil or less than half the final digit shown
- .. not applicable
- n.p. not available for separate publication (but included in totals where applicable)
- p preliminary—figure or series subject to revision
- r figures or series revised since previous issue
- n.e.i. not elsewhere included
- n.e.c. not elsewhere classified
 - break in continuity of series (where drawn across a column between two consecutive figures)
- m.—males; f.—females; p.—persons.

Other forms of usage

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 27, 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. 1977 refer to the year ended 31 December 1977; those shown as e.g. 1976-77 refer to the year ended 30 June 1977. Other yearly periods are specifically indicated. The range of years shown in table headings, e.g. 1901 to 1976-77, indicates the period covered, but does not necessarily imply that each intervening year is included.

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

Catalogue numbers (previously *Reference numbers*). Throughout this book references are made to ABS publications. In each case the catalogue number is shown in brackets; this should be quoted when ordering these publications (*see below*).

Where figures have been rounded, *discrepancies may occur between sums of the component items and totals*.

Availability of ABS publications

Information regarding the availability of ABS publications can be obtained from the Information Services Section, Australian Bureau of Statistics, P.O. Box 10, Belconnen, A.C.T. 2616 Australia, Phone (062) 52 6627, or from other ABS offices in each capital city and in Darwin.

A complete list of ABS publications produced in Canberra and in each of the State Offices is contained in the *ABS Catalogue of Publications*, which is available free of charge from any ABS office.

PREFACE

By the Constitution of the Commonwealth of Australia, the Parliament of the Commonwealth 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. During the late 1960s and early 1970s it became increasingly evident that new statistical legislation was required to enable the Bureau to respond to the changing needs of Government. As a consequence, the *Australian Bureau of Statistics Act*, 1975 was enacted in mid 1975. The Act came into operation from 3 May 1976. The legislation established the Australian Bureau of Statistics (ABS) as the central statistical authority for the Commonwealth Government, the office of the Australian Statistician and the Australian Statistics Advisory Council (ASAC).

The first Official Year Book was published early in 1908. This is the sixty-third Year Book issued under the authority of the Commonwealth Government. The Year Book is the principal general reference work produced by the Central Office of the Australian Bureau of Statistics. It provides a comprehensive and detailed statistical review of all aspects of the economy and social conditions of Australia, and in addition contains descriptive matter dealing with Australia's history, geography, physiography, climate and meteorology, government, defence and repatriation services, and international relations.

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.

Most of the statistics contained in this volume relate to the years ended June or December 1977 or 1978. More detailed statistics on subjects dealt with in the Year Book are available in the various annual reports published by the ABS, while more recent statistics are contained in the *Digest of Current Economic Statistics* (monthly) (1305.0), the *Monthly Review of Business Statistics* (1304.0) and in other ABS publications issued monthly, quarterly, half-yearly, or yearly.

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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 and earlier issues.

Pre-history

Man entered the Australian continent from the South-East Asian area during the last glaciation at least 40,000 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 toolmaking 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 'bands'—families or clusters of family groups—which formed the basic self-sufficient economic unit and ranged within territorial limits. Labour was divided between the sexes: the men hunted 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 forms 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 appears 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.

Discoveries by the Spanish

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, although no mention of it is made in his records.

Discoveries by the Dutch

A map published by Cornelius Wyfliet in 1597 had indicated roughly the eastern and western coast of Australia, as well as the Gulf of Carpentaria. In his *Descriptionis Ptolemaicae Augmentum*, Wyfliet wrote:

"The *Australis Terra* is the most southern of all lands. It is separated from New Guinea by a narrow strait. Its shores are hitherto but little known, since after one voyage and another, that route has been deserted and seldom is the country visited, unless when sailors are driven there by storms. The *Australis Terra* begins at one or two degrees from the equator, and is maintained by some to be so great in extent that, if it were thoroughly explored it would be regarded as a fifth part of the world".

The Dutch first explored the coast of Australia when, during 1606, the yacht *Duyfken* having coasted along the southern shores of New Guinea, followed the west coast of Cape York Peninsula as far as Cape Keer-Weer (Turn Again).

In 1616, Dirk Hartog sailed the ship, *Eendracht*, along the west coast of Australia between latitudes 26° and 22° south. At a point now called Cape Inscription, on Dirk Hartog Island, Hartog set up a post to which was attached a common pewter plate inscribed with a record of his visit.

In 1618, the *Zeewolf* found land in latitude 20° 15' south, and a party from the *Mauritius* landed on a peninsula shown on later charts as Cloates Island on the western side of the present Exmouth Gulf. In the following year, Frederik de Houtman discovered the reefs and islands off the west coast now known as Houtman Rocks (or Houtman's Abrolhos, a Portuguese term meaning, literally "eye-opener").

The voyage of the ship *Leeuwin* in 1622 made known the coast from Cape Leeuwin to Cape Gantheaume. In 1623, an expedition under Jan Carstensz set out in the yachts *Arnhem* and *Pera* to check on the findings of the *Duyfken* some seventeen years earlier. The Carstensz expedition discovered that part of the Northern Territory now known as Arnhem Land, and sailed along the Gulf of Carpentaria which it so named in compliment to Pieter de Carpentier, Governor of the Indies.

In 1627, the ship *Gulden Seepaart* under the command of Francois Thijssen, cruised along the south coast of Australia now known as the Great Australian Bight, and the following year, Gerrit de Witt, commander of the *Vyanen* discovered land on the north west in about latitude 21° south.

In 1629, the *Batavia*, commanded by Francois Pelsaert, was wrecked on the Abrolhos reef. Pelsaert and some of the crew set out in a long-boat in an epic voyage to Djakarta to seek help for the remainder of the crew. He was the first to carry to Europe an authentic account of the west coast, which he described in the most unfavourable terms.

In 1642 Abel Janszoon Tasman set out from Batavia to ascertain the extent of the great southern continent. He named Van Diemen's Land (changed to Tasmania in 1856), imagining it to be part of Australia proper, and, sailing north-easterly, discovered New Zealand before returning to Batavia. In his second voyage in 1644, Tasman visited the northern coast of Australia, sailing around 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). Even so, by 1644 the Dutch had discovered and explored the Australian coast from Fowler's Bay in the South to the tip of Cape York Peninsula, as well as the south of Tasmania.

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 was 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 from Tahiti the transit of Venus, had also the objective of ascertaining

whether the unexplored part of the southern hemisphere was only an immense mass of water or whether it contained another continent. In command of H.M.S. *Endeavour*, and accompanied by botanist Sir Joseph Banks, naturalist Dr Daniel Solander, astronomer Charles Green, 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 of it 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. 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 the present State of Tasmania and the mainland of Australia, was made by Bass and Flinders in 1798.

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

Lieutenant-General Sir Ralph Darling, then Governor of New South Wales, sent an expedition under Major Lockyer to found a settlement at King George Sound. The expedition sailed from Sydney on 9 November 1826, landed at the Sound on 26 December following, and on 21 January 1827

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

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 consisted of 4,103,568 square kilometres, including Van Diemen's Land (67,897 square kilometres) and New Zealand (269,003 square kilometres), the latter being included although Cook's annexation was not properly given effect to until 1840. 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 Diemen's Land, first settled in 1803, was politically separated from New South Wales and constituted a separate colony on 14 June 1825. 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 re-survey 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 Australasian 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 since been 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'. Settlement took place towards the end of 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 802,511 square kilometres of territory, lying south of the 26th parallel of south latitude and between the 141st* and 132nd meridians of east longitude.

* The actual surveyed boundary between South Australia and Victoria is at 140° 58' 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. 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 below*). Following a re-survey of the 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 Captain Phillip's commission was drawn up, New Zealand was considered as one of the 'islands adjacent in the Pacific Ocean' (*see page 4*). 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.

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. Some historical dates and the present areas of the several States and Territories and of Australia are shown below.

AUSTRALIA: COMPONENT STATES AND TERRITORIES

| State or Territory | Year of annexation | Year of first permanent settlement | Year of formation into separate Colony or Territory | Year in which responsible government was granted | Present area in km ² |
|--|-----------------------|---|---|--|---------------------------------------|
| 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 | 2,525,000 |
| 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; 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 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

An 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 Island and the McDonald Islands, all 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, while the 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 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. Day to day affairs in the Territory are managed by an Administrator under delegation from the Minister for Home Affairs. The 27 coral islands of the Territory have an area of about 14 square kilometres, and 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 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. Day to day affairs in the Territory are managed by an Administrator under delegation from the Minister for Home Affairs. 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 of Australia by the *Coral Sea Islands Act 1969*. The scattered reefs and islands, often little more than sandbanks, spread over a sea area of about 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 Minister for Home Affairs is responsible for matters affecting the Territory.

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. A complete copy of the revised Constitution is included in Year Book No. 62, pages 7-24.

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 and the Environment. 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 climate controls.

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 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 selected countries.

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

| Country | Area | Country | Area |
|--|---------|--|-------|
| Continental divisions— | | Country— | |
| Europe (a) | 4,936 | Australia | 7,682 |
| Asia (a) | 27,532 | Canada | 9,976 |
| U.S.S.R. (Europe and Asia) | 22,402 | Germany, Federal Republic of | 248 |
| Africa | 30,319 | Japan | 372 |
| North and Central America and West Indies | 24,247 | New Guinea (b) | 462 |
| South America | 17,834 | New Zealand | 269 |
| Oceania | 8,504 | United Kingdom | 244 |
| | | United States of America (c) | 9,363 |
| Total, World excluding Arctic and Antarctic continents | | | |
| | 135,771 | | |

(a) Excludes U.S.S.R., shown below. (b) West Irian is included in other Asia. (c) Includes Hawaii and Alaska.

Land forms

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 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 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.

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 National Resources, 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 above for methods of estimating area and coastline.

| State or Territory | Estimated area | | Length of coastline | Percentage of total area in | | Standard times | |
|--|------------------|--------------------------|---------------------|-----------------------------|----------------|-------------------|---------------------|
| | Total | Percentage of total area | | Tropical zone | Temperate zone | Meridian selected | Ahead of G.M.T. (a) |
| | km ² | | km | | | | hours |
| New South Wales | 801,600 | 10.43 | 1,900 | .. | 100 | 150°E | (b)10.0 |
| Victoria | 227,600 | 2.96 | 1,800 | .. | 100 | 150°E | (b)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 | (b)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 | (b)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 | (b)10.0 |
| Australia | 7,682,300 | 100.00 | 36,735 | 39 | 61 | .. | .. |

(a) Greenwich Mean Time.

(b) Because of 'daylight saving' an hour should be added from late October to early March.

Climate of Australia

General

The following information has been prepared by the Bureau of Meteorology, Department of Science. Previously, this chapter of the Year Book also included information about the physical geography of Australia. The information appeared most recently in Year Book No. 61 of 1975-76.

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.

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 modify the atmospheric flow.

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-east 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-tropical convergence zone resulting in a hot rainy season.

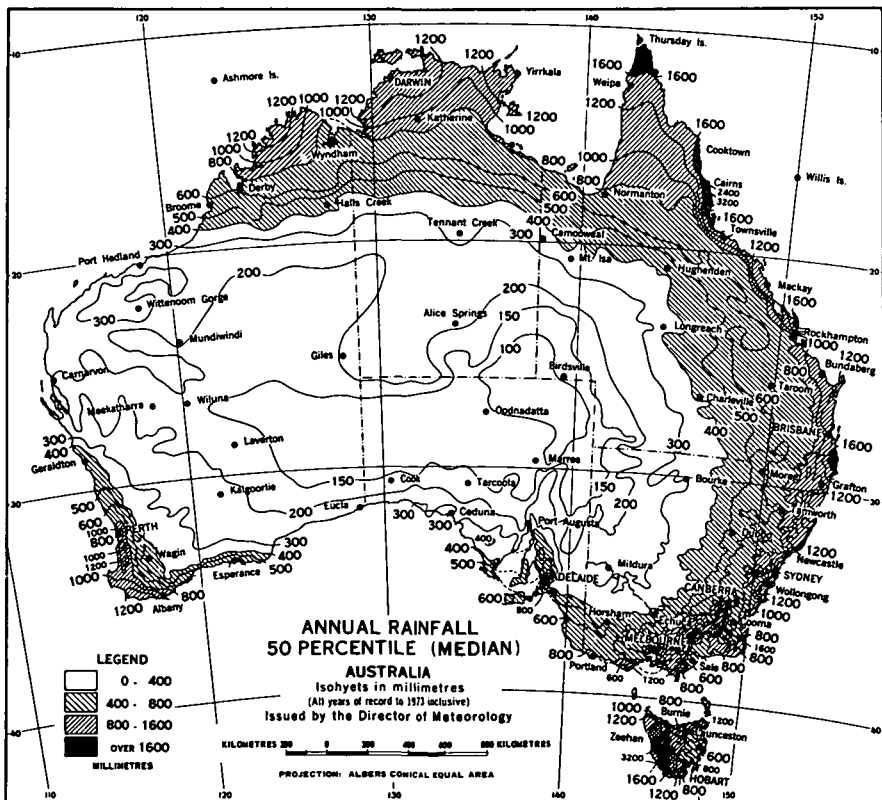
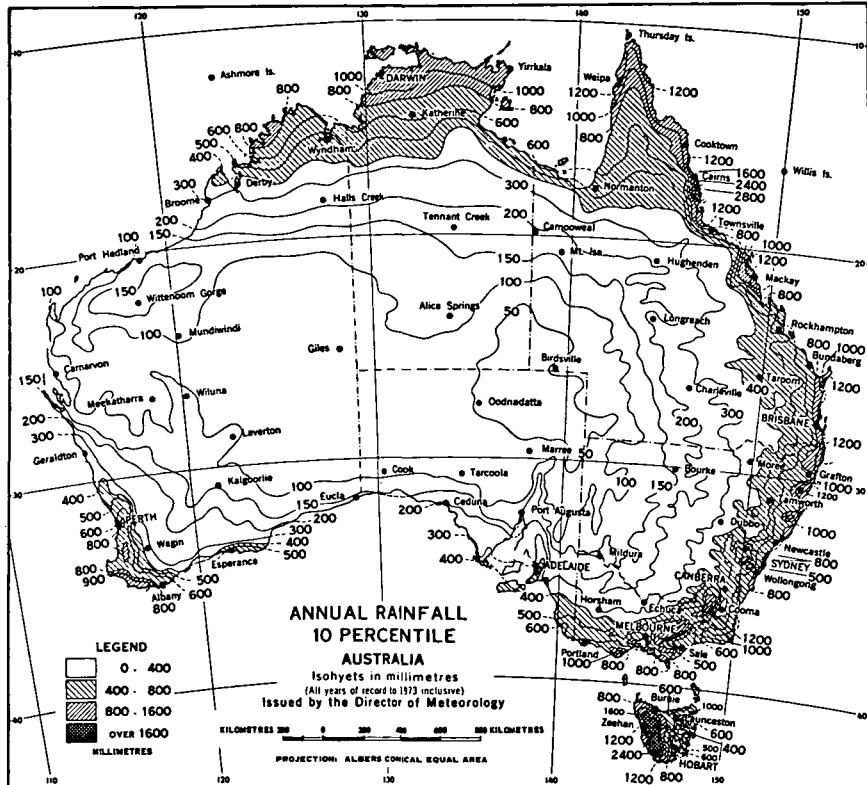
Tropical cyclones develop over the seas to the north-west and the north-east of Australia in summer between November and April. Their frequency of occurrence and the tracks they follow vary greatly from season to season. On the average, about three Coral Sea cyclones per season directly affect the Queensland 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 annual 10, 50 and 90 percentile* rainfall maps are shown on plates 2, 3 and 4 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 occur infrequently over extensive parts of the region, up to 400 millimetres of rain may fall within a few days and result in widespread flooding.

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

* 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.



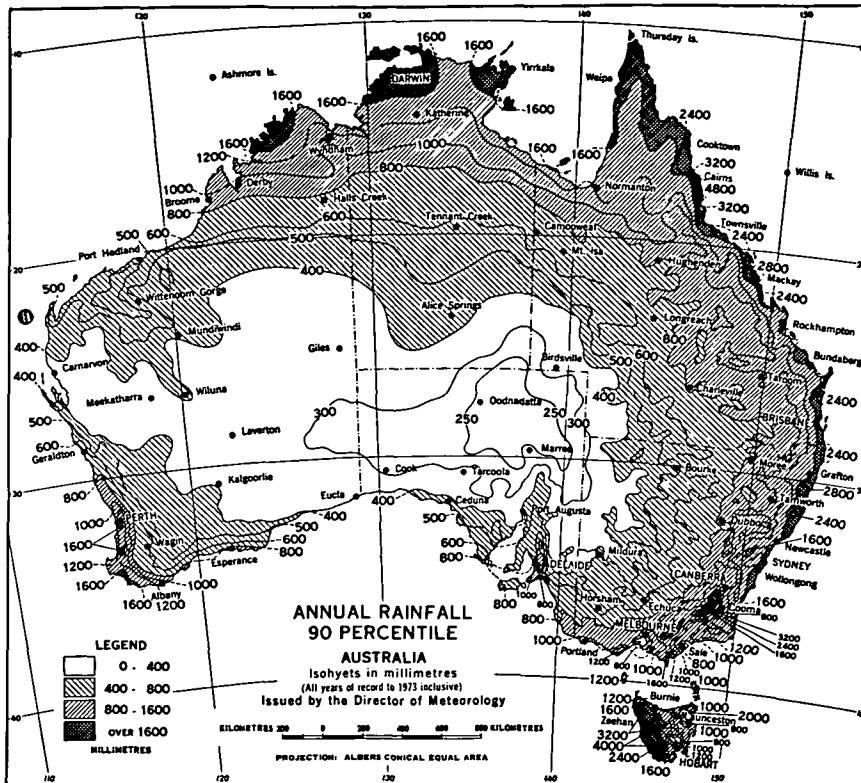


PLATE 4

mountainous areas of north-east Victoria and some parts of the east coastal slopes there are small pockets with median annual rainfall 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 derived from the map in Plate 3.

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

| Median annual rainfall | W.A. | N.T. | S.A. | Qld | N.S.W.(a) | Vic. | Tas. | Aust. |
|------------------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Under 200 mm | 43.5 | 15.5 | 74.2 | 10.2 | 8.0 | .. | .. | 29.6 |
| 200 to 300 mm | 29.6 | 35.6 | 13.5 | 13.0 | 20.3 | 6.3 | .. | 22.9 |
| 300 " 400 " | 10.5 | 9.0 | 6.8 | 12.3 | 19.0 | 19.2 | .. | 11.2 |
| 400 " 500 " | 4.3 | 6.6 | 3.2 | 13.5 | 12.4 | 11.8 | .. | 7.6 |
| 500 " 600 " | 3.1 | 5.8 | 1.8 | 11.6 | 11.3 | 14.1 | 12.2 | 6.6 |
| 600 " 800 " | 4.6 | 11.6 | 0.5 | 20.5 | 15.1 | 24.5 | 18.2 | 10.7 |
| 800 " 1,200 " | 3.7 | 9.6 | .. | 12.6 | 11.3 | 17.7 | 25.0 | 7.7 |
| Above 1,200 " | 0.7 | 6.3 | .. | 6.3 | 2.6 | 6.4 | 44.6 | 3.7 |
| Total | 100.0 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

(a) Includes Australian Capital Territory.

Seasonal. As outlined 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 5, below, is a simplified version of the seasonal rainfall zones arising from this classification.

Evaporation and the concept of rainfall 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:

- marked wet summer and dry winter of northern Australia;
- wet summer and relatively dry winter of south-eastern Queensland and north-eastern New South Wales;
- uniform rainfall in south-eastern Australia—much of New South Wales, parts of eastern Victoria and in southern Tasmania;
- 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;
- 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.

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.

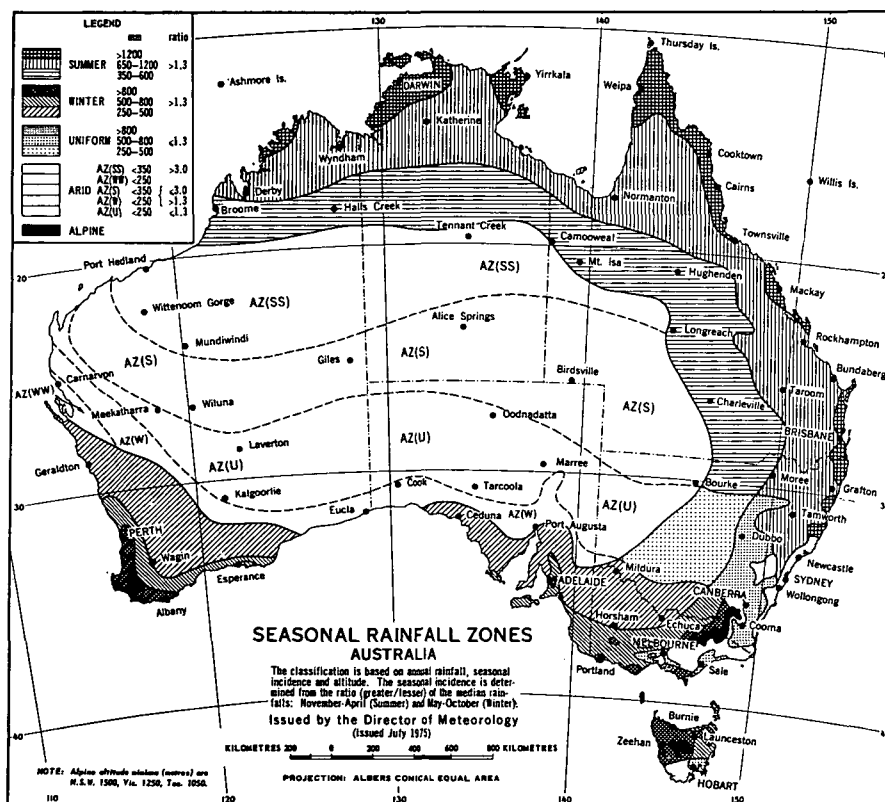


PLATE 5

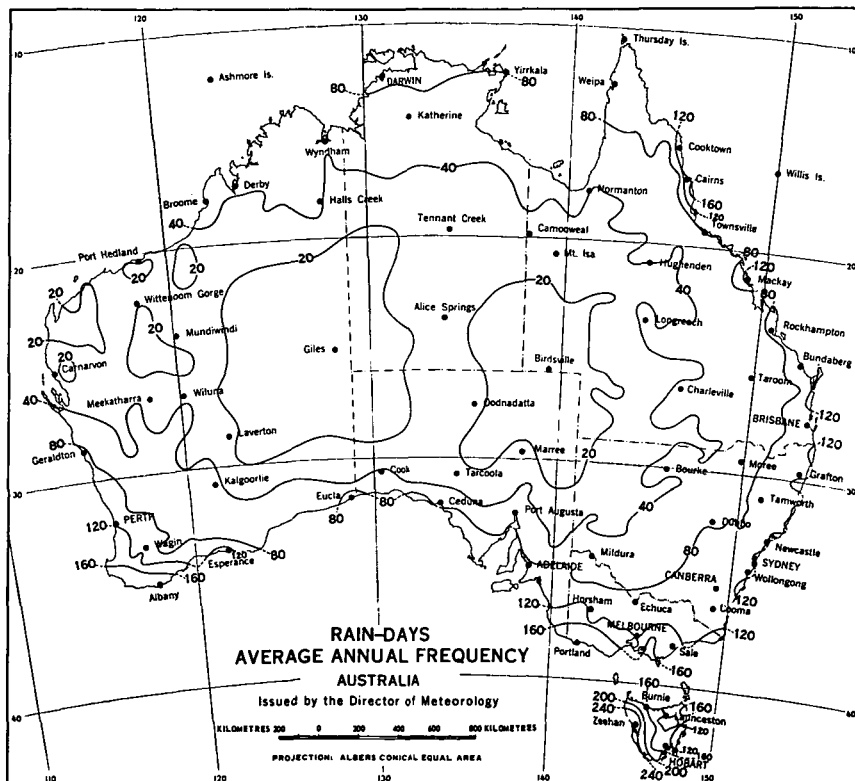
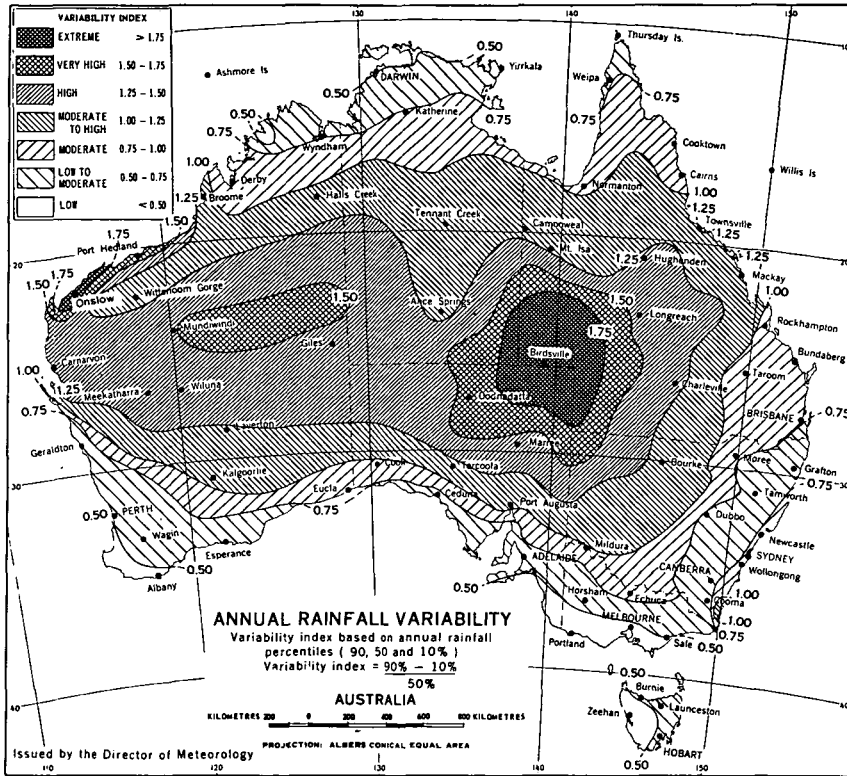
One index for assessing the variability of annual rainfall is given by the ratio of the 90–10 percentile range to the 50 percentile (median value) i.e. Variability Index = $\left\{ \frac{90 - 10}{50} \right\}$ percentiles.

Variability based on this relationship (Gaffney 1975) is shown in Plate 6, page 16. The region of high to extreme variability shown in Plate 6, lies mostly in the arid zone with summer rainfall incidence, AZ(S), defined on Plate 5, page 14. 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 varied 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 and 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 0.2 mm or more is shown in Plate 7, page 16.

The frequency of rain-days exceed 150 per year in Tasmania (with a maximum of over 200 in western Tasmania), southern Victoria, parts of the north Queensland coast and in the extreme south-west of Western Australia. 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 on page 17. 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 on page 17. 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.



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 | 1897-1974 | 74 | 69 | 133 | 141 | 141 | 141 |
| Alice Springs | 1951-1974 | 22 | 54 | 55 | 74 | 103 | 138 |
| Brisbane | 1911-1974 | 61 | 88 | 144 | 182 | 265 | 311 |
| Broome | 1948-1973 | 26 | 72 | 119 | 130 | 172 | 228 |
| Canberra | 1932-1970 | 35 | 51 | 68 | 71 | 89 | 139 |
| Carnarvon | 1956-1971 | 16 | 32 | 63 | 83 | 95 | 108 |
| Charleville | 1953-1974 | 22 | 42 | 66 | 75 | 111 | 142 |
| Cloncurry | 1953-1974 | 19 | 59 | 118 | 164 | 173 | 204 |
| Darwin | 1953-1973 | 18 | 88 | 101 | 109 | 152 | 191 |
| Esperance | 1963-1973 | 9 | 23 | 45 | 62 | 68 | 79 |
| Hobart | 1911-1976 | 63 | 28 | 56 | 87 | 117 | 168 |
| Meekatharra | 1953-1973 | 19 | 26 | 67 | 81 | 99 | 112 |
| Melbourne | 1878-1976 | 86 | 79 | 83 | 86 | 97 | 130 |
| Mildura | 1953-1976 | 22 | 49 | 60 | 65 | 65 | 91 |
| Perth | 1946-1974 | 27 | 32 | 38 | 47 | 64 | 93 |
| Sydney | 1913-1976 | 60 | 97 | 132 | 166 | 190 | 282 |
| Townsville | 1953-1974 | 20 | 87 | 145 | 165 | 168 | 275 |

Source: Pluviograph records in Bureau of Meteorology archives.

HIGHEST DAILY RAINFALLS
(all years to 1977 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 | 21.2.1954 | 809 |
| | 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 | 22.3.1974 | 352 |
| Victoria | Balook | 18.2.1951 | 275 |
| | Hazel Park | 1.12.1934 | 267 |
| South Australia | Ardrossan | 18.2.1946 | 206 |
| | Oodnadatta | 9.2.1976 | 200 |

Thunderstorms and hail. A thunder-day at a given location is a calendar day on which thunder is heard at least once. Plate 8, page 19 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 and sometimes causes widespread damage.

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 Kosciuszko (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 9, page 19 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.

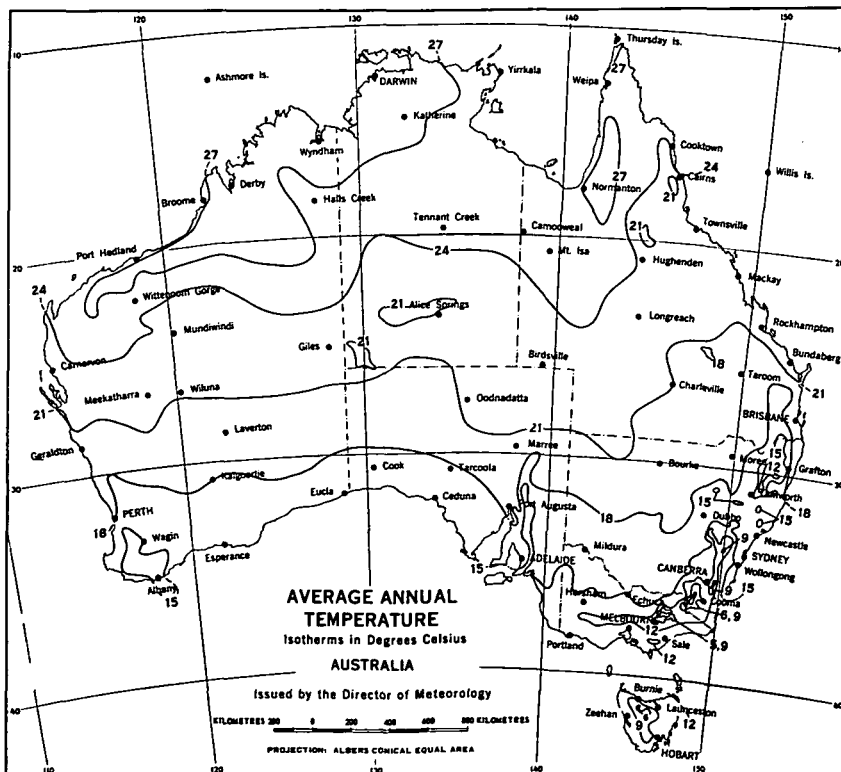
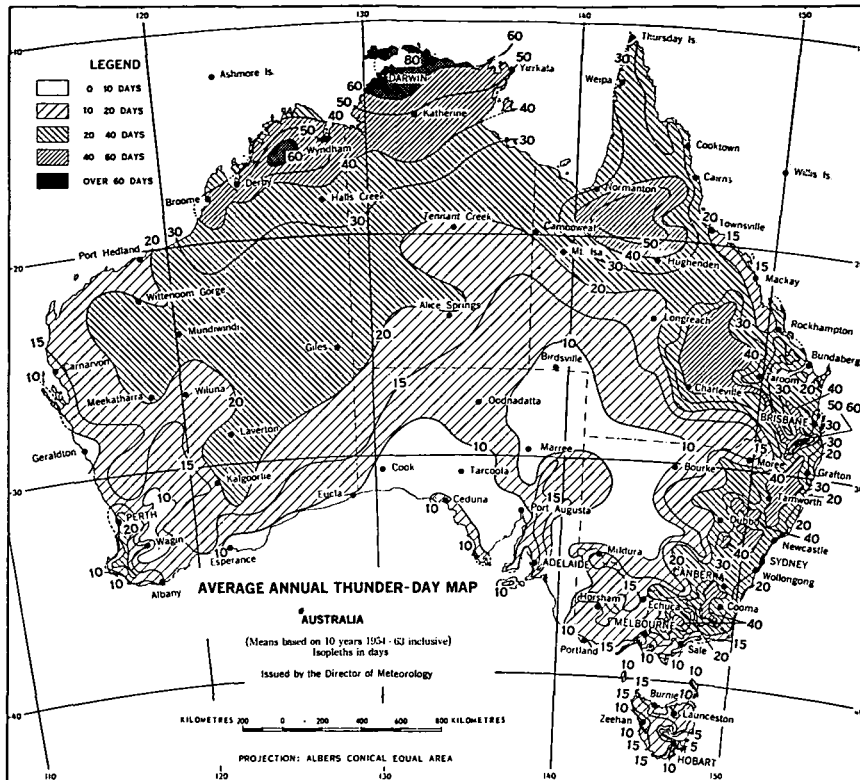
July is the month with the lowest average temperature in all parts of the continent. The months with the highest average temperature are January or February in the south and December in the north (except in the extreme north and north-west where it is November). The slightly lower temperatures of mid-summer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

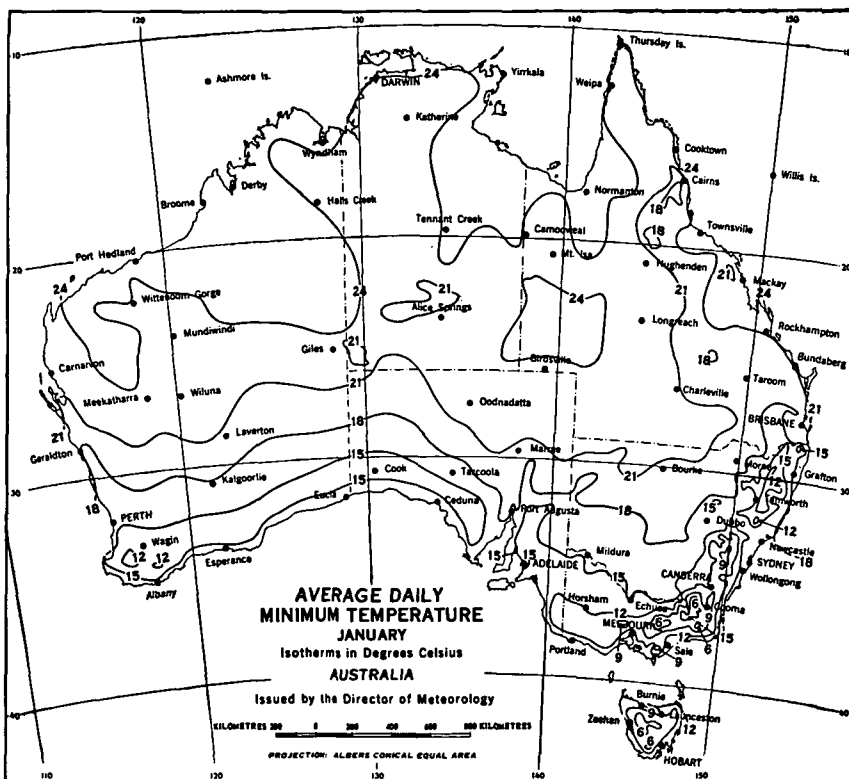
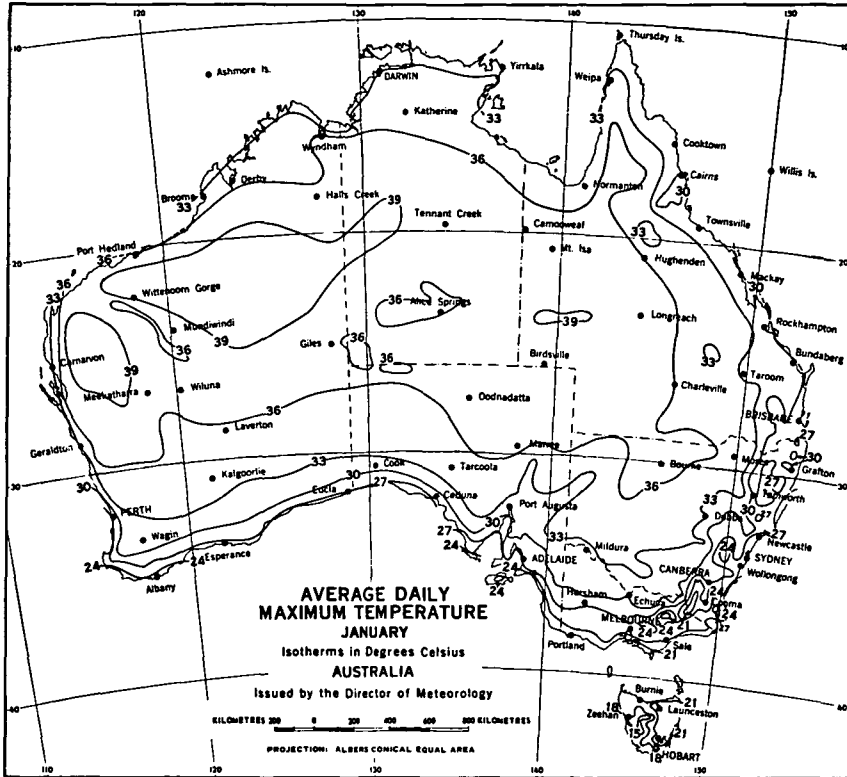
Average monthly maxima. Maps of average maximum and minimum temperatures for the months of January and July are shown in Plates 10–13 inclusive, pages 20–21.

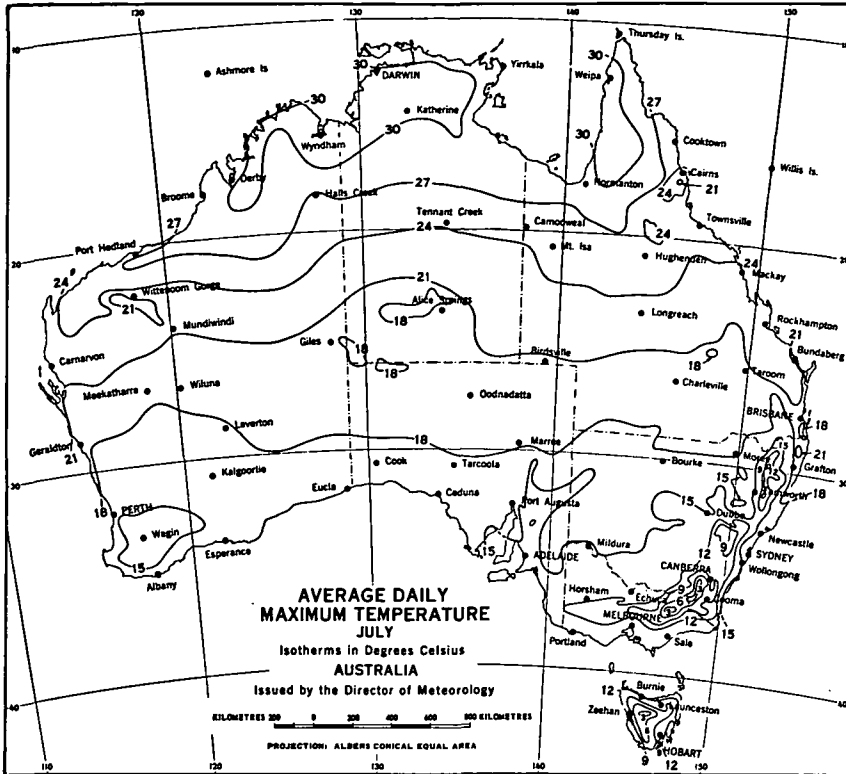
In January, average maximum temperatures exceed 35° C over a vast area of the interior and exceed 40° C over appreciable areas of the north-west. The consistently hottest part of Australia is around Marble Bar, Western Australia (150 kilometres south-east of Port Hedland) where the average is 41° C and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

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.







PLATES 12 and 13

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 50.7°C, the highest temperature in Western Australia. 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 in 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 1976 inclusive)

| Station | °C | Station | °C |
|---|------|-------------------------------|------|
| Western Australia— | | New South Wales— | |
| Eucla | 50.7 | Bourke | 52.8 |
| Roebourne | 47.8 | 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 | 40.8 |

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 1976 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 | -7.5 | Australian Capital Territory— | |
| Tempe Downs | -6.0 | Canberra | -10.0 |
| South Australia— | | Victoria— | |
| Yongala | -8.2 | Mount Hotham | -12.8 |
| Kyancutta | -7.0 | Omeo | -11.7 |
| Queensland— | | Bairnsdale | -7.2 |
| Stanthorpe | -11.0 | Tasmania— | |
| Nanango | -9.3 | Oatlands | -12.8 |
| | | Bothwell | -12.5 |

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. During 11-14 January 1939, for example, a severe heat wave affected south-eastern Australia: 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. Frost can cause serious losses in agricultural crops, and numerous climatic studies have been made in Australia 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) and differences of 10°C have been recorded. Only a small number of stations measure minima at ground level, the lowest recordings being -15.1°C at Canberra and -14.6°C at Stanthorpe (Queensland). Lower readings may be recorded in alpine areas.

Frost frequency depends on location and orography, and even on minor variations in the 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 on the Northern Territory and most of the north Queensland coasts.

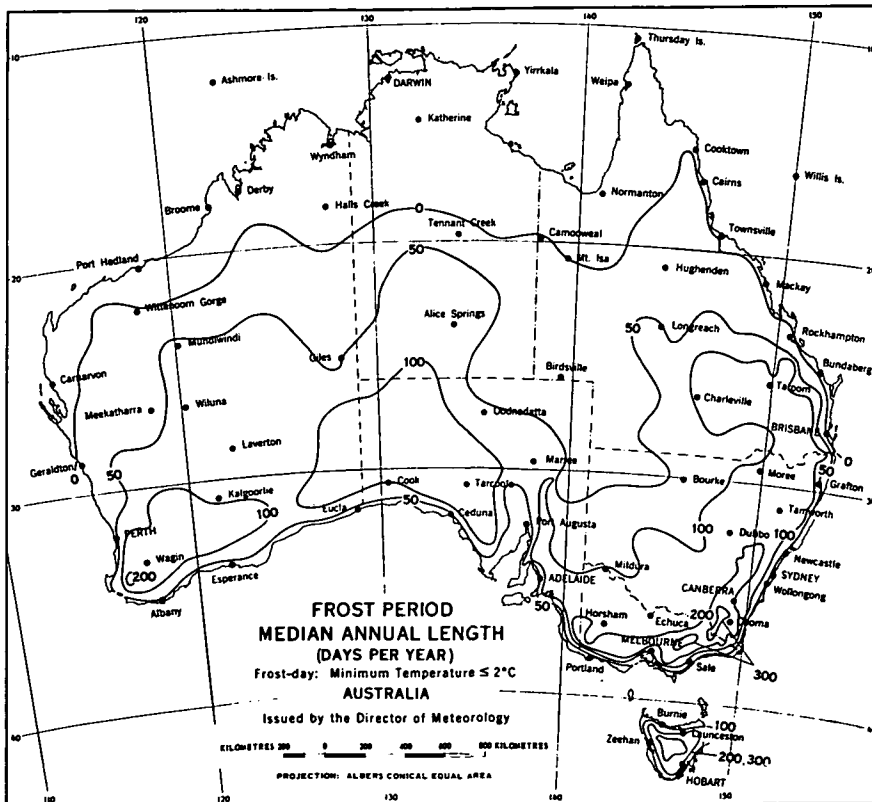


PLATE 14

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 14, page 23.

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 $\leq 2^{\circ}\text{C}$) and heavy frosts ($\leq 0^{\circ}\text{C}$)

| Station | Period of record | Altitude (metres) | Number of frosty nights | Number of 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 ($\leq 2^{\circ}\text{C}$) and heavy frosts ($\leq 0^{\circ}\text{C}$) 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 | 570 | 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 |

FROST VARIABILITY—continued

| Station | Period of record | Altitude (metres) | Number of frosty nights | | | Number of heavy frosts | | |
|---------------------------|------------------|-------------------|-------------------------|-----|-----|------------------------|----|----|
| | | | Percentiles | | | Percentiles | | |
| | | | 20 | 50 | 80 | 20 | 50 | 80 |
| 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 coast. 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 (Swansea, for example, has 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

For details see Year Book No. 62.

Sunshine, cloud and fog

For details see Year Book No. 62.

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.

Plates 15 and 16, page 27, show the average global radiation for the months of January and July. 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 (1971-1977))

| Station | June | | | December | | |
|---------------|-------------|-----|-----|-------------|-----|-----|
| | Percentiles | | | Percentiles | | |
| | 20 | 50 | 80 | 20 | 50 | 80 |
| Alice Springs | 380 | 440 | 460 | 630 | 820 | 880 |
| Darwin | 500 | 530 | 560 | 440 | 620 | 720 |
| Melbourne | 110 | 170 | 220 | 490 | 690 | 850 |
| Perth | 180 | 250 | 310 | 690 | 850 | 870 |
| Williamstown | 160 | 260 | 330 | 560 | 780 | 880 |

A high correlation exists between daily global radiation (Plates 15 and 16, page 27) and daily hours of sunshine. 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

For details see Year Book No. 62

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.

Wind roses for the months of January and July at 9 a.m. and 3 p.m. at selected stations are shown in Plates 17-20 inclusive, pages 28-29. The wind roses show the percentage frequency of direction (eight points of compass) and speed ranges of winds.

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 on pages 32-39. 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 246 kilometres per hour during a cyclone at Onslow, Western Australia in 1975 and gusts reaching 200 kilometres per hour have been recorded on several occasions in northern Australia with cyclone visitations. The highest gusts recorded at Australian capitals were 217 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 through 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.

Floods

Widespread flood rainfall may occur anywhere in Australia but it 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, occasionally reaching the lake in 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.

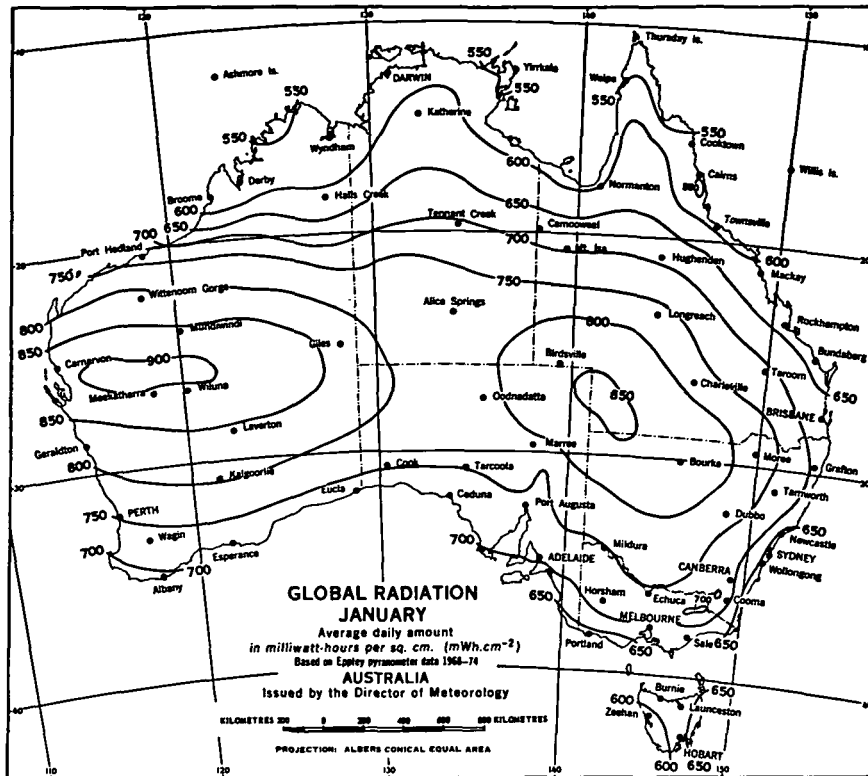
Flood rains occur at irregular intervals in the Murray-Murrumbidgee system of New South Wales and Victoria, the coastal streams of southern Victoria and the north coast streams of Tasmania.

Droughts

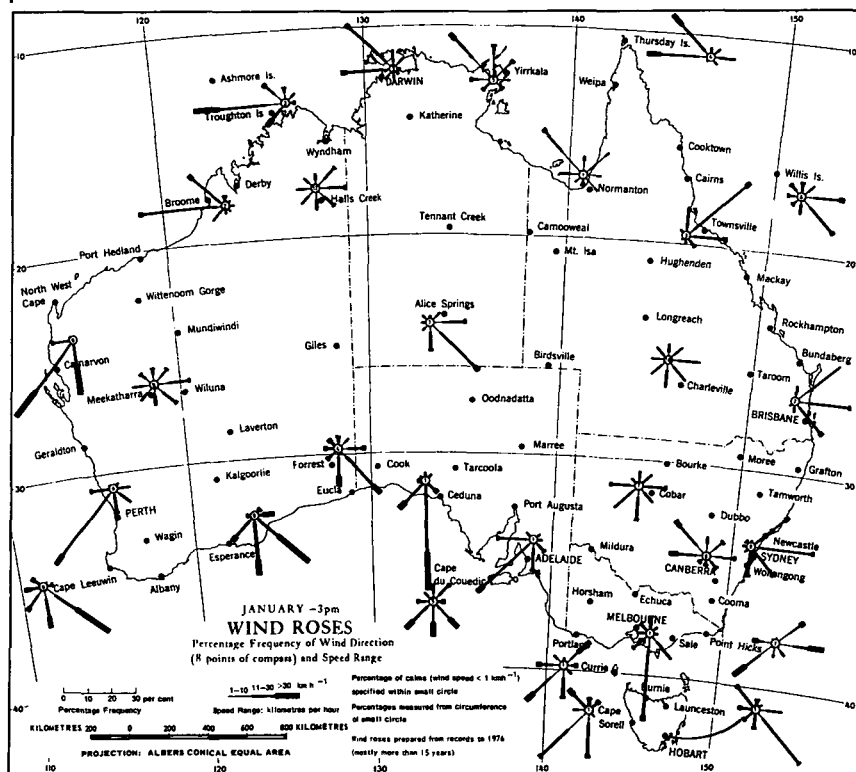
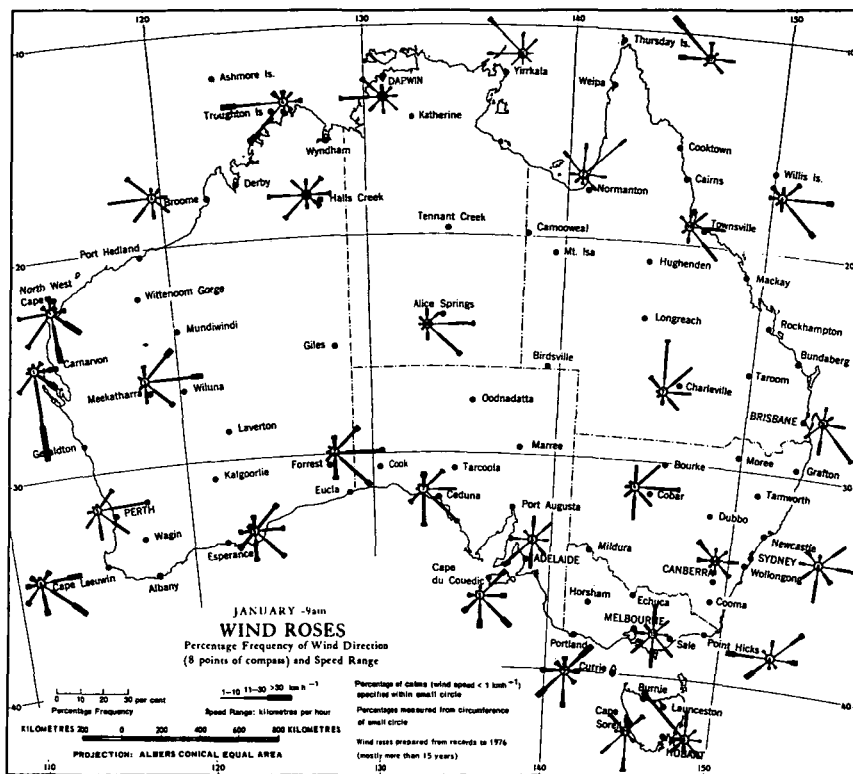
Drought, in general terms, refers to an acute water shortage. This is normally due to rainfall deficiency but with other parameters contributing to the actual water availability. The best single measure of water availability in Australia is rainfall, although parameters such as evaporation and soil moisture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

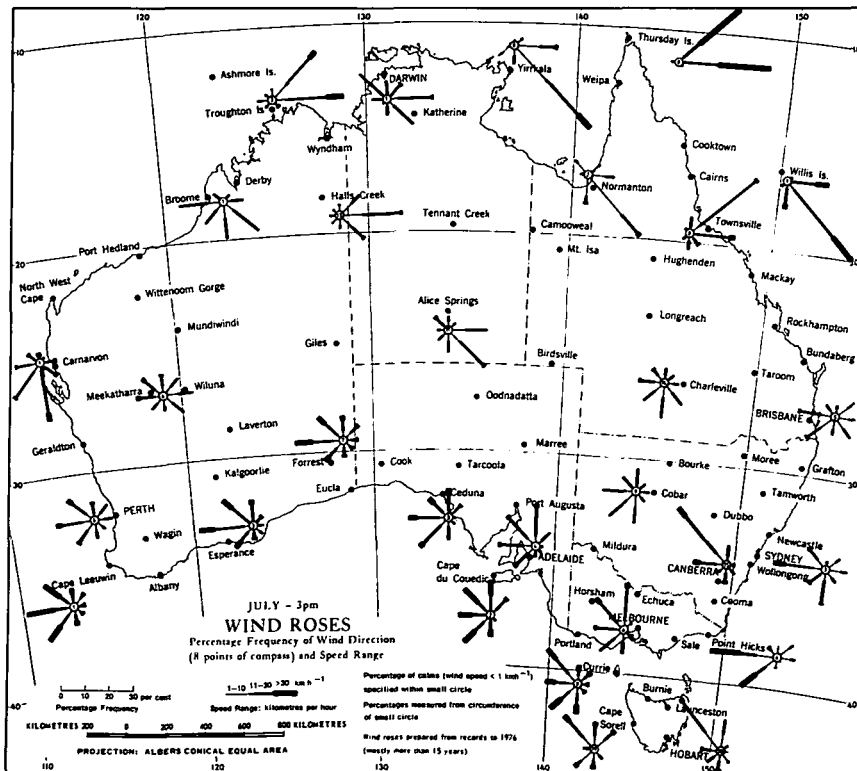
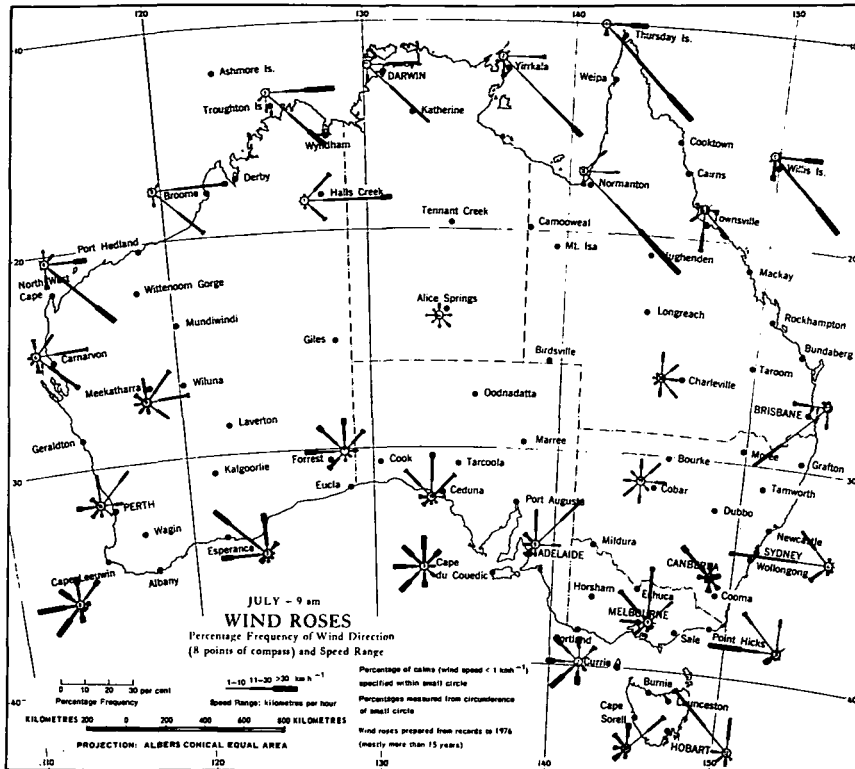
*Return period is the average period between successive occurrences equal to, or greater than, a given speed. For example the extreme wind gust for a return period of 10 years can be expected to occur once in 10 years on the average.



PLATES 15 and 16



PLATES 17 and 18



PLATES 19 and 20

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 (Gaffney 1975). 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, below, 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.

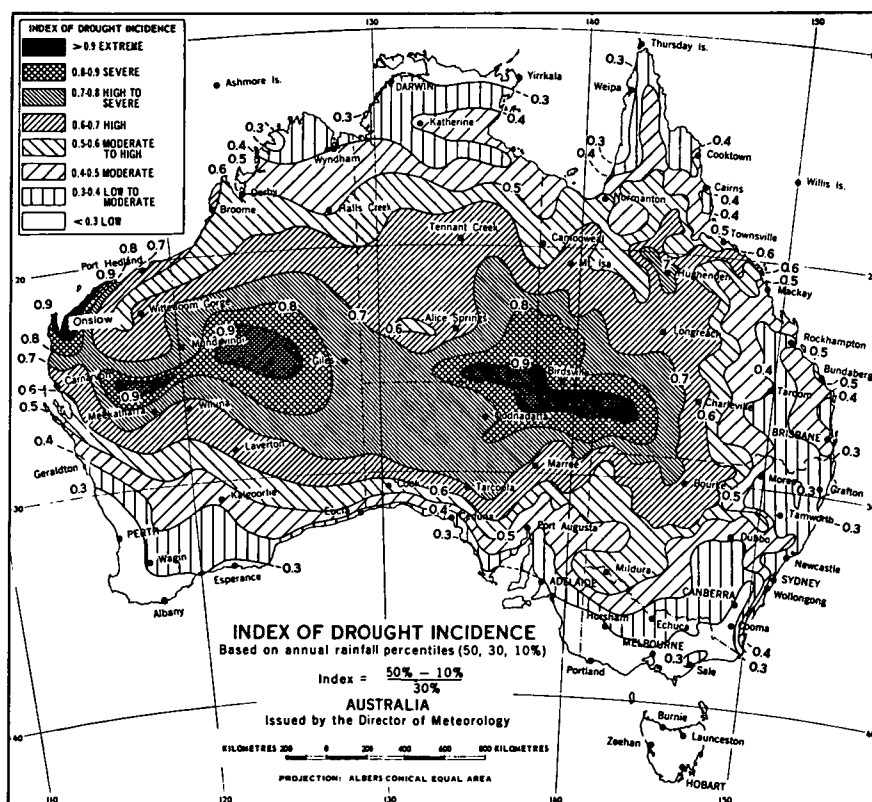


PLATE 21

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

For details *see* Year Book No. 62.

Climatic data for capital cities

The averages for a number of elements determined from long-period observations at the Australian capitals to 1976 inclusive, are given in the following pages. Extremes generally cover all available data to 1976 inclusive, whereas averages may only refer to present sites.

CLIMATIC DATA: PERTH, WESTERN AUSTRALIA

(Lat. 31° 57' S., Long. 115° 51' E. Height above M.S.L. 19.5 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 evapora- tion (mm) | No. days thun- der | Mean daily amt clouds | |
|------------------------|--|---------------------------------------|---|---|-------------------------|--------|-------------------------------------|--------------------------------------|-----------------------------|--------------------------------|-----|
| | | Aver- age (km/h) | Highest mean speed in one day (km/h) | High- est gust speed (km/h) | Prevailing direction | | 9 a.m., 3 p.m., 9 p.m. (a) | | | No. clear days | |
| | | | | | 9 a.m. | 3 p.m. | | | | | |
| No. of years of record | 91 | 30(b) | 76 | 62 | 30(b) | 30(b) | 9 | 79 | 30(b) | 30(b) | |
| January | 1012.6 | 17.5 | 48.2 | 26/76* | 81 | E | SSW | 280 | 0.9 | 2.3 | 14 |
| February | 1013.0 | 17.2 | 40.8 | 4/73 | 113 | ENE | SSW | 241 | 0.7 | 2.5 | 13 |
| March | 1015.2 | 16.2 | 51.9 | 28/75 | 113 | E | SSW | 214 | 0.7 | 2.8 | 12 |
| April | 1017.9 | 13.7 | 50.7 | 25/00 | 101 | ENE | SSW | 124 | 0.9 | 3.4 | 9 |
| May | 1017.9 | 13.5 | 44.5 | 8/73 | 119 | NE | WSW | 83 | 1.8 | 4.3 | 6 |
| June | 1017.5 | 13.5 | 48.6 | 17/27 | 129 | N | NW | 59 | 1.8 | 4.7 | 5 |
| July | 1018.8 | 14.2 | 53.9 | 20/26 | 137 | NNE | W | 58 | 1.5 | 4.5 | 5 |
| August | 1018.8 | 15.1 | 51.3 | 15/03 | 156 | N | WNW | 75 | 1.3 | 4.5 | 6 |
| September | 1018.4 | 15.1 | 45.9 | 11/05 | 109 | ENE | SSW | 105 | 0.7 | 3.9 | 8 |
| October | 1017.0 | 16.1 | 43.0 | 6/16 | 105 | SE | SW | 158 | 0.8 | 3.8 | 8 |
| November | 1015.5 | 17.2 | 48.2 | 26/75* | 101 | E | SW | 205 | 0.8 | 3.1 | 9 |
| December | 1013.4 | 17.7 | 44.5 | 24/75 | 103 | E | SSW | 241 | 0.9 | 2.6 | 13 |
| Year | Totals | .. | .. | .. | .. | .. | .. | 1,843 | 12.8 | .. | 108 |
| | Averages | 1016.3 | 15.6 | .. | .. | E | SSW | .. | .. | 3.5 | .. |
| | Extremes | .. | .. | 53.9 | .. | 156 | .. | .. | .. | .. | .. |
| 20/7/26 | | | | | | | | | | | |

(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 sun- shine | | |
|------------------------|--|--------------|------|--|--------|-------------------|------------------------------------|------|-------|---|-------|------|
| | Mean max. | Mean min. | Mean | Highest | Lowest | Highest in sun | Lowest on grass | | | | | |
| | | | | | | | | | | | | |
| No. of years of record | 79 | 79 | 79 | 80 | 80 | 63(a) | 30 | 78 | | | | |
| January | 29.5 | 17.6 | 23.5 | 43.7 | 29/56 | 80.7 | 22/14 | 4.2 | 20/25 | 10.5 | | |
| 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 | 27.8 | 16.5 | 22.2 | 41.3 | 14/22 | 7.7 | 8/03 | 75.0 | 19/18 | 2.6 | (b) | 8.9 |
| 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 | 28.1 | 5/75 | 1.6 | 22/55 | 57.5 | 9/14 | -3.4 | 27/46 | 4.8 |
| July | 17.3 | 9.0 | 13.2 | 26.3 | 17/76 | 1.2 | 7/16 | 56.2 | 13/15 | -3.8 | 30/20 | 5.3 |
| August | 17.9 | 9.1 | 13.5 | 27.8 | 21/40 | 1.9 | 31/08 | 62.3 | 29/21 | -3.0 | 18/66 | 6.2 |
| September | 19.4 | 10.1 | 14.8 | 32.7 | 30/18 | 2.6 | 6/56 | 67.5 | 29/16 | -2.7 | (c) | 7.2 |
| October | 21.2 | 11.4 | 16.3 | 37.3 | 29/67 | 4.2 | 6/68 | 71.8 | 19/54 | -1.2 | 16/31 | 8.3 |
| November | 24.5 | 13.8 | 19.2 | 40.3 | 24/13 | 5.6 | 1/04 | 75.0 | 30/25 | -1.1 | 6/71 | 9.7 |
| December | 27.3 | 16.1 | 21.7 | 42.3 | 31/68 | 8.6 | 29/57 | 76.0 | 11/27 | 3.3 | 29/57 | 10.8 |
| Year { Averages | 23.2 | 13.1 | 18.2 | .. | .. | .. | .. | .. | .. | .. | .. | 7.9 |
| Extremes | .. | .. | .. | 44.6 | .. | 1.2 | .. | 80.7 | .. | -3.9 | .. | .. |
| | | | | 8/2/33 | 7/7/16 | 22/1/14 | 31/5/64 | | | | | |

(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) | Rel. hum. (%) at 9 a.m. | | | Rainfall (millimetres) | | | | Fog mean No. days | | | | |
|------------------------|--|-------------------------|-----------------|----------------|-----------------------------------|---------------------|------------------|---------------------------|----------------------------|------|-----|---------|-----|
| | | Mean | Highest mean | Lowest mean | Mean No. of days of rain | Greatest monthly | Least monthly | Greatest in one day | | | | | |
| | | | | | | | | | | | | | |
| No. of years of record | 30(a) | 30(a) | 79 | 79 | 100 | 100 | 102 | 100 | 100 | 79 | | | |
| January | 14.8 | 51 | 63 | 41 | 8 | 3 | 55 | 1879 | Nil | (b) | 44 | 27/79* | 0.2 |
| February | 14.7 | 51 | 65 | 43 | 11 | 3 | 166 | 1955 | Nil | (b) | 87 | 17/55 | 0.3 |
| March | 14.7 | 57 | 66 | 46 | 20 | 4 | 145 | 1934 | Nil | (b) | 77 | 9/34 | 0.6 |
| April | 13.4 | 61 | 75 | 51 | 46 | 8 | 149 | 1926 | Nil | 1920 | 67 | 30/04 | 0.9 |
| May | 12.4 | 70 | 81 | 60 | 125 | 14 | 308 | 1879 | 14 | 1964 | 76 | 17/42 | 1.3 |
| June | 11.4 | 75 | 85 | 68 | 185 | 17 | 476 | 1945 | 55 | 1877 | 99 | 10/20 | 1.4 |
| July | 10.9 | 76 | 88 | 69 | 175 | 18 | 425 | 1958 | 61 | 1876 | 76 | 4/91* | 1.6 |
| August | 10.7 | 71 | 83 | 62 | 138 | 18 | 318 | 1945 | 12 | 1902 | 74 | 14/45 | 1.0 |
| September | 11.6 | 66 | 75 | 58 | 81 | 14 | 199 | 1923 | 9 | 1916 | 47 | 18/66 | 0.3 |
| October | 11.7 | 60 | 75 | 52 | 55 | 11 | 200 | 1890 | 1 | 1969 | 50 | 4/67 | 0.4 |
| November | 12.7 | 52 | 66 | 41 | 21 | 6 | 71 | 1916 | Nil | 1891 | 39 | 29/56 | 0.2 |
| December | 13.9 | 51 | 63 | 39 | 14 | 4 | 81 | 1951 | Nil | (b) | 47 | 3/51 | 0.2 |
| Year { | Totals | .. | .. | .. | 879 | 120 | .. | .. | .. | .. | .. | .. | 8.1 |
| | Averages | 12.7 | 62 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | Extremes | .. | .. | 88 | 39 | .. | .. | 476 | .. | Nil | (b) | 99 | .. |
| | | | | | | | 6/1945 | | | | | 10/6/20 | |

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

(b) Various years.

Figures such as 26/76, 29/56, etc. indicate, in respect of the month of reference, the day and year of the occurrence. Dates marked with an asterisk (*) 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 | |
|------------------------|---|---------------------------------------|--------------------------------------|---------------------------|----------------------|---------------------------|------------------|-----------------------|-------------------|
| | | 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 clear days |
| | | | | | 9 a.m. 3 p.m. | | | (a) | |
| No. of years of record | 90 | 20 | .. | 22(b) | .. | 8 | 35 | 35 | 35 |
| January | 1,006.2 | 9.3 | .. | 106 | W NW | 225 | 12.9 | 5.9 | 1 |
| February | 1,006.3 | 10.6 | .. | 101 | W NW | 187 | 10.2 | 5.8 | 1 |
| March | 1,007.2 | 7.5 | .. | 157 | W NW | 190 | 10.6 | 5.2 | 3 |
| April | 1,009.3 | 8.8 | .. | 67 | SE NW | 218 | 4.0 | 2.9 | 10 |
| May | 1,010.9 | 9.6 | .. | 62 | SE E | 223 | 0.5 | 2.0 | 16 |
| June | 1,012.2 | 10.1 | .. | 64 | SE E | 206 | 0.0 | 1.4 | 19 |
| July | 1,012.8 | 8.9 | .. | 62 | SE E | 229 | 0.0 | 1.3 | 20 |
| August | 1,012.6 | 8.6 | .. | 72 | SE NW | 238 | 0.0 | 1.1 | 20 |
| September | 1,011.7 | 8.6 | .. | 64 | ENE NW | 270 | 1.0 | 1.8 | 16 |
| October | 1,010.5 | 9.8 | .. | 85 | NE NW | 285 | 5.3 | 2.7 | 9 |
| November | 1,008.7 | 8.6 | .. | 117 | NW NW | 260 | 11.8 | 3.9 | 4 |
| December | 1,006.9 | 9.8 | .. | 217 | NW NW | 240 | 14.2 | 4.9 | 2 |
| Year { Totals | .. | .. | .. | .. | .. | 2,773 | 70.5 | .. | 121 |
| Year { Averages | 1,009.6 | 9.2 | .. | .. | SE NW | .. | .. | 3.2 | .. |
| Year { Extremes | .. | .. | .. | 217 | .. | .. | .. | .. | .. |

(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) | 20.0 | 26(b) | .. | 21 |
| January | 32.2 | 25.0 | 28.6 | 37.8 | 2/82* | 75.6 | 26.42 | 5.9 |
| February | 31.9 | 24.8 | 28.4 | 38.3 | 20/87* | 73.2 | (c) | 5.9 |
| March | 32.4 | 24.8 | 28.6 | 38.9 | (d) | 74.3 | 23/38 | 6.8 |
| April | 33.1 | 24.2 | 28.7 | 40.0 | 7/83* | 72.8 | 1/38 | 8.6 |
| May | 32.3 | 22.4 | 27.4 | 39.1 | 8/84* | 71.2 | 5/20 | 9.3 |
| June | 30.9 | 20.4 | 25.7 | 39.0 | 17/37* | 68.5 | 2/16 | 9.7 |
| July | 30.4 | 19.6 | 25.1 | 36.7 | 17/88* | 68.9 | 28/17 | 9.8 |
| August | 31.4 | 20.8 | 26.1 | 37.0 | 30/71* | 69.1 | 28/16 | 10.4 |
| September | 32.7 | 23.2 | 27.9 | 38.9 | 20/82* | 69.5 | (f) | 10.0 |
| October | 33.6 | 25.0 | 29.3 | 40.5 | 17/92* | 71.4 | 30/38 | 9.5 |
| November | 33.8 | 25.3 | 29.6 | 39.6 | 9/84* | 77.0 | 14/37 | 8.6 |
| December | 33.2 | 25.3 | 29.3 | 38.9 | 20/82* | 76.2 | 26/23 | 7.1 |
| Year { Averages | 32.3 | 23.3 | 27.9 | .. | .. | .. | .. | 8.5 |
| Year { Extremes | .. | .. | .. | 40.5 | 10.4 | 77.0 | .. | .. |
| | | | | 17/10/1892 | 29/7/1942 | 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 | Mean No. of days of rain | Greatest monthly | Least monthly | |
| No. of years of record | 85(a) | 90 | 57(b) | 57(b) | 86(c) | 74 | 107(d) | 107(d) | 35 |
| January | 31.1 | 81 | 89 | 69 | 391 | 19 | 746 | 1906 | 296 |
| February | 31.1 | 81 | 88 | 71 | 330 | 18 | 815 | 1969 | 279 |
| March | 30.7 | 80 | 84 | 69 | 260 | 17 | 1013 | 1977 | 241 |
| April | 27.0 | 72 | 80 | 60 | 103 | 8 | 603 | 1891 | 158 |
| May | 21.8 | 65 | 76 | 49 | 14 | 1 | 299 | 1968 | 56 |
| June | 18.7 | 63 | 75 | 52 | 3 | 0 | 76 | 1973 | 36 |
| July | 17.6 | 62 | 71 | 47 | 1 | 0 | 65 | 1900 | 43 |
| August | 20.6 | 66 | 73 | 53 | 2 | 0 | 84 | 1947 | 80 |
| September | 24.7 | 68 | 73 | 54 | 13 | 2 | 108 | 1942 | 71 |
| October | 27.7 | 68 | 72 | 60 | 50 | 5 | 339 | 1954 | 95 |
| November | 29.3 | 70 | 75 | 62 | 126 | 11 | 399 | 1938 | 120 |
| December | 30.5 | 75 | 83 | 65 | 243 | 16 | 616 | 1974 | 279 |
| Year { Totals | .. | .. | .. | .. | 1,536 | 97 | .. | .. | .. |
| Year { Averages | 25.9 | 71 | .. | .. | .. | .. | .. | .. | .. |
| Year { Extremes | .. | .. | 89 | 47 | .. | .. | 1013 | 3/77 | 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 marked with an asterisk (*) 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 evapora- (mm) | No. days thun- der | Mean daily amt clouds | | No. of clear days |
|------------------------|--|---------------------------------------|---|---|-------------------------|--------|-------------------|---------------------------------|-----------------------------|--------------------------------|------|----------------------------|
| | | Aver- age (km/h) | Highest mean speed in one day (km/h) | High- est gust speed (km/h) | Prevailing direction | | 9 a.m., 3 p.m. | | | 9 a.m., 3 p.m. (a) | | |
| | | | | | 9 a.m. | 3 p.m. | | | | | | |
| No. of years of record | 119 | 20(b) | 20(b) | 60 | 30(c) | 30(c) | 9 | 104 | 108 | 61 | | |
| January | 1,013.2 | 12.8 | 32.2 | 12/70 | 116 | SW | SW | 261 | 1.5 | 3.0 | 12.0 | |
| February | 1,014.3 | 12.1 | 28.8 | 25/67 | 106 | NE | SW | 224 | 1.1 | 3.0 | 10.7 | |
| March | 1,017.2 | 11.4 | 30.7 | 24/64 | 126 | S | SW | 180 | 0.8 | 3.3 | 10.7 | |
| April | 1,019.8 | 11.4 | 37.4 | 10/56 | 130 | NE | SW | 126 | 1.0 | 4.2 | 6.8 | |
| May | 1,020.1 | 11.3 | 37.8 | 19/53 | 113 | NE | NW | 80 | 1.0 | 4.7 | 4.5 | |
| June | 1,019.8 | 11.6 | 29.7 | 16/70 | 108 | NE | N | 57 | 0.9 | 5.0 | 3.8 | |
| July | 1,019.9 | 11.8 | 32.9 | 13/64 | 148 | NE | NW | 61 | 0.8 | 4.9 | 3.5 | |
| August | 1,019.0 | 12.8 | 38.2 | 8/55 | 121 | NE | SW | 76 | 1.1 | 4.2 | 4.7 | |
| September | 1,017.6 | 13.2 | 34.9 | 16/65 | 111 | NNE | SW | 113 | 1.3 | 4.3 | 5.5 | |
| October | 1,016.0 | 13.6 | 35.4 | 1/68 | 121 | NNE | SW | 169 | 1.9 | 4.2 | 5.6 | |
| November | 1,015.1 | 13.9 | 36.3 | 14/68 | 130 | SW | SW | 202 | 2.0 | 3.9 | 6.5 | |
| December | 1,013.3 | 13.5 | 31.1 | 18/69 | 121 | SW | SW | 247 | 1.5 | 3.4 | 8.8 | |
| Year { Totals | .. | .. | .. | .. | .. | .. | .. | 1,795 | 14.9 | .. | 83.1 | |
| Year { Averages | 1,017.1 | .. | .. | .. | .. | NE | SW | .. | .. | 4.0 | .. | |
| Year { Extremes | .. | .. | 38.2 | 8/8/65 | 148 | .. | .. | .. | .. | .. | .. | |

(a) Scale 0-8.

(b) Records of cup anemometer.

(c) Standard 30 years normal (1931-1960).

TEMPERATURE AND SUNSHINE

| Month | Air temperature daily readings (° Celsius) | | | Extreme air temperature (° Celsius) | | | Extreme temperature (° Celsius) | | | Mean daily hours sun- shine | | |
|------------------------|--|--------------|------|--|---------|-------------------|------------------------------------|---------|--------|---|--------|-----|
| | Mean max. | Mean min. | Mean | Highest | Lowest | Highest in sun | Lowest on grass | | | | | |
| | | | | | | | | | | | | |
| No. of years of record | 119 | 119 | 119 | 121 | 121 | 54(a) | 117 | 94 | | | | |
| January | 29.6 | 16.4 | 23.0 | 47.6 | 12/39 | 7.3 | 21/84* | 82.3 | 18/82* | 1.8 | 3/77 | 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 | 15.1 | 21.0 | 43.6 | 9/34 | 6.6 | 21/33 | 78.9 | 17/83* | 0.1 | 21/33 | 7.9 |
| April | 22.7 | 12.7 | 17.7 | 37.0 | 5/38 | 4.2 | 15/59* | 68.3 | 1/83* | -3.5 | 30/77 | 6.0 |
| May | 18.7 | 10.3 | 14.5 | 31.9 | 4/21 | 2.7 | (b) | 64.6 | 12/79* | -3.6 | 19/28 | 4.8 |
| June | 15.8 | 8.3 | 12.1 | 25.6 | 4/57 | 0.3 | (c) | 59.3 | 18/79* | -6.1 | 24/44 | 4.2 |
| July | 15.0 | 7.3 | 11.1 | 26.6 | 29/75 | 0.0 | 24/08 | 56.9 | 26/90* | -5.5 | 30/29 | 4.3 |
| 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 | 22.0 | 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* | -0.6 | 17/76 | 8.6 |
| December | 27.8 | 14.9 | 21.4 | 45.9 | 29/31 | 6.1 | (d) | 79.8 | 7/99* | -1.0 | 19/76* | 9.4 |
| Year { Averages | 22.4 | 11.8 | 17.1 | .. | .. | .. | .. | .. | .. | .. | .. | 6.9 |
| Year { Extremes | .. | .. | .. | 47.6 | .. | 0.0 | .. | 82.3 | .. | -6.1 | .. | .. |
| | | | | 12/1/39 | 24/7/08 | | 18/1/62 | 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 | 108 | 108 | 108 | 108 | 137 | 137 | 139 | 139 | 139 | 76 | | | |
| January | 11.9 | 41 | 59 | 29 | 20 | 4 | 84 | 1941 | Nil (a) | 58 | 2/89* | 0.0 | |
| February | 12.5 | 44 | 61 | 30 | 21 | 4 | 155 | 1925 | Nil (a) | 141 | 7/25 | 0.0 | |
| March | 12.0 | 47 | 62 | 29 | 24 | 5 | 117 | 1878 | Nil (a) | 89 | 5/78* | 0.0 | |
| April | 11.5 | 57 | 72 | 37 | 44 | 9 | 154 | 1971 | Nil | 1945 | 80 | 5/60* | 0.0 |
| May | 10.8 | 67 | 77 | 49 | 69 | 13 | 197 | 1875 | 3 | 1934 | 70 | 1/53* | 0.4 |
| June | 10.0 | 75 | 84 | 63 | 72 | 15 | 218 | 1916 | 6 | 1958 | 54 | 1/20 | 1.1 |
| July | 9.5 | 76 | 87 | 66 | 67 | 16 | 138 | 1890 | 10 | 1899 | 44 | 10/65* | 1.3 |
| August | 9.7 | 70 | 80 | 54 | 62 | 16 | 157 | 1852 | 8 | 1944 | 57 | 19/51* | 0.6 |
| September | 10.0 | 61 | 72 | 44 | 51 | 13 | 148 | 1923 | 7 | 1951 | 40 | 20/23 | 0.2 |
| October | 10.2 | 52 | 67 | 29 | 44 | 11 | 133 | 1949 | 1 | 1969 | 57 | 16/08 | 0.0 |
| November | 10.5 | 45 | 64 | 31 | 31 | 8 | 113 | 1839 | 1 | 1963 | 75 | 12/60 | 0.0 |
| December | 11.3 | 42 | 56 | 31 | 26 | 6 | 101 | 1861 | Nil | 1904 | 61 | 23/13 | 0.0 |
| Year | Totals | .. | .. | .. | 531 | 120 | .. | .. | .. | .. | .. | .. | 3.6 |
| | Averages | 10.5 | 56 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | Extremes | .. | .. | 87 | 29 | .. | .. | 218 | .. | Nil (b) | 141 | .. | .. |
| | | | | | | | 6/1916 | | | | 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 marked with an asterisk (*) 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 evapora- tion (mm) | No. days thunder | Mean daily amt clouds | |
|------------------------|--|---------------------------------------|---|------------------------------------|-------------------------|--------|-------------------------------------|---|------------------------|-----------------------|--|
| | | Aver- age (km/h) | Highest mean speed in one day (km/h) | Highest gust speed (km/h) | Prevailing direction | | 9 a.m., 3 p.m., 9 p.m. (a) | | | No. clear days | |
| | | | | | 9 a.m. | 3 p.m. | | | | | |
| No. of years of record | 89 | 60 | 60 | 60 | 25(b) | 25(b) | 9 | 89 | 84 | 68 | |
| January | 1,011.7 | 12.1 | 31.8 | 23/47 | 109 | SE | ENE | 189 | 4.6 | 3.3 | |
| February | 1,012.5 | 11.9 | 37.3 | 21/54 | 108 | SSW | ENE | 150 | 3.7 | 4.8 | |
| March | 1,014.6 | 11.4 | 32.7 | 1/29 | 106 | SSW | ESE | 149 | 2.3 | 4.3 | |
| April | 1,017.3 | 10.5 | 26.8 | 3/25 | 104 | SW | ESE | 127 | 1.4 | 3.6 | |
| May | 1,018.3 | 9.8 | 28.8 | 17/26 | 87 | SW | WSW | 89 | 0.6 | 3.3 | |
| June | 1,018.5 | 10.0 | 30.5 | 14/28 | 95 | SW | WSW | 70 | 0.5 | 3.3 | |
| July | 1,018.8 | 9.7 | 35.4 | 13/54 | 111 | SW | WSW | 77 | 0.4 | 2.9 | |
| August | 1,018.8 | 10.0 | 23.8 | 4/35 | 100 | SW | NE | 105 | 1.4 | 2.6 | |
| September | 1,017.6 | 10.5 | 25.9 | 1/48 | 102 | SW | NE | 133 | 2.8 | 2.8 | |
| October | 1,015.9 | 11.1 | 25.3 | 1/41 | 100 | SSW | NE | 168 | 4.4 | 3.5 | |
| November | 1,014.1 | 11.4 | 24.9 | 10/28 | 111 | SE | NE | 191 | 5.7 | 3.9 | |
| December | 1,012.1 | 11.9 | 31.3 | 15/26 | 128 | SSE | NE | 209 | 6.6 | 4.3 | |
| Year { Totals | .. | .. | .. | .. | .. | .. | 1,656 | 34.2 | .. | 97.7 | |
| Averages | 1,015.9 | 10.8 | .. | .. | .. | SW | ENE | .. | .. | 3.6 | |
| Extremes | .. | .. | 37.3 | .. | 128 | .. | .. | .. | .. | .. | |
| | | | | 21/2/54 | | | | | | | |

(a) Scale 0-8. (b) 1950-1974.

TEMPERATURE AND SUNSHINE

| Month | Air temperature daily readings (° Celsius) | | | Extreme air temperature (° Celsius) | | | Extreme temperature (° Celsius) | | Mean daily hours sun- shine |
|------------------------|--|--------------|------|--|-----------|-------------------|------------------------------------|-----------|---|
| | Mean max. | Mean min. | Mean | Highest | Lowest | Highest in sun | Lowest on grass | | |
| | | | | | | | | | |
| No. of years of record | 89 | 89 | 89 | 89 | 89 | 50(a) | 89 | 67 | |
| January | 29.4 | 20.6 | 25.0 | 43.2 | 26/40 | 14.9 | 4/93* | 7.5 | |
| February | 28.9 | 20.4 | 24.7 | 40.9 | 21/25 | 14.7 | 21/31 | 7.0 | |
| March | 27.8 | 19.2 | 23.5 | 38.8 | 13/65 | 11.3 | 29/13 | 6.8 | |
| April | 26.0 | 16.4 | 21.2 | 36.1 | 19/73 | 6.9 | 25/25 | 7.1 | |
| May | 23.1 | 13.1 | 18.0 | 32.4 | 21/23 | 4.8 | 30/51 | 6.8 | |
| June | 20.8 | 10.7 | 15.7 | 31.6 | 19/18 | 2.4 | 29/08 | 6.6 | |
| July | 20.3 | 9.4 | 14.9 | 29.1 | 23/46 | 2.3 | (b) | 7.0 | |
| August | 21.8 | 10.0 | 15.9 | 32.8 | 14/46 | 2.7 | 13/64 | 7.8 | |
| September | 24.0 | 12.7 | 18.3 | 38.3 | 22/43 | 4.8 | 1/96 | 8.3 | |
| October | 26.1 | 15.8 | 20.9 | 40.7 | 30/58 | 6.3 | 3/99* | 8.2 | |
| November | 27.8 | 17.9 | 22.9 | 41.2 | 18/13 | 9.2 | 2/05 | 8.2 | |
| December | 29.1 | 19.6 | 24.5 | 41.1 | 26/93* | 13.5 | 5/55 | 8.1 | |
| Year { | Averages | 25.4 | 15.5 | 20.5 | .. | .. | .. | .. | 7.5 |
| | Extremes | .. | .. | .. | 43.2 | .. | 2.3 | .. | .. |
| | | | | | 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 pres- sure mean 9 a.m. (mb) | Rainfall (millimetres) | | | | | | | Fog mean No. days |
|------------------------|---|-------------------------|-----------------|----------------|-----------------------------------|---------------------|------------------|---------------------------|----------------------------|
| | | Rel. hum. (%) at 9 a.m. | | | Mean No. of days of rain | Greatest monthly | Least monthly | Greatest in one day | |
| | | Mean | Highest mean | Lowest mean | | | | | |
| No. of years of record | 64 | 89 | 89 | 89 | 124 | 116 | 123 | 123 | 89 |
| January | 21.7 | 65 | 79 | 53 | 167 | 13 | 872 | 1919 | 21/87* |
| February | 22.0 | 69 | 82 | 55 | 161 | 14 | 1,026 | 1893 | 270 |
| March | 20.9 | 71 | 85 | 56 | 144 | 15 | 865 | 1870 | 284 |
| April | 17.5 | 70 | 80 | 56 | 88 | 11 | 388 | 1867 | 14/08 |
| May | 14.3 | 71 | 85 | 59 | 69 | 9 | 352 | 1876 | 178 |
| June | 12.1 | 72 | 84 | 54 | 69 | 8 | 647 | 1967 | 3/72 |
| July | 11.1 | 70 | 88 | 53 | 54 | 7 | 330 | 1973 | 9/79* |
| August | 11.7 | 66 | 80 | 53 | 48 | 7 | 373 | 1879 | 283 |
| September | 13.8 | 63 | 76 | 47 | 48 | 8 | 138 | 1886 | 12/67 |
| | | | | | | | | | 2/9 |
| October | 16.0 | 60 | 72 | 48 | 74 | 9 | 456 | 1972 | 193 |
| November | 18.1 | 59 | 72 | 45 | 95 | 10 | 315 | 1917 | 20/65 |
| December | 20.1 | 61 | 70 | 51 | 129 | 12 | 441 | 1942 | 124 |
| | | | | | | | | | 12/87* |
| | | | | | | | | | 3.6 |
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(a) 1841 and 1951.

(b) 1862, 1869, 1880 and 1977.

(c) Less than 1 mm.

Figures such as 23/47, 4/93, etc. indicate, in respect of the month of reference, the day and year of the occurrence. Dates marked with an asterisk (*) 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 evapo- ration (mm) | No. days thun- der | Mean daily amt clouds | |
|------------------------|--|---------------------------------------|---|------------------------------------|-------------------------|------------------|---|-----------------------------|------------------------------|----------------------|
| | | Aver- age (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. | No. clear days |
| No. of years of record | 66 | 25(b) | 25(b) | 25(b) | 25(b) | 25(b) | 84(c) | 56 | 114 | 65 |
| January | 1,012.7 | 12.3 | 30.3 | 10/49 | 150 | NE | 189 | 3.3 | 4.7 | 4.9 |
| February | 1,014.2 | 11.6 | 30.3 | 18/57 | 101 | NE | 142 | 2.5 | 4.8 | 4.5 |
| March | 1,016.4 | 10.5 | 33.3 | 10/44 | 93 | WNW | 142 | 1.7 | 4.4 | 5.7 |
| April | 1,018.3 | 10.2 | 36.2 | 24/44 | 116 | W | 108 | 1.3 | 4.1 | 7.3 |
| May | 1,018.7 | 10.5 | 33.8 | 18/55 | 101 | W | 85 | 0.9 | 3.9 | 7.7 |
| June | 1,018.9 | 11.6 | 36.0 | 10/47 | 135 | W | 58 | 0.8 | 4.0 | 8.0 |
| July | 1,018.5 | 11.5 | 34.3 | 20/51 | 106 | W | 73 | 0.8 | 3.5 | 10.5 |
| August | 1,017.9 | 12.1 | 39.6 | 9/51 | 109 | WNW | 112 | 1.4 | 3.3 | 10.4 |
| September | 1,017.0 | 11.6 | 35.1 | 23/42 | 113 | WNW | 150 | 1.8 | 3.5 | 9.1 |
| October | 1,015.1 | 12.3 | 39.4 | 1/57 | 153 | WNW | 203 | 2.7 | 4.1 | 6.5 |
| November | 1,013.4 | 12.4 | 31.9 | 21/54 | 114 | WNW | 190 | 3.6 | 4.5 | 5.2 |
| December | 1,012.1 | 12.3 | 36.2 | 11/52 | 121 | NE | 225 | 3.8 | 4.6 | 4.8 |
| Year { Totals | .. | .. | .. | .. | .. | .. | 1,677 | 24.7 | .. | 84.7 |
| Year { Averages | 1,016.1 | 11.6 | .. | .. | .. | .. | .. | .. | 4.2 | .. |
| Year { Extremes | .. | .. | 39.6 | .. | 153 | .. | .. | .. | .. | .. |

9/8/51

(a) Scale 0-8.

(b) Years 1938-1962 inclusive.

(c) Richmond records.

TEMPERATURE AND SUNSHINE

| Month | Air temperature daily readings (° Celsius) | | | Extreme air temperature (° Celsius) | | | Extreme temperature (° Celsius) | | Mean daily hours sun- shine |
|------------------------|--|--------------|------|--|---------|-------------------|------------------------------------|-----|---|
| | Mean max. | Mean min. | Mean | Highest | Lowest | Highest in sun | Lowest on grass | | |
| No. of years of record | 117 | 117 | 117 | 117 | 117 | 84(a) | 117 | 55 | |
| January | 25.7 | 18.3 | 22.0 | 45.3 | 14/39 | 10.6 | 18/49 | 7.2 | |
| February | 25.4 | 18.4 | 21.9 | 42.1 | 8/26 | 9.6 | 28/63* | 6.8 | |
| March | 24.5 | 17.3 | 20.9 | 39.2 | 3/69* | 9.3 | 14/86* | 6.3 | |
| April | 22.1 | 14.5 | 18.3 | 33.0 | (b) | 7.0 | 27/64* | 6.2 | |
| May | 19.2 | 11.2 | 15.2 | 30.0 | 1/19 | 4.4 | 30/62* | 5.8 | |
| June | 16.6 | 9.1 | 12.8 | 26.9 | 11/31 | 2.1 | 22/32 | 5.2 | |
| July | 15.8 | 7.8 | 11.8 | 25.7 | 22/26 | 2.2 | 12/90* | 6.2 | |
| August | 17.4 | 8.7 | 13.1 | 30.4 | 24/54 | 2.7 | 3/72* | 6.8 | |
| September | 19.6 | 10.8 | 15.2 | 34.6 | 26/65 | 4.9 | 2/45 | 7.1 | |
| October | 21.9 | 13.3 | 17.6 | 37.4 | 4/42 | 5.7 | 6/27 | 7.3 | |
| November | 23.5 | 16.3 | 19.4 | 40.3 | 6/46 | 7.7 | 1/05 | 7.6 | |
| December | 24.9 | 17.2 | 21.1 | 42.2 | 20/57 | 9.1 | 3/24 | 7.4 | |
| Year { Averages | 21.4 | 13.6 | 17.4 | .. | .. | .. | .. | 6.7 | |
| Year { Extremes | .. | .. | .. | 45.3 | .. | 2.1 | .. | .. | |
| | | | | 14/1/39 | 22/6/32 | 76.3 | .. | .. | |
| | | | | | | 14/2/39 | 4/7/1893 | .. | |

(a) Records discontinued 1946.

(b) 1/36 and 10/69.

HUMIDITY, RAINFALL, AND FOG

| Month | Vapour pres- sure mean 9 a.m. (mb) | | | Rainfall (millimetres) | | | | | Fog mean No. days |
|------------------------|---|-------------------------|------|------------------------|-----------------------------------|---------------------|------------------|---------------------------|----------------------------|
| | Mean | Rel. hum. (%) at 9 a.m. | Mean | Mean mthly | Mean No. of days of rain | Greatest monthly | Least monthly | Greatest in one day | |
| No. of years of record | 100 | 100 | 100 | 100 | 117 | 117 | 117 | 117 | 55 |
| January | 18.8 | 68 | 78 | 58 | 100 | 13 | 388 | 1911 | 0.3 |
| February | 19.2 | 70 | 81 | 60 | 115 | 13 | 564 | 1956 | 0.6 |
| March | 18.3 | 74 | 85 | 62 | 131 | 14 | 521 | 1942 | 1.5 |
| April | 15.0 | 74 | 87 | 63 | 126 | 13 | 622 | 1861 | 2.1 |
| May | 11.9 | 75 | 90 | 63 | 123 | 13 | 585 | 1919 | 3.1 |
| June | 10.2 | 76 | 89 | 63 | 133 | 12 | 643 | 1950 | 2.7 |
| July | 9.6 | 74 | 88 | 59 | 104 | 11 | 336 | 1950 | 2.1 |
| August | 9.5 | 68 | 84 | 54 | 81 | 11 | 378 | 1899 | 1.7 |
| September | 11.3 | 66 | 79 | 49 | 69 | 11 | 357 | 1879 | 0.9 |
| October | 13.0 | 62 | 77 | 46 | 76 | 12 | 283 | (a) | 0.6 |
| November | 15.0 | 62 | 79 | 42 | 78 | 12 | 577 | 1961 | 0.5 |
| December | 17.6 | 64 | 77 | 51 | 79 | 13 | 402 | 1920 | 0.4 |
| Year { Totals | .. | .. | .. | .. | 1,215 | 148 | .. | .. | 16.3 |
| Year { Averages | 14.1 | 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 marked with an asterisk (*) relate to nineteenth century.

CLIMATIC DATA: CANBERRA, AUSTRALIAN CAPITAL TERRITORY

(Lat. 35° 19' S., Long. 149° 11' E. Height above M.S.L. 577 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 10 metres) | | | | | | Mean amt evaporation (mm) | No. days thunder | Mean daily amt clouds | | 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. (a) | | | | | |
| | | | | | 9 a.m. | 3 p.m. | | | | | | |
| No. of years of record | 36 | 44(b) | 47(b) | 38(c) | 36(c) | 36(c) | 8 | 36 | 36 | 36(d) | | |
| January | 1,012.1 | 6.6 | 24 | 24/33 | 121 | NW | 242 | 3.3 | 4.1 | 7.7 | | |
| February | 1,013.1 | 6.1 | 25 | 24/33 | 104 | NW | 194 | 3.0 | 4.4 | 6.5 | | |
| March | 1,016.0 | 5.3 | 29 | 28/42 | 111 | SE | 165 | 1.7 | 4.2 | 7.6 | | |
| April | 1,018.8 | 5.0 | 30 | 8/45 | 106 | NW | 109 | 0.8 | 4.2 | 6.9 | | |
| May | 1,019.0 | 4.4 | 21 | 27/58 | 104 | NW | 71 | 0.4 | 4.5 | 6.7 | | |
| June | 1,021.0 | 4.8 | 26 | 2/30 | 96 | NW | 46 | 0.2 | 4.6 | 6.5 | | |
| July | 1,020.2 | 5.0 | 38 | 7/31 | 102 | NW | 54 | 0.1 | 4.4 | 7.0 | | |
| August | 1,018.5 | 5.9 | 25 | 25/36 | 113 | NW | 77 | 0.8 | 4.4 | 6.7 | | |
| September | 1,017.4 | 6.0 | 28 | 28/34 | 107 | NW | 115 | 1.1 | 4.1 | 7.9 | | |
| October | 1,014.8 | 6.5 | 23 | 12/57 | 119 | NW | 165 | 2.2 | 4.4 | 6.1 | | |
| November | 1,011.9 | 6.9 | 28 | 28/42 | 128 | NW | 200 | 3.3 | 4.4 | 5.7 | | |
| December | 1,010.7 | 6.9 | 26 | 11/38 | 106 | NW | 259 | 3.4 | 4.1 | 7.5 | | |
| Year { Totals | .. | .. | .. | .. | .. | .. | 1,697 | 20.3 | .. | 82.8 | | |
| Year { Averages | 1,016.1 | 5.8 | .. | .. | .. | NW | .. | .. | 4.3 | 6.9 | | |
| Year { Extremes | .. | .. | 38 | 7/7/31 | 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) 1940-75. 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 sun- shine |
|------------------------|--|--------------|------|--|---------|-------------------|------------------------------------|---------|---|
| | Mean max. | Mean min. | Mean | Highest | Lowest | Highest in sun | Lowest on grass | | |
| | | | | | | | | | |
| No. of years of record | 36 | 36 | 36 | 38 | 38 | .. | 26 | 37 | |
| January | 27.5 | 12.9 | 20.2 | 41.4 | 31/68 | 1.8 | 1/56 | 8.9 | |
| February | 26.6 | 12.6 | 19.6 | 42.2 | 1/68 | 3.0 | 16/62 | 8.2 | |
| March | 24.3 | 10.4 | 17.3 | 36.4 | 9/40 | -1.1 | 24/67 | (a) 7.5 | |
| April | 19.6 | 6.5 | 13.1 | 32.6 | 12/68 | -3.3 | 26/72 | 6.9 | |
| May | 14.9 | 2.8 | 8.9 | 24.5 | 10/67 | -7.5 | 30/76 | 5.6 | |
| June | 12.0 | 0.8 | 6.4 | 20.1 | 3/57 | -8.5 | 8/57 | 4.8 | |
| July | 11.1 | -0.3 | 5.4 | 19.7 | 29/75 | -10.0 | 11/71 | 5.1 | |
| August | 12.6 | 0.8 | 6.7 | 21.7 | 24/54 | -7.8 | 6/74 | 6.1 | |
| September | 15.8 | 2.7 | 9.3 | 28.6 | 26/65 | -5.6 | 5/40 | 7.4 | |
| October | 19.0 | 5.8 | 12.4 | 32.7 | 13/46 | -3.3 | 4/57 | 7.9 | |
| November | 22.2 | 8.2 | 15.1 | 38.8 | 19/44 | -1.8 | 28/67 | 8.7 | |
| December | 26.0 | 11.1 | 18.6 | 38.8 | 21/53 | 1.1 | 18/64 | 9.1 | |
| Year { Averages | 19.3 | 6.2 | 12.7 | .. | .. | .. | .. | 7.2 | |
| 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 | Mean No. of days of rain | Greatest monthly | Least monthly | | Greatest in one day | | | |
| | | | | | | | | | | | | | |
| No. of years of record | 36(a) | 36 | 36 | 36 | 36 | 36 | 38 | 38 | 36 | 36 | | | |
| January | 13.1 | 60 | 75 | 42 | 61 | 8 | 164 | 1941 | 1 | 1947 | 95 | 12/45 | 1.1 |
| February | 14.0 | 65 | 81 | 53 | 59 | 7 | 148 | 1977 | Nil | 1968 | 69 | 20/74 | 1.2 |
| March | 13.1 | 69 | 81 | 53 | 51 | 7 | 312 | 1950 | 1 | 1954 | 66 | 5/59 | 2.8 |
| April | 10.7 | 75 | 84 | 38 | 50 | 8 | 164 | 1974 | 2 | 1946 | 75 | 2/59 | 4.1 |
| May | 8.7 | 84 | 96 | 73 | 51 | 9 | 150 | 1953 | 1 | 1976 | 96 | 3/48 | 7.5 |
| June | 7.1 | 85 | 97 | 73 | 39 | 9 | 126 | 1956 | 5 | 1971 | 45 | 25/56 | 7.6 |
| July | 6.6 | 84 | 93 | 68 | 38 | 10 | 103 | 1960 | 4 | 1970 | 35 | 10/57 | 7.7 |
| August | 7.1 | 80 | 92 | 58 | 47 | 12 | 156 | 1974 | 7 | 1944 | 48 | 29/74 | 5.0 |
| September | 8.1 | 74 | 82 | 55 | 50 | 10 | 116 | 1970 | 6 | 1946 | 41 | 16/62 | 4.1 |
| October | 10.0 | 67 | 82 | 50 | 73 | 12 | 161 | 1976 | 2 | 1977 | 105 | 21/59 | 3.1 |
| November | 10.7 | 59 | 76 | 38 | 64 | 10 | 135 | 1961 | 4 | 1977 | 64 | 9/50 | 1.4 |
| December | 12.3 | 59 | 74 | 43 | 56 | 8 | 215 | 1947 | Nil | 1967 | 87 | 30/48 | 0.6 |
| Year | Totals | .. | .. | .. | 639 | 110 | .. | .. | .. | .. | .. | .. | 46.2 |
| | Averages | 9.3 | 72 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | 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 generally cover years up to 1976.

Figures such as 24/33, 31/68, etc., indicate, in respect of the month of reference, the day and year of the occurrence.

CLIMATE AND PHYSICAL GEOGRAPHY OF AUSTRALIA

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 evapora- tion (mm) | No. days thun- der | Mean daily amt clouds | |
|------------------------|--|---------------------------------------|---|---|-------------------------|--------|--------------------------------------|-----------------------------|--------------------------------|----------------------|
| | | 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., (a) | No. clear days |
| | | | | | 9 a.m. | 3 p.m. | | | | |
| No. of years of record | 119 | 36(b) | 65 | 68 | 57 | 57 | 9 | 68 | 119 | 68 |
| January | 1,012.8 | 12.8 | 34.0 | 27/41 | 106 | S | S | 228 | 1.7 | 4.1 |
| February | 1,014.3 | 12.4 | 30.6 | 13/47 | 119 | S | S | 198 | 1.9 | 4.0 |
| March | 1,016.8 | 11.3 | 29.0 | 3/61 | 106 | N | S | 155 | 1.3 | 4.3 |
| April | 1,018.9 | 10.9 | 33.7 | 27/71 | 108 | N | S | 97 | 0.7 | 4.7 |
| May | 1,019.1 | 11.4 | 33.0 | 4/61 | 116 | N | N | 59 | 0.4 | 5.2 |
| June | 1,019.0 | 11.4 | 36.7 | 16/47 | 103 | N | N | 38 | 0.2 | 5.3 |
| July | 1,018.6 | 12.8 | 36.9 | 24/70 | 109 | N | N | 47 | 0.2 | 5.2 |
| August | 1,017.5 | 12.5 | 34.3 | 20/42 | 108 | N | N | 60 | 0.6 | 5.0 |
| September | 1,016.0 | 12.7 | 34.0 | 15/64 | 111 | N | S | 91 | 0.8 | 4.8 |
| October | 1,014.7 | 12.8 | 30.4 | 6/68 | 111 | N | S | 130 | 1.6 | 4.8 |
| November | 1,013.9 | 13.3 | 35.8 | 8/71 | 114 | SW | S | 161 | 1.9 | 4.9 |
| December | 1,012.4 | 13.1 | 33.8 | 12/52 | 100 | S | S | 209 | 2.2 | 4.5 |
| Year { Totals | .. | .. | .. | .. | .. | .. | 1,468 | 13.4 | .. | 48.0 |
| Year { Averages | 1,016.2 | 12.3 | .. | .. | .. | 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 sun- shine |
|------------------------|--|--------------|------|--|---------|------------------------------------|--------------------|-------------|---|
| | Mean max. | Mean min. | Mean | Highest | Lowest | Highest in sun | Lowest on grass | | |
| | | | | | | | | | |
| No. of years of record | 120 | 120 | 120 | 122 | 122 | 86(a) | 118 | 52(b) | |
| January | 25.8 | 13.9 | 19.9 | 45.6 | 13/39 | 5.6 28/85* | 81.4 14/62* | -1.0 28/85* | 8.1 |
| February | 25.7 | 14.2 | 19.9 | 43.1 | 7/01 | 4.6 24/24 | 75.3 15/70* | -0.6 6/91* | 7.5 |
| March | 23.7 | 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 | 13.3 | 5.7 | 9.5 | 23.1 | 30/75 | -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 | 12.4 | 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 | 18.4 | 43.7 | 15/76 | 4.4 4/70* | 76.8 20/69* | 0.7 1/04 | 7.3 |
| Year { Averages | 19.9 | 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 pres- sure mean 9 a.m. (mb) | Rainfall (millimetres) | | | | | | | Fog mean no. days | |
|------------------------|---|------------------------|----------------|--------------------------|---------------------|------------------|---------------------------|----------|----------------------------|------|
| | Rel. hum. (%) at 9 a.m. | | | Mean no. of days of rain | | | | | | |
| | Mean | Highest mean | Lowest mean | Mean mthly | Greatest monthly | Least monthly | Greatest in one day | | | |
| No. of years of record | 68 | 68 | 70 | 70 | 120 | 120 | 122 | 122 | 122 | 118 |
| January | 13.1 | 61 | 68 | 50 | 48 | 8 | 176 1963 | (a) 1932 | 108 29/63 | 0.1 |
| February | 14.1 | 63 | 77 | 48 | 50 | 7 | 238 1972 | (a) 1965 | 87 26/46 | 0.3 |
| March | 13.3 | 66 | 79 | 50 | 54 | 9 | 191 1911 | 4 1934 | 90 5/19 | 0.7 |
| April | 11.7 | 72 | 82 | 66 | 59 | 11 | 195 1960 | Nil 1923 | 80 23/60 | 1.8 |
| May | 10.3 | 79 | 88 | 69 | 57 | 14 | 142 1942 | 4 1934 | 51 15/74 | 3.6 |
| June | 9.3 | 83 | 92 | 73 | 50 | 14 | 114 1859 | 8 1858 | 44 22/04 | 4.6 |
| July | 8.9 | 81 | 87 | 73 | 49 | 15 | 178 1891 | 15 1902 | 74 12/91* | 4.3 |
| August | 9.1 | 75 | 82 | 64 | 50 | 15 | 111 1939 | 12 1903 | 54 17/81* | 2.3 |
| September | 9.5 | 68 | 76 | 60 | 59 | 14 | 201 1916 | 13 1907 | 59 23/16 | 0.8 |
| October | 10.5 | 63 | 72 | 52 | 68 | 14 | 193 1869 | 7 1914 | 61 21/53 | 0.4 |
| November | 11.3 | 61 | 71 | 52 | 59 | 12 | 206 1954 | 6 1895 | 73 21/54 | 0.2 |
| December | 12.5 | 60 | 69 | 48 | 58 | 10 | 182 1863 | 1 1972 | 100 4/54 | 0.2 |
| Year { Totals | .. | .. | .. | .. | 661 | 143 | .. | .. | .. | 19.3 |
| Year { Averages | 11.1 | 69 | .. | .. | .. | .. | .. | .. | .. | .. |
| Year { Extremes | .. | .. | 92 | 43 | .. | .. | 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 marked with an asterisk (*) 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 evapora- tion (mm) | No. days thunder | Mean daily amt clouds | | |
|------------------------|--|---------------------------------------|---|---|-------------------------|-------|--------|---|------------------------|--------------------------------|-------------------------------------|----------------------------|
| | | Aver- age (km/h) | Highest mean speed in one day (km/h) | High- est gust speed (km/h) | Prevailing direction | | 9 a.m. | | | 3 p.m. | 9 a.m., 3 p.m., 9 p.m. (a) | No. of clear days |
| | | | | | | | | | | | | |
| No. of years of record | 90 | 63 | 67 | 92 | 30(b) | 30(b) | 10(c) | 64 | 90 | 30(b) | | |
| January | 1,010.6 | 12.6 | 33.5 | 30/16 | 130 | NNW | SSE | 167 | 1.0 | 5.0 | | |
| February | 1,012.9 | 11.5 | 40.6 | 4/27 | 121 | NNW | SSE | 135 | 1.0 | 4.9 | | |
| March | 1,014.3 | 11.0 | 34.4 | 13/38 | 127 | NW | SSE | 109 | 0.7 | 4.8 | | |
| April | 1,015.5 | 10.9 | 38.8 | 9/52 | 141 | NW | W | 70 | 0.3 | 5.0 | | |
| May | 1,015.4 | 10.4 | 35.4 | 21/65 | 135 | NNW | NW | 38 | 0.0 | 5.0 | | |
| June | 1,015.2 | 10.2 | 38.2 | 27/20 | 132 | NW | NW | 22 | 0.0 | 5.0 | | |
| July | 1,014.0 | 10.7 | 36.9 | 22/53 | 129 | NNW | NNW | 26 | 0.0 | 4.8 | | |
| August | 1,012.8 | 10.9 | 41.0 | 19/26 | 140 | NNW | NW | 44 | 0.1 | 4.8 | | |
| September | 1,011.4 | 12.5 | 43.1 | 28/65 | 150 | NNW | NW | 73 | 0.1 | 4.9 | | |
| October | 1,010.3 | 12.6 | 32.4 | 3/65 | 140 | NNW | SW | 107 | 0.4 | 5.2 | | |
| November | 1,009.8 | 12.8 | 34.1 | 18/15 | 135 | NNW | S | 123 | 0.6 | 5.3 | | |
| December | 1,009.4 | 12.4 | 37.7 | 1/34 | 122 | NNW | SSE | 150 | 0.8 | 5.3 | | |
| Year { Totals | .. | .. | .. | .. | .. | .. | .. | 1,064 | 5.1 | .. | | |
| Averages | 1,012.6 | 11.5 | .. | .. | .. | NNW | W | .. | .. | 5.0 | | |
| 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 sun- shine |
|------------------------|--|--------------|------|--|---------|-------------------|------------------------------------|-------------|---|
| | Mean max. | Mean min. | Mean | Highest | Lowest | Highest in sun | Lowest on grass | | |
| | | | | | | | | | |
| No. of years of record | 92 | 92 | 92 | 94 | 94 | 57(a) | 91 | 79 | |
| January | 21.4 | 11.5 | 16.5 | 40.8 | 4/76 | 4.5 (b) | 71.1 (c) | -0.8 19/97* | 7.9 |
| February | 21.5 | 11.8 | 16.7 | 40.2 | 12/99* | 3.9 20/87* | 73.9 24/68* | -2.0 -/87* | 7.0 |
| March | 20.0 | 10.6 | 15.3 | 37.3 | 13/40 | 1.8 31/26 | 66.1 26/44 | -2.5 30/02 | 6.4 |
| April | 17.1 | 8.7 | 12.9 | 30.6 | 1/41 | 0.6 14/63 | 61.1 18/93* | -3.9 -/86* | 5.0 |
| May | 14.2 | 6.7 | 10.5 | 25.5 | 5/21 | -1.6 30/02 | 53.3 (d) | -6.7 19/02 | 4.3 |
| June | 11.8 | 5.1 | 8.5 | 20.6 | 1/07 | -2.8 25/72 | 50.0 12/94* | -7.7 24/63 | 3.9 |
| July | 11.4 | 4.4 | 7.9 | 21.0 | 30/75 | -2.4 (f) | 49.4 12/93* | -7.4 16/86* | 4.3 |
| August | 12.8 | 5.0 | 8.9 | 24.5 | 26/77 | -1.8 5/62 | 54.4 -/87* | -6.6 7/09 | 5.0 |
| September | 14.9 | 6.2 | 10.6 | 28.2 | 29/73 | -0.6 16/97* | 58.9 23/93* | -7.6 16/26 | 5.9 |
| October | 16.7 | 7.5 | 12.1 | 33.4 | 24/14 | 0.0 12/89* | 68.9 9/93* | -4.6 (e) | 6.3 |
| November | 18.5 | 9.0 | 13.8 | 36.8 | 26/37 | 1.6 16/41 | 55.6 19/92* | -3.4 1/08 | 7.0 |
| December | 20.2 | 10.5 | 15.4 | 40.7 | 30/97* | 3.3 3/06 | 71.9 10/39 | -2.6 -/86* | 7.2 |
| Year { Averages | 16.7 | 8.1 | 12.4 | .. | .. | .. | .. | .. | 5.9 |
| Extremes | .. | .. | .. | 40.8 | -2.8 | .. | 73.9 | -7.7 | .. |
| | | | | 4/1/1976 | 25/6/72 | .. | 24/2/1868 | 24/6/1963 | .. |

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

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 No. of days of rain | Greatest monthly | Least monthly | Greatest in one day | | | | | | |
| | | Mean | Highest mean | Lowest mean | | | | | | | | | | |
| No. of years of record | 77(a) | 81 | 84 | 84 | 93 | 93 | 95 | 95 | 131 | 64 | | | | |
| January | 11.0 | 58 | 81 | 45 | 49 | 11 | 150 | 1893 | 4 | 1958 | 75 | 30/16 | 0.3 | |
| February | 11.7 | 62 | 83 | 49 | 42 | 10 | 171 | 1964 | 3 | 1914 | 56 | 1/54 | 0.1 | |
| March | 11.0 | 65 | 78 | 52 | 47 | 11 | 255 | 1946 | 7 | 1943 | 88 | 17/46 | 0.3 | |
| April | 10.0 | 70 | 84 | 57 | 55 | 12 | 248 | 1960 | 2 | 1904 | 133 | 23/60 | 0.3 | |
| May | 8.8 | 75 | 86 | 61 | 49 | 14 | 214 | 1958 | 4 | 1913 | 47 | 3/73 | 1.1 | |
| June | 7.9 | 78 | 91 | 61 | 59 | 14 | 238 | 1954 | 7 | (c) | 147 | 7/54 | 1.7 | |
| July | 7.6 | 78 | 87 | 72 | 54 | 15 | 157 | 1974 | 8 | 1950 | 64 | 18/22 | 1.4 | |
| August | 7.9 | 73 | 86 | 59 | 49 | 16 | 161 | 1946 | 8 | 1892 | 65 | 2/76 | 0.8 | |
| September | 8.3 | 66 | 81 | 52 | 52 | 15 | 201 | 1957 | 10 | 1931 | 156 | 15/57 | 0.2 | |
| October | 9.1 | 62 | 74 | 52 | 64 | 17 | 193 | 1947 | 10 | 1914 | 66 | 4/06 | 0.1 | |
| November | 9.6 | 59 | 73 | 49 | 56 | 14 | 188 | 1885 | 9 | (d) | 94 | 30/85* | 0.1 | |
| December | 10.6 | 58 | 73 | 42 | 57 | 13 | 196 | (b) | 5 | (e) | 85 | 5/41 | 0.1 | |
| Year { | Totals | .. | .. | .. | 633 | 162 | .. | .. | .. | .. | .. | .. | .. | 6.1 |
| | Averages | 9.5 | 67 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | Extremes | .. | .. | 91 | 42 | .. | .. | 255 | .. | 2 | .. | 156 | .. | .. |
| | | | | | | | 3/1946 | | 4/1904 | | 15/9/57 | | | |

(a) 1894-1970.

(b) 1897 and 1916.

(c) 1886 and 1967.

(d) 1919 and 1921.

(e) 1897, 1915 and 1931.

Figures such as 30/16, 12/99, etc. indicate, in respect of the month of reference, the day and year of the occurrence. Dates marked with an asterisk (*) relate to nineteenth century.

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CHAPTER 3

GENERAL GOVERNMENT

Parliamentary government

Scheme of parliamentary government

Under section 1 of the Australian Constitution the legislative power of the Commonwealth of Australia is vested in the Parliament of the Commonwealth, which consists of the Sovereign, the Senate, and the House of Representatives. The Sovereign is represented throughout the Commonwealth by the Governor-General who, subject to the Constitution, has such powers and functions as the Sovereign is pleased to assign to him. In each Australian State there is a State Governor, who is the representative of the Sovereign for the State. The Governor 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.

In the Commonwealth Parliament the Upper House is known as the Senate, and in the bicameral State Parliaments as the Legislative Council. The Legislature in each State was bicameral until 1922 when the Queensland Parliament became unicameral with the abolition of the Upper House. In the Commonwealth Parliament the Lower House is known as the House of Representatives, in the State Parliaments of New South Wales, Victoria, Queensland 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 each of the seven Parliaments is defined by the Australian and State Constitutions respectively. 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 and possessing 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. Up until 1978 in New South Wales a quarter of the members of the Legislative Council retired each three years, and the continuing members of the Council and the members of the Legislative Assembly, voting as an electoral body, elected members to fill the vacant positions. However, as from 1978 in New South Wales, as well as in all other States possessing a Legislative Council, members of the Council are elected by adult suffrage. In the Commonwealth 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 not less than 18 years of age.

The Sovereign

On 7 February 1952 the then Governor-General of the Commonwealth of Australia 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 Parliament of the Commonwealth 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 of the Commonwealth of Australia exercises certain prerogative powers and functions assigned to him by the Queen. Other powers and functions are conferred on him by the Australian 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 the Commonwealth; 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 the Commonwealth. In addition, the command-in-chief of the defence forces of the Commonwealth is vested in the Governor-General as the Queen's representative.

Many Acts of the Commonwealth 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 Commonwealth 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.

The present Governor-General is His Excellency Sir Zelman Cowen, A.K., G.C.M.G., K.St.J., Q.C., who has held office since 8 December 1977.

Holders of office. The names of those persons who have acted as Governor-General since the inception of the Commonwealth of Australia are listed in Year Book No. 61 and earlier Year Books.

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 of the Commonwealth of Australia. 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 names of those persons who have acted as Administrator are listed in Year Book No. 61 and earlier Year Books.

Governors of the States

Powers and functions. The Queen is represented in each of the Australian 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 States' Constitution 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 (October 1978) State Governors are as follows:

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 ARTHUR WINNEKE, K.C.M.G., K.C.V.O., O.B.E., K.St.J., Q.C.

Queensland—COMMODORE SIR JAMES MAXWELL RAMSAY, K.C.M.G., C.B.E., D.S.C., U.S.

Legion of Merit

South Australia—MR KEITH DOUGLAS SEAMAN, O.B.E., K.St.J.

Western Australia—AIR CHIEF MARSHAL SIR WALLACE HART KYLE, G.C.B., K.C.V.O., C.B.E.,

D.S.O., D.F.C., K.St.J.

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

The Cabinet and executive government

Detailed information is contained in Year Book No. 62, pages 64 and 65.

Commonwealth Government Ministries

Names and tenure of office, 1901 to 1977. The following list shows the name of each Commonwealth Government Ministry to hold office since 1 January 1901 and the limits of its term of office.

COMMONWEALTH GOVERNMENT MINISTERIES, 1901 TO DECEMBER 1977

- (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 to 11 November 1975.
- (xliii) FRASER MINISTRY, 11 November 1975 to 22 December 1975.
- (xliv) FRASER MINISTRY, 22 December 1975 to 20 December 1977.
- (xlv) FRASER MINISTRY, 20 December 1977.

Names of Members of each Ministry to 8 July 1976. 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. Issue No. 39 contains a list which covers the period between 9 February 1923, the date on which the Bruce-Page Ministry assumed power, 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 from No. 39 to No. 61 inclusive.

COMMONWEALTH AND STATE LEADERS OF THE GOVERNMENT, OCTOBER 1978†

Commonwealth—The Hon. J. M. Fraser, C.H., M.P. (Vic.) (L.P.)
New South Wales—The Hon. N. K. Wran, Q.C., M.L.A. (A.L.P.)
Victoria—The Hon. R. J. Hamer, E.D., M.P. (L.P.)
Queensland—The Hon. J. Bjelke-Petersen, M.L.A. (N.P.)
South Australia—The Hon. D. A. Dunstan, Q.C., M.H.A. (A.L.P.)
Western Australia—The Hon. Sir Charles Court, O.B.E., M.L.A. (L.P.)
Tasmania—The Hon. D. A. Lowe, M.H.A. (A.L.P.)

COMMONWEALTH AND STATE LEADERS OF THE OPPOSITION, OCTOBER 1978†

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 October 1978.

Commonwealth—The Hon. W. G. Hayden, M.P. (A.L.P.)
New South Wales—J. M. Mason, M.L.A. (L.P.)
Victoria—F. N. Wilkes, M.P. (A.L.P.)
Queensland—T. J. Burns, M.L.A. (A.L.P.)
South Australia—D. O. Tonkin, M.H.A. (L.P.)
Western Australia—The Hon. R. Davies, M.L.A. (A.L.P.)
Tasmania—The Hon. E. M. Bingham, Q.C., M.H.A. (L.P.)

Numbers and salaries of Commonwealth 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 at September 1978 the number of Ministers is twenty-seven and ministerial salaries range from \$10,500 for a Minister not in Cabinet to \$28,250 for the Prime Minister. An additional ministerial allowance of \$13,200 a year is payable to the Prime Minister, \$6,600 a year to the Deputy Prime Minister, the Treasurer, the Leader of the House and the Leader of the Government in the Senate, and \$5,500 a year to other Ministers.

All amounts payable in the foregoing paragraphs are in addition to amounts payable as Parliamentary allowances (*see* page 49).

Parliaments and elections

The Commonwealth 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.

† Party affiliation is indicated by the use of the following abbreviations: A.L.P.—Australian Labor Party; N.P.—National Party; L.P.—Liberal Party of Australia; N.C.P.—National Country Party of Australia.

COMMONWEALTH 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 | 11 November 1975 (a) |
| Thirtieth | 17 February 1976 | 8 November 1977 |
| Thirty-first | 21 February 1978 | |

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

The thirtieth Parliament opened on 17 February 1976 and ended on 8 November 1977 when the House of Representatives was dissolved. Elections for the House of Representatives, Senators for the Australian Capital Territory and the Northern Territory, and Senators whose term expired on 30 June 1978 were held on 10 December 1977. Writs were issued by the Governor-General on 10 November 1977 for the House of Representatives elections in all States and Territories, and for the Senate elections in the Australian Capital Territory and Northern Territory. Writs for the Senate elections in the respective States were issued on the same date by the State Governors. For voting figures *see* page 47. For particulars of electors enrolled and of electors who voted in the several States and Territories at previous Commonwealth elections *see* Year Book No. 61 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—Commonwealth Parliament

Qualifications necessary for membership of either House of the Commonwealth 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 Commonwealth Parliament. Qualifications for Commonwealth 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 Commonwealth Parliament elections even though he may not be enrolled.

The principal reasons for disqualification of persons otherwise eligible for election as members of either Commonwealth 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 Commonwealth 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 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 Commonwealth and State elections in all States.

Commonwealth 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, thus increasing the total to sixty Senators, enlarging both Houses of Parliament and providing a representation ratio nearer to the proportion which existed at Federation.

The *Senate (Representation of Territories) Act* 1973 made provision for two Senators to be elected from both the Northern Territory and the Australian Capital Territory. Elections for the Territory Senators are held at the same time as general elections for the House of Representatives.

In accordance with the Constitution, the total number of State Members of the House of Representatives must be as nearly as practicable twice the number of State Senators. Consequent upon the increase in the size of the Senate in 1949, the number of State Members was increased from 74 to 121. In 1955 there were 122 State Members; in 1969, 123; in 1974, 124; in 1977, 121.

Redistribution of the States into electoral divisions have taken place in 1949, 1955, 1968, 1974 (Western Australia only) and 1977. The quota (or average number) of electors is the basis for electoral distribution, but the Distribution Commissioners may vary the enrolment of electorates by up to 10% from the quota in order to take account of communities of interest, including economic, social and regional interests, means of communication and travel, the trend of population changes, physical features, and existing boundaries of electoral divisions and subdivisions. In addition, no electorate with an area of 5000 square kilometres or more may contain a greater number of electors than any electorate less than 5000 square kilometres in area.

The Chief Australian Electoral Officer determines the representation entitlements of the States during the twelfth month of the life of each Parliament. Determinations are based on the latest population statistics as provided by the Australian Statistician. Should the representation entitlement of a State change, the preparation of a redistribution is mandatory. The representation entitlements of the States at the two most recent determinations is shown in the following table:

REPRESENTATION ENTITLEMENTS OF THE STATES

| <i>State</i> | <i>1972</i> | <i>1977</i> |
|-----------------------------|-------------|-------------|
| New South Wales | 45 | 43 |
| Victoria | 34 | 33 |
| Queensland | 18 | 19 |
| South Australia | 12 | 11 |
| Western Australia | 10 | 10 |
| Tasmania | 5 | 5 |
| Total | 124 | 121 |

Following the 1977 Determination, Distribution Commissioners were appointed for all States in April and the proposed redistributions were approved by Parliament in October. The proposed redistributions came into effect by force of the *Commonwealth Electoral (Redistribution) Act* 1977. The election of 10 December 1977 was conducted on the basis of the new boundaries.

From 1922 to 1968 the Northern Territory was represented in a limited capacity by one member in the House of Representatives. 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.

From 1948-1967 the Australian Capital Territory was represented in a limited capacity by one member in the House of Representatives. The Member for the Australian Capital Territory has had full voting rights since 21 February 1967.

Following the passing of the *Australian Capital Territory (House of Representatives) Act* in October 1973 a Distribution Committee was appointed to distribute the Australian Capital Territory into two electoral Divisions. On 19 March 1974 the Committee published an initial redistribution proposal. By early 1974 there was an indication that the House of Representatives would be dissolved before the Distribution Committee could complete its task. 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. The 1974 and subsequent House of Representatives 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 Commonwealth Parliament (see page 46), 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 1975 appear in earlier issues of the Year Book. 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 Commonwealth Parliament were as follows:

COMMONWEALTH PARLIAMENT ELECTIONS, 10 DECEMBER 1977

| | N.S.W. | Vic. | Qld. | S.A. | W.A. | Tas. | N.T. | A.C.T. | Australia |
|---|-----------|-----------|-----------|---------|---------|---------|--------|---------|-----------|
| HOUSE OF REPRESENTATIVES ELECTION | | | | | | | | | |
| Electors enrolled | 3,051,238 | 2,289,926 | 1,258,724 | 824,205 | 690,919 | 262,114 | 44,295 | 127,358 | 8,548,779 |
| Number of votes recorded for— | | | | | | | | | |
| Australian Labor Party | 1,201,560 | 791,083 | 443,221 | 322,883 | 205,793 | 103,877 | 14,811 | 57,823 | 3,141,051 |
| Liberal Party | 1,018,257 | 842,545 | 326,135 | 340,383 | 307,699 | 134,687 | .. | 48,190 | 3,017,896 |
| National Country Party(a) | 320,051 | 120,032 | 305,275 | 6,065 | 25,559 | .. | 16,462 | .. | 793,444 |
| Australian Democrats | 239,808 | 250,943 | 77,169 | 85,578 | 70,590 | 8,255 | 2,478 | 8,544 | 743,365 |
| Democratic Labor Party | .. | 113,271 | .. | .. | .. | .. | .. | .. | 113,271 |
| Progress Party | 17,512 | .. | 16,389 | .. | 17,879 | .. | 987 | .. | 52,767 |
| Others | 36,597 | 9,652 | 7,474 | 2,299 | 4,504 | .. | .. | 534 | 61,060 |
| Informal votes | 65,660 | 62,381 | 18,212 | 26,461 | 21,560 | 6,579 | 1,244 | 2,811 | 204,908 |
| Total votes recorded | 2,899,445 | 2,189,907 | 1,193,875 | 783,669 | 653,584 | 253,398 | 35,982 | 117,902 | 8,127,762 |
| SENATE ELECTION | | | | | | | | | |
| Electors enrolled | 3,051,238 | 2,289,926 | 1,258,724 | 824,205 | 690,919 | 262,114 | 44,295 | 127,358 | 8,548,779 |
| Number of votes recorded for— | | | | | | | | | |
| Australian Labor Party | 1,050,672 | 680,673 | 380,418 | 258,643 | 196,781 | 88,722 | 13,593 | 49,374 | 2,718,876 |
| Liberal Party: National Country Party(a)(b) | 1,136,215 | 833,477 | 564,190 | .. | .. | .. | .. | .. | 2,533,882 |
| Liberal Party(b) | .. | .. | .. | 344,351 | 278,413 | 117,217 | .. | 43,897 | 783,878 |
| National Country Party(a)(b) | .. | .. | .. | .. | 36,619 | .. | 15,463 | .. | 52,082 |
| Australian Democrats | 218,364 | 322,493 | 98,165 | 78,496 | 74,912 | 13,793 | 2,766 | 14,561 | 823,550 |
| Democratic Labor Party | .. | 123,192 | .. | .. | .. | .. | .. | .. | 123,192 |
| Progress Party | 64,557 | .. | 8,376 | .. | 10,412 | .. | 1,825 | .. | 85,170 |
| Others | 151,441 | 30,601 | 47,723 | 20,728 | 3,021 | 15,695 | .. | 6,368 | 275,577 |
| Informal votes | 278,196 | 199,471 | 95,003 | 81,451 | 53,426 | 17,971 | 2,335 | 3,702 | 731,555 |
| Total votes recorded | 2,899,445 | 2,189,907 | 1,193,875 | 783,669 | 653,584 | 253,398 | 35,982 | 117,902 | 8,127,762 |

(a) The National Country Party is known in the various States as follows: New South Wales—Australian Country Party; Victoria, Queensland and Tasmania—National Party; South Australia and Western Australia—National Country Party. In the Northern Territory it is known as the Country Liberal Party. (b) In New South Wales, Victoria and Queensland the Liberal Party and the National Country Party candidates stood as one group; in South Australia, Tasmania and the Australian Capital Territory only the Liberal Party stood as a group; in Western Australia the National Country Party and the Liberal Party each stood as separate groups; in the Northern Territory there was a Country Liberal Party group only.

The State of the parties in each House at the commencement of the thirty-first Parliament was: *Senate*—Liberal Party 27, National Country Party 8, Australian Labor Party, 27, Australian Democrats 1¹ and Independent 1; *House of Representatives*—Liberal Party 67, National Country Party 19 and Australian Labor Party 38.

Following the retirement of those Senators whose terms expired on 30 June 1978 the state of the parties in the Senate was: Liberal Party 29², National Country Party 6, Australian Labor Party 26³, Australian Democrats 2 and Independent 1.

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 Territory and must be approved by a majority of the electors in a majority of the States and by a majority of all the voters who voted before it can be presented for Royal Assent.

Since 1901 thirty-six proposals have been submitted to referendums and the consent of the electors has been received in eight 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. The remaining three proposals in relation respectively to Senate casual vacancies, maximum retirement age for justices of the High Court and other Federal Courts and the right of electors in the Territories to vote in referendums for the alteration of the Constitution were approved in May 1977. 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 further details of referendums see Year Book No. 52, pages 66-8, Year Book No. 60, pages 90-91, and Year Book No. 62, pages 72-73.

1. Following the resignation of Senator R. S. Hall from the Senate on 16 November 1977, the South Australian Parliament chose Senator J. Haines to fill the casual vacancy, pursuant to section 15 of the Constitution.

2. Following the resignation of Senator the Hon. Sir Robert Cotton, K.C.M.G. from the Senate on 13 July 1978, Senator C. J. G. Puplick was appointed to fill the casual vacancy, pursuant to section 15 of the Constitution.

3. Following the resignation of Senator the Hon. J. R. McClelland from the Senate on 21 July 1978 Senator K. W. Sibraa was appointed to fill the casual vacancy, pursuant to section 15 of the Constitution.

The Parliaments of the States

This section contains summarised information; for greater detail refer to State Year Books.

Membership of State Parliaments. The following table shows the party distribution in each of the various State Parliaments at September 1978.

STATE PARLIAMENTS: MEMBERSHIP, BY PARTY AFFILIATION, SEPTEMBER 1978

| <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.) | 12 | .. | .. | .. | .. | .. |
| Australian Labor Party (A.L.P.) | 22 | 9 | .. | 11 | 9 | 2 |
| Independent (Ind.) | .. | .. | .. | .. | 1 | 17 |
| Liberal Party of Australia (L.P.) | 22 | 25 | .. | 10 | 18 | .. |
| National Country Party (N.C.P.)(a) | .. | .. | .. | .. | 4 | .. |
| National Party of Australia (Victoria) (N.P.A.) | .. | 5 | .. | .. | .. | .. |
| Vacancy | 4 | 1 | .. | .. | .. | .. |
| Total | 60 | 40 | (b) | 21 | 32 | 19 |
| LOWER HOUSE | | | | | | |
| Australian Country Party (C.P.) | 18 | .. | .. | .. | .. | .. |
| Australian Labor Party (A.L.P.) | 50 | 22 | 23 | 28 | 22 | 18 |
| Independent (Ind.) | 1 | 2 | .. | .. | .. | .. |
| Independent Labor (Ind. Lab.) | .. | 1 | .. | .. | .. | .. |
| Liberal Party of Australia (L.P.) | 27 | 49 | 24 | 17 | 27 | 17 |
| National Country Party (N.C.P.)(a) | .. | .. | .. | 1 | 6 | .. |
| National Party (N.P.) | .. | .. | 35 | .. | .. | .. |
| National Party of Australia (Victoria) (N.P.A.) | .. | 7 | .. | .. | .. | .. |
| Australian Democrats (A.D.) | .. | .. | .. | 1 | .. | .. |
| North Queensland Party (N.Q.P.) | .. | .. | 1 | .. | .. | .. |
| Vacancy | 3 | .. | .. | .. | .. | .. |
| Total | 99 | 81 | 82 | 47 | 55 | 35 |

(a) Formerly the National Alliance Party. (b) Upper House abolished in 1922.

For corresponding particulars for the Commonwealth Parliament, see page 48.

Number and salaries and allowances of members of the legislatures, Commonwealth parliaments, September 1978

COMMONWEALTH PARLIAMENTS: MEMBERS AND ANNUAL SALARIES AND ALLOWANCES, SEPTEMBER 1978

| <i>Members in—</i> | <i>Cwlth.</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 . . . | 64 | 60 | 40 | (a) | 21 | 32 | 19 | 236 |
| Lower House . . . | 124 | 99 | 81 | 82 | 47 | 55 | 35 | 523 |
| Total . . . | 188 | 159 | 121 | 82 | 68 | 87 | 54 | 759 |
| ANNUAL SALARY (\$) | | | | | | | | |
| Upper House . . . | 25,692 | 10,430 | 25,192 | (a) | 21,300 | 21,221 | 22,464 | .. |
| Lower House . . . | 25,692 | 22,010 | 25,192 | 25,750 | 21,300 | 21,221 | 22,464 | .. |
| ELECTORAL ALLOWANCES (\$) | | | | | | | | |
| Upper House . . . | (b)9,000 | (c)3,930 | (d)5,225–7,035 | (a) | 5,330 | (d)6,250–12,400 | (d)2,471–5,841 | .. |
| Lower House . . . | (b)9,000–13,000(e) | (d)7,070–11,060 | (d)5,225–7,035 | (d)6,390–15,970 | (d)3,340–12,000 | (d)5,500–11,650 | (d)3,370–7,862 | .. |

(a) Abolished in 1922. (b) Certain additional allowances are also provided for holders of parliamentary offices etc. (c) Referred to as an expense allowance. An additional \$46 per sitting day is payable to members who live outside the metropolitan area. (d) allowance payable depends on location of electorate and, for Victoria and Tasmania, size of electorate. A special expense allowance for members in N.S.W., ranging from \$2,730 to \$3,410 is paid to members representing country electorates. (e) A member of the House of Representatives representing an electorate of less than 5,000 square kilometres receives an electorate allowance at the rate of \$9,000 p.a.; a member representing an electorate of 5000 square kilometres or more receives an electorate allowance at the rate of \$13,000 p.a.

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 Commonwealth 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, 1976-77 (\$'000)

| Expenditure group | Cwlth. | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | Total |
|--|--------|--------------|------------|------------|------------|------------|------------|---------|
| Governor-General or Governor (a) } Ministry (b) } | 3,692 | { 646 952 | 703 998 | 566 744 | 470 457 | 501 342 | 464 709 | 11,243 |
| Parliament— | | | | | | | | |
| Upper House (c) | 2,191 | 904 | 992 | .. | 503 | 1,121 | 440 | 6,151 |
| Lower House (c) | 4,379 | 2,636 | 2,270 | 2,479 | 1,078 | 2,070 | 702 | 15,614 |
| Both Houses (d) | 21,023 | 6,397 | 5,763 | 2,532 | 2,514 | 1,667 | 1,631 | 41,526 |
| Miscellaneous (e) | 9,780 | 962 | 547 | 727 | 347 | 484 | 103 | 12,950 |
| Total, Parliament | 37,373 | 10,899 | 9,572 | 5,737 | 4,442 | 5,343 | 2,876 | 76,241 |
| Electoral (f) | 18,769 | 791 | 453 | 550 | 395 | 957 | 432 | 22,348 |
| Royal Commissions, Select Committees, etc. | 864 | 893 | 709 | 19 | 231 | 113 | 44 | 2,872 |
| Grand Total | 60,698 | 14,181 | 12,434 | 7,616 | 5,995 | 7,256 | 4,525 | 112,705 |

(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 | Cwlth. | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | Total |
|--------------------------------|--------|--------|--------|-------|-------|-------|-------|---------|
| TOTAL (\$'000) | | | | | | | | |
| 1971-72 | 18,432 | 4,520 | 3,475 | 2,717 | 2,436 | 2,486 | 1,327 | 35,393 |
| 1972-73 | 23,515 | 5,310 | 4,490 | 3,182 | 2,677 | 2,516 | 1,316 | 43,006 |
| 1973-74 | 38,926 | 7,378 | 5,218 | 4,340 | 3,190 | 4,213 | 1,935 | 65,200 |
| 1974-75 | 44,113 | 8,047 | 7,194 | 6,332 | 3,895 | 4,865 | 2,461 | 76,907 |
| 1975-76 | 53,680 | 12,454 | 12,541 | 7,839 | 5,207 | 6,333 | 3,031 | 101,086 |
| 1976-77 | 60,698 | 14,181 | 12,434 | 7,616 | 5,995 | 7,256 | 4,525 | 112,705 |
| PER HEAD OF POPULATION (\$) | | | | | | | | |
| 1971-72 | 1.41 | 0.96 | 0.97 | 1.29 | 2.04 | 2.35 | 3.38 | 2.71 |
| 1972-73 | 1.77 | 1.11 | 1.24 | 1.64 | 2.21 | 2.33 | 3.33 | 3.24 |
| 1973-74 | 2.89 | 1.53 | 1.43 | 2.16 | 2.60 | 3.82 | 4.86 | 4.83 |
| 1974-75 | 3.22 | 1.65 | 1.94 | 3.07 | 3.12 | 4.29 | 6.11 | 5.62 |
| 1975-76 | 3.88 | 2.54 | 3.36 | 3.74 | 4.14 | 5.47 | 7.46 | 7.30 |
| 1976-77 | 4.34 | 2.87 | 3.30 | 3.59 | 4.73 | 6.13 | 11.06 | 8.05 |

Commonwealth Government Departments

For current detailed information on the Acts administered, the functions and the organisation of the Departments and Agencies of the Commonwealth Government *see the Commonwealth Government Directory* (latest issue 1978).

Acts of the Australian Parliaments

In the Commonwealth 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 Commonwealth Parliament is empowered to make laws are enumerated in the Australian Constitution. In all 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 Commonwealth Parliament, the latter prevails and the former is, to the extent of the inconsistency, invalid.

The course of Commonwealth Parliament legislation

The legislation passed by the Commonwealth Parliament between 1901 and 1973, and which was then still in operation, is published in a consolidated form entitled *Acts of Parliament 1901-1973*. Since 1974, annual volumes of Acts have also been published. The consolidation contains a chronological table of Acts passed from 1901 to 1973, showing how they are affected by subsequent legislation or lapse of time, together with a table of legislation of the Commonwealth Parliament passed from 1901 to 1973 in relation to the several provisions of the Australian Constitution. 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 Commonwealth Parliament since 1901 : 17 Acts were passed in 1901, 36 in 1914, 38 in 1927, 87 in 1939, 109 in 1952, 156 in 1965, 157 in 1968, 223 in 1973, 166 in 1974, 121 in 1975, 209 in 1976 and 161 in 1977.

CHAPTER 4

DEFENCE

This chapter outlines Australia's defence policy and its defence relationships with other countries; the higher Defence organization; the functions, organization, manning and training of the three Services; the functions and activities of the Defence Science and Technology Organization; the Natural Disasters Organisation; and the functions of Defence production.

Further information on Australia's strategic environment and defence policies and programming is contained in the Government's White Paper on Australian Defence tabled in Parliament on 4 November 1976 and supplementary statements made to the House of Representatives by the Minister for Defence on 22 September 1977 and 24 October 1978. Further factual information on the programs and activities of the Department and the Defence Force is contained in past Defence Reports and other publications issued by the Department of Defence.

Current defence policy

The primary aim of Australian defence policy is to ensure the security of Australia and its Territories. While Australia's strategic prospects are judged on balance to be favourable, there are uncertainties which must be insured against. Defence policy is to maintain the ability to deploy a balanced force to cope with a range of lesser situations, or to expand in time should the need arise to meet a serious emergency.

The Australian alliance with the United States under ANZUS gives substantial grounds for confidence that, in the event of a fundamental threat to Australia's security, US military support would be given. However, even though her security may be ultimately dependent upon US support, Australia owes it to herself to be able to mount a national defence effort that would maximise the risks and costs to any aggressor.

Short of this major and improbable situation, Australia could face a range of other situations that she should expect to handle more independently. The requirements and the scope for Australian Defence activity are today confined basically to areas close to home—areas in which military deployments by a power potentially unfriendly to Australia could permit that power to attack or harass Australia itself or Australian territories, or the maritime resources zone and the nearer lines of communication.

The promotion of increased self-reliance derives essentially from our own national interests and responsibilities. It also accords with Australia's status as an ally of the United States: by accepting local responsibilities, Australia can contribute to the alliance relationship and to the US global effort.

Australia remains deeply mindful of her natural associations with the liberal democracies and with the Western strategic community. Additionally, Australia maintains her concern for the security and development of the strategic neighbourhood—South-East Asia, Papua New Guinea and the South-West Pacific. High value continues to be placed on her defence links with the region.

Higher Defence organization

Legislation to give effect to the re-organization of the higher management of the Defence Force and the Department of Defence was passed by the Commonwealth Parliament in September 1975. The legislation, which came into effect on 9 February 1976, specifically recognised that responsibility for the general control and administration of the Defence Force rests with the Minister for Defence.

The Chief of Defence Force Staff exercises command of the Defence Force through the three Service Chiefs of Staff (Navy, Army and Air) who are the professional heads and have responsibility for the management of their respective arms of the Defence Force. The Chief of Defence Force Staff is the principal military adviser to the Minister.

The Secretary, Department of Defence has the powers and functions generally prescribed for such appointments in the Australian Public Service Act, but these are qualified by the statutory authority of the Chief of Defence Force Staff and by Ministerial directives to the Secretary, enjoying responsiveness of the Public Service structure to the operational priorities of the Chiefs of Staff. The Secretary is responsible to the Minister for advice on general policy, financial policy, and on the management and utilisation of defence resources. Central Administration is divided functionally into

areas concerned with manpower and financial services, strategic policy and force development, management and infrastructure services, supply and support, and defence science and technology.

The Chief of Defence Force Staff and the Secretary, Department of Defence advise the Minister on matters involving their joint responsibility in respect of administration of the Defence Force. The three Service Chiefs of Staff, the Chief of Defence Force Staff and the Secretary, Department of Defence all have the right of direct access to the Minister.

Higher Defence machinery

The *Council of Defence* considers and discusses matters referred to it by the Minister relating to the control and administration of the Defence Force and the respective Arms of the Defence Force. The Council is chaired by the Minister for Defence and membership includes the Minister Assisting the Minister for Defence, the Chief of Defence Force Staff, the Secretary of the Department of Defence and the Chiefs of Staff.

An extensive committee system exists to identify the respective Armed Services' operational requirements to meet defence objectives, and to facilitate the professional management of military careers, the sound management of resources and the development of general policy. It also brings together the expertise of both military and civilian members in the internal policy formulating process and the proffering of advice to Government. The more important committees are described below:

The *Defence Committee* is chaired by the Secretary and has as members, the Chief of Defence Force Staff, the three Chiefs of Staff, and the Secretaries of the Departments of the Prime Minister and Cabinet, Treasury and Foreign Affairs. It advises the Minister on general Defence policies calling for co-ordinated information and advice about strategic, military, foreign affairs and economic aspects.

The *Chiefs of Staff Committee* is chaired by the Chief of Defence Force Staff and is responsible for providing the Minister with collective professional advice on military operations; military implications of Defence policy; endorsement of military plans; and other related subjects.

The *Defence Force Development Committee* is chaired by the Secretary and its members are the Chief of Defence Force Staff and the three Chiefs of Staff. It is primarily concerned with the formulation of the Five Year Defence Program and with advising the Minister on related matters encompassed by it.

EXPENDITURE ON THE DEFENCE FUNCTION (\$'000)

| Departmental Category | Actual Expenditure | | | | Estimated Expenditure |
|--|--------------------|------------------|------------------|------------------|-----------------------|
| | 1974-75 | 1975-76 | 1976-77 | 1977-78 | 1978-79 |
| Department of Defence | | | | | |
| Capital equipment | 90,050 | 151,589 | 281,200 | 319,238 | 359,201 |
| Defence facilities | 121,846 | 112,437 | 116,837 | 111,596 | 93,582 |
| Defence co-operation | 88,647 | 38,951 | 25,369 | 26,952 | 24,625 |
| Manpower including Defence Force Retirement and Death Benefits | 1,008,998 | 1,111,915 | 1,222,739 | 1,333,590 | 1,389,526 |
| Other running costs | 366,588 | 437,665 | 504,031 | 569,285 | 614,921 |
| <i>Total(a)</i> | <i>1,676,129</i> | <i>1,852,557</i> | <i>2,150,176</i> | <i>2,360,660</i> | <i>2,481,855</i> |
| Department of Productivity and other Departments | | | | | |
| Capital equipment | 12,246 | 10,520 | 7,762 | 6,410 | 10,746 |
| Defence facilities | 5,574 | 7,469 | 9,234 | 8,832 | 6,575 |
| Manpower costs | 21,583 | 8,327 | 9,317 | 9,881 | 9,522 |
| Other running costs | 75,116 | 64,384 | 79,841 | 86,884 | 89,056 |
| <i>Total(b)</i> | <i>114,519</i> | <i>90,700</i> | <i>106,154</i> | <i>112,007</i> | <i>115,899</i> |
| Total | 1,790,648 | 1,943,257 | 2,256,330 | 2,472,667 | 2,597,754 |

(a) Research and Development formerly with the Department of Productivity integrated with Defence Science and Technology of the Department of Defence during 1974-75. (b) Historic data up to and including 1974-1975 has not been adjusted for the reclassification of Department of Productivity expenditure attributable to the Defence Functions.

Equipment for the Defence Force

An amount of \$325.6 million was spent on equipment of a capital nature in 1977-78. An amount of \$369.9 million is expected to be spent in 1978-79.

The major equipment items received by the Services in 1977-78 included 1 Oberon Class submarine, 4 replacement ESM systems for destroyer escorts, 8 Nomad aircraft, 4 P3C LRMP aircraft, 2 fire support vehicles, 53 Leopard tanks, 400 light trucks, and 10 medium girder bridges.

Major new equipment items planned for delivery in 1978-79 include 1 patrol boat, 2 self-propelled lighters, 8 work boats (12 metre), 14 Leopard tanks, 33 fire support vehicles, 2 Nomad aircraft, 6 P3C LRMP aircraft, 12 C130H aircraft, 8 submarine fire control systems, 46 off-pavement forklifts, 400 light trucks, 3 attack/intercept sonars, 2 replacement ESM systems for destroyer escorts, 4 optical Rapier surface-to-air guided weapons, 31 light duty tractors, 6 precision approach radars, 1 tactical airtraffic control surveillance radar, and 1 air surveillance radar.

New major capital equipment decisions approved in the context of the 1978-79 Budget include a second phase of the construction of a multi-purpose Defence secure communications network, construction of a maintenance facility and the development of an air launch support capability as the first phase of the acquisition of air-to-surface anti shipping missiles, further surface-to-air Standard practice missiles, purchase of additional Mark 48 torpedoes, construction of 6 Jindivik pilotless target aircraft, the fitment of Mulloka active sonar systems in the River Class destroyer escorts, acquisition of an electronic warfare processing centre for the Army, purchase of long lead items for a Mirage aircraft refurbishment program and acquisition of a replacement radar homing and warning system for F111C aircraft.

Defence manpower

Employment

The following table indicates the range of activities and occupations in which Defence military and civilian manpower are involved.

FUNCTIONAL DISTRIBUTION OF DEFENCE MANPOWER AS AT 30 JUNE 1978

| | <i>Service</i> | <i>Civilian</i> | <i>Total</i> |
|---|----------------|-----------------|----------------|
| Combat/operational forces and direct logistics support | 29,860 | 710 | 30,570 |
| Specialist support (e.g. medical services, communications) | 6,050 | 1,500 | 7,550 |
| Stores and supply | 3,080 | 5,300 | 8,380 |
| Workshop and repair facilities | 2,850 | 860 | 3,710 |
| Quality assurance inspection | 110 | 1,220 | 1,330 |
| Naval dockyards (construction and refit) | 120 | 5,520 | 5,640 |
| Training (staff, direct support and service trainees) | 17,760 | 1,750 | 19,510 |
| Support to reserves and cadets | 1,610 | 120 | 1,730 |
| Research and development | 440 | 5,150 | 5,590 |
| Central departmental functions and specialist administrative services | 1,390 | 3,880 | 5,270 |
| Defence regional offices (financial, audit, civil personnel and management support) | — | 1,590 | 1,590 |
| Service command and district HQ's and service administrative support | 6,100 | 2,530 | 8,630 |
| Defence co-operation and UN support | 500 | — | 500 |
| Total | 69,870 | 30,130 | 100,000 |

Figures have been rounded. Civilian figures include only full-time operatives and exclude locally engaged civilians overseas, persons on extended leave and part-time staff.

Permanent Defence Force

PERSONNEL STRENGTHS OF THE PERMANENT DEFENCE FORCE

| <i>Strengths as at end June</i> | <i>Volunteer Forces</i> | | | <i>Total</i> | <i>National Servicemen</i> |
|---------------------------------|-------------------------|-------------|------------------|--------------|----------------------------|
| | <i>Navy</i> | <i>Army</i> | <i>Air Force</i> | | <i>Army</i> |
| 1974 | 16,141 | 30,197 | 21,119 | 67,457 | 38 |
| 1975 | 16,094 | 31,514 | 21,546 | 69,154 | — |
| 1976 | 15,993 | 31,430 | 21,351 | 68,774 | — |
| 1977 | 16,390 | 31,988 | 21,703 | 70,081 | — |
| 1978 | 16,298 | 31,883 | 21,689 | 69,870 | — |
| 1979 (estimated) | 16,530 | 31,910 | 21,821 | 70,261 | — |

NOTE. Defence Force manpower statistics for earlier years are shown in Year Book No. 61, page 100.

COMPOSITION OF PERMANENT DEFENCE FORCE (a)
as at 30 June 1978

| | <i>Navy</i> | <i>Army</i> | <i>Air Force</i> | <i>Total</i> |
|---------------------------------|---------------|---------------|------------------|---------------|
| Male— | | | | |
| Officers | 1,910 | 4,161 | 3,414 | 9,485 |
| Other ranks | 12,574 | 25,044 | 16,172 | 53,790 |
| Cadets | 414 | 474 | 341 | 1,229 |
| Apprentices | 380 | 704 | 349 | 1,443 |
| Junior recruits | 193 | — | — | 193 |
| <i>Total</i> | <i>15,471</i> | <i>30,383</i> | <i>20,276</i> | <i>66,130</i> |
| Female (b)— | | | | |
| Officers | 73 | 200 | 146 | 419 |
| Other ranks(c) | 754 | 1,300 | 1,276 | 3,321 |
| <i>Total</i> | <i>827</i> | <i>1,500</i> | <i>1,413</i> | <i>3,740</i> |
| Total Strength | 16,298 | 31,883 | 21,689 | 69,870 |

(a) Citizen Forces and reserves on full time duty are included in the appropriate category. (b) Females serve in the Women's Royal Australian Naval Service, the Royal Australian Naval Nursing Service, the Women's Royal Australian Army Corps, the Royal Australian Army Nursing Corps and other Army Specialist corps. The Women's Royal Australian Air Force and the RAAF Nursing Service were disbanded on 1 May 1977 when all female personnel were incorporated into the Permanent Air Force. (c) Includes female officer cadets.

Reserve Forces

With the Permanent Forces, the Reserve Forces of the Navy, Army and Air Force form a basis for expansion of the Defence Force.

Each Reserve Force consists of several reserve elements with different call out provisions and training obligations. The elements obliged to render training are as follows:

Active citizen forces (Royal Australian Naval Reserve; Active Citizen Military Forces; Active Citizen Air Force) which may be called out by proclamation for continuous full-time service in a time of defence emergency or war.

Emergency Reserves (Naval Emergency Reserve Force; Regular Army Emergency Reserve; Air Force Emergency Force) which may be called out by the Governor-General for continuous full-time service as the need arises.

PERSONNEL STRENGTHS OF THE RESERVE FORCES (a)

| <i>Strengths as at end June</i> | <i>Navy</i> | <i>Army</i> | <i>Air Force</i> | <i>Total</i> |
|---------------------------------|-------------|-------------|------------------|--------------|
| 1974 | 1,593 | 20,000 | 746 | 22,341 |
| 1975 | 1,302 | 20,374 | 554 | 22,230 |
| 1976 | 1,025 | 21,183 | 458 | 22,666 |
| 1977 | 970 | 21,641 | 473 | 23,084 |
| 1978 | 917 | 23,164 | 490 | 24,571 |
| 1979 (estimated) | 1,180 | 23,600 | 620 | 25,400 |

(a) Strengths refer to Reserves with training obligations and exclude those members who are serving full time in the Permanent Defence Force but includes all other listed Reserve members including some who have not fulfilled their minimum training obligations.

Defence co-operation

In support of Australia's Defence policy, the Government conducts defence co-operation activities with South-East Asian and South Pacific countries. These activities include joint projects, training in Australia, loan of personnel and combined military exercises.

In 1977-78, expenditure on Defence co-operation with Papua New Guinea totalled \$14.6 million. This included the loan of Australian servicemen to P.N.G., training for P.N.G. servicemen in Australia, survey and engineering projects in P.N.G. and the provision of Nomad aircraft and certain items of equipment.

Expenditure on the Defence Co-operation Program with Indonesia to June 1977 amounted to \$34.5 million. Major current projects include the survey and mapping of Irian Jaya, field communications, Sioux helicopters, language training, defence research and development, and a maritime patrol project (involving patrol boats and Nomad aircraft).

Annual expenditure on Defence co-operation with Malaysia and Singapore is now running at approximately \$3.5 million and \$0.5 million respectively. Major continuing projects in Malaysia include an Armed Forces manufacturing workshop, a parachute and diving school and a defence research centre. Assistance to Singapore is mainly a C130 simulator and in the area of training, particularly of qualified flying instructors. Training assistance is also provided to Thailand and the Philippines.

Assistance to South-West Pacific countries includes technical advisory personnel, engineering and transport equipment, and the provision of training in Australia.

Training in Service training establishments in Australia is an important part of Defence co-operation activities. Between 600-700 overseas personnel are trained in Australia each year by the three Services.

Defence representation overseas

Defence representatives are accredited to Afghanistan, Britain, Canada, France, India, Indonesia, Iran, Japan, Republic of Korea, Malaysia, Nepal, New Zealand, Pakistan, Papua New Guinea, the Philippines, Singapore, Thailand and the United States of America.

Defence Force activities overseas

The main areas in which Australian Defence Force elements have been deployed overseas during the year are Malaysia/Singapore and Papua New Guinea. Units have also visited Indonesia, the Philippines, India, Japan, New Zealand, Hawaii, Britain, Canada and the United States.

In support of the Five Power Arrangements, Australian Defence Force elements in the Malaysia/Singapore area include:

Navy—A destroyer or destroyer escort is maintained in South-East Asian waters for much of the year;

Army—An Australian Army infantry company is maintained at Butterworth on a basis of three month detachments from Australia in a training role;

Air Force—Two squadrons of Mirage fighter aircraft are maintained at Butterworth in Malaysia, with a detachment at Tengah in Singapore.

The Defence Force contribution to United Nations peace-keeping operations reached its highest level for many years with a RAAF helicopter contingent and a small RAN element in Sinai, a RAAF Caribou transport aircraft serving in support of the United Nations Observer Group in Kashmir, and Australian Army observers in Kashmir and the Middle East.

THE DEFENCE FORCE

Royal Australian Navy

The RAN maintains and exercises a modern, well-equipped and highly-trained maritime force. The structure of this force is based primarily on the provision, at sea, of a balanced naval task group, consisting of surface warships, naval aviation, and the RAN's submarine force.

Development of the Royal Australian Navy

Information relating to naval defence systems prior to 1901 appears in Year Book No. 2, page 1094; further information relating to the development of Australian naval policy appears in Year Books No. 3 and 12, pages 1060 and 1012 respectively; an account relating to the building of the Australian Navy, its cost, the compact with the Imperial Government, and other details appears in Year Book No. 15, pages 921-3; and the growth and the activities of the RAN during the 1939-45 war are described in Year Book No. 36, pages 1023-7.

Higher organisation

The Chief of Naval Staff has command of the RAN, subject to the overall command of the Defence Force by the Chief of Defence Force Staff. Principal staff officers to the Chief of Naval Staff are the Deputy Chief of the Naval Staff, and the Chiefs of Operational Requirements and Plans, Personnel, Technical Services, and Materiel. Other senior officers of the RAN include the Flag Officer Commanding HM Australian Fleet and the Flag Officer Commanding East Australia area.

Ships of the Royal Australian Navy

The Fleet, October 1978: *Melbourne*—aircraft carrier; *Supply*—oiler; *Stalwart*—destroyer tender; *Perth*, *Hobart*, *Brisbane*—guided missile destroyers; *Vendetta*, *Vampire*—destroyers; *Yarra*, *Parramatta*, *Stuart*, *Derwent*, *Swan*, *Torrens*—destroyer escorts; *Jervis Bay*—training ship; *Curlew*, *Snipe*—coastal minehunters; *Ibis*—coastal minesweeper; *Moresby*, *Flinders*—surveying ships; *Diamantina*, *Kimbla*—oceanographic research ships; *Orway*, *Onslow*, *Ovens*, *Otama*, *Oxley*, *Orion*—submarines; *Attack*, *Acute*, *Advance*, *Adroit*, *Ardent*, *Assail*, *Aware*, *Barbette*, *Barricade*, *Bayonet*, *Bombard*, *Buccaneer*—patrol boats; *Banks*, *Bass*—general purpose vessels; *Brunei*, *Labuan*, *Tarakan*, *Wewak*, *Betano*, *Balikpapan*—heavy landing craft.

Fleet Air Arm

The Fleet Air Arm maintains three front line squadrons for embarkation in the operational carrier *HMAS Melbourne*. These squadrons currently consist of Skyhawk A4G fighter ground-attack aircraft, Tracker S2G anti-submarine aircraft and Sea King Mk 50 anti-submarine helicopters. Three training and support squadrons are based at the RAN Air Station, Nowra, New South Wales. Other aircraft operated by the Navy are the Bell 206B helicopter in the survey ship *HMAS Moresby*, Iroquois UH1B and Wessex 31B helicopters (utility tasks and search and rescue), HS-748, S2Es Macchi trainer and Jindivik pilotless target aircraft.

Ship construction and repairs

There are two naval dockyards, one at Garden Island, New South Wales, and one at Williamstown, Victoria. The dockyard at Cockatoo Island, which is operated by Vickers Cockatoo Dockyard Pty Ltd by agreement with the Commonwealth Government, carries out considerable naval repair work and has the capability to construct warships.

Current construction projects include one Fremantle Class submarine in the United Kingdom (due to be completed in early 1979), two guided missile frigates in the United States of America and an oceanographic vessel being built at Williamstown. Modernisation of three River Class destroyer escorts, *Parramatta*, *Stuart* and *Derwent*, is progressing and the half-life refit of a fourth, *Yarra*, is complete.

Extensive improvements to the weapons control system of the guided missile destroyers *Hobart*, *Perth* and *Brisbane* are being undertaken at Garden Island Dockyard.

Training and Entry

Officer Entry. The Royal Australian Naval College at Jervis Bay is the training centre for officers in the RAN. Male applicants for permanent service are selected either after completing year ten (at fifteen or sixteen years of age) or after matriculating, to age twenty. The majority of these officers study for degrees in Arts, Science or Engineering at the University of NSW. Male and female applicants for short-service are selected after completing year twelve, to age twenty three. Entry is also available to professionally qualified persons, such as doctors, dentists, teachers, engineers and lawyers.

Sailor Entry. There are a number of entry schemes available, depending upon an individual's age, educational standard and own particular interests.

HMAS Nirimba at Quaker's Hill, New South Wales is the primary establishment for all RAN Trade training which includes courses for apprentices aged between fifteen and seventeen-and-a-half and technical training for General Entry personnel.

HMAS Leeuwin at Fremantle, Western Australia is the junior recruit training establishment for boys aged between fifteen-and-three-quarters and sixteen-and-a-half.

HMAS Cerberus at Westernport, Victoria is the main training establishment for General Entry enlisted members aged between seventeen and twenty-six. Recruits receive twelve weeks basic training before advancing to specialist training courses.

On completion of initial training further branch and category training is undertaken at the various schools at *HMAS Penguin*, *HMAS Watson* and *HMAS Nirimba* in Sydney, *HMAS Cerberus* in Victoria and the Naval Air Station at Nowra, New South Wales. A number of specialised training courses are conducted in the United Kingdom and the United States.

Australian Army

The Australian Army maintains a potential ability and readiness to conduct operations on land for the defence of Australia and, in co-operation with the other arms of the Australian Defence Force, shares a responsibility to deter aggression, to ensure the nation's security and to preserve its national interests.

Development of the Australian Army

A detailed account of the Australian Defence Force prior to Federation appears in Year Book No. 2, pages 1075-81. See also Year Book No. 12, page 999. For particulars of the phases which cover the period from Federation 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.

Higher organisation

Command of the Army is the responsibility of the Chief of the General Staff, subject to the overall command of the Defence Force by the Chief of Defence Force Staff. He has for his principal staff officers the Deputy Chief of the General Staff, the Chief of Operations, the Chief of Personnel, the Chief of Materiel, the Chief of the Army Reserve and the Inspector General of the Army Reserve.

The Army is organised into three commands as follows:

Field Force Command which commands all field force units of the Australian Army, both Regular and Citizen Military Forces.

Logistic Command which commands the principal logistic elements of the Army.

Training Command which is responsible for all individual training and commands all Army training establishments and schools with the exception of the Royal Military College, Duntroon (which is under the command of the Chief of the General Staff).

Military Districts as listed below provide administrative support for the three commands:

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 Commonwealth and State Governments are involved.

Training

Australian Staff College. The Australian Staff College is located at Queenscliff, Victoria. The course is held annually and is of twelve months duration. The normal intake is eighty students, twenty of whom are from overseas countries. The course is intended 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.

Royal Military College. The Royal Military College was established in 1911 at Duntroon in the Australian Capital Territory to provide trained officers for the Army. The conditions of entry are laid down in the Royal Military College Regulations. The course is either four or five years of military and academic studies depending upon the academic course undertaken. On graduation, cadets are appointed lieutenant in the Australian Regular Army.

Officer Cadet School. The Officer Cadet School was established in 1951 at Portsea, Victoria, to increase the rate at which junior regimental officers could be produced for the Australian Army. Civilians between eighteen and a half and twenty-two and a half years are eligible for entry. Serving soldiers and civilians accorded special entry status because of completed or part completed tertiary qualifications are eligible for entry between eighteen and a half and twenty-five years. The course lasts for forty-four weeks and, on graduation, cadets are appointed second lieutenants in the Australian Regular Army.

Women's Royal Australian Army Corps School. The WRAAC School at Mosman, New South Wales, has three wings: one whose task is the training of officer cadets for the WRAAC; one for the training of junior non-commissioned officers; and one which is a basic training wing. The officer cadets are selected on the same criteria as entrants to the Officer Cadet School. The course is of forty weeks duration and, on graduation, cadets are appointed second lieutenants in the Women's Royal Australian Army Corps.

Land Warfare Centre. The Land Warfare Centre at Canungra provides training for personnel in tactics and administration, prepares senior non-commissioned officers for commissions and conducts sub-unit and individual training in battle skills.

Army Apprentices School. The Army Apprentices School was opened in 1948 at Balcombe, Victoria, to train youths as skilled tradesmen for the Regular Army and to provide them with a background for an Army career. The course is open to youths between the ages of fifteen and seventeen and provides training in a number of highly skilled trades.

Other Schools. Army schools have been established for the major arms and services to train officers and other ranks in the up-to-date techniques of their own arm of service, to qualify them for promotion and to produce trained instructors. Courses at Army Schools are conducted for members of both the Regular Army and Citizen Military Forces.

Royal Australian Air Force

The function of the Royal Australian Air Force is the conduct of operations in the air for the defence of Australia and Australian interests.

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 91.

Higher organisation

The Chief of the Air Staff (CAS) has command of the Royal Australian Air Force subject to the overall command of the Defence Force by the Chief of Defence Force Staff. The CAS is assisted in his decisions by an advisory committee which includes the Deputy Chief of the Air Staff, Chief of Air Force Personnel, Chief of Air Force Technical Services, Chief of Air Force Operations, Chief of Air Force Materiel, Director General Supply—Air Force, Assistant Secretary Resources Planning, and other senior officers or specialists as may be directed by the CAS. The Committee has no statutory authority nor executive function and the CAS is not obliged to accept its recommendations.

The Chief of Air Staff administers and controls RAAF units in Australia through two commands: Operational Command and Support Command. Operational Command is responsible to the CAS for the command of operational units and the conduct of their operations within Australia and overseas. Operational units based at Butterworth, Malaysia, contribute to the development of the Malaysian and Singapore defence capability and provide forces for the Integrated Air Defence System. Operational units in the Middle East and in Kashmir contribute to United Nations peace keeping activities. Support Command is responsible to the CAS for training of personnel, and the supply and maintenance of Service equipment.

Structural organisation

The RAAF has five operational elements, the units of which actively and directly participate in air operations. These elements are the Strike/Reconnaissance Force, Tactical Fighter Force, Air Transport Force, Tactical Air Support Force and the Maritime Force. The role of the strike/reconnaissance force is primarily to counter air operations. The tactical fighter force is responsible for air superiority, air defence and air interdiction operations, and also provides close air support to sea and land forces. The air transport force is used for routine logistic and domestic transport, and in addition has a tactical transport role. Tactical transport and close air support aircraft normally operate within a tactical air support force which is usually controlled by a joint (Air Force/Army) headquarters. Maritime forces are primarily employed in ocean surveillance, anti-submarine warfare and search and rescue. Major maritime operations are controlled by a joint (Air Force/Navy) headquarters.

The support component consists of those units and personnel which support units of the operational component. The elements are Maintenance, Supply, Air Training, Ground Training, Administrative and the Citizen Air Force.

Aircraft

The RAAF's strike/reconnaissance force is currently equipped with F111C and Canberra aircraft. The air defence and ground attack squadrons are equipped with the Mirage 111-0. Transport aircraft currently in use are Hercules C130H and C130E, Caribou, Dakota, Mystere 20, HS748, and BAC1-11. Four squadrons operate Iroquois and Chinook helicopters and the two maritime squadrons operate Orion P3B and P3C aircraft. Aircraft used for basic training are the CT4 Airtrainer, Macchi and HS748.

Training

Staff College. The RAAF Staff College located at Fairbairn, A.C.T. provides staff training and higher Service education to selected officers normally of the rank of Squadron Leader and above. The course, which is of one year's duration, is designed to broaden the students' professional background and to prepare them for command and staff appointments of greater responsibility. A two year correspondence course covering communication skills, military studies, international affairs and management is a compulsory prerequisite for entry to this course.

RAAF Academy. The RAAF Academy is an affiliated college of the University of Melbourne. Cadets are selected principally for the General Duties Branch and, after four years tertiary training, graduate with a Bachelor of Science degree and the award of a Graduate Diploma in Military Aviation. Cadets selected for the Engineer Branch study the first year at the Academy and then attend the University of Sydney to graduate with a Bachelor of Aeronautical Engineering degree.

Engineering Cadet Squadron. The Engineering Cadet scheme provides training for degree or diploma status in aeronautical, mechanical, electrical and communication engineering at the Royal Melbourne Institute of Technology and similar institutes in the Melbourne area.

Equipment Cadets. Cadets selected for Equipment Branch duties are stationed at No. 7 Stores Depot Toowoomba, Queensland and undertake a three year course at the Darling Downs Institute of Advanced Education. They graduate with a Bachelor of Business Studies degree.

Officer Training. With the exception of those officers commissioned from the RAAF Academy or the flying training schools, all officers entering directly (with or without tertiary qualifications), commissioned airmen and airwomen, engineering and equipment cadets and undergraduate students undergo the Officers' Initial Training Course at the Officers' Training School, Point Cook, Victoria.

Basic Aircrew Training. RAAF pilot, navigator and air electronic officer trainees are selected primarily direct from civilian life, although some places are filled by serving officers (including graduates of the RAAF Academy) and airmen. Direct entry and serving airmen trainees are commissioned on graduation, having completed their officer training concurrently with their flying training. Additionally, the RAAF provides initial pilot training for the Army and complete pilot and observer training for the RAN.

Aircrew Operational Conversion. Conversion training to Mirage fighter aircraft and Orion Maritime aircraft is conducted by the respective conversion training squadrons. Conversions to other operational aircraft are conducted within the other operational squadrons.

Ground Training. Training for non-aircrew personnel is generally provided in two stages: basic training, which includes apprentice training, brings the airman to a level of proficiency in his particular trade such that he can be recognised and employed as a qualified tradesman on an operating unit; and advanced training covers higher level training courses including supervision and management techniques, and specialist courses on particular aircraft or telecommunications systems.

Major Ground Training Schools. The major ground training schools are the School of Radio at Laverton, Victoria and the School of Technical Training at Wagga, New South Wales. Both schools provide apprentice and adult training.

**SERVICE ESTABLISHMENTS PROVIDING EDUCATIONAL COURSES OF SIX MONTHS DURATION
OR LONGER
AUSTRALIA, 1976 AND 1977**

| <i>Establishment</i> | <i>Students enrolled</i> | | <i>New entrants during year</i> | | <i>Number completing course during year</i> | |
|---|--------------------------|------|---------------------------------|------|---|------|
| | 1976 | 1977 | 1976 | 1977 | 1976 | 1977 |
| Staff colleges— | | | | | | |
| Joint Services Staff College | 72 | 80 | 72 | 80 | 72 | 80 |
| Australian Staff College | 81 | 80 | 81 | 80 | 81 | 80 |
| RAAF Staff College | 42 | 42 | 42 | 42 | 41 | 42 |
| Officer cadet training establishments— | | | | | | |
| RANC | 112 | 222 | 92 | 96 | 56 | 33 |
| RMC | 440 | 432 | 130 | 142 | 77 | 52 |
| RAAFA | 99 | 96 | 40 | 42 | 19 | 21 |
| Apprentice schools— | | | | | | |
| Navy | 283 | 390 | 170 | 180 | 168 | 170 |
| Army | 537 | 559 | 260 | 252 | 197 | 217 |
| Air Force | | | | | | |
| Wagga Wagga | 274 | 253 | 149 | 136 | 104 | 103 |
| Laverton | 91 | 79 | 56 | 40 | 30 | 32 |
| Other— | | | | | | |
| RAN Junior Recruit Training School . . . | 496 | 713 | 801 | 760 | 673 | 652 |
| RAAF School of Languages | 29 | 37 | 29 | 37 | 29 | 37 |

Defence Science and Technology

Under the policy, administrative and technical control of the Chief Defence Scientist, the Defence Science and Technology (DST) organization is engaged in research, analysis, development, trials and evaluation. It consists of a central office and a number of establishments, a small number of people in overseas posts and some in joint activities with other nations. The DST contains about 5,100 staff who provide a degree of scientific expertise in most physical sciences and some engineering fields of relevance to defence.

The functions of the DST are: defence science policy; scientific advice on all defence matters; conduct of research and development including development of new equipment which will improve military effectiveness and analysis of weapons systems and equipment; relationship of Australian research and development to international programs; trials and evaluation of proposed and existing equipment.

The DST consists of three main functional areas of responsibility: Military Studies and Operational Analysis Division; Policy and Program Planning Division; and DST laboratories.

Military Studies and Operational Analysis Division

The Division formulates the program of analytical studies for tactical, operational and force structure problems to assist the Department and Services. The Central Studies Establishment and Services Analytical Studies Group carry out most of these studies. Scientific Advisers, oversighted by the Division but attached to each Service arm, provide advice on military needs as well as constituting a direct link with the DST.

Policy and Program Planning Division

This Division defines principal objectives of the DST and advises on scientific and technical aspects of Defence policy including arrangements for international co-operation in scientific and technical activities.

DST Laboratories

Responsibility for the preparation, co-ordination and reviews of the DST program rests with the Deputy Chief Defence Scientist. Management is provided for the scientific and financial resources of the laboratories and trial units. Laboratories primarily concerned with testing and evaluating service equipment are functionally separated into the Services Laboratories and Trials Division.

The DST Laboratories are:

Electronics Research Laboratory, S.A.

Weapons Systems Research Laboratory, S.A.

Advanced Engineering Laboratory, S.A.

Trials Resources Laboratory, S.A.

Materials Research Laboratories, Victoria

Aeronautical Research Laboratories, Victoria

Engineering Development Establishment, Victoria

Royal Australian Navy Research Laboratory, N.S.W.

Royal Australian Navy Trials and Assessing Unit, N.S.W.

Armed Forces Food Science Establishment, Tasmania

Joint Tropical Trials and Research Establishment, Queensland.

Natural Disasters Organisation

The Natural Disasters Organisation (NDO) was created in the Department of Defence in 1974, absorbing all functions of the former Directorate of Civil Defence; the latter had been in the Department of the Interior until moved to Defence in December 1972.

The NDO and the State and Territory Emergency Service organisations constitute the core civil defence structure for Australia. The main pre-occupation in peace-time is in mitigating the effects of natural disasters, but the primary role is to ensure that the total structure maintains and improves the dual use capability for meeting both the civil defence and natural disasters requirements. The State Governments have complete responsibility for their own organisations. The headquarters of the NDO at Canberra provides a focal point for the co-ordination of national effort in natural disasters and civil defence emergencies. In such emergencies, it ensures that States and Territories receive the full material and physical support of the Commonwealth Government.

The NDO administers a number of programs from Commonwealth funds for the support, principally, of the Emergency Service organisations; namely, the supply of emergency type equipment (radios, rescue vehicles, first aid kits, generators, flood rescue boats etc); reimbursement of salaries of State professional organisers at regional level; provision of training films and handbooks, and subsidies on a dollar-for-dollar basis to provide accommodation for the State units at local government level. Other programs benefit all organisations with a counter-disaster involvement, and the community at large, examples being: training courses at the Australian Counter Disaster College at Mt Macedon; emergency broadcasting facilities; fall out shelter survey service and the public information program. NDO is also required to develop and implement contingency plans involving Commonwealth resources, to cope with natural disasters and civil defence needs. A Disaster Earmark Store has been established at the RAAF Stores Depot, Dubbo, N.S.W. to expedite the supply of certain items to meet initial disaster relief requirements.

DEFENCE PRODUCTION

The Government production establishments became one of the functions of the Department of Productivity following its creation on 8 November 1976, the function having previously been the responsibility of the Department of Industry and Commerce (see Year Book No. 61, page 109).

Defence production functions of Department of Productivity

The defence production functions of the Department of Productivity are carried out under the *Supply and Development Act 1939* and include the following:

Planning, establishment, operation and management of facilities producing aircraft, guided missiles, small arms, ammunition, explosives, marine engines, clothing and other defence goods. Acquisition, maintenance, and disposal of strategic materials, investigation and development of Australian sources of supply of defence material in conjunction with Department of Defence.

For the performance of the above functions the Department has two production divisions—

Munitions Supply, and Aircraft, Guided Weapons and Electronics Supply—supported by Marketing Branch and elements of Central Office and Regional technical and administrative staffs.

Munitions supply

The Munitions Supply Division is responsible for the production of munitions required by the Defence Force. Production is carried out in Government factories, which may place orders with private industry for components and materials. 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); Engine Works, Victoria (servicing of marine and land-based diesel engines); Albion Explosives Factory, Deer Park, Victoria (high explosives, propellant); Explosives Factory, Maribyrnong, Victoria (propellants, explosives, rocket motors); Mulwala Explosives Factory, New South Wales (propellants and chemicals); Munitions Filling Factory St Marys, New South Wales (filling of ammunition and explosive munitions); Ordnance Factory, Bendigo, Victoria (heavy guns, mountings, large gears); Ordnance Factory, Maribyrnong, Victoria (guns, projectiles, heavy forgings, rocket motor components); and Small Arms Factory, Lithgow, New South Wales (rifles, machine guns, mortar shells, calibre shells and fuse components).

Aircraft, guided weapons and electronics supply

Production both in Government factories, and in industry, of aircraft, aero-engines, other aircraft components and guided weapons is the responsibility of this Division. Planning of capacity and negotiation (in conjunction with the government purchasing authority) 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: Government Aircraft Factory at Fishermen's Bend, Victoria, together with its Final Assembly Workshops and Test Airfield at Avalon, Victoria and the Aircraft Engineering Workshop at Pooraka, South Australia.

A twin turbo-propeller utility aircraft known as Nomad has been designed and developed by the Government Aircraft Factories (GAF) and the Government has approved production of 120 aircraft. The Jindivik radio-controlled target aircraft and the Turana pilotless target aircraft continued in production. The Ikara anti-submarine weapon system which has been fitted into 9 RAN ships has also been purchased by the British and Brazilian Navies.

Finance

The total outlay by the Department of Productivity on defence-orientated activities was \$81,220,000 during 1977-78. This was in addition to a turnover of \$75,315,000 by the Government Factories through their trust accounts.

Personnel

At 30 June 1978, 8,342 personnel were employed on specifically defence-orientated functions (excluding general financial and administrative management support) as follows: administration 443; aircraft production 2,401; munitions production 4,730, miscellaneous production 761; overseas staff 7.

CHAPTER 5

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, Britain and the Commonwealth countries were the chief preoccupations. Later, partly as a consequence of the vital role played by the United States of America in the Pacific in the 1939-45 War and during the Cold War period, close relations were also developed with that country. These links, and links with Western Europe, remain important factors in Australian policy.

Australia strongly supports efforts to increase stability and development in neighbouring regions. Special attention is being given to developing Australia's bilateral relationships with China, Japan, the Association of South-East Asian Nations (ASEAN) and its members, Papua New Guinea, New Zealand and the Pacific islands.

New international issues (economic, resources, human rights, etc.) and new concepts of national interest are emerging, together with an increasing recognition of the growing interdependence of the world community. This is reflected in economic issues becoming one of the priorities in Australia's foreign policy. Australia's recognition of the serious implications that many of these issues have for the relationships between developed and developing countries is shown by the establishment early in 1978 of a Committee on Australia's Relations with the Third World. This Committee, whose membership represents a wide range of community interests, both government and private, is charged with identifying policy options for Australia's approach to the Third World. Australia places a high priority on its participation in the resolution of these global issues in the United Nations, the Commonwealth and other multilateral forums.

The Great Powers

The close and extensive relations with the United States are a reflection of the common interests, values and outlook of the two countries. This partnership finds expression in the ANZUS Treaty, signed by Australia, New Zealand and the United States in 1951. Numerous other contacts also exist, both government and private.

Australia attaches importance to its relations with the Soviet Union, and is working to develop improved co-operation, particularly in the trade, scientific and cultural fields, in which agreements have been signed between the two countries.

Since the establishment of diplomatic relations with China in 1972, links have been steadily strengthened. Cultural and trade relations have developed, as have consultations on international issues of mutual concern. There is a growing number of visits between the two countries.

Australia gives high priority to developing and strengthening its relations with Japan, both bilaterally and in international forums. The two nations have become increasingly interdependent in economic terms: Japan is Australia's biggest trading partner and Australia is a major export market for Japan. Cultural ties are being developed in conformity with the Cultural Agreement between the two countries.

Asia

Australia believes that peace and prosperity in Asia depend largely on the ability of countries in the region to co-operate to secure these objectives and in ensuring that no major power, either inside or outside the region, is able to exert an undue influence in the area.

Australia's primary interest and concern in Asia has long been reflected in its active role in regional associations and organisations such as the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), the Colombo Plan, the Asian Development Bank and in many other bodies, both private and government.

Australia welcomes the progress achieved by ASEAN, which it considers a successful example of regional co-operation. Australia has a significant interest in helping to ensure that ASEAN succeeds in generating economic growth and political stability, and strongly supports ASEAN's objective of preventing domination of the region by any major power. Australia has entered a program of economic co-operation with ASEAN to which it has pledged a total of \$A15 million. Australia is developing its relations with Vietnam and Laos and gives a modest amount of aid to each.

Australia places great value on cordial and close relations with Indonesia. While the two countries have differed over East Timor, efforts have been made to ensure that such differences do not affect the broader relationship.

Australia recognises the importance of the Indian sub-continent and has friendly relations with the countries of that region.

South 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 was a foundation member of the South Pacific Commission, the South Pacific Forum and the South Pacific Bureau for Economic Co-operation. Matters of common interest are regularly discussed with Australia's Pacific partners.

In important developments in the South Pacific relating to law of the sea and fisheries, Australia is co-operating in efforts by countries of the region to secure the maximum benefits from marine resources. Australia has established a fund to contribute significantly to the preservation and development of Pacific cultures.

Papua New Guinea, Australia's nearest neighbour and former territory, attained independence on 16 September 1975. It continues to be given the highest priority in bilateral relations. Australia has pledged a minimum of \$A900 million in aid to Papua New Guinea over the five years beginning in 1976, with additional annual supplements—amounting by 1978 to a further \$A65 million.

Australia maintains very close links with New Zealand across a broad range of areas, including defence, trade and South Pacific matters. An Australia-New Zealand Foundation has been established to further develop the relationship.

Western Europe

Australia attached importance to maintaining friendly relations with the European Communities (EC) and its members, but recently concern has increased at the growing imbalance of trading opportunities which has unduly restricted the access of important Australian agricultural products to EC markets. Action has been taken to try to improve this situation. Bilateral relations with individual European countries continue to be important. With Britain in particular these are based on a close historical relationship, but links with other major European countries—many of whose nationals have emigrated to Australia in the past thirty years—embrace a wide range of interests.

Australia's membership of the Organisation for Economic Co-operation and Development enables Australia to participate in consultation on a wide range of issues with countries experiencing similar social and economic circumstances.

Indian Ocean

Australia is concerned that the Indian Ocean should not become a major area of superpower competition, and it believes that there should be a balance in their capabilities in the region at the lowest practicable level. Discussions between the United States and the Soviet Union on mutual arms limitation in the Indian Ocean began in 1977. Australia has taken a close interest in these talks, aimed at an agreement that would enhance the security of the ANZUS partners and all countries in the Indian Ocean region.

Other countries

Australia recognises the need to develop relations with other parts of the world and has in recent years increased its diplomatic representation in the Middle East, Africa, the Caribbean, Eastern Europe, and Latin America. Development of relations in these regions reflects several common interests, including the role of middle powers and resources policies.

North/South relations

Australia seeks to play a constructive role in the dialogue between developed and developing countries. Proposals cover a range of possible initiatives designed to help more rapid growth in developing countries and a greater harmony of interests in a world where economic interdependence is increasingly important. Australia has some interests in common with both the developed and developing groups of countries.

United Nations

Australia helped to draft the United Nations Charter in 1945, and has been a consistent supporter of the United Nations principles and objectives since its foundation. Besides participating each year in the General Assembly, Australia has served on the security Council and on other United Nations bodies (*see Year Book Australia* No. 62, p. 90).

Australia has supported decolonisation and is a member of the Special Committee on Decolonisation (the Committee of 24) and of the Council for Namibia.

Australia has been involved in almost all United Nations peacekeeping activities since these began (see Year Book Australia No. 62, p. 90). Australia has contributed its assessed share of the costs of all United Nations operations and also makes voluntary contributions as well as providing men and equipment.

The Commonwealth

The Commonwealth is a distinctive and unique framework bringing together about a quarter of the world's population. Australia participates in Commonwealth activities and was host to the first regional heads of government meeting, in Sydney in February 1978.

Nuclear issues

Underlying Australia's general stance on nuclear issues is a policy of encouraging universal adherence to the Nuclear Non-Proliferation Treaty (NPT), which Australia ratified in 1973. In 1977 the Government announced the nuclear safeguards policy for exports of uranium under new contracts. The policy is based on the NPT, International Atomic Energy Agency safeguards, bilateral agreements with uranium-importing countries incorporating Australian safeguards conditions, and support for constructive non-proliferation initiatives. Safeguards agreements were signed with Finland and the Philippines in July and August 1978 respectively.

Australia is participating in the two-year International Nuclear Fuel Cycle Evaluation study (initiated in 1977) to examine ways in which nuclear energy could help to meet world energy needs consistent with nuclear non-proliferation objectives. Australia is also a member of the Committee on Disarmament, which was established in September 1978.

Law of the Sea

Australia is participating in the Law of the Sea Conference, the largest and potentially most important conference in the history of the United Nations, involving major strategic, economic, transport, scientific and environmental issues. Such issues, including freedom of navigation and rights of passage through straits and archipelagoes, are essential for the trade and commerce of a country like Australia. The Conference will also make decisions on matters relating to the extent of Australian sovereignty over offshore mineral resources and its control of offshore fisheries.

Antarctica

Australia, with a long record of Antarctic activity and as the sovereign power in the Australian Antarctic Territory, has a special interest in the development of Antarctic resources regimes that fully reflect its strong conservation concerns. In March 1978 Australia hosted in Canberra the first session of a diplomatic conference to draft a convention for the conservation of Antarctic marine living resources.

Consular activities

Australia has obligations under international convention and practice to provide consular assistance to Australians overseas. More than one million Australians a year travel abroad, and the Department issued 367,000 new passports in 1977.

The increasing number of Australians in difficulties overseas include growing numbers accused of drug offences.

Treaties

The bilateral and multilateral agreements to which Australia is party are recorded in the Australian Treaty List and the texts are printed in the Australian Treaty Series. Details may be obtained from the Department of Foreign Affairs, Canberra, A.C.T. 2600.

Australia's official development assistance to less-developed countries

Since 1945, Australia has spent over \$3,796 million on aid. In the last decade, official development assistance has almost trebled from \$141 million in 1967-68 to \$418 million in 1977-78. For 1978-79 it is expected to reach \$455 million. This represents an expenditure of about \$30 per head of population in Australia.

Australia's aid to less-developed countries was 0.47 per cent of GNP in 1977-78.

The table below shows Australia's official development assistance during the years 1974-75 to 1977-78 and total post-war expenditure to 1977-78.

AUSTRALIA'S OFFICIAL DEVELOPMENT ASSISTANCE TO LESS-DEVELOPED COUNTRIES
(S'000)

| Scheme | 1974-75 | 1975-76 | 1976-77 | 1977-78 | Total |
|--|----------------|----------------|----------------|----------------|--------------------|
| | | | | | 1945-46 to 1977-78 |
| BILATERAL AID— | | | | | |
| AID TO PAPUA NEW GUINEA | 168,835 | 211,930 | 226,377 | 219,441 | 2,342,489 |
| REST OF THE WORLD— | | | | | |
| Projects, Technical Co-operation and Related Activities— | | | | | |
| Colombo Plan and other Bilateral Programs | 45,077 | 44,843 | 52,115 | 71,005 | 500,479 |
| Training— | | | | | |
| Colombo Plan and other Bilateral Programs | 8,685 | 9,120 | 10,329 | 10,660 | 111,974 |
| Commonwealth Co-operation in Education Scheme | 1,137 | 1,159 | 1,153 | 1,241 | 13,026 |
| Australian-Asian University Co-operation Scheme | 332 | 518 | 573 | 741 | 3,090 |
| International Training Institute | — | 102 | 168 | 540 | 810 |
| Training Services and Student Welfare | 747 | 1,217 | 1,250 | 1,439 | 4,653 |
| Bilateral Food Aid | 48,908 | 31,274 | 24,743 | 28,192 | 258,602 |
| Other Bilateral Assistance— | | | | | |
| Assistance to Non-Government Organisations | 437 | 540 | 650 | 1,625 | 3,389 |
| Preservation and Development of South Pacific Cultures | 50 | 50 | 100 | 100 | 300 |
| Disaster Relief | 400 | 50 | 844 | 544 | 3,500 |
| International Committee of the Red Cross | — | — | — | (a) 97 | (a) 97 |
| International Union for the Scientific Study of Population | — | — | — | (a) 24 | (a) 24 |
| International Planned Parenthood Federation | — | — | — | (a) 180 | (a) 180 |
| Association of South-East Asian Nations, Economic Co-operation | — | — | — | (a) 1,452 | (a) 1,452 |
| Regional Education and Training Projects | — | — | — | (a) 2,004 | (a) 2,004 |
| Emergency Relief | — | 317 | 250 | — | 567 |
| Refugee Relief | 149 | — | — | — | 3,630 |
| Indus Basin Development Fund | 2,840 | — | — | — | 23,268 |
| Foreign Exchange Operation/Support Fund | 320 | 633 | — | — | 8,665 |
| Tarbela Dam | — | 1,000 | — | — | 1,000 |
| Loan to Fiji for Suva-Nadi Highway | — | 615 | — | — | 615 |
| Loan to Fiji for Air Pacific | 658 | — | — | — | 658 |
| Special Aid | — | 81 | — | — | 6,391 |
| Miscellaneous Aid | — | — | — | — | 174 |
| Total bilateral aid | 278,575 | 303,449 | 318,552 | 339,285 | 3,291,037 |

For footnotes see end of table

AUSTRALIA'S OFFICIAL DEVELOPMENT ASSISTANCE TO LESS-DEVELOPED COUNTRIES—*continued*
(\$'000)

| <i>Scheme</i> | <i>1974-75</i> | <i>1975-76</i> | <i>1976-77</i> | <i>1977-78</i> | <i>Total 1945-46 to 1977-78</i> |
|--|----------------|----------------|----------------|----------------|---|
| MULTILATERAL AID— | | | | | |
| FINANCIAL INSTITUTIONS— | | | | | |
| International Development Association | 15,314 | 21,249 | 21,040 | 22,236 | 134,839 |
| Asian Development Bank— | | | | | |
| Ordinary funds | 8,844 | 4,268 | 5,601 | 20,308 | 65,217 |
| Special funds | 1,971 | 708 | 8,018 | 4,347 | 18,106 |
| International Bank for Reconstruction and Development | 588 | 622 | 4,604 | 622 | 54,025 |
| International Finance Corporation | — | — | — | — | 1,996 |
| Total | 26,717 | 26,847 | 39,263 | 47,513 | 274,183 |
| Less Maintenance of value repayments | 706 | 1,801 | — | — | 3,609 |
| Total Financial Institutions | 26,011 | 25,046 | 39,263 | 47,513 | 270,574 |
| CONTRIBUTIONS TO UN AGENCIES AND FUNDS— | | | | | |
| United Nations Relief and Rehabilitation Administration(a) | — | — | — | — | 49,586 |
| United Nations Development Programs(b) | 2,525 | 2,853 | 3,592 | 5,510 | 36,759 |
| World Food Program | 2,052 | 4,174 | 3,194 | 7,200 | 26,379 |
| United Nations International Children's Emergency Fund | 779 | 934 | 1,100 | 1,500 | 22,444 |
| United Nations High Commissioner for Refugees | 258 | 350 | 420 | 2,926 | 6,768 |
| International Refugee Organisation | — | — | — | — | 6,594 |
| Food and Agricultural Organisation International Fertilizer Supply Scheme | 4,449 | 1,530 | 500 | — | 6,479 |
| United Nations Relief and Works Agency | 234 | 285 | 340 | 381 | 5,987 |
| United Nations Korean Reconstruction Agency | — | — | — | — | 3,598 |
| United Nations High Commissioner for Refugees—Indo-China Relief | 3,476 | — | — | — | 3,476 |
| United Nations Special Program | 3,283 | — | — | — | 3,283 |
| United Nations Environment Fund | 373 | 398 | 459 | 441 | 2,360 |
| United Nations Fund for Population Activities | 285 | 322 | 390 | 578 | 1,900 |
| United Nations Fund for the Congo | — | — | — | — | 670 |
| International Committee for European Migration—Far East Refugees | — | — | — | — | 530 |
| United Nations International Children's Emergency Fund—Indo-China(c) | 400 | — | — | — | 500 |
| United Nations Fund for Drug Abuse Control | 70 | 79 | 91 | 88 | 434 |
| International Atomic Energy Agency—technical assistance | 50 | 60 | 78 | 108 | 386 |
| World Weather Watch | 12 | 15 | 18 | 19 | 244 |
| United Nations Educational, Scientific and Cultural Organisation Fund for Restoration of Borobudur | 39 | 40 | 40 | 40 | 197 |
| Humanitarian Assistance to National Liberation Movements in Africa | 150 | — | — | — | 150 |
| United Nations Institute for Training and Research | 20 | 24 | 29 | 32 | 115 |
| United Nations Educational and Training Programs for Southern Africa | 20 | 20 | 20 | 30 | 115 |
| World Refugee Year | — | — | — | — | 100 |
| World Health Organisation—Malaria Program | — | — | — | — | 96 |
| United Nations Fund for Namibia | 10 | 25 | 25 | 25 | 95 |
| United Nations Disaster Relief Office | — | — | — | 94 | 94 |

For footnotes see end of table.

AUSTRALIA'S OFFICIAL DEVELOPMENT ASSISTANCE TO LESS-DEVELOPED COUNTRIES—*continued*
(S'000)

| <i>Scheme</i> | <i>1974-75</i> | <i>1975-76</i> | <i>1976-77</i> | <i>1977-78</i> | <i>Total 1945-46 to 1977-78</i> |
|---|----------------|----------------|----------------|----------------|---|
| MULTILATERAL AID—<i>continued</i> | | | | | |
| CONTRIBUTIONS TO UN AGENCIES AND FUNDS—<i>continued</i> | | | | | |
| United Nations Trust Fund for South Africa | 10 | 15 | 15 | 20 | 70 |
| United Nations Educational, Scientific and Cultural Organisation Fund for the Restoration of Moen- jodaro | - | 50 | - | - | 50 |
| Australian Committee for International Refugee Campaign | - | - | - | - | 50 |
| International Trade Centre | - | - | - | - | 36 |
| World Health Organization—Smallpox Eradication Campaign | 25 | - | - | - | 25 |
| Food and Agriculture Organisation— Freedom from Hunger Campaign | - | - | - | - | 16 |
| Fisheries Development Research Centre | 4 | - | - | - | 4 |
| Total Contributions to UN Agencies and Funds | 18,524 | 11,174 | 10,311 | 18,992 | 179,590 |
| CONTRIBUTIONS TO REGULAR BUDGETS OF MULTILA- TERAL AGENCIES PARTLY ACTIVE IN DEVELOPMENT | | | | | |
| <i>(b)–</i> | | | | | |
| World Health Organization | 543 | 671 | 853 | 1,052 | 8,639 |
| United Nations Organisation | 177 | 232 | 290 | 345 | 3,107 |
| United Nations Educational, Scientific and Cultural Organisation | 104 | 124 | 170 | 232 | 1,651 |
| Food and Agriculture Organisation | 62 | 88 | 117 | 139 | 1,108 |
| International Labour Organisation | 55 | 94 | 100 | 105 | 997 |
| General Agreement on Tariffs and Trade | 36 | 49 | 61 | 71 | 656 |
| United Nations Emergency Force, Middle East | 65 | 71 | 93 | 86 | 545 |
| United Nations Force in Congo | - | - | - | - | 297 |
| United Nations Peacekeeping Force, Cyprus | 5 | 5 | 5 | 6 | 123 |
| United Nations Interim Force, Lebanon | - | - | - | 50 | 50 |
| World Meteorological Organisation | 4 | 5 | 7 | 6 | 46 |
| Total Contributions to Regular Budgets, etc. | 1,051 | 1,339 | 1,696 | 2,092 | 17,219 |
| CONTRIBUTIONS TO OTHER AGENCIES— | | | | | |
| South Pacific Commission | 692 | 784 | 858 | 950 | 8,439 |
| Agricultural Research Centres | 1,121 | 1,718 | 2,012 | 2,688 | 8,299 |
| Commonwealth Fund for Technical Co-operation | 600 | 700 | 830 | 1,200 | 3,685 |
| International Monetary Fund—Oil Facility Interest Subsidy Account | - | - | 1,142 | 2,501 | 3,643 |
| ASEAN Economic Co-operation | 38 | 741 | 1,020 | (c) | (c) 1,799 |
| Regional Education and Training Projects | 43 | 578 | 1,130 | (c) | (c) 1,754 |
| Economic and Social Commission for Asia and the Pacific | 83 | 185 | 499 | 685 | 1,502 |
| South Pacific Regional Programs | - | - | 98 | 975 | 1,073 |
| South Pacific Bureau of Economic Co-operation | 85 | 454 | 108 | 162 | 926 |
| South Pacific Air Transport Council | 178 | 110 | 127 | - | 805 |
| International Fund for Agricultural Development | - | - | - | 784 | 784 |
| Red Cross to Indo-China | 500 | - | - | - | 776 |
| International Planned Parenthood Federation | 164 | 180 | 180 | (c) | (c) 699 |
| South East Asian Ministers of Education Organisation | 167 | 97 | 100 | 120 | 556 |
| International Committee of the Red Cross | 33 | 43 | 50 | (c) | (c) 444 |
| Registry of Scientific and Technical Services | 60 | - | - | - | 437 |
| Commonwealth Youth Program | 60 | 60 | 60 | 60 | 299 |
| Asian and Pacific Council Cultural and Social Centre Korea Contribution | - | - | - | - | 239 |
| Special Commonwealth Program for Assisting the Education of Rhodesian Africans | 45 | 50 | 50 | 50 | 225 |

For footnotes see end of table

AUSTRALIA'S OFFICIAL DEVELOPMENT ASSISTANCE TO LESS-DEVELOPED COUNTRIES—continued
(S'000)

| <i>Scheme</i> | <i>1974-75</i> | <i>1975-76</i> | <i>1976-77</i> | <i>1977-78</i> | <i>Total 1945-46 to 1977-78</i> |
|---|----------------|----------------|----------------|----------------|---|
| MULTILATERAL AID—continued | | | | | |
| CONTRIBUTIONS TO OTHER AGENCIES—continued | | | | | |
| Indo-Pacific Fisheries Council | - | 64 | 57 | 62 | 183 |
| Asian and Pacific Council—Food and Fertiliser Technology Centre | - | - | - | - | 88 |
| International Union for the Scientific Study of Population | 20 | 25 | 25 | (c) | (c)80 |
| Population Program of the OECD Development Centre | 17 | 20 | - | - | 54 |
| Eastern Regional Organisations of Public Administration | 1 | 2 | 2 | 3 | 33 |
| Middle East Red Cross | - | - | - | - | 25 |
| World Population Conference | 21 | - | - | - | 21 |
| Other regional and international programs | 54 | 78 | 124 | 375 | 1,101 |
| Total Contributions to Other Agencies | 3,982 | 5,889 | 8,472 | 10,615 | 37,969 |
| Total multilateral aid | 49,568 | 43,448 | 59,742 | 79,212 | 505,352 |
| Total official development assistance | 328,143 | 346,897 | 378,294 | 418,497 | 3,796,389 |

(a) Classified as multilateral aid prior to 1977-78. (b) The development content is calculated by applying to the contribution of each agency the percentages set out in the Development Assistance Committee Statistical Reporting Directives. (c) Classified in 1977-78 as bilateral aid.

Almost two-thirds of Australia's aid goes to Papua New Guinea. The remainder is channelled through multilateral programs (e.g. the UN agencies and the Asian Development Bank) and through Australia's bilateral programs. The following table sets out the countries which receive bilateral aid from Australia in excess of \$200,000 in either 1976-77 or 1977-78.

AUSTRALIA'S BILATERAL AID BY GEOGRAPHICAL REGION AND COUNTRY(a)
(S'000)

| <i>Country</i> | <i>1976-77</i> | <i>1977-78</i> | <i>Country</i> | <i>1976-77</i> | <i>1977-78</i> |
|---------------------------------|----------------|----------------|-------------------------------|----------------|----------------|
| ASIA— | | | | | |
| Afghanistan | 497 | 914 | Tuvalu | 35 | 359 |
| Bangladesh | 9,088 | 11,732 | Western Samoa | 3,976 | 3,801 |
| Burma | 2,314 | 3,387 | Other | 554 | 1,367 |
| India | 7,299 | 2,388 | Total Oceania | 238,949 | 237,572 |
| Indonesia | 22,525 | 28,274 | AFRICA— | | |
| Korea, Republic of | 717 | 460 | Egypt | 12 | 2,327 |
| Laos | 1,369 | 1,546 | Ethiopia | 743 | 82 |
| Lebanon | 392 | 370 | Ghana | 829 | 1,485 |
| Malaysia | 3,551 | 5,902 | Kenya | 1,404 | 1,516 |
| Maldives, Republic of | 169 | 231 | Mauritius | 638 | 628 |
| Nepal | 512 | 703 | Mozambique | 991 | 2 |
| Pakistan | 4,258 | 3,250 | Nigeria | 147 | 221 |
| Philippines | 6,073 | 6,452 | Sahelian Zone | - | 1,467 |
| Singapore | 1,067 | 922 | Seychelles | 242 | 456 |
| Sri Lanka | 2,306 | 4,658 | Sudan | 35 | 619 |
| Thailand | 6,069 | 9,723 | Tanzania | 1,437 | 2,322 |
| Vietnam | 2,522 | 4,394 | Zambia | 80 | 420 |
| Other | 1,117 | 2,798 | Other | 664 | 1,114 |
| Total Asia | 71,845 | 88,104 | Total Africa | 7,222 | 12,659 |
| OCEANIA— | | | | | |
| Cook Islands | 173 | 299 | EUROPE— | | |
| Fiji | 4,292 | 6,199 | Total | 168 | 40 |
| Gilbert Islands | 260 | 1,479 | AMERICA— | | |
| New Hebrides | 659 | 814 | Total | 222 | 368 |
| Papua New Guinea | 226,377 | 219,441 | UNSPECIFIED— | | |
| Solomon Islands | 1,555 | 1,710 | Total | 146 | 542 |
| Tonga | 1,068 | 2,103 | Total bilateral aid | 318,552 | 339,285 |

Bilateral aid is channelled through a number of programs through which Australia assists with various developmental projects including the provision of experts and equipment, balance of payments support and training of students.

The following table sets out the number of students who have been trained in Australia under the aid programs.

PERSONS FROM LESS-DEVELOPED COUNTRIES FINANCED BY AND TRAINED IN AUSTRALIA
(Number)

| <i>Scheme</i> | <i>Cumulative total at 30 June 1978</i> | <i>Total in training at 30 June 1978</i> | <i>Number of new awards 1977-78</i> |
|---|---|--|---|
| Association of South East Asian Nations | 27 | 1 | 1 |
| Australian/Asian University Co-operation Scheme | 130 | 41 | 23 |
| Australian International Awards Scheme(a) | 292 | 59 | 51 |
| Australia Papua New Guinea Education and Training Scheme(b) | 3,240 | 156 | 333 |
| Colombo Plan | 17,741 | 1,218 | 846 |
| Commonwealth Co-operation in Education Scheme | 2,028 | 173 | 102 |
| Special Commonwealth African Assistance Plan | 1,792 | 153 | 189 |
| South East Asia Treaty Organisation | 86 | - | - |
| South Pacific Aid Program | 1,045 | 86 | 141 |
| South East Asian Ministers of Education Organisation | 11 | 3 | 3 |
| Total | 26,392 | 1,890 | 1,689 |

(a) Includes South-East Asian Scholarship Scheme.

(b) Includes persons trained at International Training Institute (formerly Australian School of Pacific Administration) and also the Commonwealth Practical Training Scheme.

Diplomatic representation overseas

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 September 1978 Australia maintained the following diplomatic and consular missions overseas. Full details of these missions are available from the Department of Foreign Affairs, Canberra, A.C.T. 2600.

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 (in Pakistan); Algeria; Argentina; Austria; Belgium; Bolivia (in Chile); Brazil; Bulgaria (in Yugoslavia); Burma; Chile; China; Colombia (in Peru); Costa Rica (in Mexico); Czechoslovakia (in Poland); Denmark; Egypt; Ecuador (in Peru); Ethiopia (in Kenya); Finland (in Sweden); France; German Democratic Republic; Germany, Federal Republic of; Greece; Guatemala (in Mexico); Holy See (in Malta); Hungary (in Austria); Indonesia; Iran; Iraq; Ireland; Israel; Italy; Ivory Coast (in Ghana); Japan; Jordan; Republic of Korea; Kuwait; Laos; Lebanon; Libya; Luxembourg (in Belgium); Malagasy Republic (in Tanzania); Maldives (in Sri Lanka); Mexico; Mongolia (in U.S.S.R.); Nepal (in India); Netherlands; Norway (in Sweden); Pakistan; Panama (in Mexico); Paraguay (in Argentina); Peru; Philippines; Poland; Portugal; Romania (in Yugoslavia); Saudi Arabia; Senegal (in Ghana); South Africa; Spain; Sudan (in Egypt); Sweden; Switzerland; Syria; Thailand; Tunisia (in Algeria); Turkey; Union of Soviet Socialist Republics; United Arab Emirates (in Saudi Arabia); United States of America; Uruguay (in Argentina); Venezuela (in Peru); Vietnam; Yugoslavia.

High Commissions

Bangladesh; Bahamas (in Jamaica); Barbados (in Jamaica); Botswana (in South Africa); Britain; Canada; Cyprus; Fiji; Ghana; Grenada (in Jamaica); Guyana (in Jamaica); India; Jamaica; Kenya; Lesotho (in South Africa); Malaysia; Malta; Mauritius (in Tanzania); Nauru; New Zealand; Nigeria; Papua New Guinea; Seychelles (in Kenya); Singapore;

Solomon Islands; Sri Lanka; Swaziland (in South Africa); Tanzania; Tonga (in Fiji); Trinidad and Tobago (in Jamaica); Uganda (in Kenya); Western Samoa; Zambia (in Tanzania).

Commissions

Hong Kong.

Other

Mission to—European Communities (Brussels); United Nations (New York); United Nations (Geneva); United Nations Educational, Scientific and Cultural Organisation (Paris); Organisation for Economic Co-operation and Development (Paris); United Nations Industrial Development Organisation (Vienna); Australian Delegation to Multilateral Trade Negotiations (Geneva).

Consulate-General in—New York; San Francisco; Chicago; Los Angeles; Honolulu; Lae; Hamburg; Osaka; Milan; Karachi; Bahrain; Sao Paulo; Auckland; Christchurch; Manchester; Port of Spain; Toronto; Vancouver; Bombay.

Consulate in—Geneva; Noumea; Capetown; Vila; Rio de Janeiro; Edinburgh; Messina.

Specialist officers of the Department of Trade and Resources (formerly 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 Trade and Resources maintains Trade Commissioner posts which engage in trade promotion in a number of cities where Australia does not have diplomatic or consular representation (*see* Chapter 24). The Department of Immigration and Ethnic Affairs similarly maintains offices overseas which engage in the selection of migrants and other functions appropriate to that Department.

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.

Diplomatic representation to Australia

The following list shows the diplomatic missions to Australia. Full details of Commonwealth and foreign representation in Australia are available from the Department of Foreign Affairs, Canberra, A.C.T. 2600. Consular representatives are not included; particulars of these are also available from the Department of Foreign Affairs. There are about 400 such representatives in Australia, representing about seventy countries.

Embassies

Afghanistan (in Japan); Argentina; Austria; Belgium; Bolivia; Brazil; Bulgaria (in Indonesia); Burma; Chile; China; Czechoslovakia (in Indonesia); Denmark; Egypt; Finland; France; German Democratic Republic; Germany, Federal Republic of; Greece; Guatemala (in Japan); Holy See; Hungary (in Indonesia); Indonesia; Iran; Iraq (in Indonesia); Ireland; Israel; Italy; Japan; Jordan; Republic of Korea; Kuwait (in Japan); Laos; Lebanon; Mexico; Mongolia (in Japan); Nepal (in Japan); Netherlands; Norway; Pakistan; Peru; Philippines; Poland; Portugal; Romania; Senegal (in India); South Africa; Spain; Sweden; Switzerland; Thailand; Turkey; Union of Soviet Socialist Republics; United States of America; Uruguay; Venezuela; Vietnam; Yugoslavia.

High Commissions

Bangladesh; Britain; Canada; Cyprus; Fiji; Ghana; India; Malaysia; Malta; Mauritius; New Zealand; Nigeria; Papua New Guinea; Singapore; Sri Lanka.

CHAPTER 6

DEMOGRAPHY

This chapter deals with the size, growth, geographic location and characteristics of the population and with components of population change, namely births, deaths, marriage, divorce and migration.

The sources of the statistics in this chapter are population censuses, population surveys, State and Territorial registers of births, deaths and marriages, records of courts dealing with divorce, and other administrative records such as passenger cards required from international travellers and records of electoral roll and family allowance transfers.

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 Aboriginals in reckoning the numbers of the people of the Commonwealth or of a State or other part of the Commonwealth was repealed. Accordingly, population and vital statistics for all dates subsequent to 10 August 1967 no longer exclude full-blood Aboriginals. Also, estimates for periods back to 30 June 1961 have been revised to include Aboriginals.

A list of publications of the Australian Bureau of Statistics which contain detailed population statistics is given at the end of this chapter.

THE POPULATION

The population census

Basic enumerations of the population have been made since the early days of settlement in Australia. The early enumerations were known as 'musters'. A census conducted in New South Wales in 1828 became the first in a series of regular censuses in that colony. Periodic censuses were taken in the other Australian colonies. The first simultaneous censuses of all the Australian colonies was taken in 1881. The first national census was taken in 1911. It was followed by others in 1921, 1933, 1947, 1954, 1961 and at five yearly intervals thereafter. A special article on early censuses appears in Year Book No. 15 of 1922. A special article outlining the history, purposes, legal basis, organisation and publication of results of population censuses appears in Year Book No. 53 of 1967, pp 164-170.

Every census from 1881 has inquired into age, sex, marital status, birthplace, nationality, citizenship and occupation. A wide variety of other topics has been included from time to time.

The most recent census in Australia was conducted on 30 June 1976. In addition to the basic demographic topics mentioned above, questions were asked on income (included for the first time since 1933); the effects of handicaps; child care arrangements; and mortgage repayments. This Year Book contains data based on preliminary processing of age, marital status, place of birth (Australia or overseas) only because the main processing of the census data was delayed for 12 months following government decisions on financial restraint. To effect further savings, the Government decided to process only a sample of the schedules at the main processing stage. The sample included all the schedules from the Northern Territory and from non-private dwellings (e.g. hotels, hospitals, jails), together with 60 per cent of the remaining householders' schedules.

The population census in Australia is *de facto*, i.e. persons are enumerated where they spend census night even though that may not be where they usually live. Visitors to Australia are enumerated if they are in Australia on census night, regardless of the duration of their stay. Foreign diplomatic personnel and their families resident in Australia, and Australians out of the country are excluded.

Despite elaborate arrangements aimed at obtaining complete coverage, it is not possible to ensure that a census schedule is returned for every individual. Some error inevitably remains for various reasons (e.g. inadvertent omission of very young children, missed dwellings or occupied dwellings mistakenly taken as unoccupied). Since 1966, sample surveys have been taken soon after each census to discover the approximate extent of under-enumeration and the effects on the census results of mis-statement or non-reply to specific questions. From these studies it appears that under-enumeration has increased over the most recent censuses. Under-enumeration of the population of Australia at the 1976 census is estimated to have been 2.7 per cent. Estimated under-enumeration of State populations is shown in *Population of States and Territories Adjusted for Under-Enumeration*

as shown by *Post-Enumeration Survey* (2409.0). Under-enumeration varies from location to location and for populations of different ages and other characteristics. These and similar problems are common to all population censuses and, although under-enumeration has increased in Australia since the 1971 census, it is of a similar order to that experienced by comparable countries.

Population estimates

The census enumeration, adjusted for under-enumeration, forms the basis for quarterly estimates of the population prepared by sex and State. These are calculated by updating for subsequent births and deaths and for overseas and interstate migration. Age estimates are prepared annually for each State and Territory. Small area estimates are also made annually.

From 1976, and retrospectively to June 1971, the overseas migration component is defined as the excess of arrivals over departures of permanent and long-term movements. Long-term includes visits to or absences from Australia lasting one year or longer. Previously, all overseas movement was included. Since 1961, interstate movement which enters the calculation of population estimates for the States and Territories has excluded holiday, business or other short term movements. Thus, quarterly changes due to short term overseas movement are reflected in Australian and State population figures prior to 1971 but not thereafter, and quarterly movements due to interstate travel are reflected in population figures prior to 1961 but not thereafter.

Estimates of the population as at 30 June 1971 and 30 June 1976 are based on the population as counted at the time of those censuses with an adjustment for under-enumeration. The estimate of the population as at 30 June 1971 is 12,937.2 thousand compared with the counted population of 12,755.6 thousand. The population as at 30 June 1977 is estimated at 14,074.1 thousand. While adjustments have been made to the estimates of the age and sex of the population of each State and of the population of each local government area, it is not possible to adjust all the statistical material derived from the census.

The quarterly estimates from June 1971 to June 1976 have also been revised to take into account the 1976 census and to allow for under-enumeration at that and the preceding census.

Mean populations, by sex, are calculated for calendar and financial years to the formula—

$$\text{Mean population} = \frac{a + 4b + 2c + 4d + e}{12}$$

where *a* is the population at the end of the quarter immediately preceding the twelve month period, and *b*, *c*, *d* and *e* are the populations at the end of each of the four succeeding quarters. Mean populations are used in the calculation of crude rates.

Size and growth of Australia's population

When Europeans first settled in Australia, the Aboriginal population is believed to have been at least 300,000. The Aboriginal population suffered a drastic decline in numbers over the next 145 years so that by 1933 it is estimated to have totalled about 67,000. It has since risen (to about 116,000 in 1971), and the current rate of growth exceeds 2 per cent a year.

The population of Australia reached 1 million in 1858, 5 million in 1918 and 14 million early in 1977.

From 1861 natural increase has been the major element in population growth, and immigration the most variable. In the years 1861 to 1890, total growth on average exceeded 3 per cent a year and natural increase 2 per cent. The rate of natural increase declined during the last decade of the nineteenth century and the first decade of the twentieth century, and this, together with a near cessation of immigration during that period, reduced the rate of growth from 3.70 per cent in 1861-70 to 1.63 per cent in 1901-10.

The 1914-18 war was the dominating influence in the decade 1911-1920: during the war and immediate post-war years the birth rate rose and immigration was resumed. In the economic depression of the 1930s, however, natural increase fell to its lowest level ever and immigration ceased; indeed, in some years, overseas departures exceeded arrivals.

With the outbreak of the 1939-45 war, Australia entered a new phase. The immediate effect of the war was to increase the number of marriages and births. The increasing births more than offset the rise in deaths due to war casualties and higher civilian death rates. Migration in 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.

Between 1961 and 1970, net migration continued at about the same level as in the previous decade, but there were declines in the crude birth rate and the rate of natural increase. The years since 1971 have been characterised by a reduced rate of natural increase due to a decline in the birth rate and lower levels of net migration; together, these have resulted in the lowest rate of population growth for 30 years. In 1977, the rate of growth was 1.23 per cent, of which 0.84 per cent was due to natural increase and 0.39 per cent to net migration. A preliminary estimate of the total population of Australia at 30 June 1978 is 14,248,500. The estimates in the following table relate to the end of December. Estimates for the end of June are given in other tables.

POPULATION AND COMPONENTS OF GROWTH

| Period | Population at end of period ('000) (a) | Average annual rate of growth (b) (per cent) | | |
|---------------------|--|--|-------------------|-------|
| | | Natural increase | Net migration (c) | Total |
| 1851-1860 | 1,145.6 | | | |
| 1861-1870 | 1,647.8 | 2.47 | 1.23 | 3.70 |
| 1871-1880 | 2,231.5 | 2.07 | 1.01 | 3.08 |
| 1881-1890 | 3,151.4 | 2.05 | 1.46 | 3.51 |
| 1891-1900 | 3,765.3 | 1.73 | 0.07 | 1.80 |
| 1901-1910 | 4,425.1 | 1.53 | 0.10 | 1.63 |
| 1911-1920 | 5,411.3 | 1.60 | 0.43 | 2.03 |
| 1921-1930 | 6,500.8 | 1.32 | 0.53 | 1.85 |
| 1931-1940 | 7,077.6 | 0.79 | 0.05 | 0.85 |
| 1941-1950 | 8,307.5 | 1.13 | 0.47 | 1.61 |
| 1951-1955 | 9,311.8 | 1.38 | 0.95 | 2.31 |
| 1956-1960 | 10,391.9 | 1.40 | 0.83 | 2.22 |
| 1961-1965 | 11,505.4 | 1.27 | 0.74 | 1.98 |
| 1966-1970 | 12,663.5 | 1.11 | 0.91 | 1.94 |
| 1971-1975 | (d) 13,849.3 | 1.08 | 0.49 | 1.59 |
| 1971 | (d) 13,070.0 | 1.29 | 0.81 | 2.11 |
| 1972 | (d) 13,283.9 | 1.19 | 0.43 | 1.64 |
| 1973 | (d) 13,490.6 | 1.03 | 0.51 | 1.56 |
| 1974 | (d) 13,709.5 | 0.96 | 0.65 | 1.62 |
| 1975 | (d) 13,849.3 | 0.90 | 0.10 | 1.02 |
| 1976 | (d) 13,991.2 | 0.83 | 0.18 | 1.02 |
| 1977 | (d) 14,163.5 | 0.84 | 0.39 | 1.23 |

(a) Excludes full-blood Aborigines prior to 1961. (b) The average annual rates of population growth for periods greater than one year are calculated on the compound interest principle. The rates refer to the population at the beginning of the period. Discrepancies between the sum of the rate of growth due to natural increase and net migration and the rate of total growth are due to intercensal adjustment. (c) From 30 June 1971, net migration is defined as the excess of overseas arrivals over overseas departures classified as permanent and long term movement. (Long term includes visits to and absences from Australia lasting one year or longer.) From 30 June 1933 to 30 June 1971, net migration represents the excess of all arrivals over all departures. Prior to 30 June 1933, net migration includes discrepancies disclosed by the various censuses, which were corrected by adjusting recorded overseas departures. (d) These population estimates and rates of growth incorporate revisions resulting from an examination of evidence of under-enumeration in the 1976 and 1971 censuses. The estimated population at 31 December 1970 used to compute rates of growth thereafter was 12,799,600.

Projections of the population

Projections of Australia's population are made using the component method in which a base population is brought forward year by year by applying assumptions about future trends of fertility, mortality and the characteristics of overseas migration.

The projections given here cover the years to 2011 and are based on provisional estimates of the population for 1978. The assumptions used in the projections are as follows:

Fertility. Rates were chosen on the assumptions that first births will stabilise by about 1981 at a level somewhat lower than that experienced by recent generations of women; that the proportion of women with one child who will have a second child will remain more or less the same; and that the falling off in fertility rates among women who have 3 or more children will continue until 1984. The overall effect will be a further small decline of fertility followed by a rise to replacement level in 1984. Constant rates are assumed thereafter.

Mortality. It is assumed that the 1975-76 age specific mortality rates will apply for the duration of the projections except that infant mortality is assumed to continue to decline. It was assumed that the annual rate of improvement would decline by about one per cent per annum bringing the infant mortality rate to 7.7 for males and 6.0 for females in 2011.

Migration Net immigration has been projected at an illustrative level of 50,000 persons per year.

The age-sex composition is based on the pattern of permanent arrivals and departures in the 5 years 1972 to 1977.

According to these projections, the population will number 17.4 million in 2011 without further immigration and 19.6 million with net immigration at 50,000 persons a year, immigration having contributed 2.2 million to the growth of the population.

PROJECTED POPULATION OF AUSTRALIA: 1978 TO 2011

| 30 June— | Excluding migration after 30 June 1978 | Resulting from net immigration at the illustrative level of 50,000 persons a year after 30 June 1978 | Including net immigration at the illustrative level of 50,000 persons a year after 30 June 1978 |
|-----------------|--|---|--|
| | '000 | '000 | '000 |
| 1978p | 14,259.0 | .. | 14,259.0 |
| 1979 | 14,359.0 | 50.6 | 14,410.5 |
| 1980 | 14,460.8 | 102.4 | 14,563.1 |
| 1981 | 14,564.9 | 155.4 | 14,720.3 |
| 1986 | 15,154.7 | 440.9 | 15,595.6 |
| 1991 | 15,734.6 | 753.2 | 16,487.8 |
| 1996 | 16,262.4 | 1,085.0 | 17,347.4 |
| 2001 | 16,705.2 | 1,436.0 | 18,141.3 |
| 2006 | 17,058.1 | 1,809.2 | 18,867.3 |
| 2011 | 17,375.4 | 2,205.3 | 19,580.7 |

The average annual rate of growth will rise from 0.7 per cent to 0.8 per cent and will then decline to 0.4 per cent, if there is no further immigration. The birthrate on the assumptions used will rise from 16 per thousand to 17 per thousand and will then decline to 14 per thousand. The crude death rate will rise from 8 per thousand to 11 per thousand.

With immigration at 50,000 persons a year, the average annual rate of growth will fall from 1.1 per cent to 0.7 per cent. The crude birthrate will rise from 16 per thousand to 17 per thousand and will then fall to 15 per thousand. The death rate will rise from 8 per thousand to 10 per thousand.

PROJECTED AVERAGE ANNUAL RATES OF GROWTH (a), AUSTRALIA 1978 TO 2011 (per cent)

| | Excluding migration after 30 June 1978 | | | Including net immigration at the illustrative level of 50,000 persons a year after 30 June 1978 | | | | |
|-----------------|---|--------|-------------------|---|--------|---------------------|----------------------|-------------------|
| | Births | Deaths | Rate of growth | Births | Deaths | Natural increase | Net immi- gration | Rate of growth |
| 1978-81 . . . | 1.55 | 0.84 | 0.71 | 1.56 | 0.84 | 0.72 | 0.35 | 1.07 |
| 1981-86 . . . | 1.68 | 0.88 | 0.80 | 1.70 | 0.87 | 0.83 | 0.33 | 1.16 |
| 1986-91 . . . | 1.67 | 0.92 | 0.75 | 1.70 | 0.90 | 0.80 | 0.31 | 1.12 |
| 1991-96 . . . | 1.62 | 0.96 | 0.66 | 1.65 | 0.92 | 0.72 | 0.30 | 1.02 |
| 1996-2001 . . . | 1.53 | 0.99 | 0.54 | 1.56 | 0.95 | 0.61 | 0.28 | 0.90 |
| 2001-06 . . . | 1.44 | 1.02 | 0.42 | 1.49 | 0.97 | 0.51 | 0.27 | 0.79 |
| 2006-11 . . . | 1.42 | 1.06 | 0.37 | 1.48 | 1.00 | 0.48 | 0.26 | 0.74 |

(a) Calculated using the compound interest principle. The rates are split between the components of natural increase and net migration according to the relative size of each component.

The proportion of juveniles aged under 15 will fall from 26 per cent to 21 per cent without immigration or 22 per cent with immigration. The proportion of elderly aged 65 and over will rise from 9 per cent to 12 per cent without immigration or 11 per cent with immigration. The proportion of the population aged 15 to 64 will increase from 65 per cent to 67 per cent whether or not there is any further immigration.

PROJECTED AGE DISTRIBUTION AND MEDIAN AGE

| 30 June | <i>Excluding migration after 30 June 1978</i> | | | | <i>Including net immigration at illustrative level of 50,000 persons a year</i> | | | |
|---------|---|--------------|----------------------|-----------------------------------|---|--------------|----------------------|-----------------------------------|
| | <i>Age distribution (per cent)</i> | | | <i>Median age (years)</i> | <i>Age distribution (per cent)</i> | | | <i>Median age (years)</i> |
| | <i>0-14</i> | <i>15-64</i> | <i>65 & over</i> | | <i>0-14</i> | <i>15-64</i> | <i>65 & over</i> | |
| 1978 | 26.2 | 64.6 | 9.2 | 28.9 | 26.2 | 64.6 | 9.2 | 28.9 |
| 1981 | 25.0 | 65.4 | 9.7 | 29.8 | 25.0 | 65.4 | 9.6 | 29.7 |
| 1986 | 23.6 | 66.3 | 10.2 | 30.9 | 23.9 | 66.2 | 10.0 | 30.6 |
| 1991 | 22.9 | 66.3 | 10.8 | 32.0 | 23.4 | 66.2 | 10.5 | 31.6 |
| 1996 | 23.2 | 65.7 | 11.1 | 33.1 | 23.7 | 65.7 | 10.6 | 32.6 |
| 2001 | 22.7 | 66.3 | 11.0 | 34.1 | 23.2 | 66.4 | 10.4 | 33.3 |
| 2006 | 21.8 | 67.0 | 11.2 | 35.1 | 22.4 | 67.1 | 10.5 | 34.3 |
| 2011 | 21.1 | 67.1 | 11.9 | 36.0 | 21.8 | 67.3 | 11.0 | 34.8 |

Location of the population

For historical, climatic and economic reasons the population of Australia is concentrated in capital cities and other major towns, mainly on the south and east coast of the continent. In June 1977, 69.84 per cent of the population lived in the six State capital cities and five other major towns of 100,000 or more persons (metropolitan statistical divisions and statistical districts). Of these, only Canberra is located inland. The percentage of the population living in rural areas has declined over the years as the major cities and towns have attracted most of the population growth; there have been periods when the rural population has actually declined in numbers. This trend, however, appears to have slowed considerably since 1971. The percentage of the population living in capital cities and major towns of over 100,000 is highest in New South Wales (75.6 per cent), followed by Victoria (74.9 per cent), South Australia (72.3 per cent), Western Australia (70.5 per cent), Queensland (52.0 per cent) and Tasmania (40.1 per cent).

POPULATION IN CAPITAL CITIES AND OTHER MAJOR TOWNS OF 100,000 PERSONS OR MORE (a) (^{'000 persons})

| | 30 June 1976 | 30 June 1977 |
|--------------------------------|--------------|--------------|
| Sydney | 3,094.8 | 3,121.8 |
| Melbourne | 2,672.0 | 2,694.1 |
| Brisbane | 985.9 | 995.1 |
| Adelaide | 912.1 | 922.8 |
| Perth | 820.1 | 843.8 |
| Newcastle | 370.5 | 372.3 |
| Wollongong | 218.9 | 220.3 |
| Canberra | 221.8 | 227.0 |
| Hobart | 162.7 | 164.5 |
| Geelong | 135.6 | 137.9 |
| Gold Coast (b) | 125.6 | 129.7 |
| Total | 9,720.0 | 9,829.3 |
| Percentage of total population | 69.85 | 69.84 |

(a) Metropolitan statistical divisions and statistical districts of 100,000 persons or more. (b) Includes all of Albert Shire outside Brisbane statistical division.

While there has been a continuous growth in all States this century, there has been a noticeably higher rate of growth in Western Australia, the Australian Capital Territory and the Northern Territory. Tasmania has had the least growth.

POPULATION OF STATES AND TERRITORIES

('000 persons)

| | <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.(a)</i> | <i>Aust.</i> |
|---|---------------|-------------|------------|-------------|-------------|-------------|-------------|------------------|--------------|
| 3 April 1881 . . . | 749.8 | 861.6 | 213.5 | 276.4 | 29.7 | 115.7 | 3.5 | .. | 2,250.2 |
| 5 April 1891 . . . | 1,127.1 | 1,140.1 | 393.7 | 315.5 | 49.8 | 146.7 | 4.9 | .. | 3,177.8 |
| 31 March 1901 . . . | 1,354.8 | 1,201.1 | 498.1 | 358.3 | 184.1 | 172.5 | 4.8 | .. | 3,773.8 |
| 3 April 1911 . . . | 1,646.7 | 1,315.6 | 605.8 | 408.6 | 282.1 | 191.2 | 3.3 | 1.7 | 4,455.0 |
| 4 April 1921 . . . | 2,100.4 | 1,531.3 | 756.0 | 495.2 | 332.7 | 213.8 | 3.9 | 2.6 | 5,435.7 |
| 30 June 1933 . . . | 2,600.8 | 1,820.3 | 947.5 | 580.9 | 438.9 | 227.6 | 4.9 | 8.9 | 6,629.8 |
| 30 June 1947 . . . | 2,984.8 | 2,054.7 | 1,106.4 | 646.1 | 502.5 | 257.1 | 10.9 | 16.9 | 7,579.4 |
| 30 June 1954 . . . | 3,423.5 | 2,452.3 | 1,318.3 | 797.1 | 639.8 | 308.8 | 16.5 | 30.3 | 8,986.5 |
| 30 June 1961(b) . . . | 3,918.5 | 2,930.4 | 1,527.5 | 971.5 | 746.8 | 350.3 | 44.5 | 58.8 | 10,548.3 |
| 30 June 1966 . . . | 4,237.9 | 3,220.2 | 1,674.3 | 1,095.0 | 848.1 | 371.4 | 56.5 | 96.0 | 11,599.5 |
| 30 June— | | | | | | | | | |
| 1971 | 4,679.4 | 3,520.4 | 1,881.4 | 1,185.3 | 1,043.1 | 390.2 | 91.9 | 145.6 | 12,937.2 |
| 1972 | 4,746.9 | 3,577.4 | 1,932.5 | 1,202.4 | 1,070.9 | 392.2 | 96.6 | 158.0 | 13,177.0 |
| 1973 | 4,793.4 | 3,628.4 | 1,987.3 | 1,217.9 | 1,089.8 | 395.7 | 99.7 | 168.2 | 13,380.4 |
| 1974 | 4,839.4 | 3,676.8 | 2,046.1 | 1,236.2 | 1,117.4 | 399.3 | 104.4 | 179.6 | 13,599.1 |
| 1975 | 4,884.5 | 3,719.1 | 2,084.0 | 1,252.1 | 1,146.7 | 404.7 | 89.4 | 190.9 | 13,771.4 |
| 1976 | 4,914.3 | 3,746.0 | 2,111.7 | 1,261.6 | 1,169.8 | 407.4 | 101.4 | 203.3 | 13,915.5 |
| 1977 | 4,956.7 | 3,782.3 | 2,136.8 | 1,276.8 | 1,197.1 | 410.6 | 105.5 | 208.2 | 14,074.1 |
| 1978(c) | 5,011.6 | 3,818.7 | 2,166.7 | 1,287.6 | 1,222.1 | 413.7 | 112.3 | 215.9 | 14,248.5 |
| Percentage of total population in 1978 | 35.17 | 26.80 | 15.20 | 9.04 | 8.58 | 2.90 | 0.79 | 1.51 | 100.00 |

(a) Part of New South Wales before 1911. (b) Figures before 1961 exclude Aborigines, later figures do not. The estimates from June 1971 for each State and Territory are made from the 1971 census results, with augmented adjustments for under-enumeration to make the total balance with the estimates for Australia made retrospectively from 1976. (c) Provisional figures.

General characteristics of the population

The age composition of the population is presented in Plate 22 in the form of a pyramid. The increase in the birth rate in the 1940s and 1950s can be readily seen in the broadening at ages 15 to 29. The stabilisation of the number of births in the 1960s and 1970s is reflected in a more even structure at younger ages. Postwar immigration, which at least in the earlier years was characterised by a preponderance of men in the working ages, appears as a corresponding 'bulge' from about 45 upwards.

ESTIMATED AGE DISTRIBUTION: 30 JUNE 1977 (a)

('000)

| <i>Age Group (years)</i> | <i>Males</i> | <i>Females</i> | <i>Persons</i> |
|--------------------------|--------------|----------------|----------------|
| 0-4 | 611.0 | 581.2 | 1,192.2 |
| 5-9 | 669.7 | 638.2 | 1,307.9 |
| 10-14 | 639.5 | 603.5 | 1,243.0 |
| 15-19 | 653.2 | 622.2 | 1,275.4 |
| 20-24 | 594.5 | 582.8 | 1,177.2 |
| 25-29 | 585.2 | 573.7 | 1,158.9 |
| 30-34 | 536.5 | 506.0 | 1,042.5 |
| 35-39 | 439.4 | 416.0 | 855.4 |
| 40-44 | 390.3 | 368.6 | 758.9 |
| 45-49 | 399.4 | 373.0 | 772.3 |
| 50-54 | 392.8 | 377.7 | 770.6 |
| 55-59 | 329.5 | 334.8 | 664.3 |
| 60-64 | 279.8 | 302.4 | 582.2 |
| 65-69 | 221.5 | 253.8 | 475.3 |
| 70-74 | 153.4 | 192.7 | 346.2 |
| 75+ | 159.7 | 292.1 | 451.8 |
| All ages | 7,055.2 | 7,018.8 | 14,074.1 |

(a) Preliminary.

Although the numbers of men and women aged 15 and over are nearly equal, there are more single men than single women and there are more widows than widowers. The first phenomenon is attributable to women generally marrying about 2 years younger than men, and the second to their greater longevity. In 1976, 29 per cent of the male population aged 15 and over was single, 64 per cent married (excluding 2.2 per cent married but recorded as permanently separated), 2.7 per cent widowed and 2 per cent divorced. For females the figures were 21 per cent single, 62.5 per cent married (excluding 2.7 per cent married but permanently separated), 11 per cent widowed and 2.5 per cent divorced.

MARITAL STATUS OF THE POPULATION 1954 TO 1976

(Per cent distribution)

| Census | <i>Never married</i> | | <i>Married</i> | <i>Married but permanently separated</i> | <i>Widowed</i> | <i>Divorced</i> | <i>Total</i> |
|----------------|----------------------|--------------------|----------------|--|----------------|-----------------|--------------|
| | <i>Under 15</i> | <i>15 and over</i> | | | | | |
| | | | | | | | |
| MALES | | | | | | | |
| 1954 | 28.9 | 21.2 | 45.4 | 1.3 | 2.5 | 0.7 | 100.0 |
| 1961 | 30.6 | 20.7 | 44.5 | 1.3 | 2.2 | 0.7 | 100.0 |
| 1966 | 29.9 | 21.4 | 44.5 | 1.3 | 2.1 | 0.7 | 100.0 |
| 1971 | 29.3 | 20.7 | 45.6 | 1.3 | 2.0 | 1.0 | 100.0 |
| 1976 | 28.0 | 21.0 | 46.1 | 1.6 | 1.9 | 1.4 | 100.0 |
| FEMALES | | | | | | | |
| 1954 | 28.3 | 15.4 | 46.1 | 1.5 | 7.9 | 0.8 | 100.0 |
| 1961 | 29.8 | 14.8 | 45.1 | 1.5 | 7.9 | 0.8 | 100.0 |
| 1966 | 28.9 | 15.7 | 44.9 | 1.5 | 8.1 | 0.9 | 100.0 |
| 1971 | 28.2 | 14.9 | 46.1 | 1.5 | 8.2 | 1.1 | 100.0 |
| 1976 | 26.6 | 15.6 | 45.9 | 2.0 | 8.1 | 1.8 | 100.0 |

In 1976, people born overseas made up 20 per cent of the population, about the same as 1971 but an increase on earlier censuses. The proportion of males who were overseas-born has been higher than for females: In 1976, 21 per cent as compared with 19 per cent for females.

AUSTRALIAN AND OVERSEAS-BORN POPULATION

(per cent of total population)

| Census | <i>Australian born</i> | | | <i>Overseas born</i> | | |
|----------------|------------------------|----------------|----------------|----------------------|----------------|----------------|
| | <i>Males</i> | <i>Females</i> | <i>Persons</i> | <i>Males</i> | <i>Females</i> | <i>Persons</i> |
| 1954 | 83.9 | 85.6 | 85.7 | 16.1 | 14.4 | 14.3 |
| 1961 | 81.4 | 84.8 | 83.1 | 18.6 | 15.2 | 16.9 |
| 1966 | 80.2 | 82.9 | 81.6 | 19.8 | 17.0 | 18.4 |
| 1971 | 78.5 | 81.0 | 79.8 | 21.5 | 19.0 | 20.2 |
| 1976 | 78.9 | 80.8 | 79.8 | 21.1 | 19.2 | 20.2 |

The proportion of the population of working age (taken as 15 to 64) increased between 1971 and 1977, particularly among those aged 15–44 who, as a proportion of the total population, increased from 42.9 per cent to 44.5 per cent.

Although there was also a rise in the number of persons in the population aged under 15, these young dependents made up a reduced percentage of the total population: 26.6 per cent in 1977 as compared with 28.8 per cent in 1971. The numbers aged 65 and over, i.e. the aged dependent group, increased from 8.3 per cent to 9.0 per cent.

DEMOGRAPHY
POPULATION IN AGE GROUPS: 1954 TO 1977

| 30 June | Number ('000) | | | | Percent | | | |
|---------|---------------|---------|---------|-------------|----------|-------|-------|-------------|
| | Under 15 | 15-44 | 45-64 | 65 and over | Under 15 | 15-44 | 45-64 | 65 and over |
| MALES | | | | | | | | |
| 1954(a) | 1,309.7 | 1,996.3 | 904.7 | 335.3 | 28.8 | 43.9 | 19.9 | 7.4 |
| 1961(a) | 1,626.2 | 2,244.2 | 1,057.8 | 384.2 | 30.6 | 42.2 | 19.9 | 7.2 |
| 1966(b) | 1,748.2 | 2,517.5 | 1,161.8 | 414.1 | 29.9 | 43.1 | 19.9 | 7.1 |
| 1971 | 1,920.9 | 2,844.7 | 1,284.1 | 456.5 | 29.5 | 43.7 | 19.7 | 7.0 |
| 1976 r | 1,932.7 | 3,133.3 | 1,394.9 | 518.4 | 27.7 | 44.9 | 20.0 | 7.4 |
| 1977 p | 1,920.2 | 3,199.1 | 1,401.5 | 534.6 | 27.2 | 45.3 | 19.9 | 7.6 |
| FEMALES | | | | | | | | |
| 1954(a) | 1,253.7 | 1,879.8 | 896.2 | 410.8 | 28.2 | 42.3 | 20.2 | 9.2 |
| 1961(a) | 1,550.8 | 2,102.7 | 1,032.3 | 510.1 | 29.8 | 40.5 | 19.9 | 9.8 |
| 1966(b) | 1,665.0 | 2,375.9 | 1,142.0 | 575.0 | 28.9 | 41.3 | 19.8 | 10.0 |
| 1971 | 1,827.6 | 2,701.3 | 1,272.8 | 629.3 | 28.4 | 42.0 | 19.8 | 9.8 |
| 1976 r | 1,834.1 | 3,002.1 | 1,382.2 | 717.7 | 26.4 | 43.3 | 19.9 | 10.4 |
| 1977 p | 1,822.9 | 3,069.3 | 1,387.9 | 738.6 | 26.0 | 43.7 | 19.8 | 10.5 |
| PERSONS | | | | | | | | |
| 1954(a) | 2,563.3 | 3,876.1 | 1,801.0 | 746.0 | 28.5 | 43.1 | 20.0 | 8.3 |
| 1961(a) | 3,177.0 | 4,346.9 | 2,090.0 | 894.2 | 30.2 | 41.4 | 19.9 | 8.5 |
| 1966(b) | 3,413.2 | 4,893.4 | 2,303.8 | 989.1 | 29.4 | 42.2 | 19.9 | 8.5 |
| 1971 | 3,748.5 | 5,546.0 | 2,556.9 | 1,085.9 | 29.0 | 42.9 | 19.8 | 8.4 |
| 1976 r | 3,766.8 | 6,135.4 | 2,777.1 | 1,236.1 | 27.1 | 44.1 | 20.0 | 8.9 |
| 1977 p | 3,743.1 | 6,268.3 | 2,789.4 | 1,273.3 | 26.6 | 44.5 | 19.8 | 9.0 |

(a) Census figures not including Aborigines. (b) Census figures including Aborigines.

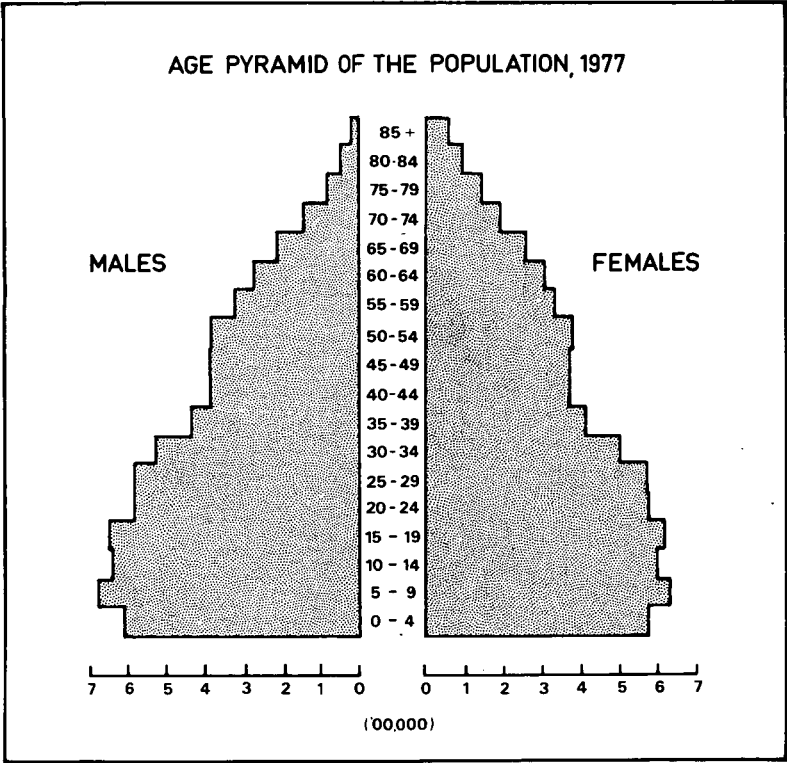


PLATE 22

The masculinity of the population is expressed as the number of males per 100 females. This ratio is influenced by the age structure: masculinity at birth is about 105.5, but higher male mortality gradually erodes the difference so that by about age 50 the numbers of males and females tend to be equal, and the ratio progressively declines thereafter. Immigration, with its large proportion of young adult males, also affects the masculinity of the population. The overall masculinity of the population has been declining and in 1977 was 100.52.

MASCULINITY IN EACH AGE GROUP (males per hundred females)(a)

| | Age in years | | | | | |
|---------|--------------|--------|--------|-------------|--------|--|
| 30 June | 0-14 | 15-44 | 45-64 | 65 and over | Total | |
| 1954 | 104.47 | 106.20 | 100.97 | 81.63 | 102.38 | |
| 1961 | 104.86 | 106.73 | 102.46 | 75.31 | 102.24 | |
| 1966 | 105.00 | 105.96 | 101.73 | 72.02 | 101.45 | |
| 1971 r | 104.85 | 105.87 | 100.40 | 72.17 | 101.17 | |
| 1976 r | 105.38 | 104.37 | 100.92 | 72.24 | 100.62 | |
| 1977 p | 105.34 | 104.22 | 100.98 | 72.38 | 100.52 | |

(a) Based on census results adjusted for mis-statement of age, and for 1971 and 1976, for under-enumeration.

The Aboriginal population

A brief account was given of the Australian Aboriginal population, its origin and its numbers as estimated from time to time in Year Book No. 17, pages 951-61. A special article by A. R. Radcliffe Brown dealing with the estimated number and distribution of the Aboriginal population at the date of the first settlement of European people in the continent appeared in Year Book No. 23, pages 687-696. That article arrived at an estimated minimum Aboriginal population of 251,000, based on the evidence available at the time; however estimates of upwards of 300,000 persons have since been assessed.

The task of collecting data on the Aboriginal population is difficult, raising problems of coverage, definition and reporting. For this reason, statistics, even of the total Aboriginal population, should be treated with caution. This applies particularly to comparison of the changes in numbers from one census to another which can be affected by social attitudes and by changes made in the nature of the question in an attempt to improve coverage and reporting. For the censuses of 1971 and 1976 the question was designed to distinguish those persons who identify themselves as Aboriginals or Torres Strait Islanders.

ABORIGINALS AND TORRES STRAIT ISLANDERS (a)
(persons)

| State | 30 June 1971 | 30 June 1976 |
|--|-----------------|-----------------|
| New South Wales | 23,873 | 40,450 |
| Victoria | 6,371 | 14,760 |
| Queensland | 31,922 | 41,345 |
| South Australia | 7,299 | 10,714 |
| Western Australia | 22,181 | 26,126 |
| Tasmania | 671 | 2,942 |
| Northern Territory | 23,381 | 23,751 |
| Australian Capital Territory | 255 | 827 |
| Total Australia | 115,953 | 160,915 |

(a) Definition of Aboriginals and Torres Strait Islanders based on the race to which each person considers himself to belong and is not comparable with previous data.

Compared with the rest of the Australian population, Aboriginal women have very high rates of fertility and Aboriginal people at all ages suffer high rates of mortality. At the time of the 1971 census, the average issue of married Aboriginal women was 4.1 children (excluding still-born children). Acknowledging the probability of high reporting error among this group, this represents a total fertility rate of perhaps twice the rate of the population as a whole. The expectation of life at birth for Aboriginal Australians may be as low as 50 years, compared with 72 years for the rest of the population.

Internal migration

The 5-yearly censuses and occasional internal migration surveys (conducted in conjunction with the population survey) are important sources of information for internal migration. Estimates of interstate migration are also made from address changes notified to the Electoral Office and the Department of Social Security.

The 1971 census set out to measure internal migration by asking respondents where they usually lived and where they had lived 5 years before. An additional question was added to the 1976 census which asked where the respondents had lived one year before.

Internal migration surveys were conducted in respect of each of the twelve-month periods ending 30 April between 1970 and 1974 and for the twelve-month periods ended 31 December between 1974 and 31 January 1977. In these surveys, the usual place of residence of respondents at the beginning and end of the reference period was ascertained. Estimates were made of the number and characteristics of those who changed their residence. (Because the estimates are based on information from occupants of a small sample of dwellings, the imprecision due to sampling variability should be kept in mind. Standard errors of estimates are published in the detailed bulletins providing the survey results. These bulletins are listed at the end of this chapter).

The internal migration surveys show that about 15 to 17 per cent of all persons aged 15 and over change their residence within a twelve-month period. Of those who change their residence, slightly over 50 per cent remain within the same capital city, slightly over 10 per cent are interstate movements and about 4 per cent are movements between State capital cities.

The New South Wales net internal migration loss reached a peak in 1973-74 when there was a net loss of 20,600 persons aged 15 and over; the State capital, Sydney, lost an estimated 26,600 persons in this age group. Smaller losses have been recorded since then. In contrast, Queensland and its capital, Brisbane, experienced net gains from internal migration until the most recent twelve months ended January 1977, when Brisbane had a net loss.

While the pattern of net migration gain or loss has varied over the years, the age and sex composition of those who changed residence has been rather consistent: the masculinity ratio remains around 50 to 51 per cent, and movers show a concentration in the ages 20 to 34 (59 per cent of all movers in the twelve-month period ended January 1977).

INTERNAL MIGRATION (a)
(*000 persons)

| <i>Year ended</i> | <i>Within State capitals</i> | <i>Into State capitals</i> | <i>Out of State capitals</i> | <i>Net capital city gain</i> | <i>Moved to another State or Territory</i> | <i>Total movers</i> | <i>Did not move</i> | <i>Total</i> |
|-------------------|--------------------------------------|------------------------------------|--------------------------------------|--------------------------------------|--|-------------------------|-----------------------------|--------------|
| 30 April— | | | | | | | | |
| 1971 | 661.8 | 119.0 | 112.8 | 6.3 | 167.0 | 1,371.2 | 7,563.0 | 8,934.2 |
| 1972 | 714.5 | 116.0 | 103.3 | 12.7 | 157.2 | 1,393.1 | 7,561.5 | 8,954.6 |
| 1973 | 815.3 | 118.8 | 128.8 | -10.0 | 170.3 | 1,584.2 | 7,479.4 | 9,063.6 |
| 1974 | 810.3 | 118.0 | 128.3 | -10.3 | 170.4 | 1,592.6 | 7,645.3 | 9,237.9 |
| 31 December— | | | | | | | | |
| 1974 | 682.5 | 97.3 | 105.9 | -8.6 | 151.3 | 1,342.9 | 8,044.6 | 9,387.5 |
| 31 January— | | | | | | | | |
| 1977 | 816.3 | 113.1 | 101.6 | 11.5 | 161.9 | 1,581.1 | 8,161.6 | 9,742.7 |

(a) Includes non-institutionalised civilians aged 15 years and over at the time of the survey who were resident in Australia at the beginning and end of the survey year. Changes of residence away from and back to the same address during the survey year are not counted.

INTERSTATE MIGRATION(a)

| Year ended | | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | A.C.T. |
|---|------|--------|--------|---------|--------|---------|--------|--------|--------|
| NET GAIN (+) OR LOSS (-) ('000 PERSONS) | | | | | | | | | |
| 30 April | 1971 | - 8.7 | - 10.2 | + 8.1 | - 3.3 | + 9.4 | - 1.5 | (c) | + 4.9 |
| | 1972 | -16.2 | (c) | + 9.4 | - 2.7 | + 3.5 | (c) | + 1.8 | + 3.2 |
| | 1973 | -17.5 | + 6.9 | + 10.4 | - 2.9 | - 1.3 | + 1.1 | (c) | + 3.5 |
| | 1974 | -20.6 | - 3.2 | + 9.1 | - 1.2 | + 7.3 | + 2.7 | - 2.8 | + 8.8 |
| 31 December | 1974 | -16.3 | - 3.7 | + 5.7 | - 1.3 | + 8.2 | + 1.6 | (c) | + 6.4 |
| 31 January | 1977 | -13.5 | + 5.3 | + 2.7 | + 2.9 | + 5.5 | - 2.0 | - 2.5 | + 1.6 |
| NET GAIN OR LOSS PER TEN THOUSAND OF POPULATION (b) | | | | | | | | | |
| 30 April | 1971 | - 9.74 | -11.42 | + 9.07 | - 3.69 | + 10.52 | - 1.68 | (c) | + 5.48 |
| | 1972 | -18.09 | (c) | + 10.50 | - 3.02 | + 3.91 | (c) | + 2.01 | + 3.57 |
| | 1973 | -19.31 | + 7.61 | + 11.47 | - 3.20 | - 1.43 | + 1.21 | (c) | + 3.86 |
| | 1974 | -22.30 | - 3.46 | + 9.85 | - 1.30 | + 7.90 | + 2.92 | - 3.03 | + 9.53 |
| 31 December | 1974 | -17.36 | - 3.94 | + 6.07 | - 1.38 | + 8.74 | + 1.70 | (c) | + 6.82 |
| 31 January | 1977 | -13.86 | + 5.44 | + 2.77 | + 2.98 | + 5.65 | - 2.05 | - 2.57 | + 1.64 |

(a) Non-institutionalised civilians aged 15 years and over at the time of the survey whose usual residence at the end of the survey year was in another State or Territory than at the beginning of the year and who were resident in Australia on both dates. (b) Necessarily, but contrary to normal practice, the population (non-institutionalised civilians aged 15 years and over) is that at the end of the period. (c) Very small estimate subject to sampling variability too high for most practical uses.

VITAL STATISTICS

Registration of vital events, i.e. births, deaths and marriages, has been compulsory throughout Australia since 1856. The total number of these occurrences is available for each year since the 1860s and more detailed information since the 1910s. The number of divorces has been published since 1891, but other details have been published on a consistent basis only since the 1950s.

Crude rates are the number of vital events per thousand of the mean population of a particular year. *Natural increase* is the excess of births over deaths. In 1977, births numbered 226,291, deaths 108,799 and the natural increase was 117,493. The rate of natural increase for that year was 8.35 per thousand of the mean population made up of crude birth rate 16.08 and crude death rate 7.73. This represented a considerable decline since 1951-55 when the birth rate was 22.86, the death rate 9.25 and natural increase 13.61.

BIRTHS, DEATHS AND NATURAL INCREASE

| Period | Number | | | Crude rates per 1000 of mean population | | |
|------------------|---------|---------|------------------|---|--------|------------------|
| | Births | Deaths | Natural increase | Births | Deaths | Natural increase |
| Annual averages— | | | | | | |
| 1956-60 | 222,459 | 86,488 | 135,971 | 22.59 | 8.78 | 13.81 |
| 1961-65 | 232,952 | 95,465 | 137,487 | 21.34 | 8.75 | 12.60 |
| 1966-70 | 240,325 | 107,263 | 133,062 | 19.95 | 8.90 | 11.05 |
| 1971-75 | 253,438 | 111,216 | 142,222 | 18.99 | 8.32 | 10.67 |
| Annual totals— | | | | | | |
| 1972 | 264,969 | 109,760 | 155,209 | 20.11 | 8.33 | 11.78 |
| 1973 | 247,670 | 110,822 | 136,848 | 18.51 | 8.28 | 10.23 |
| 1974 | 245,177 | 115,833 | 129,344 | 18.03 | 8.52 | 9.51 |
| 1975 | 233,012 | 109,021 | 123,991 | 16.92 | 7.91 | 9.00 |
| 1976 | 227,810 | 112,662 | 115,148 | 16.37 | 8.10 | 8.27 |
| 1977 p | 226,291 | 108,799 | 117,492 | 16.08 | 7.73 | 8.35 |

There were 104,918 marriages in 1977, a crude rate of 7.45. Divorces numbered 45,175 bringing the crude divorce rate to 3.21.

MARRIAGE AND DIVORCE

| Period | Number | | Crude rates per 1,000 of mean population | |
|-------------------|-----------|-----------|--|---------|
| | Marriages | Divorces | Marriage | Divorce |
| Annual averages— | | | | |
| 1956-60 | 73,854 | 6,788 | 7.50 | 0.69 |
| 1961-65 | 83,250 | 7,611 | 7.63 | 0.70 |
| 1966-70 | 106,188 | 10,738 | 8.81 | 0.89 |
| 1971-75 | 111,802 | 17,405 | 8.36 | 1.30 |
| Annual totals— | | | | |
| 1972 | 114,029 | 15,707 | 8.65 | 1.19 |
| 1973 | 112,700 | 16,266 | 8.42 | 1.22 |
| 1974 | 110,673 | 17,744 | 8.14 | 1.30 |
| 1975 | 103,973 | 24,307 | 7.55 | 1.77 |
| 1976 | 109,973 | 63,267 | 7.90 | 4.54 |
| 1977 | 104,918 | (p)45,175 | 7.45 | (p)3.21 |

Births and fertility

Special interest attaches to fertility as an element of population change. Fertility has had considerable impact on the population structure. Extensive studies have revealed patterns of fertility which justify attempts to predict the numbers of future births. In 1971 there was a record 276,362 births but the number of births has declined progressively in each year since. In 1977 there were 226,291 births.

Live births

Extensive statistics of live births are available since the 1910s. These include information about sex of children, the incidence of multiple births, marital status of the parents, the number of previous issue to the mother's existing marriage, the duration of marriage, the age of parents and their country of birth.

With rare exceptions, statistics indicate an excess of male over female births. In 1977 there were 116,551 male births and 109,740 female births, a masculinity ratio of 106.21.

The proportion of children born to parents not married to each other at the time of birth has been increasing. In 1951-55, 3.97 per cent of births were ex-nuptial. In 1972 ex-nuptial births numbered 25,659 (the highest number on record), 9.68 per cent of all births. In 1977, there were 23,316 ex-nuptial births, 10.30 per cent of the total.

LIVE BIRTHS: SEX AND NUPTIALITY

| | Live births | | | | Ex-nuptial live births | | | Per 1000 of mean popula- tion |
|-------------------|-------------|---------|---------|------------------|------------------------|------------------|-----------------------------|--|
| Period | Males | Females | Persons | Masculi- nity | Persons | Masculi- nity | Per- centage of total | |
| Annual averages— | | | | | | | | |
| 1956-60 | 114,288 | 108,171 | 222,459 | 105.65 | 10,027 | 104.49 | 4.51 | 1.02 |
| 1961-65 | 119,777 | 113,175 | 232,952 | 105.83 | 13,798 | 106.88 | 5.92 | 1.26 |
| 1966-70 | 123,326 | 116,999 | 240,325 | 105.41 | 18,937 | 105.11 | 7.88 | 1.57 |
| 1971-75 | 130,047 | 123,391 | 253,438 | 105.39 | 24,520 | 106.71 | 9.69 | 1.88 |
| Annual totals— | | | | | | | | |
| 1972 | 136,009 | 128,960 | 264,969 | 105.47 | 25,659 | 106.38 | 9.68 | r1.95 |
| 1973 | 126,969 | 120,701 | 247,670 | 105.19 | 24,198 | 104.69 | 9.77 | r1.81 |
| 1974 | 126,295 | 118,882 | 245,177 | 106.24 | 23,408 | 108.79 | 9.55 | r1.72 |
| 1975 | 119,850 | 113,162 | 233,012 | 105.91 | 23,705 | 107.83 | 10.17 | r1.72 |
| 1976 | 116,838 | 110,972 | 227,810 | 105.29 | 23,064 | 108.20 | 9.19 | 1.66 |
| 1977 | 116,551 | 109,740 | 226,291 | 106.21 | 23,316 | 106.03 | 10.30 | 1.66 |

About 1 per cent of confinements result in twin births and about one in 10,000 in triplets. Quadruplets occur about once in 250,000 confinements. The likelihood of multiple confinement is about 0.9 per cent for the first nuptial confinement, rising to about 1 per cent at the second confinement and to as much as 1.5 per cent at the fourth and subsequent confinements. The incidence of multiple births also rises with age of mother. In 1976 there were 223,264 single confinements, 2,281 twin confinements, 19 cases of triplets, and 1 of quadruplets.

LIVE BIRTHS AND CONFINEMENTS: PLURALITY

| | Confinement | | | | |
|------------------|-------------|-------|---------|----------------|---------|
| Period | Single | Twin | Triplet | Other multiple | Total |
| Annual averages— | | | | | |
| 1956-60 | 217,397 | 2,542 | 26 | — | 219,965 |
| 1961-65 | 227,948 | 2,509 | 26 | — | 230,483 |
| 1966-70 | 235,132 | 2,481 | 25 | 2 | 237,640 |
| 1971-75 | 248,459 | 2,488 | 25 | 1 | 250,973 |
| Annual totals— | | | | | |
| 1972 | 259,719 | 2,622 | 24 | 1 | 262,366 |
| 1973 | 242,776 | 2,448 | 28 | — | 245,252 |
| 1974 | 240,437 | 2,367 | 23 | 2 | 242,829 |
| 1975 | 228,525 | 2,223 | 28 | 1 | 230,777 |
| 1976 | 223,264 | 2,281 | 19 | 1 | 225,565 |

Since the 1950s, there has been a decline in the proportion, and since 1971 in the number, of women having three or more children to their marriage. During the 1950s the median age of mother at first nuptial birth declined, but in recent years it has risen slightly. In 1976, median age at first birth was 24.16 years.

NUPTIAL CONFINEMENTS: BIRTH ORDER

| Period | Birth order | | | | | | Total nuptial (a) | Ex-nuptial | Confinements |
|--------|-------------|---|---|---|---|---|-------------------|------------|--------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 and over | | |

NUMBER OF CONFINEMENTS

| | | | | | | | | | | |
|------------------|--------|--------|--------|--------|--------|-------|-------|---------|--------|---------|
| Annual averages— | | | | | | | | | | |
| 1956-60 | 65,695 | 57,532 | 40,920 | 22,968 | 11,299 | 5,558 | 6,075 | 210,047 | 9,918 | 219,965 |
| 1961-65 | 69,281 | 57,971 | 40,818 | 23,612 | 12,125 | 6,160 | 6,862 | 216,829 | 13,655 | 230,483 |
| 1966-70 | 80,999 | 62,930 | 37,446 | 18,899 | 8,961 | 4,489 | 5,213 | 218,937 | 18,707 | 237,644 |
| 1971-75 | 88,120 | 74,641 | 36,914 | 15,216 | 6,006 | 2,805 | 2,959 | 226,674 | 24,299 | 250,973 |
| Annual totals— | | | | | | | | | | |
| 1971 | 95,418 | 74,752 | 41,938 | 19,444 | 8,365 | 4,015 | 4,306 | 248,238 | 25,404 | 273,642 |
| 1972 | 91,683 | 74,996 | 39,092 | 17,177 | 7,122 | 3,302 | 3,583 | 236,955 | 25,411 | 262,366 |
| 1973 | 85,707 | 74,004 | 35,694 | 14,444 | 5,779 | 2,642 | 2,996 | 221,282 | 23,970 | 245,252 |
| 1974 | 86,248 | 75,996 | 34,810 | 13,362 | 4,784 | 2,195 | 2,213 | 219,629 | 23,200 | 242,829 |
| 1975 | 81,543 | 73,456 | 33,036 | 11,653 | 3,979 | 1,873 | 1,699 | 207,267 | 23,510 | 230,777 |
| 1976 | 78,086 | 73,338 | 33,505 | 11,130 | 3,584 | 1,497 | 1,534 | 202,692 | 22,873 | 225,565 |

MEDIAN AGE OF MOTHER

| | | | | | | | | | | |
|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Annual averages— | | | | | | | | | | |
| 1956-60 | 23.54 | 26.43 | 28.86 | 30.99 | 32.66 | 33.95 | 35.03 | 27.18 | 24.23 | 27.11 |
| 1961-65 | 23.12 | 25.72 | 28.35 | 30.64 | 32.51 | 33.88 | 35.02 | 26.54 | 22.54 | 26.38 |
| 1966-70 | 23.14 | 25.63 | 28.21 | 30.54 | 32.53 | 34.06 | 35.42 | 25.92 | 21.37 | 25.67 |
| 1971-75 | 23.60 | 25.96 | 28.21 | 30.55 | 32.53 | 34.09 | 36.84 | 25.87 | 21.12 | 25.58 |
| Annual totals— | | | | | | | | | | |
| 1971 | 23.25 | 25.69 | 28.12 | 30.58 | 32.50 | 33.94 | 36.62 | 25.73 | 21.18 | 25.43 |
| 1972 | 23.43 | 25.83 | 28.23 | 30.56 | 32.32 | 34.02 | 36.79 | 25.76 | 21.01 | 25.49 |
| 1973 | 23.60 | 25.92 | 28.17 | 30.52 | 32.50 | 34.05 | 36.89 | 25.84 | 21.00 | 25.55 |
| 1974 | 23.77 | 26.09 | 28.23 | 30.52 | 32.67 | 34.12 | 36.94 | 25.96 | 21.10 | 25.66 |
| 1975 | 23.95 | 26.25 | 28.32 | 30.57 | 32.67 | 34.30 | 36.96 | 26.07 | 21.29 | 25.76 |
| 1976 | 24.16 | 26.37 | 28.31 | 30.48 | 32.41 | 34.23 | 37.20 | 26.35 | 21.90 | 26.03 |

(a) Includes those for whom birth order was not stated; in 1976 there were 18 such cases.

Since 1971, there has been a decline in the number and proportion of confinements occurring in the first year of marriage and to marriages of 10 years duration and longer.

NUPTIAL CONFINEMENTS: DURATION OF MARRIAGE

| | Duration of marriage, completed years | | | | | | | | | | |
|-------------------|---------------------------------------|--------|--------|--------|--------|--------|--------|-------------|------------|---------|--|
| Period | 0 | 1 | 2 | 3 | 4 | 5-9 | 10-14 | 15 and over | Not stated | Total | |
| Annual averages— | | | | | | | | | | | |
| 1956-60 | 27,590 | 24,161 | 23,475 | 20,987 | 18,605 | 60,449 | 24,531 | 10,249 | n.a. | 210,047 | |
| 1961-65 | 31,046 | 24,775 | 24,885 | 22,237 | 18,843 | 58,855 | 25,149 | 11,038 | n.a. | 216,829 | |
| 1966-70 | 31,920 | 25,903 | 27,566 | 25,253 | 20,831 | 57,457 | 20,415 | 9,100 | 491 | 218,937 | |
| 1971-75 | 27,249 | 25,841 | 30,072 | 29,674 | 25,544 | 64,690 | 16,676 | 6,373 | 556 | 226,674 | |
| Annual totals— | | | | | | | | | | | |
| 1971 | 33,986 | 29,279 | 32,669 | 29,756 | 25,109 | 67,584 | 20,765 | 8,607 | 483 | 248,238 | |
| 1972 | 30,696 | 27,537 | 31,655 | 30,337 | 25,021 | 65,072 | 18,553 | 7,468 | 616 | 236,955 | |
| 1973 | 26,433 | 24,721 | 29,853 | 30,054 | 25,376 | 61,951 | 15,999 | 6,221 | 674 | 221,282 | |
| 1974 | 24,328 | 24,339 | 29,524 | 30,133 | 26,487 | 64,543 | 14,546 | 5,257 | 562 | 219,629 | |
| 1975 | 20,890 | 23,327 | 26,327 | 28,089 | 25,725 | 64,302 | 13,519 | 4,312 | 446 | 207,267 | |
| 1976 | 18,774 | 21,231 | 25,706 | 26,555 | 25,359 | 67,668 | 13,136 | 3,822 | 441 | 202,692 | |

Fertility

General fertility rates, which are the number of births to women of any age per thousand females aged 15-44, are the simplest measure of fertility. These have been calculated for the three years' births around each census from 1881 and provide a consistent series for nuptial and ex-nuptial fertility as well as for total fertility.

The rates show a substantial decline in fertility over the total period with a low point in 1932-34 and a minor recovery peaking in 1960-62. The general rate of 78 births per thousand females aged 15-44 was only 46 per cent of the rate in 1880-82. The decline has been greater among married women, the rate for 1975-77 of 107 per thousand being only 33 per cent of the 1880-82 rate. Ex-nuptial fertility in 1975-77 was 23 per thousand, 64 per cent above 1880-82.

FERTILITY RATES: AUSTRALIA

| Period | Nuptial births per 1000 | | | Ex-nuptial births per 1000 | | |
|-------------------|---|---------------------------------|---|---|---------------------------------|---|
| | Births per 1000 women, aged 15-44 years | married women, aged 15-44 years | single, widowed or divorced women, aged 15-44 years | Births per 1000 women, aged 15-44 years | married women, aged 15-44 years | single, widowed or divorced women, aged 15-44 years |
| 1880-82 | 170 | 321 | 14 | 100 | 100 | 100 |
| 1890-92 | 159 | 332 | 16 | 94 | 103 | 114 |
| 1900-02 | 117 | 235 | 13 | 69 | 73 | 93 |
| 1910-12 | 117 | 236 | 13 | 69 | 74 | 93 |
| 1920-22 | 107 | 197 | 11 | 63 | 61 | 79 |
| 1932-34 | 71 | 131 | 7 | 42 | 41 | 50 |
| 1946-48 | 104 | 160 | 11 | 61 | 50 | 79 |
| 1953-55 | 109 | 149 | 14 | 64 | 46 | 100 |
| 1960-62 | 112 | 154 | 18 | 66 | 48 | 129 |
| 1965-67 | 95 | 132 | 21 | 56 | 41 | 150 |
| 1970-72 | 100 | 134 | 29 | 59 | 42 | 207 |
| 1975-77 | 78 | 107 | 23 | 46 | 33 | 164 |

Age specific birth rates provide a measure of changing patterns of fertility within the fertile ages. The sum of these rates, the total fertility rate, is a more useful measure of change than the general fertility rate since it takes into account the changing age structure of the population within the fertile ages. The total fertility rate represents the number of children a woman would bear in her lifetime if she experienced the rates of the year shown. Fertility at older ages has declined since the 1950s and for all age groups except 15-19 from the 1960s. Since 1971, fertility at 15-19 has also fallen. The total fertility rate, which rose in the 1950s, has since declined and in 1976 was 2.077.

AGE-SPECIFIC BIRTH RATES(a)

| Period | Age group (years) | | | | | | | Total fertility(b) |
|-------------------|-------------------|--------|--------|--------|-------|-------|-------|--------------------|
| | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | |
| 1951-55 | 39.54 | 192.81 | 192.97 | 123.51 | 65.05 | 20.50 | 1.53 | 3.180 |
| 1956-60 | 44.20 | 216.42 | 211.47 | 126.06 | 63.91 | 18.96 | 1.45 | 3.412 |
| 1961-65 | 46.50 | 203.95 | 207.15 | 122.38 | 59.18 | 17.54 | 1.19 | 3.289 |
| 1966-70 | 49.39 | 172.59 | 187.64 | 103.03 | 46.84 | 12.89 | 1.00 | 2.866 |
| 1971-75 | 48.02 | 154.84 | 170.63 | 85.69 | 34.25 | 8.65 | 0.59 | 2.513 |
| 1971 | 54.21 | 177.87 | 195.13 | 99.54 | 44.07 | 11.29 | 0.78 | 2.914 |
| 1972 | 53.19 | 164.55 | 180.94 | 92.01 | 38.41 | 10.03 | 0.74 | 2.699 |
| 1973 | 47.93 | 151.28 | 164.85 | 82.70 | 32.88 | 8.45 | 0.60 | 2.443 |
| 1974 | 44.42 | 146.07 | 161.27 | 79.25 | 29.51 | 7.30 | 0.46 | 2.342 |
| 1975 | 40.37 | 134.44 | 150.95 | 74.96 | 26.40 | 6.17 | 0.37 | 2.168 |
| 1976 | 35.55 | 129.22 | 147.34 | 73.06 | 24.28 | 5.57 | 0.41 | 2.077 |

(a) Number of births per 1,000 women in each age group. Excludes particulars of full-blood Aborigines before 1966. (b) The sum of the age specific rates multiplied by 5 and divided by 1,000. This is the number of children a woman would bear in her lifetime if she experienced the rates of the year shown.

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. In 1976 the gross and net reproduction rates were at their lowest level since the 1930s.

GROSS AND NET REPRODUCTION RATES

| Period | Gross reproduction rate | Net reproduction rate | Life tables used |
|----------------|-------------------------|-----------------------|------------------|
| 1954 | 1.559 | 1.499 | 1953-55 |
| 1961 | 1.728 | 1.672 | 1960-62 |
| 1966 | 1.400 | 1.357 | 1965-67 |
| 1971 | 1.427 | 1.386 | 1970-72 |
| 1972 | 1.314 | 1.277 | |
| 1973 | 1.191 | 1.157 | |
| 1974 | 1.135 | 1.102 | |
| 1975 | 1.053 | 1.023 | |
| 1976 | 1.012 | 0.983 | |

Fertility of Australian Marriages. This series is designed to show the pattern of fertility within marriage. Births in each year and at each duration of marriage to parents who were married in Australia are related (per thousand) to the Australian marriages a relevant number of years earlier.

The sum of these rates for all duration is the *index of current marriage fertility* and indicates the number of children marriages would produce according to the recorded fertility of that year.

Fertility in the first two to three years of marriage has fallen very substantially. For instance, fertility in the first year of marriage fell from 369 births per thousand marriages in 1956-60 to 172 in 1976. There has also been a substantial decline for marriages of ten years duration or longer from 292 per thousand at durations 10-14 years in 1956-60 to 126 per thousand in 1976. At longer durations the fall is proportionally greater still. There has been no rise at medium duration to compensate for the decline early and late in marriage. The index of current marriage fertility declined from the equivalent of 2.7 children per marriage in 1956-60 to 1.7 in 1976.

The annual rates accumulated according to year of marriage show the experience of successive marriage cohorts. These marriage cohort tables demonstrate an increasing delay by couples in having their first child. The marriages of 1955-56 had 1,262 children per thousand marriages by the end of the fourth year of marriage, compared with 1,314 for those married in 1960-61, and 874 for those married in 1972-73.

FERTILITY OF AUSTRALIAN MARRIAGES: ANNUAL RATES

| Births occurring in— | Duration of marriage (years) | | | | | | | | | |
|-------------------------|------------------------------|-----|-----|-----|-----|------------------|-----|-------|-------|----------------|
| | Under 1 | 1 | 2 | 3 | 4 | Total under 5 | 5-9 | 10-14 | 15-19 | 20 and over |
| Annual averages— | | | | | | | | | | |
| 1956-60 | 369 | 317 | 309 | 277 | 243 | 1,515 | 751 | 292 | 101 | 26 |
| 1961-65 | 377 | 304 | 311 | 281 | 239 | 1,512 | 741 | 293 | 100 | 22 |
| 1966-70 | 302 | 248 | 278 | 265 | 227 | 1,320 | 663 | 234 | 79 | 17 |
| 1971-75 | 232 | 211 | 248 | 249 | 219 | 1,159 | 606 | 178 | 54 | 14 |
| Annual rates— | | | | | | | | | | |
| 1971 | 282 | 240 | 279 | 270 | 235 | 1,306 | 694 | 231 | 75 | 15 |
| 1972 | 257 | 220 | 260 | 258 | 225 | 1,220 | 638 | 203 | 64 | 15 |
| 1973 | 228 | 201 | 240 | 246 | 214 | 1,129 | 581 | 170 | 54 | 12 |
| 1974 | 206 | 202 | 240 | 242 | 215 | 1,105 | 572 | 152 | 45 | 9 |
| 1975 | 185 | 192 | 222 | 228 | 205 | 1,032 | 544 | 135 | 37 | 9 |
| 1976 | 172 | 185 | 214 | 222 | 206 | 999 | 555 | 126 | 32 | 7 |

FERTILITY OF AUSTRALIAN MARRIAGES(a)

| 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 |
| 1960-61 | 403 | 721 | 1,039 | 1,314 | 1,536 | 2,194 | 2,379 |
| 1965-66 | 324 | 575 | 855 | 1,125 | 1,356 | 1,961 | .. |
| 1970-71 | 282 | 502 | 742 | 984 | 1,189 | .. | .. |
| 1971-72 | 257 | 458 | 698 | 926 | 1,131 | .. | .. |
| 1972-73 | 228 | 430 | 652 | 874 | .. | .. | .. |
| 1973-74 | 206 | 398 | 512 | .. | .. | .. | .. |
| 1974-75 | 185 | 370 | .. | .. | .. | .. | .. |
| 1975-76 | 172 | .. | .. | .. | .. | .. | .. |

(a) Cumulated number of births per thousand marriages.

Birth Expectations

An Australia-wide survey of birth expectations of married women was conducted in November 1976 as a supplement to the regular quarterly population survey of the Australian Bureau of Statistics. Preliminary results were published in December 1977. Questions were directed to every married woman under the age of 40. Information was obtained about the birth date and sex of each child and the number of children still living. Women married at the time of the survey were asked how many children they expected to have, altogether and in the next 5 years, and when they expected the next child to be born.

The survey results indicate a preference for the 2-child family. For instance, of the women covered by the survey (married and aged 15-39) who had not had any children, 48.2 per cent expected to have two children, compared with only 6.1 per cent who expected to have one child, 21.0 per cent three or more, and 19.7 per cent did not expect to have any children. Similarly, 48.5 per cent of those with one child expected to have one more, as against 26.6 per cent expected to stop with one, and 22.7 per cent expecting two or more additional children. Of those with two children, 84.2 per cent expected to have no more children.

MARRIED WOMEN AGED 15-39(a): LIVE-BORN AND EXPECTED CHILDREN, NOVEMBER 1976
(per cent)

| Additional children expected | Women whose live-born children numbered | | | |
|------------------------------------|---|-------|-------|---------------|
| | None | One | Two | Three or more |
| None | 19.7 | 26.6 | 84.2 | 94.0 |
| One | 6.1 | 48.5 | 11.2 | 4.9 |
| Two | 48.2 | 17.3 | 3.5 | 0.7 |
| Three or more | 21.0 | 5.4 | 0.6 | (b) |
| Uncertain of number | 5.0 | 2.2 | 0.5 | (b) |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |

(a) Excludes women in institutions and the Australian defence forces, and also women who did not know whether they expect to have any (more) children. (b) Small estimates subject to sampling variability too high for most practical uses.

If the birth expectations of these women are realised, the families of younger women will be smaller on average than those now approaching the end of their reproductive life. Thus, the expected average family size (live-born plus expected children) of married women under 25 is 2.3 compared with an average family size of 2.9 for married women aged 35-39 at the time of the survey.

MARRIED WOMEN AGED 15-39(a): AVERAGE ISSUE, EXPECTED CHILDREN AND TOTAL EXPECTED FAMILY SIZE, NOVEMBER 1976

| | <i>Number of women ('000)</i> | <i>Average number of live-born children</i> | <i>Average number of additional children expected</i> | <i>Average number of live-born and expected children</i> |
|--|-------------------------------|---|---|--|
| BY AGE | | | | |
| Age group (years)— | | | | |
| 15-19 | 40.0 | 0.5 | 1.8 | 2.3 |
| 20-24 | 307.8 | 0.8 | 1.5 | 2.3 |
| 25-29 | 429.7 | 1.7 | 0.7 | 2.4 |
| 30-34 | 394.4 | 2.4 | 0.2 | 2.6 |
| 35-39 | 348.3 | 2.9 | (b) | 2.9 |
| Total | 1,520.2 | 1.9 | 0.6 | 2.5 |
| BY DURATION OF CURRENT MARRIAGE | | | | |
| Duration (years)— | | | | |
| Less than 2 | 161.4 | 0.4 | 1.9 | 2.3 |
| 2 and under 5 | 301.6 | 1.0 | 1.3 | 2.2 |
| 5 and under 10 | 459.1 | 1.9 | 0.4 | 2.4 |
| 10 years or longer | 598.0 | 2.8 | 0.1 | 2.9 |
| Total | 1,520.2 | 1.9 | 0.6 | 2.5 |

(a) Excludes women in institutions and the Australian defence forces, and also women who did not know whether they expected to have any (more) children. (b) Small estimate subject to sampling variability too high for most practical uses.

Mortality

The number of deaths per year is now in excess of 100,000 a year. The increase from previous decades arises from the overall growth of the population, and from the advanced age of an increasing proportion of the population. The crude death rate, which fell from over 12 per 1,000 at the beginning of the century to 7.73 per 1,000 in 1977, can be expected to rise slowly as a result of further aging of the population, unless there is a more than off-setting drop in age specific death rates.

General Mortality

Between 1953-55 and 1960-62, mortality declined at most ages. Since then there has been little further change, except for infant mortality which has continued to fall. Indeed at some ages there have been small rises in age specific mortality. For instance, for males aged 15-19 the rate rose from 1.23 per 1,000 in 1960-62 to 1.50 in 1970-72, and for ages 20-24, it rose from 1.62 to 1.75.

Mortality is greater for males than for females at every age. It is relatively high in the first year of life (15.15 per 1,000 males and 12.44 per 1,000 females in 1976), very low in childhood and young adulthood, and then rises in middle and old age.

DEMOGRAPHY
AGE-SPECIFIC DEATH RATES(a)

| Age group (years) | 1953-55 (b) | 1960-62 (b) | 1965-67 (b) | 1970-72 (b) | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 |
|----------------------|----------------|----------------|----------------|----------------|--------|--------|--------|--------|--------|--------|
| MALES | | | | | | | | | | |
| Under 1(c) | 25.18 | 22.36 | 20.85 | 18.85 | 19.02 | 18.95 | 18.56 | 18.39 | 16.29 | 15.15 |
| 1-4 . . | 1.69 | 1.15 | 1.08 | 0.99 | 0.93 | 0.97 | 0.96 | 0.93 | 0.84 | 0.76 |
| 5-9 . . | 0.67 | 0.52 | 0.45 | 0.45 | 0.46 | 0.43 | 0.43 | 0.43 | 0.36 | 0.37 |
| 10-14 . . | 0.63 | 0.48 | 0.46 | 0.42 | 0.46 | 0.41 | 0.38 | 0.39 | 0.38 | 0.40 |
| 15-19 . . | 1.51 | 1.23 | 1.33 | 1.50 | 1.56 | 1.46 | 1.51 | 1.61 | 1.55 | 1.50 |
| 20-24 . . | 1.82 | 1.62 | 1.67 | 1.75 | 1.83 | 1.68 | 1.73 | 1.73 | 1.69 | 1.68 |
| 25-29 . . | 1.68 | 1.49 | 1.48 | 1.38 | 1.46 | 1.23 | 1.30 | 1.36 | 1.31 | 1.21 |
| 30-34 . . | 1.79 | 1.69 | 1.64 | 1.49 | 1.55 | 1.42 | 1.43 | 1.48 | 1.45 | 1.39 |
| 35-39 . . | 2.40 | 2.26 | 2.45 | 2.31 | 2.34 | 2.15 | 2.07 | 2.12 | 2.07 | 1.97 |
| 40-44 . . | 3.64 | 3.67 | 3.82 | 3.46 | 3.35 | 3.46 | 3.53 | 3.39 | 3.33 | 3.35 |
| 45-49 . . | 6.01 | 5.96 | 6.14 | 6.06 | 6.04 | 6.01 | 6.07 | 6.13 | 5.86 | 5.58 |
| 50-54 . . | 10.44 | 10.01 | 10.45 | 9.92 | 9.85 | 9.58 | 9.64 | 9.92 | 9.65 | 9.17 |
| 55-59 . . | 17.03 | 16.57 | 16.96 | 16.58 | 16.54 | 16.04 | 15.55 | 16.24 | 15.38 | 14.97 |
| 60-64 . . | 26.58 | 26.44 | 27.59 | 26.59 | 25.86 | 26.26 | 25.71 | 26.14 | 24.15 | 24.31 |
| 65-69 . . | 41.28 | 41.68 | 43.66 | 42.04 | 41.22 | 39.98 | 40.08 | 39.96 | 37.54 | 38.19 |
| 70-74 . . | 64.53 | 63.04 | 66.84 | 63.45 | 62.35 | 62.54 | 62.28 | 63.21 | 59.15 | 58.82 |
| 75-79 . . | 98.77 | 94.43 | 99.77 | 99.99 | 97.71 | 97.10 | 94.81 | 96.59 | 86.57 | 93.79 |
| 80-84 . . | 145.88 | 141.83 | 146.95 | 143.43 | 142.24 | 140.61 | 143.31 | 147.44 | 133.25 | 140.40 |
| 85 and over | 248.14 | 243.69 | 241.98 | 230.70 | 231.35 | 226.99 | 221.43 | 245.60 | 225.46 | 238.79 |
| FEMALES | | | | | | | | | | |
| Under 1(c) | 19.88 | 17.57 | 16.35 | 14.37 | 15.48 | 14.37 | 14.32 | 13.74 | 12.13 | 12.44 |
| 1-4 . . | 1.35 | 1.08 | 1.14 | 0.78 | 0.79 | 0.76 | 0.72 | 0.71 | 0.66 | 0.54 |
| 5-9 . . | 0.50 | 0.38 | 0.34 | 0.33 | 0.32 | 0.32 | 0.33 | 0.32 | 0.26 | 0.27 |
| 10-14 . . | 0.37 | 0.29 | 0.27 | 0.27 | 0.22 | 0.26 | 0.25 | 0.28 | 0.23 | 0.24 |
| 15-19 . . | 0.58 | 0.50 | 0.54 | 0.59 | 0.66 | 0.53 | 0.57 | 0.51 | 0.53 | 0.47 |
| 20-24 . . | 0.67 | 0.60 | 0.63 | 0.58 | 0.64 | 0.57 | 0.53 | 0.51 | 0.49 | 0.50 |
| 25-29 . . | 0.83 | 0.71 | 0.72 | 0.67 | 0.67 | 0.61 | 0.56 | 0.59 | 0.52 | 0.52 |
| 30-34 . . | 1.11 | 0.95 | 0.98 | 0.89 | 0.92 | 0.85 | 0.79 | 0.75 | 0.77 | 0.75 |
| 35-39 . . | 1.74 | 1.47 | 1.54 | 1.44 | 1.38 | 1.27 | 1.27 | 1.28 | 1.31 | 1.19 |
| 40-44 . . | 2.55 | 2.26 | 2.31 | 2.23 | 2.26 | 2.16 | 2.05 | 2.12 | 2.02 | 1.94 |
| 45-49 . . | 4.19 | 3.65 | 3.86 | 3.63 | 3.76 | 3.53 | 3.59 | 3.58 | 3.27 | 3.13 |
| 50-54 . . | 6.43 | 5.55 | 5.87 | 5.56 | 5.50 | 5.43 | 5.12 | 5.47 | 4.95 | 4.93 |
| 55-59 . . | 9.25 | 8.14 | 8.67 | 8.30 | 8.22 | 8.17 | 7.99 | 8.28 | 7.70 | 7.43 |
| 60-64 . . | 14.75 | 13.31 | 13.56 | 13.01 | 12.87 | 12.37 | 12.15 | 12.53 | 11.83 | 11.61 |
| 65-69 . . | 23.89 | 21.99 | 21.94 | 20.70 | 20.15 | 19.79 | 19.09 | 20.31 | 18.93 | 18.66 |
| 70-74 . . | 40.93 | 37.14 | 37.47 | 35.79 | 35.61 | 33.78 | 33.69 | 33.29 | 31.36 | 30.19 |
| 75-79 . . | 69.72 | 63.18 | 62.37 | 60.24 | 60.54 | 57.55 | 56.11 | 56.32 | 51.70 | 53.91 |
| 80-84 . . | 117.36 | 105.10 | 107.93 | 100.96 | 99.79 | 97.96 | 97.82 | 99.98 | 89.71 | 91.54 |
| 85 and over | 213.69 | 210.20 | 197.73 | 187.15 | 189.89 | 180.77 | 185.92 | 195.12 | 176.78 | 192.55 |

(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 1954, 1961, 1966, 1971 and 1976; and estimates at 30 June for intercensal years.

(b) 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.

(c) Infant deaths per 1,000 live births.

AGE AT DEATH, 1976

| Age at death (years) | Number | | | Per cent | | |
|----------------------|---------------|---------------|----------------|---------------|---------------|---------------|
| | Males | Females | Persons | Males | Females | Persons |
| Under 1 | 1,770 | 1,380 | 3,150 | 2.83 | 2.75 | 2.80 |
| 1-4 | 393 | 267 | 660 | 0.63 | 0.53 | 0.59 |
| 5-9 | 239 | 170 | 409 | 0.38 | 0.34 | 0.36 |
| 10-14 | 257 | 148 | 405 | 0.41 | 0.30 | 0.36 |
| 15-19 | 955 | 290 | 1,245 | 1.53 | 0.58 | 1.11 |
| 20-24 | 990 | 288 | 1,278 | 1.58 | 0.57 | 1.13 |
| 25-29 | 720 | 302 | 1,022 | 1.15 | 0.60 | 0.91 |
| 30-34 | 693 | 354 | 1,047 | 1.11 | 0.71 | 0.93 |
| 35-39 | 848 | 482 | 1,330 | 1.36 | 0.96 | 1.18 |
| 40-44 | 1,279 | 698 | 1,977 | 2.05 | 1.39 | 1.75 |
| 45-49 | 2,275 | 1,187 | 3,462 | 3.64 | 2.37 | 3.07 |
| 50-54 | 3,571 | 1,862 | 5,433 | 5.71 | 3.71 | 4.82 |
| 55-59 | 4,780 | 2,410 | 7,190 | 7.64 | 4.81 | 6.38 |
| 60-64 | 6,772 | 3,492 | 10,264 | 10.83 | 6.97 | 9.11 |
| 65-69 | 8,224 | 4,572 | 12,796 | 13.15 | 9.12 | 11.36 |
| 70-74 | 8,702 | 5,675 | 14,377 | 13.92 | 11.32 | 12.76 |
| 75-79 | 8,223 | 7,516 | 15,739 | 13.15 | 14.99 | 13.97 |
| 80-84 | 6,121 | 8,085 | 14,206 | 9.79 | 16.13 | 12.61 |
| 85-89 | 4,007 | 6,781 | 10,788 | 6.41 | 13.53 | 9.58 |
| 90-94 | 1,404 | 3,197 | 4,601 | 2.25 | 6.38 | 4.08 |
| 95-99 | 268 | 892 | 1,160 | 0.43 | 1.78 | 1.03 |
| 100 and over | 25 | 85 | 110 | 0.04 | 0.17 | 0.10 |
| Not stated | 11 | 2 | 13 | 0.02 | - | 0.01 |
| Total | 62,527 | 50,135 | 112,662 | 100.00 | 100.00 | 100.00 |

Perinatal Mortality

Perinatal deaths comprise foetal deaths (stillbirths) and neonatal deaths (deaths within 28 days after birth). From 1972, statistics of stillbirths have been compiled on the basis of amended legislation in all States which provides for all foetal deaths of at least 20 weeks gestation or 400 grams weight to be registered. Previously, the statistics were based on a minimum of 28 weeks gestation. Neonatal deaths account for about 70 per cent of all deaths occurring within the first year of life.

In 1976 there were 4,654 perinatal deaths registered in Australia, which continued the decline in numbers and rates since 1972, the first year in which perinatal deaths were tabulated uniformly throughout Australia. Of these 4,654 deaths, 2,403 were foetal deaths and 2,251 were neonatal deaths.

The neonatal death rate continued its long historical decline, falling from 16.45 per 1,000 live births in 1951-55 to 9.88 per 1,000 in 1976. In the same period the total infant mortality rate fell from 23.34 to 13.83.

INFANT DEATHS

| Period | Number | | | Per 1,000 live births | | |
|-------------------------|-------------------|-------------|-------|-----------------------|-------------|-------|
| | Less than 1 month | 1-11 months | Total | Less than 1 month | 1-11 months | Total |
| Annual averages— | | | | | | |
| 1956-60 | 3,353 | 1,330 | 4,683 | 15.07 | 5.98 | 21.05 |
| 1961-65 | 3,260 | 1,264 | 4,525 | 13.99 | 5.43 | 19.42 |
| 1966-70 | 3,141 | 1,208 | 4,349 | 13.07 | 5.03 | 18.10 |
| 1971-75 | 2,930 | 1,185 | 4,115 | 11.52 | 4.66 | 16.18 |
| Annual totals— | | | | | | |
| 1971 | 3,364 | 1,413 | 4,777 | 12.17 | 5.11 | 17.29 |
| 1972 | 3,175 | 1,255 | 4,430 | 11.98 | 4.74 | 16.72 |
| 1973 | 2,927 | 1,158 | 4,085 | 11.82 | 4.68 | 16.49 |
| 1974 | 2,854 | 1,104 | 3,958 | 11.64 | 4.50 | 16.14 |
| 1975 | 2,330 | 995 | 3,325 | 10.00 | 4.27 | 14.27 |
| 1976 | 2,251 | 899 | 3,150 | 9.88 | 3.95 | 13.83 |
| males | 1,255 | 515 | 1,770 | 10.74 | 4.41 | 15.15 |
| females | 996 | 384 | 1,380 | 8.98 | 3.46 | 12.44 |

DEMOGRAPHY
STILL BIRTHS

| Period | Number | Per 1,000 of all births (still and alive) |
|-------------------|--------|---|
| Annual average— | | |
| 1956-60 | 3,293 | 14.6 |
| 1961-65 | 2,946 | 12.5 |
| 1966-70 | 2,563 | 10.6 |
| 1971-75 | 2,772 | 10.8 |
| Annual totals— | | |
| 1971 | 2,519 | 9.0 |
| 1972(a) | 3,089 | 11.5 |
| 1973 | 2,924 | 11.7 |
| 1974 | 2,914 | 11.8 |
| 1975 | 2,414 | 10.3 |
| 1976 | 2,403 | 10.4 |

(a) Prior to 1972 based on foetal deaths of minimum 28 weeks of gestation. Since 1972 includes foetal deaths of at least 20 weeks of gestation or 400 grammes weight.

Life expectancy

Life tables are measures of life expectancy compiled from the death rates prevailing over a period. They form the basis for the *stationary population* which is the population that would result from a constant number of births each year which had been subject at each age to the life table mortality rates.

Since 1921, official life tables have been calculated from the separate male and female populations as enumerated at the census, and the deaths of the three years around the census. Earlier life tables were compiled for decennial periods 1881-90, 1891-1900 and 1901-10. Life tables have also been prepared in recent years using annual age estimates and the deaths of a particular year.

A key value in life tables is the expectation of life remaining at each age. Expectation of life—particularly at birth—improved at every age in the first half of this century. Since 1953-55 changes have been small. In the period 1901-10 to 1970-72, expectation of life at birth rose from 55.20 years to 67.90 for males and from 58.84 to 74.60 for females.

COMPLETE EXPECTATION OF LIFE AT SELECTED AGES

| Age | Males | | | | | Females | | | | |
|------------|---------|---------|---------|----------------|----------------|---------|---------|---------|----------------|----------------|
| | 1901-10 | 1953-55 | 1960-62 | 1965-67 (a) | 1970-72 (a) | 1901-10 | 1953-55 | 1960-62 | 1965-67 (a) | 1970-72 (a) |
| 0 | 55.20 | 67.14 | 67.92 | 67.63 | 67.90 | 58.84 | 72.75 | 74.18 | 74.15 | 74.60 |
| 10 | 53.53 | 59.53 | 59.93 | 59.50 | 59.66 | 56.38 | 64.78 | 65.92 | 65.75 | 66.08 |
| 20 | 44.74 | 50.10 | 50.40 | 49.98 | 50.19 | 47.52 | 55.06 | 56.16 | 56.00 | 56.35 |
| 30 | 36.52 | 40.90 | 41.12 | 40.72 | 40.94 | 39.33 | 45.43 | 46.49 | 46.34 | 46.67 |
| 40 | 28.56 | 31.65 | 31.84 | 31.44 | 31.61 | 31.47 | 35.09 | 35.99 | 36.85 | 37.16 |
| 50 | 21.16 | 22.92 | 23.13 | 22.76 | 22.87 | 23.69 | 27.03 | 27.92 | 27.83 | 28.10 |
| 60 | 14.35 | 15.47 | 15.60 | 15.27 | 15.35 | 16.20 | 18.78 | 19.51 | 19.52 | 19.74 |
| 70 | 8.67 | 9.59 | 9.77 | 9.52 | 9.51 | 9.96 | 11.62 | 12.19 | 12.23 | 12.39 |
| 80 | 4.96 | 5.47 | 5.57 | 5.51 | 5.52 | 5.73 | 6.30 | 6.68 | 6.72 | 6.88 |

(a) Includes particulars of full-blood Aborigines.

The inverse of the expectation of life at birth is sometimes called the *true death rate*. This rate is a measure of mortality unaffected by the current age structure of the population, and is therefore a better measure of change than crude death rates. Since 1953-55 there has been little change in the true death rate, indicating that most of the variation in crude rates has been due to changes in the population age structure.

DEMOGRAPHY
TRUE DEATH RATES

95

| Period | True death rate(a) | |
|-------------------|--------------------|---------|
| | Males | Females |
| 1953-55 | 14.89 | 13.75 |
| 1960-62 | 14.72 | 13.48 |
| 1965-67 | 14.79 | 13.49 |
| 1970-72 | 14.73 | 13.40 |
| 1971 | 14.66 | 13.37 |
| 1972 | 14.60 | 13.28 |
| 1973 | 14.59 | 13.25 |
| 1974 | 14.63 | 13.27 |
| 1975 | 14.45 | 13.13 |
| 1976 | 14.43 | 13.11 |

(a) Number of deaths per 1,000 in stationary population.

Marriages

The *Australian Marriage Act* 1961-1973 came into operation on 1 September 1963, placing the marriage laws throughout Australia on a uniform basis. Marriages may be celebrated by a minister of religion registered as an authorised celebrant, or by a district registrar or other person authorised by the Attorney-General. The minimum marriageable age is 18 years for males and 16 years for females. 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.

In 1977, 77 per cent of grooms and 78 per cent of brides were marrying for the first time; 3 per cent were widowers and 4 per cent widows; and 19 per cent of grooms and 18 per cent of brides had been divorced. The proportion of divorced persons re-marrying was an increase on previous years, and is probably associated with the larger numbers of divorces granted since the introduction of the *Family Law Act* 1975.

Median age at first marriage declined during the 1950s and 1960s but has changed little recently. In 1977 it was 23.76 years for males and 21.35 for females. In 1977, 5.0 per cent of grooms and 23.7 per cent of brides married under the age of 20.

Marriage rates of the marriageable population provide a more exact measure of changing marriage patterns than the crude marriage rate. Marriage rates have been calculated for the three years around the census per thousand single, widowed and divorced males, females and persons.

The rates for 1975-77 were 64.86 for males, 61.92 for females, and 63.36 for persons.

The proportion of all marriages celebrated by civil officers rose to 32.4 per cent of all marriages registered in 1977. This proportion has nearly doubled since 1973.

MARITAL STATUS AT MARRIAGE

| | <i>Grooms</i> | | | | <i>Brides</i> | | | |
|-------------------|------------------|-----------------|-----------------|------------------------------------|------------------|---------------|-----------------|-------------------------|
| <i>Period</i> | <i>Bachelors</i> | <i>Widowers</i> | <i>Divorced</i> | <i>Total bride- grooms</i> | <i>Spinsters</i> | <i>Widows</i> | <i>Divorced</i> | <i>Total brides</i> |
| NUMBER | | | | | | | | |
| Annual averages— | | | | | | | | |
| 1956-60 | 66,364 | 3,086 | 4,404 | 73,854 | 65,579 | 3,305 | 4,970 | 73,854 |
| 1961-65 | 75,384 | 3,063 | 4,803 | 83,250 | 74,962 | 3,218 | 5,070 | 83,250 |
| 1966-70 | 96,438 | 3,320 | 6,430 | 106,188 | 96,341 | 3,568 | 6,279 | 106,188 |
| 1971-75 | 99,203 | 3,473 | 9,126 | 111,802 | 99,287 | 3,810 | 8,705 | 111,802 |
| Annual totals— | | | | | | | | |
| 1972 | 102,240 | 3,472 | 8,317 | 114,029 | 102,106 | 3,868 | 8,055 | 114,029 |
| 1973 | 99,741 | 3,614 | 9,345 | 112,700 | 99,950 | 3,906 | 8,844 | 112,700 |
| 1974 | 97,872 | 3,367 | 9,434 | 110,673 | 98,031 | 3,764 | 8,878 | 110,673 |
| 1975 | 89,912 | 3,308 | 10,753 | 103,973 | 90,010 | 3,681 | 10,282 | 103,973 |
| 1976 | 86,792 | 3,777 | 19,404 | 109,973 | 87,434 | 4,378 | 18,161 | 109,973 |
| 1977 | 81,172 | 3,385 | 20,361 | 104,918 | 81,694 | 3,999 | 19,225 | 104,918 |

MARITAL STATUS AT MARRIAGE—continued

| Period | Grooms | | | | Total bride- grooms | Brides | | | Total brides |
|-------------------|-----------|----------|----------|-----------|---------------------------|--------|----------|-------|-----------------|
| | Bachelors | Widowers | Divorced | Spinsters | | Widows | Divorced | | |
| MEDIAN AGES | | | | | | | | | |
| Annual averages— | | | | | | | | | |
| 1956-60 | 24.73 | 56.50 | 39.25 | 25.37 | 21.57 | 47.61 | 35.44 | 21.99 | |
| 1961-65 | 24.16 | 56.60 | 40.41 | 24.69 | 21.32 | 49.25 | 36.63 | 21.67 | |
| 1966-70 | 23.54 | 56.69 | 39.75 | 23.94 | 21.19 | 50.05 | 36.08 | 21.50 | |
| 1971-75 | 23.33 | 57.78 | 37.25 | 23.86 | 20.99 | 51.13 | 33.04 | 21.43 | |
| Annual totals— | | | | | | | | | |
| 1972 | 23.33 | 57.80 | 38.07 | 23.80 | 21.02 | 51.14 | 33.90 | 21.41 | |
| 1973 | 23.31 | 58.06 | 36.97 | 23.85 | 20.97 | 51.31 | 31.18 | 21.41 | |
| 1974 | 23.28 | 58.13 | 36.75 | 23.83 | 20.92 | 51.21 | 33.02 | 21.37 | |
| 1975 | 23.37 | 57.99 | 36.40 | 24.06 | 20.97 | 51.35 | 32.82 | 21.55 | |
| 1976 | 23.62 | 57.86 | 36.56 | 24.89 | 21.23 | 51.19 | 32.58 | 22.24 | |
| 1977 | 23.76 | 58.43 | 35.92 | 25.17 | 21.35 | 50.88 | 32.24 | 22.48 | |

AGE AT MARRIAGE

| Period | Age | | | | | | | | Total |
|--------|-------------|-------|-------|-------|-------|-------|-------|----------------|-------|
| | Under 20 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | 50 and over | |

GROOM

| | | | | | | | | | |
|-------------------|-------|--------|--------|--------|-------|-------|-------|-------|---------|
| Annual averages— | | | | | | | | | |
| 1956-60 | 3,320 | 31,620 | 19,721 | 8,245 | 3,630 | 2,139 | 1,606 | 3,573 | 73,854 |
| 1961-65 | 5,278 | 38,845 | 20,344 | 7,495 | 3,799 | 2,154 | 1,498 | 3,837 | 83,250 |
| 1966-70 | 7,917 | 55,824 | 23,398 | 7,008 | 3,544 | 2,473 | 1,763 | 4,258 | 106,185 |
| 1971-75 | 8,427 | 59,058 | 24,374 | 7,408 | 3,425 | 2,376 | 1,970 | 4,765 | 111,802 |
| Annual totals— | | | | | | | | | |
| 1972 | 8,746 | 60,934 | 24,860 | 7,190 | 3,257 | 2,317 | 1,986 | 4,739 | 114,029 |
| 1973 | 8,383 | 59,413 | 24,800 | 7,428 | 3,375 | 2,373 | 2,030 | 4,898 | 112,700 |
| 1974 | 8,472 | 58,059 | 24,415 | 7,408 | 3,356 | 2,268 | 1,943 | 4,752 | 110,673 |
| 1975 | 7,399 | 52,512 | 23,510 | 7,674 | 3,685 | 2,352 | 1,998 | 4,843 | 103,973 |
| 1976 | 6,302 | 49,614 | 25,659 | 9,776 | 5,198 | 3,450 | 3,057 | 6,917 | 109,973 |
| 1977 | 5,242 | 46,059 | 24,908 | 10,750 | 5,216 | 3,399 | 2,915 | 6,429 | 104,918 |

BRIDE

| | | | | | | | | | |
|-------------------|--------|--------|--------|-------|-------|-------|-------|-------|---------|
| Annual averages— | | | | | | | | | |
| 1956-60 | 18,568 | 33,626 | 9,209 | 4,325 | 2,647 | 1,753 | 1,373 | 2,353 | 73,854 |
| 1961-65 | 23,454 | 39,370 | 8,760 | 3,553 | 2,416 | 1,715 | 1,367 | 2,616 | 83,250 |
| 1966-70 | 30,475 | 53,356 | 10,334 | 3,521 | 2,143 | 1,764 | 1,545 | 3,047 | 106,185 |
| 1971-75 | 34,319 | 51,846 | 12,363 | 4,280 | 2,279 | 1,733 | 1,621 | 3,362 | 111,802 |
| Annual totals— | | | | | | | | | |
| 1972 | 34,848 | 54,057 | 12,262 | 3,953 | 2,222 | 1,665 | 1,640 | 3,382 | 114,029 |
| 1973 | 34,679 | 51,794 | 12,716 | 4,393 | 2,238 | 1,743 | 1,653 | 3,484 | 112,700 |
| 1974 | 34,753 | 50,162 | 12,530 | 4,397 | 2,252 | 1,665 | 1,582 | 3,332 | 110,673 |
| 1975 | 31,483 | 45,872 | 12,581 | 4,742 | 2,521 | 1,752 | 1,642 | 3,380 | 103,973 |
| 1976 | 28,063 | 45,891 | 15,755 | 6,866 | 3,892 | 2,641 | 2,356 | 4,509 | 109,973 |
| 1977 | 24,827 | 44,208 | 15,692 | 7,360 | 3,945 | 2,519 | 2,229 | 4,138 | 104,918 |

MARRIAGE RATES OF MARRIAGEABLE POPULATION

| Censal period | Per thousand single, widowed and divorced, aged 15 and over | | | Per thousand persons | |
|---------------|--|-----------------|-----------------|-------------------------|-------|
| | Males rate | Females rate | Persons rate | Rate | Index |
| 1880-82 | 39.38 | 63.56 | 48.63 | 7.62 | 100 |
| 1890-92 | 36.50 | 35.50 | 44.04 | 7.28 | 96 |
| 1900-02 | 37.32 | 48.39 | 42.14 | 7.27 | 95 |
| 1910-12 | 45.80 | 55.33 | 50.12 | 8.74 | 115 |
| 1920-22 | 54.00 | 58.08 | 55.97 | 8.75 | 115 |
| 1932-34 | 41.70 | 44.13 | 42.88 | 7.12 | 93 |
| 1946-48 | 71.89 | 70.60 | 71.24 | 10.15 | 133 |
| 1953-55 | 64.20 | 66.46 | 65.32 | 7.92 | 104 |
| 1960-62 | 61.50 | 63.07 | 62.27 | 7.34 | 96 |
| 1965-67 | 68.06 | 68.04 | 68.05 | 8.32 | 109 |
| 1970-72 | 70.34 | 67.11 | 68.69 | 9.09 | 119 |
| 1975-77 | 64.86 | 61.92 | 63.36 | 7.84 | 103 |

Divorce

The *Matrimonial Causes Act* of 1959-66 provided for dissolution of marriage on one or more of 14 grounds. It also provided for nullity of marriage and for judicial separation. This Act, which came into operation in 1961, replaced separate State and Territory legislation. The *Family Law Act* 1975, which came into operation on 5 January 1976, provides for a single ground for divorce—irretrievable breakdown of marriage—and for nullity of marriage on the ground that the marriage is void.

Statistics prior to 1976 in the following tables relate to divorces granted under the *Matrimonial Causes Act* or under previous State or Territory legislation. Statistics for 1976 relate to divorces granted under both *Matrimonial Causes* and *Family Law* legislation. Preliminary totals for divorces granted in 1977 relate to *Family Law* legislation only.

When comparing the number and rate of decrees granted from year to year it should be borne in mind that the availability of judges to hear petitions lodged can affect the number of decrees granted. A rise in one year may be due wholly or in part to the clearing of a backlog of cases from an earlier year.

In 1976, 63,267 petitions were granted for divorce, an increase of 160 per cent on the number in 1975. Of these 24.9 per cent were granted under *Matrimonial Causes*. The provisional total for 1977 is 45,175.

DIVORCE: DISSOLUTION, NULLITY AND
JUDICIAL SEPARATION

| Period | Petitions filed | Petitions granted |
|--------------------|--------------------|----------------------|
| Annual averages— | | |
| 1956-60 | 8,310 | 6,788 |
| 1961-65 | 9,955 | 7,611 |
| 1966-70 | 13,089 | 10,738 |
| 1971-75 | 22,704 | 17,405 |
| Annual totals— | | |
| 1972 | 19,088 | 15,707 |
| 1973 | 21,308 | 16,266 |
| 1974 | 26,855 | 17,744 |
| 1975 | 28,383 | 24,307 |
| 1976 | n.a. | 63,267 |
| Matrimonial Causes | n.a. | 15,743 |
| Family Law | n.a. | 47,524 |
| 1977 | n.a. | p45,175 |

Duration of Marriage, Age at Marriage and Age at Divorce

Marriages which were dissolved in 1976 lasted on average 10.97 years. Of the 63,230 marriages which were dissolved, 45.7 per cent had lasted less than ten years, 30.6 per cent between ten and twenty years and 23.7 per cent more than twenty years.

DISSOLUTION OF MARRIAGE, YEARS MARRIED

| Period | Years married | | | | | | Total | Median duration of marriage |
|-------------------|---------------|--------|--------|-------|-------|-----------------|--------|-----------------------------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25 and over (a) | | |
| Annual averages— | | | | | | | | |
| 1956-60 | 486 | 2,157 | 1,726 | 1,075 | 624 | 644 | 6,712 | 11.74 |
| 1961-65 | 501 | 1,999 | 1,747 | 1,329 | 926 | 1,040 | 7,542 | 13.56 |
| 1966-70 | 903 | 2,937 | 2,146 | 1,685 | 1,429 | 1,581 | 10,681 | 13.41 |
| 1971-75 | 1,693 | 5,478 | 3,432 | 2,398 | 1,930 | 2,417 | 17,349 | 11.92 |
| Annual totals— | | | | | | | | |
| 1971 | 1,200 | 3,880 | 2,594 | 1,854 | 1,605 | 1,814 | 12,947 | 12.46 |
| 1972 | 1,568 | 4,828 | 3,002 | 2,222 | 1,831 | 2,204 | 15,655 | 12.14 |
| 1973 | 1,624 | 5,209 | 3,121 | 2,181 | 1,793 | 2,268 | 16,196 | 12.03 |
| 1974 | 1,672 | 5,612 | 3,571 | 2,382 | 1,941 | 2,510 | 17,688 | 11.80 |
| 1975 | 2,401 | 7,861 | 4,873 | 3,353 | 2,481 | 3,288 | 24,257 | 11.40 |
| 1976 | 9,791 | 19,108 | 11,421 | 7,917 | 6,200 | 8,793 | 63,230 | 10.97 |

(a) Includes 2 not stated 1974, 1 not stated 1975, 3 not stated 1976.

In 1976, the median age at marriage of divorcing husbands was 23.35 years and of wives 20.99 years. Of husbands, 11.28 per cent had been aged under 20 at marriage and 53.83 per cent aged 20-24; of wives 38.96 per cent had been aged under age 20 and 43.26 per cent between 20-24.

DISSOLUTION OF MARRIAGE, AGE AT MARRIAGE

| Age at marriage (years) | | | | | | | | | | | | | |
|-------------------------|----------|--------|--------|-------|-------|-------|-------|-------|-------|-------------|------------|-----------------|------------|
| Period | Under 20 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 | 50-54 | 55-59 | 60 and over | Not stated | Total marriages | Median age |
| HUSBAND | | | | | | | | | | | | | |
| Annual averages— | | | | | | | | | | | | | |
| 1961-65 | 491 | 3,521 | 1,983 | 753 | 363 | 187 | 101 | 56 | 29 | 26 | 32 | 7,542 | 24.64 |
| 1966-70 | 946 | 5,271 | 2,567 | 932 | 448 | 238 | 129 | 73 | 37 | 37 | 3 | 10,681 | 24.17 |
| 1971-75 | 1,856 | 9,354 | 3,686 | 1,210 | 552 | 292 | 174 | 94 | 51 | 46 | 34 | 17,349 | 23.46 |
| Annual totals— | | | | | | | | | | | | | |
| 1971 | 1,308 | 6,733 | 2,903 | 997 | 471 | 238 | 141 | 80 | 36 | 37 | 3 | 12,947 | 23.67 |
| 1972 | 1,591 | 8,415 | 3,428 | 1,144 | 472 | 276 | 143 | 99 | 49 | 37 | 1 | 15,655 | 23.53 |
| 1973 | 1,667 | 8,717 | 3,416 | 1,132 | 538 | 275 | 156 | 92 | 48 | 49 | 106 | 16,196 | 23.44 |
| 1974 | 1,899 | 9,581 | 3,758 | 1,248 | 555 | 274 | 167 | 81 | 42 | 39 | 44 | 17,688 | 23.88 |
| 1975 | 2,816 | 13,326 | 4,924 | 1,528 | 724 | 396 | 262 | 119 | 79 | 66 | 17 | 24,257 | 23.28 |
| 1976 | 7,130 | 34,036 | 12,872 | 4,257 | 2,038 | 1,195 | 678 | 391 | 263 | 235 | 135 | 63,230 | 23.35 |
| WIFE | | | | | | | | | | | | | |
| Annual averages— | | | | | | | | | | | | | |
| 1961-65 | 2,347 | 3,265 | 1,026 | 430 | 218 | 112 | 56 | 29 | 15 | 10 | 34 | 7,542 | 22.15 |
| 1966-70 | 3,781 | 4,614 | 1,231 | 477 | 263 | 149 | 80 | 42 | 23 | 18 | 3 | 10,681 | 21.69 |
| 1971-75 | 6,662 | 7,710 | 1,630 | 592 | 317 | 185 | 108 | 58 | 27 | 24 | 35 | 17,349 | 20.89 |
| Annual totals— | | | | | | | | | | | | | |
| 1971 | 4,926 | 5,617 | 1,324 | 490 | 268 | 133 | 98 | 54 | 21 | 14 | 2 | 12,947 | 20.98 |
| 1972 | 5,968 | 6,959 | 1,522 | 551 | 307 | 151 | 99 | 50 | 19 | 24 | 5 | 15,655 | 20.90 |
| 1973 | 6,111 | 7,253 | 1,493 | 552 | 302 | 180 | 102 | 51 | 26 | 23 | 103 | 16,196 | 20.91 |
| 1974 | 6,734 | 8,025 | 1,614 | 574 | 322 | 196 | 81 | 49 | 33 | 17 | 43 | 17,688 | 20.88 |
| 1975 | 9,569 | 10,698 | 2,199 | 792 | 388 | 265 | 162 | 85 | 36 | 42 | 21 | 24,257 | 20.77 |
| 1976 | 24,632 | 27,354 | 5,906 | 2,148 | 1,210 | 728 | 504 | 279 | 166 | 124 | 179 | 63,230 | 20.99 |

At time of divorce, the median age of husbands was 36.33 years and of wives 33.30 years. A total of 27.0 per cent of husbands and 38.1 per cent of wives were aged under 30 years when the marriage was dissolved.

Children of the Marriage

For the years to which the Matrimonial Causes Act applied, children of the marriage were defined as living children under the age of 21 at the time of the petition. Under previous legislation

there were differences between States. The Family Law Act defines them as children of the marriage if they were under the age of 18 at the time of application. In 1976, of the dissolutions granted under the Family Law Act, no children were involved in 40 per cent of the dissolutions, while 23 per cent of the dissolutions involved 1 child, 22 per cent 2 children and 14 per cent 3 or more children. Comparable figures for dissolutions granted under the Matrimonial Causes Act were 28 per cent, 23 per cent, 26 per cent and 23 per cent respectively.

DISSOLUTION OF MARRIAGE, NUMBER OF CHILDREN

| Period | Number of children to the marriage | | | | | | Total marriages | Total children | Average number of children |
|-------------------|------------------------------------|--------|--------|-------|-------|------------|-----------------|----------------|----------------------------|
| | 0 | 1 | 2 | 3 | 4 | 5 and over | | | |
| Annual averages— | | | | | | | | | |
| 1956-60 | 2,318 | 1,810 | 1,466 | 657 | 278 | 190 | 6,720 | 8,946 | 1.33 |
| 1961-65 | 2,834 | 1,950 | 1,611 | 753 | 279 | 143 | 7,568 | 9,347 | 1.24 |
| 1966-70 | 3,628 | 2,656 | 2,428 | 1,212 | 497 | 261 | 10,681 | 14,588 | 1.37 |
| 1971-75 | 5,628 | 4,062 | 4,200 | 2,147 | 874 | 438 | 17,349 | 24,840 | 1.43 |
| Annual totals— | | | | | | | | | |
| 1971 | 4,212 | 3,180 | 2,973 | 1,601 | 619 | 362 | 12,947 | 18,451 | 1.43 |
| 1972 | 5,198 | 3,690 | 3,669 | 1,885 | 817 | 396 | 15,655 | 22,172 | 1.42 |
| 1973 | 5,245 | 3,834 | 3,894 | 2,025 | 818 | 380 | 16,196 | 23,078 | 1.42 |
| 1974 | 5,615 | 4,138 | 4,431 | 2,194 | 863 | 447 | 17,688 | 25,505 | 1.44 |
| 1975 | 7,870 | 5,467 | 6,031 | 3,029 | 1,254 | 606 | 24,257 | 34,992 | 1.44 |
| 1976 | 23,606 | 14,751 | 14,422 | 6,761 | 2,542 | 1,148 | 63,230 | 73,645 | 1.86 |

INTERNATIONAL MOVEMENTS

Statistics of overseas arrivals and departures are compiled from incoming and outgoing passenger cards which are collected from all travellers under the *Migration Act* 1958-1973. Earlier statistics were obtained from passenger lists required under various Acts.

Since 1924, overseas travellers have been classified into two principal categories which distinguish movements for short terms from movements for longer periods (including permanent movements). Revised questions for travellers were introduced in 1958 and again in 1974. The 1958 revision enabled the separation, after 1959, of permanent from other long-term movements and also the identification of former settlers departing. The 1974 revisions improved the classification without change of principle. The principal categories of overseas movement are:

Permanent—consists of persons arriving with the stated intention of settling permanently in Australia (settlers), and Australian residents (including former settlers) departing with the stated intention of residing permanently abroad. Before 1974, former settlers were not so classified unless they had spent at least 12 months in Australia.

Long-term—consists of overseas visitors arriving and Australian residents departing with the stated intention of staying in Australia or abroad respectively for 12 months or more; and visitors departing and residents returning who have stayed in Australia or abroad respectively for 12 months or more. Until 1974, Australian residents returning were classified as long-term only if their time spent abroad included a period of 12 months in any one country. Their classification is now governed solely by their total absence from Australia.

Short-term—consists of overseas visitors arriving and Australian residents departing whose intended or actual period of stay in Australia or abroad respectively is less than twelve months.

The classification of overseas movements is based on statements made by the traveller on arrival in or departure from Australia. The statistics represent the travellers' intentions at the time of arrival or departure; travellers may subsequently change their intentions, and this must be borne in mind in interpreting statistics.

A comparison of overseas arrivals and departures in 1977 with those in 1950 indicates a present predominance of tourists, thereby also accounting for the great increase in the volume of travel, now mostly by air. In 1950 there were 250,404 arrivals and 97,899 departures, compared with 1,697,771 arrivals and 1,618,230 departures in 1977. Total arrivals remained at the 1950 levels until the early 1960s and total departures increased only slowly. In 1950, short-term movement accounted for 30.3 per cent of arrivals and 78.7 per cent of departures. The percentages had increased to 90.5 per cent and 93.4 per cent respectively in 1977. An upsurge of international tourism, particularly by Australian residents, occurred in the 1970s. The volume of sea travel has changed little over the period (the figures exclude pleasure cruises in the south west Pacific beginning and ending in Australia), so that in 1977 only 2.2 per cent of arrivals and departures had travelled by ship. Net gain, i.e. the

excess of total arrivals over total departures, until recently provided a satisfactory measure of the population gain from international migration. In recent years, however, distortions arising from seasonality of short-term arrivals and departures have become very large. For the purpose of estimating the population of Australia and the States and Territories, therefore, the migration components of population growth has been measured since 1 July 1971 by reference to permanent and long-term movements only.

OVERSEAS ARRIVALS AND DEPARTURES: AUSTRALIA 1956-1977(a)

ARRIVALS

| Period | Permanent and long-term movement | | | | Short-term movement | | | | |
|-------------------|----------------------------------|--------------------------------------|----------------------------------|--|--------------------------------------|----------------------------|---------|---------|-------------------|
| | Per- manent | Long-term | Overseas visitors arriving | Total permanent and long-term arrivals | Australian residents returning | Overseas visitors arriving | | | |
| | Settlers arriving | Australian residents returning | | | | In transit | Other | Total | Total arrivals |
| | | | | | | | | | |
| Annual averages— | | | | | | | | | |
| 1956-60 | n.a. | n.a. | n.a. | 123,153 | 61,922 | 16,841 | 50,903 | 67,744 | 252,819 |
| 1961-65 | 115,198 | 22,258 | 14,770 | 152,226 | 117,041 | 28,685 | 102,776 | 131,461 | 400,727 |
| 1966-70 | 160,813 | 36,148 | 24,481 | 221,442 | 259,700 | 41,476 | 255,800 | 297,275 | 778,417 |
| 1971-75 | 109,687 | 57,751 | 26,254 | 193,692 | 631,446 | 74,356 | 401,569 | 475,925 | 1,301,063 |
| Annual totals— | | | | | | | | | |
| 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 |
| 1974 | 121,324 | 63,320 | 26,984 | 211,628 | 752,218 | 78,166 | 454,517 | 532,683 | 1,496,529 |
| 1975 | 54,117 | 58,352 | 19,858 | 132,327 | 880,609 | 78,222 | 437,801 | 516,023 | 1,528,959 |
| 1976 | 58,317 | 59,875 | 23,312 | 141,504 | 968,265 | 66,462 | 465,406 | 531,868 | 1,641,636 |
| 1977 | 75,640 | 57,700 | 27,472 | 160,813 | 973,677 | 53,032 | 510,249 | 563,281 | 1,697,771 |

DEPARTURES

| Period | Permanent and long-term movement | | | | | | Short-term movement | | |
|------------------|----------------------------------|---------------------------------|----------------------------------|--------------------------------------|-----------------------------------|--|--------------------------------------|-----------------------------------|---------------------|
| | Permanent | | Total permanent departures | Long-term | | Total permanent and long-term departures | Australian residents departing | Overseas visitors departing | Total departures |
| | Former settlers departing | Other residents departing | | Australian residents departing | Overseas visitors departing | | | | |
| | | | | | | | | | |
| Annual averages— | | | | | | | | | |
| 1956-60 | n.a. | n.a. | n.a. | n.a. | n.a. | 42,161 | 61,224 | 68,430 | 171,815 |
| 1961-65 | 9,698 | 6,798 | 16,496 | 37,905 | 12,719 | 67,120 | 118,624 | 135,006 | 320,749 |
| 1966-70 | 23,191 | 8,752 | 31,942 | 56,219 | 14,349 | 102,511 | 258,824 | 308,321 | 669,656 |
| 1971-75 | 26,622 | 12,032 | 38,654 | 66,430 | 22,984 | 128,067 | 647,608 | 479,015 | 1,254,690 |
| Annual totals— | | | | | | | | | |
| 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 |
| 1974 | 21,849 | 11,902 | 33,751 | 66,228 | 24,401 | 124,380 | 769,650 | 515,378 | 1,409,408 |
| 1975 | 18,315 | 10,769 | 29,084 | 66,405 | 23,327 | 118,816 | 911,815 | 506,454 | 1,537,084 |
| 1976 | 16,815 | 9,918 | 26,733 | 68,526 | 20,631 | 115,890 | 973,799 | 512,468 | 1,602,156 |
| 1977 | 14,171 | 8,591 | 22,762 | 64,091 | 19,182 | 106,035 | 971,253 | 540,943 | 1,618,230 |

EXCESS OF ARRIVALS OVER DEPARTURES

| Period | Permanent and long-term movement | | | | | | Short-term movement (a) | | | | |
|------------------|----------------------------------|---------|---------|------------------------------|---------------------------|------------------------|--|------------------------------|---------------------------|-------------------------|---------|
| | Permanent | | | Long-term | | | Total per- manent and long-term | Short-term | | | Total |
| | Settlers | Others | Total | Aus- tralian residents | Over- seas visitors | Total long- term | | Aus- tralian residents | Over- seas visitors | Total short- term | |
| | | | | | | | | | | | |
| Annual averages— | | | | | | | | | | | |
| 1956-60 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | 80,992 | 699 | -686 | 12 | 81,004 |
| 1961-65 | 105,500 | -6,798 | 98,702 | -15,648 | 2,051 | -13,597 | 85,106 | -1,583 | -3,544 | -5,127 | 79,978 |
| 1966-70 | 137,622 | -8,752 | 128,870 | -20,071 | 10,132 | -9,939 | 118,931 | 876 | -11,046 | -10,169 | 108,762 |
| 1971-75 | 83,065 | -12,032 | 71,034 | -8,679 | 3,271 | -5,408 | 65,625 | -16,163 | -3,090 | -19,253 | 46,373 |
| Annual totals— | | | | | | | | | | | |
| 1972 | 79,296 | -12,709 | 66,587 | -12,575 | 2,308 | -10,267 | 56,320 | -13,557 | -14,917 | -28,474 | 27,846 |
| 1973 | 74,678 | -13,105 | 61,573 | 57 | 5,864 | 5,921 | 67,494 | -17,299 | -9,777 | -27,076 | 40,418 |
| 1974 | 99,475 | -11,902 | 87,573 | -2,908 | 2,583 | -325 | 87,248 | -17,432 | 17,305 | -127 | 87,121 |
| 1975 | 35,802 | -10,769 | 25,033 | -8,053 | -3,468 | -11,521 | 13,512 | -31,207 | 9,568 | -21,639 | -8,126 |
| 1976 | 41,502 | -9,918 | 31,584 | -8,653 | 2,681 | -5,972 | 25,611 | -5,534 | 19,400 | 13,864 | 39,480 |
| 1977 | 61,469 | -8,591 | 52,878 | -6,391 | 8,291 | 1,900 | 54,778 | 2,424 | 22,338 | 24,762 | 79,540 |

(a) Statistics of short-term movements since 1974 are estimates based on sampling.

Migration to Australia

Migration to Australia is regulated by the *Migration Act* 1958–1973 which came into force on 1 June 1959. Any person 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.

Prior to January 1975, citizens of the United Kingdom and Ireland were able to travel to Australia without obtaining any authority to do so; but, with the introduction of a non-discriminatory policy, they are now required to meet the same requirements as all other prospective migrants. Because of reciprocal arrangements on travel between the Australian and New Zealand governments, New Zealanders may come to Australia and Australian citizens may enter New Zealand as they wish.

Immigration has contributed substantially to Australia's post war population growth. In the post-war years, some 3.47 million migrants have arrived, of which an estimated 80 per cent settled. They and those of their children born in Australia have been responsible for about half of Australia's post war population growth.

In 1977 settler arrival was 75,640 having risen from a post-war lowest level of 54,117 in 1975. The highest annual post-war level was 185,324 in 1970. The composition of the settler intake (in terms of source countries) has also altered markedly, as the table following shows.

SETTLERS ARRIVING BY COUNTRY OF LAST RESIDENCE

| | Number | | Per cent | |
|---|---------|--------|----------|-------|
| | 1970 | 1977 | 1970 | 1977 |
| South Africa | 1,751 | 2,704 | 0.9 | 3.6 |
| Other Africa | 3,799 | 994 | 2.1 | 1.3 |
| <i>Total Africa</i> | 5,550 | 3,698 | 3.0 | 4.9 |
| Canada | 2,080 | 918 | 1.1 | 1.2 |
| U.S.A. | 4,909 | 1,358 | 2.7 | 1.8 |
| Other America | 4,262 | 3,716 | 2.3 | 4.9 |
| <i>Total America</i> | 11,251 | 5,992 | 6.1 | 7.9 |
| India, Pakistan and Sri Lanka | 4,119 | 1,101 | 2.2 | 1.5 |
| Lebanon | 3,974 | 8,192 | 2.1 | 10.8 |
| Malaysia and Singapore | 1,501 | 3,458 | 0.8 | 4.6 |
| Turkey | 4,399 | 1,264 | 2.4 | 1.7 |
| Other Asia | 4,014 | 10,390 | 2.2 | 13.7 |
| <i>Total Asia</i> | 18,007 | 24,405 | 9.7 | 32.3 |
| U.K. and Ireland | 77,522 | 21,384 | 41.8 | 28.3 |
| Austria | 12,790 | 348 | 6.9 | 0.4 |
| Germany | 5,106 | 985 | 2.8 | 1.3 |
| Greece | 10,098 | 1,605 | 5.4 | 2.1 |
| Italy | 8,843 | 1,969 | 4.8 | 2.6 |
| Yugoslavia | 15,717 | 1,662 | 8.5 | 2.2 |
| Other Europe | 14,102 | 3,760 | 7.6 | 5.0 |
| <i>Total Europe</i> | 144,178 | 31,713 | 77.8 | 41.9 |
| New Zealand | 5,532 | 7,995 | 3.0 | 10.6 |
| Other Oceania | 807 | 1,694 | 0.4 | 2.2 |
| <i>Total Oceania</i> | 6,339 | 9,689 | 3.4 | 12.8 |
| Not Stated | .. | 143 | | 0.2 |
| <i>Total</i> | 185,325 | 75,640 | 100.0 | 100.0 |

Each year Australia loses a proportion of its previous migrant intakes. Additionally, partly as a result of the high international mobility of professional and skilled workers, substantial numbers of Australians take up job opportunities overseas.

Because of the high level of unemployment in Australia, entry for permanent settlement is at present restricted to the spouses, dependent children and parents of Australian residents and those who possess skills in an occupation for which there is a substantial unfilled demand. However, fiancées and fiancés may be considered, as well as other categories where compelling compassionate or humanitarian considerations exist, e.g. refugees.

The granting of assisted passages is restricted to the spouses and minor dependent children of Australian residents, and to those possessing occupational skills that are in short supply.

DEMOGRAPHY
SETTLER ARRIVALS

| <i>Period</i> | <i>Assisted</i> | <i>Unassisted</i> | <i>Total</i> |
|-------------------------|-----------------|-------------------|--------------|
| Annual averages— | | | |
| 1961-65 | 67,426 | 47,772 | 115,198 |
| 1966-70 | 107,496 | 53,317 | 160,813 |
| 1971-75 | 58,176 | 51,511 | 109,687 |
| Annual totals— | | | |
| 1972 | 63,710 | 48,758 | 112,468 |
| 1973 | 49,822 | 55,181 | 105,003 |
| 1974 | 52,194 | 69,130 | 121,324 |
| 1975 | 21,345 | 32,772 | 54,117 |
| 1976 | 15,840 | 42,477 | 58,317 |
| 1977 | 17,532 | 58,108 | 75,640 |

SETTLER ARRIVALS BY AGE

| | Age in years | | | | | | |
|-------------------|--------------|--------|--------|--------|--------|-------------|----------|
| Period | 0-4 | 5-14 | 15-24 | 25-44 | 45-64 | 65 and over | All ages |
| MALES | | | | | | | |
| Annual averages— | | | | | | | |
| 1961-65 | 6,831 | 10,532 | 15,379 | 21,776 | 4,535 | 919 | 59,972 |
| 1966-70 | 10,542 | 15,434 | 21,184 | 32,272 | 5,809 | 1,243 | 86,484 |
| 1971-75 | 7,411 | 10,009 | 12,878 | 20,326 | 3,921 | 1,247 | 55,792 |
| Annual totals— | | | | | | | |
| 1972 | 7,274 | 9,843 | 14,268 | 20,754 | 4,314 | 1,370 | 57,823 |
| 1973 | 7,455 | 9,227 | 12,350 | 19,169 | 3,859 | 1,207 | 53,267 |
| 1974 | 8,149 | 11,048 | 13,397 | 23,452 | 4,317 | 1,402 | 61,765 |
| 1975 | 4,124 | 4,968 | 4,011 | 8,673 | 1,735 | 1,063 | 24,575 |
| 1976 | 3,996 | 5,543 | 5,339 | 9,556 | 2,105 | 1,183 | 27,722 |
| 1977 | 5,205 | 7,221 | 8,009 | 12,410 | 3,461 | 1,344 | 37,650 |
| FEMALES | | | | | | | |
| Annual averages— | | | | | | | |
| 1961-65 | 6,333 | 9,772 | 14,248 | 18,262 | 5,135 | 1,476 | 55,226 |
| 1966-70 | 9,909 | 14,435 | 17,751 | 24,132 | 6,240 | 1,861 | 74,328 |
| 1971-75 | 6,952 | 9,301 | 13,685 | 17,445 | 4,787 | 1,725 | 53,895 |
| Annual totals— | | | | | | | |
| 1972 | 6,736 | 9,278 | 14,394 | 17,295 | 5,114 | 1,828 | 54,645 |
| 1973 | 6,983 | 8,729 | 13,123 | 16,449 | 4,728 | 1,724 | 51,736 |
| 1974 | 7,527 | 9,988 | 14,940 | 20,053 | 5,250 | 1,801 | 59,559 |
| 1975 | 3,908 | 4,671 | 6,990 | 9,676 | 2,807 | 1,491 | 29,544 |
| 1976 | 4,100 | 5,314 | 6,537 | 9,830 | 3,280 | 1,538 | 30,599 |
| 1977 | 4,821 | 6,597 | 8,070 | 12,104 | 4,595 | 1,803 | 37,990 |
| PERSONS | | | | | | | |
| Annual averages— | | | | | | | |
| 1961-65 | 13,164 | 20,305 | 29,627 | 40,038 | 9,670 | 2,395 | 115,198 |
| 1966-70 | 20,451 | 29,869 | 38,935 | 56,405 | 12,049 | 3,104 | 160,813 |
| 1971-75 | 14,363 | 19,311 | 26,563 | 37,771 | 8,708 | 2,972 | 109,687 |
| Annual totals— | | | | | | | |
| 1972 | 14,010 | 19,121 | 28,662 | 38,049 | 9,428 | 3,198 | 112,468 |
| 1973 | 14,438 | 17,956 | 25,473 | 35,618 | 8,587 | 2,931 | 105,003 |
| 1974 | 15,676 | 21,036 | 28,337 | 43,505 | 9,567 | 3,203 | 121,324 |
| 1975 | 8,032 | 9,639 | 11,001 | 18,350 | 4,542 | 2,554 | 54,117 |
| 1976 | 8,096 | 10,857 | 11,876 | 19,386 | 5,385 | 2,721 | 58,321 |
| 1977 | 10,026 | 13,818 | 16,075 | 24,518 | 8,056 | 3,147 | 75,640 |

SETTLER ARRIVALS BY MARITAL STATUS

| | <i>Never married</i> | | | | |
|-------------------|-----------------------|--------------------------|----------------|-----------------------------|--------------|
| <i>Period</i> | <i>Under 15 years</i> | <i>15 years and over</i> | <i>Married</i> | <i>Widowed and divorced</i> | <i>Total</i> |
| MALES | | | | | |
| Annual averages— | | | | | |
| 1961-65 | 17,364 | 20,190 | 21,800 | 618 | 59,972 |
| 1966-70 | 25,976 | 25,742 | 33,668 | 1,098 | 86,484 |
| 1971-75 | 17,420 | 14,750 | 22,595 | 1,027 | 55,792 |
| Annual totals— | | | | | |
| 1972 | 17,117 | 16,278 | 23,263 | 1,165 | 57,823 |
| 1973 | 16,682 | 14,067 | 21,374 | 1,144 | 53,267 |
| 1974 | 19,197 | 15,508 | 25,829 | 1,231 | 61,765 |
| 1975 | 9,092 | 4,664 | 10,377 | 442 | 24,575 |
| 1976 | 9,541 | 6,710 | 10,888 | 581 | 27,720 |
| 1977 | 12,426 | 9,631 | 14,826 | 767 | 37,650 |
| FEMALES | | | | | |
| Annual averages— | | | | | |
| 1961-65 | 16,105 | 13,245 | 23,377 | 2,500 | 55,226 |
| 1966-70 | 24,344 | 12,530 | 34,125 | 3,330 | 74,328 |
| 1971-75 | 16,246 | 9,752 | 25,055 | 2,842 | 53,895 |
| Annual totals— | | | | | |
| 1972 | 16,014 | 10,286 | 25,337 | 3,008 | 54,645 |
| 1973 | 15,712 | 8,916 | 23,970 | 3,138 | 51,736 |
| 1974 | 17,498 | 10,863 | 28,183 | 3,015 | 59,559 |
| 1975 | 8,559 | 5,521 | 13,614 | 1,849 | 29,544 |
| 1976 | 9,361 | 5,473 | 13,886 | 1,877 | 30,597 |
| 1977 | 11,378 | 6,319 | 17,874 | 2,419 | 37,990 |
| PERSONS | | | | | |
| Annual averages— | | | | | |
| 1961-65 | 33,468 | 33,435 | 45,177 | 3,118 | 115,198 |
| 1966-70 | 50,320 | 38,272 | 67,793 | 4,427 | 160,813 |
| 1971-75 | 33,666 | 24,502 | 47,651 | 3,869 | 109,687 |
| Annual totals— | | | | | |
| 1972 | 33,131 | 26,564 | 48,600 | 4,173 | 112,468 |
| 1973 | 32,394 | 22,983 | 45,344 | 4,282 | 105,003 |
| 1974 | 36,695 | 26,371 | 54,012 | 4,246 | 121,324 |
| 1975 | 17,651 | 10,185 | 23,991 | 2,290 | 54,117 |
| 1976 | 18,902 | 12,182 | 24,779 | 2,458 | 58,321 |
| 1977 | 23,804 | 15,950 | 32,700 | 3,186 | 75,640 |

Refugees

Australia has opened its door to many refugees. Of almost 1 million people settled by the International Refugee Organisation between 1947 and 1952, Australia accepted 170,700, a total exceeded only by the United States of America. Since the early 1950s, crises have occurred which have increased the complexity of the world refugee problem, including the Hungarian uprising of 1956, its counterpart in Czechoslovakia in 1968, the continuing flow of refugees from Yugoslavia up to the late 1960s and early 1970s, the expulsion of Asians from Uganda in 1972, the events following the change of government in Chile in 1973, the fighting in Cyprus and the Lebanon, and the end of the war in Vietnam, Laos and Cambodia in 1975. Australia's total intake was 9,474 in 1977, 2,202 assisted and 7,272 other.

DEMOGRAPHY
REFUGEE ARRIVALS

| <i>Period</i> | <i>Assisted</i> | <i>Other</i> | <i>Total</i> |
|-------------------|-----------------|--------------|--------------|
| Annual average— | | | |
| 1956-60 | 5,904 | n.a. | n.a. |
| 1961-65 | 1,799 | n.a. | n.a. |
| 1966-70 | 7,446 | n.a. | n.a. |
| 1971-75 | 2,773 | 7,776 | 10,549 |
| Annual totals— | | | |
| 1972 | 2,324 | 7,478 | 9,802 |
| 1973 | 1,473 | 7,241 | 8,714 |
| 1974 | 1,686 | 7,013 | 8,699 |
| 1975 | 853 | 3,302 | 4,155 |
| 1976 | 865 | 3,231 | 4,096 |
| 1977 | 2,202 | 7,272 | 9,474 |

Citizenship

The grant of citizenship is controlled by the *Australian Citizenship Act 1948*. Citizenship may be acquired by birth in Australia, by birth abroad to Australian parents, or by grant of citizenship to persons resident in Australia under conditions prescribed in the Act.

An amendment to the legislation in 1973 meant that all persons are now eligible for the grant of Australian citizenship 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 declare that their intention is to reside permanently in Australia.

PERSONS GRANTED AUSTRALIAN
CITIZENSHIP

| <i>Period</i> | <i>Number</i> |
|-------------------|---------------|
| Annual averages— | |
| 1956-60 | 44,412 |
| 1961-65 | 43,823 |
| 1966-70 | 40,934 |
| 1971-75 | 61,182 |
| Annual totals— | |
| 1972 | 38,402 |
| 1973 | 57,102 |
| 1974 | 87,549 |
| 1975 | 84,059 |
| 1976 | 118,189 |
| 1977 | 70,706 |

Sources

Comprehensive statistics on aspects of demography are in the following publications of the Australian Bureau of Statistics:

1976 Census publications including: *Population of States and Territories Adjusted for Under-Enumeration as Shown by Post-Enumeration Survey* (2212.0); *Summary of Population and Dwelling Characteristics: States, Territories and Australia* (2409.0 to 2417.0); *Characteristics of the Population and Dwellings: States, Territories and Australia* (2418.0 to 2426.0); *Characteristics of the Population and Dwellings in Local Government Areas* (2427.0 to 2434.0); *Aboriginal Population: Characteristics of the Population and Dwellings* (2219.0).

Australia Life Tables (3305.0).

Birth Expectations of Married Women (3213.0).

Births (3301.0).

Deaths (3302.0).

Demography (3101.0).

Divorces (3307.0).

Estimated Age Distribution of the Population (3201.0).

Internal Migration (3408.0).

Marriages (3306.0).

Overseas Arrivals and Departures (3401.0, 3402.0, 3404.0).

Perinatal Deaths (3304.0).

Population and Vital Statistics (3212.0).

Population: Principal Cities and Towns (3202.0).

Projections of the Population of Australia (3204.0).

Internal Migration in Australia, D. T. Rowlands, Census Monograph, Australian Bureau of Statistics and the Department of Demography, Australian National University, 1979 (3409.0).

CHAPTER 7

PRICES AND HOUSEHOLD EXPENDITURE

RETAIL PRICES AND PRICE INDEXES

Retail prices of food and groceries and average rentals of houses have been collected by the Commonwealth Statistician for the years extending back to 1901 and, in some cases, 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. (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 is obtained was considerably expanded in 1948 and in later years. Average retail prices of certain food and grocery items in the relevant periods were published in the annual *Labour Report* (now discontinued).

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 current at the time. The current retail price index, the Consumer Price Index, was published for the first time in August 1960 and was compiled retrospectively to the September quarter 1948. A description of the Consumer Price Index (CPI) is given below. For a more complete description of the CPI, readers are referred to a booklet entitled *A Guide to the Consumer Price Index* which is available from the ABS on request.

The Consumer Price Index

Introduction

The Consumer Price Index measures quarterly changes in the price of a 'basket' of goods and services which account for a high proportion of expenditures by metropolitan wage and salary earner households. This 'basket' covers a wide range of goods and services, arranged in the following groups: Food; Clothing; Housing; Household equipment and operation; Transportation; Tobacco and alcohol; Health and personal care; and Recreation. Each group is, in turn, divided into sub-groups.

Index numbers at the *Group* and *All Groups* levels are published each quarter for each State capital city and Canberra, for the weighted average of six State capital cities and for the weighted average of seven capital cities. *Sub-group index numbers* are also published for the weighted average of six State capital cities.

Items in the Food Group of the CPI are priced each month and the Food Group Index is compiled and published monthly. (Indexes for other groups are not compiled monthly.)

As from August 1978 monthly indexes for the Food Group and its sub-groups have been published for Darwin (see *Consumer Price Index, Monthly Food Group Index, Darwin (6413.0)*). Indexes have been calculated retrospectively to February 1975 for the Food Group and some sub-groups. The Food Group is the only Group for which data are collected and compiled in respect of Darwin.

Index population

The CPI is designed to measure price changes affecting a high proportion of *metropolitan wage and salary earner households*. *Wage and salary earner households* are defined as those households which obtain at least three-quarters of their total income from wages and salaries. *Metropolitan households* are those which occur in the State capital cities or in Canberra. The CPI population group covers most metropolitan wage and salary earner households, but it excludes the top 10 per cent (in terms of income) of such households.

Weighting pattern

There are 105 expenditure classes (i.e. groupings of like items) within the current CPI and each expenditure class has its own weight, or measure of relative importance. In calculating the index, price changes for the various expenditure classes are combined using these weights.

Changes in the weighting pattern have been made at approximately five-yearly intervals to take account of changes in household spending patterns. The CPI, in fact, comprises nine series of price

indexes which have been linked to form a continuous series. The ninth series (i.e. the current series) was introduced as from the September quarter 1976 and its weighting pattern is based on estimated expenditures in 1974-75 obtained from the first household expenditure survey conducted by the ABS. Details of the weighting pattern are published in the booklet *A Guide to the Consumer Price Index*.

The CPI 'basket' of goods and services covers items which are considered representative of metropolitan household spending habits and whose prices can be associated with an identifiable and specific quantity of a commodity or service. For instance, price changes for a given quantity and quality of bread or refrigerator can be measured and included in the CPI. Income taxes and personal savings, on the other hand, do not form part of the CPI because they cannot be clearly associated with the purchase of a specific quantity of a good or service.

Price collection

Since the CPI is designed to measure the impact of changing prices on metropolitan wage and salary earner households, price movements are monitored in the kinds of retail outlets or other establishments where such households would normally purchase goods and services. This involves collecting prices from many sources including supermarkets, department stores, footwear stores, restaurants, garages, dental surgeries and hairdressers. Items such as bus, rail and air fares, electricity and gas charges, telephone charges and local authority rates are collected from the appropriate authorities. Information on rents is obtained from property management companies. In total, around 80,000 separate price quotations are collected each quarter.

Food items are priced at the middle of each month except in the case of some fresh items (fruit, vegetables and fish) where prices are collected more frequently and averaged to obtain monthly prices. Most of the other CPI items are priced quarterly, usually at the middle of the mid-month of the quarter (February, May, August and November). However, to smooth out collection workloads, some items are collected during the first month of each quarter. Some items, such as local authority rates, need to be priced only once a year.

The prices used in the CPI are those that any member of the public would have to pay on the pricing day to purchase the specified good or service. Any sales or excise taxes which the consumer must pay when purchasing specific items are included in the CPI price. Sale prices, discount prices and 'specials' are reflected in the CPI so long as the items concerned are of normal quality (i.e. not damaged or shop soiled) and are offered for sale in reasonable quantities. To ensure that the price movements reflect the experience of the bulk of the metropolitan population, the brands and the varieties of the items which are priced are generally those which sell in greatest volume.

Changes in quality

The CPI aims to measure the price change of a constant basket of goods and services over time. For this reason, efforts are made to ensure that identical or equivalent items are priced in successive time periods. This involves evaluating changes in the quality of goods and services included in the index, and removing the effects of such changes so that the index reflects only the price change.

Periodic revision of the CPI

The CPI is periodically revised in order to ensure it continues to reflect current conditions. CPI revisions have usually been carried out at approximately five-yearly intervals. Following each revision the new list of items and weights (i.e. the new CPI basket) is linked to the previous series to form one continuous series. The process of linking ensures that the continuous series reflects only price variations and not differences in costs of the old and new baskets.

Earlier CPI series

The index has been compiled for each quarter from the September quarter 1948. The above description of the CPI refers to the ninth series which was introduced as from the September quarter 1976. A description of earlier CPI series is contained in the *Labour Report* No. 58, 1973, and in previous issues of the Year Book.

**CONSUMER PRICE INDEX: ALL GROUPS INDEX
SIX STATE CAPITAL CITIES AND CANBERRA**

(Base of each index: Year 1966-67 = 100.0)(a)

| <i>Period</i> | <i>Weighted average of six State capital cities</i> | <i>Sydney</i> | <i>Mel- bourne</i> | <i>Brisbane</i> | <i>Adelaide</i> | <i>Perth</i> | <i>Hobart</i> | <i>Canberra</i> | <i>Weighted average of seven capital cities</i> |
|-----------------|---|---------------|------------------------|-----------------|-----------------|--------------|---------------|-----------------|---|
| Year— | | | | | | | | | |
| 1972-73 . . . | 129.8 | 133.9 | 127.2 | 128.6 | 126.5 | 127.3 | 126.7 | 126.3 | 129.8 |
| 1973-74 . . . | 146.6 | 151.3 | 144.0 | 146.1 | 143.9 | 140.6 | 142.6 | 142.8 | 146.6 |
| 1974-75 . . . | 171.1 | 176.1 | 167.9 | 168.7 | 169.7 | 166.1 | 166.7 | 164.9 | 171.0 |
| 1975-76 . . . | 193.3 | 199.0 | 189.5 | 190.9 | 190.5 | 189.6 | 190.0 | 187.3 | 193.3 |
| 1976-77 . . . | 220.0 | 223.4 | 216.6 | 218.0 | 220.1 | 219.4 | 217.7 | 212.9 | 219.9 |
| 1977-78 . . . | 241.0 | 243.2 | 238.2 | 238.4 | 241.8 | 243.1 | 239.1 | 232.3 | 240.9 |
| Quarter— | | | | | | | | | |
| 1976-77— | | | | | | | | | |
| June . . . | 229.6 | 232.3 | 227.0 | 226.6 | 230.1 | 229.3 | 226.7 | 220.3 | 229.4 |
| 1977-78— | | | | | | | | | |
| September . | 234.1 | 236.0 | 231.6 | 231.3 | 235.6 | 234.9 | 232.0 | 224.8 | 233.9 |
| December . | 239.6 | 241.8 | 236.6 | 236.3 | 241.0 | 242.5 | 238.1 | 231.9 | 239.5 |
| March . . . | 242.7 | 245.1 | 239.2 | 240.6 | 243.1 | 245.3 | 240.8 | 234.2 | 242.5 |
| June . . . | 247.7 | 249.8 | 245.2 | 245.2 | 247.6 | 249.8 | 245.5 | 238.1 | 247.6 |
| 1978-79— | | | | | | | | | |
| September . | 252.5 | 255.0 | 249.6 | 249.8 | 252.6 | 254.7 | 249.3 | 242.7 | 252.4 |

(a) The separate city indexes measure price movements within each city individually. They do not compare price levels between cities.

**CONSUMER PRICE INDEX: GROUP INDEXES
WEIGHTED AVERAGE OF SIX STATE CAPITAL CITIES**

(Base of each index: Year 1966-67 = 100.0 unless otherwise noted)

| <i>Period</i> | <i>Food</i> | <i>Clothing</i> | <i>Housing</i> | <i>Household equipment and operation</i> | <i>Transport- ation</i> | <i>Tobacco and alcohol</i> | <i>Health and personal care(a)</i> | <i>Recreation (b)</i> | <i>All groups</i> |
|-----------------|-------------|-----------------|----------------|--|-----------------------------|------------------------------------|--|---------------------------|-----------------------|
| Year— | | | | | | | | | |
| 1972-73 . . . | 125.7 | 125.8 | 142.4 | 118.7 | 135.0 | 132.6 | 129.7 | (c) | 129.8 |
| 1973-74 . . . | 149.5 | 143.0 | 157.8 | 129.6 | 144.9 | 145.2 | 149.0 | (c) | 146.6 |
| 1974-75 . . . | 164.0 | 173.0 | 187.4 | 153.8 | 173.0 | 170.4 | 186.5 | (c) | 171.1 |
| 1975-76 . . . | 180.2 | 201.0 | 221.1 | 178.3 | 203.8 | 211.1 | 151.6 | (c) | 193.3 |
| 1976-77 . . . | 201.2 | 232.5 | 251.8 | 196.3 | 221.9 | 229.8 | 265.8 | 104.1 | 220.0 |
| 1977-78 . . . | 223.2 | 257.4 | 274.6 | 212.6 | 240.1 | 240.0 | 318.3 | 113.4 | 241.0 |
| Quarter— | | | | | | | | | |
| 1976-77— | | | | | | | | | |
| June . . . | 209.4 | 244.1 | 261.6 | 203.5 | 228.7 | 233.4 | 304.9 | 108.8 | 229.6 |
| 1977-78— | | | | | | | | | |
| September . | 217.4 | 248.2 | 266.7 | 206.4 | 232.3 | 236.0 | 307.1 | 110.1 | 234.1 |
| December . | 222.1 | 256.5 | 273.2 | 211.7 | 239.2 | 239.2 | 311.0 | 112.6 | 239.6 |
| March . . . | 223.5 | 259.3 | 276.9 | 213.8 | 243.0 | 241.9 | 317.8 | 114.9 | 242.7 |
| June . . . | 229.8 | 265.6 | 281.7 | 218.3 | 245.9 | 242.8 | 337.3 | 116.0 | 247.7 |
| 1978-79— | | | | | | | | | |
| September . | 236.6 | 269.0 | 285.2 | 221.1 | 251.2 | 245.3 | 350.2 | 117.6 | 252.5 |

(a) Base: December quarter 1968 = 100.0
quarters prior to September quarter 1976.

(b) Base: September quarter 1976 = 100.0.

(c) New grouping not compiled for

PRICES AND HOUSEHOLD EXPENDITURE

CONSUMER PRICE INDEX: GROUP INDEXES
SIX STATE CAPITAL CITIES AND CANBERRA

(Base of each index: Year 1966-67 = 100.0 unless otherwise noted) (a)

| Year | Sydney | Melbourne | Brisbane | Adelaide | Perth | Hobart | Canberra |
|-----------------------------------|--------|-----------|----------|----------|-------|--------|----------|
| FOOD | | | | | | | |
| 1972-73 | 126.1 | 125.9 | 127.5 | 123.1 | 124.5 | 120.0 | 123.9 |
| 1973-74 | 151.5 | 148.8 | 152.5 | 148.3 | 141.7 | 141.4 | 148.6 |
| 1974-75 | 166.3 | 161.7 | 164.8 | 163.7 | 160.9 | 158.6 | 161.7 |
| 1975-76 | 181.8 | 177.8 | 180.8 | 180.6 | 180.2 | 177.5 | 181.3 |
| 1976-77 | 200.2 | 198.9 | 201.7 | 205.8 | 205.5 | 201.5 | 201.5 |
| 1977-78 | 220.1 | 220.9 | 222.6 | 229.7 | 235.6 | 224.3 | 221.6 |
| CLOTHING | | | | | | | |
| 1972-73 | 125.9 | 125.4 | 125.3 | 127.2 | 126.1 | 125.6 | 125.6 |
| 1973-74 | 143.6 | 142.3 | 142.0 | 144.2 | 143.3 | 142.4 | 142.4 |
| 1974-75 | 174.1 | 172.0 | 171.5 | 173.8 | 174.2 | 171.8 | 172.3 |
| 1975-76 | 201.0 | 200.4 | 200.0 | 203.6 | 202.3 | 200.9 | 200.9 |
| 1976-77 | 231.9 | 232.4 | 230.4 | 236.5 | 232.9 | 232.5 | 232.4 |
| 1977-78 | 256.4 | 257.7 | 254.6 | 261.2 | 258.6 | 257.1 | 253.7 |
| HOUSING | | | | | | | |
| 1972-73 | 154.9 | 133.1 | 136.7 | 133.3 | 139.7 | 131.8 | 128.4 |
| 1973-74 | 171.5 | 148.3 | 150.3 | 150.6 | 149.1 | 146.9 | 140.2 |
| 1974-75 | 199.2 | 180.6 | 176.4 | 185.3 | 174.2 | 180.9 | 163.3 |
| 1975-76 | 233.7 | 214.0 | 202.9 | 222.1 | 209.7 | 216.4 | 194.1 |
| 1976-77 | 264.5 | 242.6 | 236.0 | 253.8 | 244.5 | 244.9 | 224.0 |
| 1977-78 | 288.7 | 263.1 | 260.9 | 275.1 | 269.5 | 264.6 | 240.4 |
| HOUSEHOLD EQUIPMENT AND OPERATION | | | | | | | |
| 1972-73 | 122.9 | 114.1 | 120.0 | 116.5 | 121.4 | 123.8 | 115.1 |
| 1973-74 | 134.8 | 124.8 | 130.8 | 126.3 | 130.5 | 132.8 | 124.3 |
| 1974-75 | 160.8 | 147.2 | 156.5 | 149.2 | 154.5 | 156.4 | 145.0 |
| 1975-76 | 186.5 | 169.5 | 181.7 | 173.1 | 184.1 | 183.9 | 166.1 |
| 1976-77 | 205.5 | 188.0 | 197.7 | 190.0 | 198.9 | 201.8 | 183.9 |
| 1977-78 | 220.7 | 204.2 | 213.8 | 207.0 | 217.9 | 222.0 | 199.2 |
| TRANSPORTATION | | | | | | | |
| 1972-73 | 145.5 | 128.6 | 131.4 | 130.3 | 123.3 | 132.1 | 126.5 |
| 1973-74 | 154.2 | 139.0 | 143.7 | 141.2 | 132.5 | 139.6 | 139.5 |
| 1974-75 | 184.6 | 164.4 | 171.4 | 171.9 | 158.2 | 165.3 | 166.4 |
| 1975-76 | 220.0 | 194.1 | 199.7 | 196.2 | 184.9 | 196.7 | 196.9 |
| 1976-77 | 231.7 | 216.8 | 219.6 | 215.5 | 206.2 | 220.7 | 216.6 |
| 1977-78 | 248.6 | 236.7 | 233.8 | 234.8 | 224.9 | 241.6 | 236.3 |
| TOBACCO AND ALCOHOL | | | | | | | |
| 1972-73 | 132.5 | 134.9 | 130.4 | 128.6 | 131.2 | 134.7 | 129.2 |
| 1973-74 | 146.3 | 146.9 | 144.1 | 140.7 | 139.3 | 152.7 | 140.4 |
| 1974-75 | 170.1 | 173.7 | 166.3 | 167.0 | 167.6 | 169.4 | 162.9 |
| 1975-76 | 214.3 | 214.0 | 200.9 | 206.2 | 206.4 | 206.3 | 194.3 |
| 1976-77 | 236.6 | 229.3 | 217.4 | 224.6 | 226.3 | 222.0 | 213.1 |
| 1977-78 | 245.2 | 241.7 | 227.5 | 233.8 | 237.6 | 232.2 | 224.5 |
| HEALTH AND PERSONAL CARE(b) | | | | | | | |
| 1972-73 | 134.6 | 126.6 | 122.4 | 130.0 | 127.0 | 125.8 | 140.2 |
| 1973-74 | 149.5 | 151.0 | 142.9 | 149.6 | 145.9 | 141.0 | 156.7 |
| 1974-75 | 186.8 | 188.1 | 175.8 | 191.3 | 188.2 | 174.1 | 189.8 |
| 1975-76 | 152.3 | 149.3 | 164.1 | 144.0 | 156.6 | 138.5 | 156.9 |
| 1976-77 | 246.8 | 266.1 | 296.1 | 274.7 | 308.1 | 250.3 | 263.3 |
| 1977-78 | 294.7 | 321.5 | 353.6 | 326.4 | 365.7 | 302.6 | 316.8 |
| RECREATION(c) | | | | | | | |
| 1976-77 | 104.4 | 103.7 | 104.1 | 103.8 | 104.3 | 103.6 | 104.3 |
| 1977-78 | 113.5 | 113.0 | 114.8 | 113.5 | 113.5 | 110.2 | 112.9 |

(a) The index numbers are designed to measure movements in retail prices of specified groups of items for each city individually. They measure variations from time to time and not differences in price levels between cities. (b) Base: December quarter 1968 = 100.0. (c) Base: September quarter 1976 = 100.0.

Previous retail price indexes

Five series of retail price indexes were compiled by the ABS at various times prior to the introduction of the Consumer Price Index in 1960. These indexes are described in Year Book No. 61.

An index of retail price movements from 1901 onwards has been derived by linking together the following indexes: 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. The continuous series derived in this way is shown in the table below. As the indexes differ greatly in scope, the resulting series is only a broad indication of long-term trends in retail prices.

RETAIL PRICE INDEX NUMBERS: SIX STATE CAPITAL CITIES COMBINED, 1901 TO 1977

(Base: Year 1911 = 100.0)

| Year | Index number | Year | Index number | Year | Index number |
|---------|-----------------|------|-----------------|------|-----------------|
| 1901 | 88 | 1927 | 166 | 1953 | 383 |
| 1902 | 93 | 1928 | 167 | 1954 | 386 |
| 1903 | 91 | 1929 | 171 | 1955 | 394 |
| 1904 | 86 | 1930 | 162 | 1956 | 419 |
| 1905 | 90 | 1931 | 145 | 1957 | 429 |
| 1906 | 90 | 1932 | 138 | 1958 | 435 |
| 1907 | 90 | 1933 | 133 | 1959 | 443 |
| 1908 | 95 | 1934 | 136 | 1960 | 459 |
| 1909 | 95 | 1935 | 138 | 1961 | 471 |
| 1910 | 97 | 1936 | 141 | 1962 | 469 |
| 1911 | 100 | 1937 | 145 | 1963 | 472 |
| 1912 | 110 | 1938 | 149 | 1964 | 483 |
| 1913 | 110 | 1939 | 153 | 1965 | 502 |
| 1914(a) | 114 | 1940 | 159 | 1966 | 517 |
| 1915(a) | 130 | 1941 | 167 | 1967 | 534 |
| 1916(a) | 132 | 1942 | 181 | 1968 | 548 |
| 1917(a) | 141 | 1943 | 188 | 1969 | 564 |
| 1918(a) | 150 | 1944 | 187 | 1970 | 586 |
| 1919(a) | 170 | 1945 | 187 | 1971 | 621 |
| 1920(a) | 193 | 1946 | 190 | 1972 | 658 |
| 1921(a) | 168 | 1947 | 198 | 1973 | 720 |
| 1922(a) | 162 | 1948 | 218 | 1974 | 829 |
| 1923 | 166 | 1949 | 240 | 1975 | 954 |
| 1924 | 164 | 1950 | 262 | 1976 | 1,083 |
| 1925 | 165 | 1951 | 313 | 1977 | 1,216 |
| 1926 | 168 | 1952 | 367 | | |

(a) November

**INDEX NUMBERS OF CONSUMER (RETAIL) PRICES IN VARIOUS COUNTRIES
ALL GROUP INDEXES^(a)**

*(Source: Monthly Bulletin of Statistics of the Statistical Office of the United Nations)
(Base of each index: Year 1970 = 100)*

| <i>Period</i> | <i>Australia (b)</i> | <i>Canada</i> | <i>Federal Republic of Germany (Djakarta)</i> | <i>Indonesia</i> | <i>Japan</i> | <i>New Zealand</i> | <i>United Kingdom</i> | <i>United States of America</i> |
|-----------------|--------------------------|---------------|---|------------------|--------------|------------------------|---------------------------|---|
| 1972 | 112 | 108 | 111 | 111 | 111 | 118 | 117 | 108 |
| 1973 | 123 | 116 | 119 | 146 | 124 | 128 | 128 | 114 |
| 1974 | 142 | 129 | 127 | 205 | 154 | 142 | 148 | 127 |
| 1975 | 163 | 143 | 135 | 244 | 172 | 162 | 184 | 139 |
| 1976 | 185 | 153 | 141 | 292 | 188 | 190 | 215 | 147 |
| 1977 | 208 | 165 | 146 | 324 | 204 | 217 | 249 | 156 |
| Quarter— | | | | | | | | |
| 1977— | | | | | | | | |
| March | 201 | 160 | 145 | 312 | 199 | 204 | 238 | 152 |
| June | 206 | 164 | 147 | 319 | 204 | 214 | 249 | 155 |
| Sept | 210 | 167 | 147 | 329 | 205 | 222 | 253 | 158 |
| Dec | 215 | 171 | 147 | 338 | 207 | 229 | 256 | 159 |
| 1978— | | | | | | | | |
| March | 217 | 174 | 149 | .. | 207 | 234 | 261 | 162 |
| June | 222 | 178 | 151 | .. | 212 | .. | 268 | 166 |

(a) The items priced and the levels at which they are priced in these indexes vary widely according to the intended purposes of the indexes of the various countries. The index numbers show fluctuations in prices in each country and do not measure relative price levels between countries. (b) Consumer Price Index converted to base: 1970 = 100.

Wholesale price indexes

Introduction

The ABS compiles a range of Wholesale Price Indexes relating to materials used and articles produced by defined sectors of the Australian economy. Each index is calculated using fixed weights. In compiling the indexes, prices are collected from representative suppliers, manufacturers or exporters of the goods included in the indexes. Prices are generally collected as at the mid-point of each month except in the case of the *Price Index of Materials Used in Manufacturing Industry* and *Export Price Index*, for which average monthly prices are mainly used.

All indexes are compiled and published monthly. Published index numbers for financial years are simple averages of the relevant monthly index numbers. Annual index numbers for most of the indexes are shown below. Monthly index numbers, together with more detailed information concerning methods used in compiling these indexes, are shown in the monthly bulletins published for each index. Information on the weighting patterns for each index is available from the ABS on request.

Price index of materials used in house building

This index measures changes in prices of selected materials used in the construction of houses. Its composition reflects the usage of materials in houses which were selected as representative for the purpose. Weights are based on the year 1968-69. The reference base of the index is the year 1966-67 = 100.0. Further information concerning the method of compiling the index, as well as more detailed index numbers, is shown in the publications *Price Index of Materials Used in House Building* (6408.0), *Labour Report* No. 58, 1973 and *Year Book* No. 60.

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)

| | <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> |
|-------------------------|--|----------------------------|--|--|---------------------------|-------------------------------------|
| <i>Value Weight (%)</i> | 5.73% | 8.10% | 12.85% | 36.16% | 5.86% | 7.20% |
| 1972-73 | 127.0 | 139.9 | 130.7 | 137.0 | 136.8 | 124.9 |
| 1973-74 | 137.5 | 154.3 | 146.8 | 169.1 | 153.8 | 146.3 |
| 1974-75 | 165.7 | 193.1 | 180.3 | 203.5 | 192.1 | 170.3 |
| 1975-76 | 195.1 | 227.0 | 205.1 | 226.2 | 229.3 | 187.1 |
| 1976-77 | 217.8 | 258.9 | 227.8 | 254.1 | 263.2 | 207.9 |
| 1977-78 | 239.0 | 284.6 | 245.8 | 275.0 | 287.7 | 220.1 |

| | <i>Plumbing fixtures</i> | <i>Electrical instal- lation materials</i> | <i>Installed appli- ances</i> | <i>Plaster and plaster products</i> | <i>Miscel- laneous materials</i> | <i>All groups</i> |
|-------------------------|------------------------------|--|---------------------------------------|---|--|-----------------------|
| <i>Value weight (%)</i> | 3.74% | 1.63% | 5.13% | 5.64% | 7.96% | 100.00% |
| 1972-73 | 129.6 | 126.2 | 108.3 | 118.7 | 124.9 | 131.1 |
| 1973-74 | 143.2 | 146.4 | 117.7 | 122.2 | 135.0 | 151.3 |
| 1974-75 | 174.5 | 168.3 | 146.4 | 147.8 | 161.5 | 183.4 |
| 1975-76 | 201.5 | 183.5 | 165.9 | 167.7 | 187.9 | 208.1 |
| 1976-77 | 224.3 | 201.8 | 181.9 | 178.8 | 210.7 | 232.9 |
| 1977-78 | 239.1 | 215.5 | 193.3 | 191.8 | 230.4 | 252.0 |

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)

| | <i>State capital cities(a)</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> | |
| 1972-73 | 135.6 | 126.5 | 133.8 | 134.8 | 126.9 | 130.8 | 131.1 |
| 1973-74 | 158.0 | 147.8 | 152.2 | 157.2 | 141.8 | 145.5 | 151.3 |
| 1974-75 | 189.4 | 178.4 | 187.0 | 195.4 | 172.4 | 179.1 | 183.4 |
| 1975-76 | 211.1 | 200.1 | 218.5 | 222.5 | 201.9 | 209.2 | 208.1 |
| 1976-77 | 234.5 | 223.6 | 243.5 | 250.7 | 229.8 | 235.1 | 232.9 |
| 1977-78 | 254.0 | 238.6 | 265.1 | 270.7 | 253.4 | 256.7 | 252.0 |

(a) The separate city indexes measure price movements within each city individually. They do not compare price levels between cities.

Price index of materials used in building other than house building

This index measures changes in prices of selected materials used in the construction of buildings other than houses and 'low-rise' flats (the latter being, in general, those up to three storeys high). Weights are based on the year 1966-67. The reference base of the index is the year 1966-67 = 100.0.

Further information concerning the method of compiling the index, as well as more detailed index numbers for each capital city, is shown in the publications *Price Index of Materials Used in Building other than House Building* (6407.0), *Labour Report* No. 58, 1973 and *Year Book* No. 60.

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)

| | <i>Concrete mix, cement, sand, etc.</i> | <i>Cement products</i> | <i>Bricks, stone, etc.</i> | <i>Timber, board and joinery</i> | <i>Steel and iron products</i> | <i>Aluminium products</i> |
|------------------------|---|------------------------|----------------------------|----------------------------------|--------------------------------|---------------------------|
| <i>Value weight(%)</i> | 10.41% | 3.64% | 5.28% | 11.90% | 30.58% | 6.01% |
| 1972-73 | 124.5 | 135.0 | 130.1 | 132.9 | 130.3 | 125.4 |
| 1973-74 | 136.0 | 147.7 | 146.3 | 160.2 | 148.8 | 138.4 |
| 1974-75 | 164.6 | 183.9 | 179.4 | 194.7 | 189.2 | 169.2 |
| 1975-76 | 193.0 | 220.0 | 202.7 | 219.3 | 223.4 | 193.6 |
| 1976-77 | 215.6 | 244.7 | 224.0 | 243.6 | 251.7 | 213.7 |
| 1977-78 | 235.3 | 268.4 | 241.0 | 263.2 | 273.4 | 230.8 |

| | <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> |
|------------------------|-----------------------------|--------------------------|--------------------------------|--|---------------------------------------|-------------------|
| <i>Value weight(%)</i> | 2.59% | 1.19% | 7.09% | 8.61% | 12.70% | 100.00% |
| 1972-73 | 126.4 | 143.5 | 124.5 | 120.5 | 132.4 | 128.9 |
| 1973-74 | 158.5 | 159.6 | 134.2 | 138.3 | 143.9 | 145.8 |
| 1974-75 | 162.7 | 197.7 | 163.4 | 157.4 | 181.3 | 179.2 |
| 1975-76 | 173.3 | 232.1 | 186.8 | 177.4 | 201.3 | 206.2 |
| 1976-77 | 195.0 | 251.2 | 204.2 | 199.6 | 225.4 | 230.3 |
| 1977-78 | 198.1 | 263.7 | 221.9 | 215.3 | 247.2 | 249.7 |

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)

| | <i>State capital cities(a)</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> | |
| 1972-73 | 127.2 | 131.2 | 130.4 | 129.8 | 126.3 | 129.7 | 128.9 |
| 1973-74 | 144.1 | 148.0 | 149.0 | 145.8 | 142.9 | 143.8 | 145.8 |
| 1974-75 | 176.0 | 180.6 | 186.6 | 181.0 | 176.7 | 179.3 | 179.2 |
| 1975-76 | 199.0 | 209.4 | 216.3 | 210.4 | 208.3 | 210.4 | 206.2 |
| 1976-77 | 221.5 | 234.8 | 241.2 | 234.3 | 235.4 | 234.8 | 230.3 |
| 1977-78 | 239.9 | 254.4 | 260.9 | 254.2 | 258.3 | 253.7 | 249.7 |

(a) The separate city indexes measure price movements within each city individually. They do not compare price levels between cities.

Price index of materials used in manufacturing industry

This index measures changes in prices of materials (including fuels) used by establishments classified to the Manufacturing Division of the Australian Standard Industrial Classification (ASIC). The index is on a *net basis*, i.e. it relates in concept only to those materials which are used by establishments within the Manufacturing Division in Australia and which have been produced by establishments outside that Division. Materials purchased by establishments classified to the Australian Manufacturing Division from other establishments in that Division are outside the scope of the index.

The reference base of the index is the year 1968-69 = 100.0. The weighting base of the index corresponds to the year 1971-72. The items included in the index were allocated weights in accordance with estimated manufacturing usage in 1971-72 valued at relevant prices applying in the reference base year 1968-69. The selected items are combined for publication purposes into broad groups using two different classifications:

- (i) Australian Standard Industrial Classification (ASIC), and
- (ii) Standard Industrial Trade Classification (SITC (R)).

Further information concerning the method of compiling the index, as well as more detailed index numbers, is shown in the publications *Price Index of Materials Used in Manufacturing Industry* (6411.0) and Year Book No. 61.

**PRICE INDEX OF MATERIALS USED IN MANUFACTURING INDUSTRY: GROUP INDEX NUMBERS
BASED ON AUSTRALIAN STANDARD INDUSTRIAL CLASSIFICATION**

(Base of each index: Year 1968-9 = 100.0)

| | Imported materials | | | | Home produced materials | | | | | All groups |
|-------------------|--------------------|--------|--------------------|--------------------------------|-------------------------|----------------------------|--------|------------------|--|------------|
| | Agri- culture | Mining | Manu- facturing | Total imported materials | Agri- culture | Forestry and fishing | Mining | Elec- tricity | Total home produced materials | |
| Value weight (%) | 1.92% | 4.17% | 21.07% | 27.16% | 47.04% | 1.12% | 18.92% | 5.76% | 72.84% | 100.00% |
| 1972-73 | 105.2 | 109.1 | 104.4 | 105.2 | 125.3 | 131.0 | 100.4 | 103.7 | 117.2 | 113.9 |
| 1973-74 | 130.6 | 196.3 | 113.1 | 127.1 | 147.9 | 157.3 | 119.0 | 109.9 | 137.6 | 134.7 |
| 1974-75 | 149.3 | 357.8 | 149.5 | 181.5 | 132.2 | 187.8 | 129.0 | 124.6 | 131.6 | 145.1 |
| 1975-76 | 166.5 | 423.6 | 162.6 | 202.9 | 132.3 | 213.7 | 163.3 | 137.9 | 142.0 | 158.6 |
| 1976-77 | 258.6 | 479.5 | 182.1 | 233.2 | 152.5 | 245.2 | 189.2 | 148.8 | 163.2 | 182.2 |
| 1977-78 | 303.4 | 515.3 | 201.6 | 257.0 | 162.4 | 273.5 | 211.7 | 160.9 | 176.8 | 198.6 |

**PRICE INDEX OF MATERIALS USED IN MANUFACTURING INDUSTRY: GROUP INDEX NUMBERS
BASED ON STANDARD INTERNATIONAL TRADE CLASSIFICATION (REVISED)**

(Base of each index: Year 1968-69 = 100.0)

| | Manufactured materials (imported) | | | Other materials (imported and home produced) | | | |
|------------------|-----------------------------------|--|------------------------------------|--|-------------------------------------|----------------------------------|---------------|
| | Chemicals | Metal manu- factures, components for transport equipment and machinery | Other manufactured materials | Food, live animals and tobacco | Crude materials (excl. fuels) | Electricity, gas and fuels | All groups |
| Value weight (%) | 6.67% | 5.21% | 5.76% | 45.87% | 20.66% | 15.83% | 100.00% |
| 1972-73 | 91.4 | 119.3 | 97.6 | 122.9 | 116.0 | 99.1 | 113.9 |
| 1973-74 | 96.3 | 118.6 | 106.1 | 145.9 | 140.7 | 126.2 | 134.7 |
| 1974-75 | 141.9 | 148.7 | 137.4 | 132.4 | 149.3 | 179.5 | 145.1 |
| 1975-76 | 149.4 | 179.6 | 148.4 | 132.5 | 163.0 | 229.0 | 158.6 |
| 1976-77 | 160.3 | 211.6 | 164.5 | 154.9 | 191.7 | 254.8 | 182.2 |
| 1977-78 | 170.7 | 246.6 | 185.1 | 166.6 | 199.4 | 291.0 | 198.6 |

Price indexes of articles produced by manufacturing industry

These indexes measure changes in the price of articles produced by establishments classified to the Manufacturing Division of the Australian Standard Industrial Classification (ASIC). The indexes are on a *net basis*, i.e. they relate in concept only to those articles which are produced in defined sectors of Australian manufacturing industry for sale or transfer to other sectors or for export or for use as capital equipment. Articles which are sold or transferred to other establishments within the sector for further processing (as materials, components, fuels, etc.) are excluded.

The following sector price indexes are published:

- (i) a net index for the Manufacturing Division of ASIC (known as the *All Manufacturing Industry Index*), and
- (ii) net indexes for the twelve sub-divisions within the Manufacturing Division.

The reference base of the index is the year 1968-69 = 100.0. The weighting base of the index corresponds to the year 1971-72. The items included in these indexes were allocated weights in accordance with estimated *net* sector production in the year 1971-72, valued at the relevant prices applying in the reference base year 1968-69.

The selected items are combined for publication purposes using the structure of the Australian Standard Industrial Classification (ASIC).

Further information concerning the method of compiling the index and monthly index numbers for subdivisions and special groupings are shown in the publication *Price Indexes of Articles Produced by Manufacturing Industry* (6412.0). Further information about the indexes is also shown in Year Book No. 62.

PRICE INDEXES OF ARTICLES PRODUCED BY MANUFACTURING INDUSTRY (a)

(Base of each index: Year 1968-69 = 100.0)

| Net subdivision indexes (c) | | | | | | | |
|-----------------------------|--------------------------------------|-------------------------------------|---------------|----------------------------|--|---|--|
| Year | All Manufacturing Industry Index (b) | Food, beverages and tobacco (21-22) | Textiles (23) | Clothing and footwear (24) | Wood, wood products and furniture (25) | Paper, paper products and printing (26) | Chemical, petroleum and coal products (27) |
| 1972-73 | 120.7 | 127.7 | 113.9 | 119.9 | 125.1 | 122.9 | 106.0 |
| 1973-74 | 134.6 | 142.8 | 129.6 | 136.7 | 148.8 | 134.6 | 111.6 |
| 1974-75 | 158.1 | 153.0 | 142.4 | 161.3 | 190.0 | 168.5 | 142.4 |
| 1975-76 | 177.8 | 163.5 | 159.7 | 185.2 | 219.9 | 196.3 | 168.2 |
| 1976-77 | 196.9 | 180.0 | 178.6 | 208.1 | 246.8 | 212.8 | 182.4 |
| 1977-78 | 213.8 | 195.6 | 193.3 | 225.2 | 264.0 | 231.7 | 200.7 |

| Year | Glass, clay and other non-metallic mineral products (28) | Basic metal products (29) | Fabricated metal products (31) | Transport equipment (32) | Other industrial machinery and equipment and household appliances (33) | Miscellaneous manufacturing products (34) |
|---------|--|---------------------------|--------------------------------|--------------------------|--|---|
| 1972-73 | 119.6 | 113.2 | 125.1 | 116.0 | 119.8 | 112.2 |
| 1973-74 | 129.6 | 129.4 | 142.3 | 124.9 | 132.4 | 120.6 |
| 1974-75 | 158.3 | 151.9 | 183.2 | 151.2 | 158.9 | 143.7 |
| 1975-76 | 183.2 | 174.0 | 217.1 | 175.8 | 179.2 | 159.0 |
| 1976-77 | 202.5 | 200.6 | 244.9 | 195.0 | 199.4 | 176.0 |
| 1977-78 | 219.8 | 214.0 | 268.7 | 211.6 | 215.3 | 192.4 |

(a) For a full description of Division C, 'Manufacturing' and the subdivisions within Manufacturing Division, see Australian Standard Industrial Classification (ASIC), Preliminary Edition, 1969. (b) This index is on a net division basis and relates in concept only to articles which are produced in the Manufacturing Division of ASIC for sale or transfer outside the Division. (c) These indexes are on a 'net subdivision' basis; the index for each subdivision relates in concept to articles which are produced in that subdivision for sale or transfer outside the subdivision.

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 (i.e., prior to the introduction of the current Export Price Index) are shown in Year Book No. 55, pages 256-7.

The current Export Price Index

The current Export Price Index was first published in October 1962, but index numbers have been compiled since July 1959. 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 purpose of the Export Price 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.

Further information concerning the method of compiling the index is shown in the publication *Export Price Index* (6405.0) and in Year Book No. 60.

EXPORT PRICE INDEX

(Base of each index: Year 1959-60 = 100)

| Period | Wool | Meats | Dairy produce | Cereals | Dried and canned fruits | Sugar | Hides and tallow | Metals and coal (a) | Gold | All groups |
|---------|------|-------|---------------|---------|-------------------------|-------|------------------|---------------------|------|------------|
| 1972-73 | 179 | 178 | 119 | 102 | 106 | 136 | 139 | 142 | 180 | 134 |
| 1973-74 | 172 | 201 | 109 | 184 | 152 | 176 | 161 | 196 | 289 | 160 |
| 1974-75 | 121 | 132 | 127 | 256 | 176 | 378 | 141 | 263 | 391 | 181 |
| 1975-76 | 127 | 150 | 122 | 240 | 162 | 335 | 151 | 286 | 359 | 187 |
| 1976-77 | 164 | 169 | 128 | 219 | 184 | 314 | 203 | 330 | 370 | 206 |
| 1977-78 | 168 | 212 | 147 | 196 | 237 | 273 | 224 | 340 | 472 | 213 |

(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.

Previous wholesale price indexes

The *Melbourne Wholesale Price Index*, first compiled in 1912, was discontinued in 1961. The *Wholesale Price (Basic Materials and Foodstuffs) Index*, which replaced the Melbourne Wholesale Price Index from 1936-37, was discontinued in 1970. Further information concerning these indexes is shown in Year Book No. 61.

References

For further information on the subjects dealt with in the foregoing pages, see the following ABS publications: *Monthly Review of Business Statistics* (1304.0); *Digest of Current Economic Statistics* (1305.0); *Consumer Price Index* (6401.0); *Consumer Price Index, Monthly Food Groups Index Numbers* (6402.0); *Average Retail Prices of Selected Food and Grocery Items, Six State Capital Cities and Canberra* (6403.0); *Consumer Price Index, Monthly Food Group Index, Darwin* (6413.0); *Price Index of Materials Used in Building other than House Building* (6407.0); *Price Index of Materials Used in House Building* (6408.0); *Price Index of Materials Used in Manufacturing Industry* (6411.0); *Price Indexes of Articles Produced by Manufacturing Industry* (6412.0); *Price Index of Electrical Installation Material* (6409.0); *Price Indexes of Metallic Materials* (6410.0); *Export Price Index* (6405.0).

PRICES JUSTIFICATION TRIBUNAL

General

The Prices Justification Tribunal was established in August 1973 under the provisions of the *Prices Justification Act* 1973. Amendments relating to the Tribunal and its operations were made to the Act under subsequent legislation passed by the Parliament in 1973, 1974 and 1976. The Tribunal is a fully discretionary body appointed under the legislation 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.

Further information on the Prices Justification Tribunal is contained in its Annual Reports to Parliament.

Activities, 1975-76 to 1976-77

The table below sets out the number of notices of proposed prices processed by the Tribunal.

NOTICES UNDER SECTION 18 (INCLUDING NOTICES OF PROPOSED PRICES AND APPLICATIONS FOR EXEMPTION)

| | 1975-76 | 1976-77 | 1977-78 |
|--|---------|---------|---------|
| Number of notices of proposed prices processed by Tribunal | 7,739 | 4,696 | 2,244 |
| Number of notices subject to public inquiry | 27 | 52 | 20 |
| Number of notices accepted without public inquiry | 7,332 | 4,374 | 2,106 |
| Number of notices withdrawn by companies | 380 | 270 | 118 |
| Total number of exemptions granted pursuant to Section 18 (8) of the Act | 344 | 416 | 285 |

Legislative provisions

Section 16 of the *Prices Justification Act* 1973, as amended by further legislation in 1974 and 1976, 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 Tribunal inquiry may be initiated by the Minister.
- The Tribunal may initiate inquiries in its own right.
- 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 \$30 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 \$30 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.*

The amending legislation in 1976 provided that in exercising its functions under sub-section (1), the Tribunal shall have due regard to the need for the company or companies concerned to achieve a level of profitability that is sufficient to enable the company or companies to maintain an adequate level of investment and employment.

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, 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 that the basis of pricing adopted by the Company and the competitive forces in the market place are sufficient to ensure that prices charged will be justified.

Amending legislation in 1976 provided that in deciding whether to give an authorization under Section 18 (8) in relation to a company, the Tribunal shall consider:

- (a) whether the company is in a position substantially to control a market for goods or services supplied by the company; and
- (b) whether the prices charged by the company during a substantial period have been fair and reasonable.

and, if the Tribunal is of the opinion that the company is not in a position substantially to control such a market or that the prices charged by the company during a substantial period have been fair and reasonable, the Tribunal shall consider these matters to be relevant for the purpose of deciding whether to grant an exemption.

HOUSEHOLD EXPENDITURE SURVEYS

During the financial years 1974-75 and 1975-76, the ABS conducted two surveys in order to obtain information about the expenditure patterns of private households. The 1974-75 survey was confined to a sample of households in the six State capital cities and Canberra (collection in Darwin being suspended in December 1974 due to cyclone Tracy), while the coverage of the 1975-76 survey was extended to include other urban and rural regions. Apart from limited attempts in 1910-11 and 1913 to assess the spending patterns of Australian households, these surveys were the first official collections of household expenditure statistics conducted in this country.

Surveys of household expenditure and related topics have formed an integral part of the statistical programmes of a number of other countries for many years. Perhaps the most important reason for the collection of data relating to expenditure at the household level is to provide information for use in improving the representativeness of the items and the weighting pattern used to compile the Consumer Price Index (see page 107). Household expenditure statistics also provide a rich source of data needed for a wide range of policy and research purposes. These include the planning of welfare services; assessing the need for, and effect of, programmes in fields such as housing, education and health; assessing the impact of taxation and government benefits; and improving estimates of private final consumption expenditure in the National Accounts.

Scope and coverage

The 1974-75 survey obtained data from a sample of 9,095 households in the six State capital cities and Canberra, while the 1975-76 survey sampled 5,869 households in all regions of Australia. Apart from this difference in geographic coverage, the subject content and general methodology of the two surveys were virtually identical.

Only private dwellings were sampled, including houses, home units, flats, caravans, garages, tents and any other structures being used as private places of residence at the time of the survey. Hotels, boarding houses, institutions, etc. were defined as special dwellings outside the scope of the survey.

All categories of households (or persons) in selected private dwellings were included in the survey except:

- foreign diplomats and their staff; foreign servicemen and their families stationed in Australia; persons from overseas countries touring or holidaying in Australia; visitors staying with the household for less than six weeks after the initial interview (four weeks in the 1974-75 survey); usual residents absent at the time of the initial interview and not returning within seven days; and usual residents who were going away during the first half of the diary keeping and not returning before the end of the diary keeping.

Data collection and processing

Trained interviewers approached selected households to obtain their co-operation in the completion of several questionnaires. Each household was asked for details of large or infrequent items of expenditure (e.g. purchase of vehicles and property, and the payment of household bills such as electricity and gas) and for details of income from all sources. In addition, a diary was provided to each household member aged 15 years or more, in which they were requested to record, on a daily basis, a description and value for all items purchased over the following two weeks. (Because of anticipated differences in spending patterns in rural areas compared with metropolitan and other urban areas, members of rural households selected in the 1975-76 survey were issued with four-week diaries.)

Apart from expenditure and income information, particulars of the composition of the household were also obtained together with basic demographic information about the members of the household such as their age, sex, marital status, occupation and employment status. This information enabled households to be classified according to size, composition, etc.

Processing of the data was carried out in three phases. Firstly, during the collection phase, the interviewer checked the returns for any apparent inaccuracies and inconsistencies. Secondly, on receipt in the ABS central office, all returns were clerically edited and all payments in the diary were assigned a commodity code. Thirdly, data was transferred to magnetic tape and various computer operations were performed to ensure, as far as possible, that the data was correct. In addition, expenditure and income data was converted to a weekly equivalent, and expenditure, income and other totals and the classificatory variables required for tabulation purposes were derived. Expansion factors ('weights') were inserted in respondent household records to enable the sample data to be expanded to obtain estimates for the total population.

Definitions

A *Household* was defined as a group of people who live together as a single unit in the sense that they have common housekeeping arrangements; i.e. they have some common provision for food and other essentials of living. A person or persons living in the same dwelling but having separate catering arrangements constituted a separate household.

Expenditure was defined as all payments for goods and services for private use made by all members of the selected household aged 15 years and over. In general, expenditure was collected on the basis of payments made during the reference period rather than on the basis of goods and services 'acquired' or 'consumed' during the period. Expenditure was net of refunds or expected refunds (e.g. payments for health services were net of any refunds received or expected to be received). Information was collected on a household basis because many items of expenditure such as food, accommodation and household goods and appliances relate to the household as a unit rather than to individual persons.

Income was defined as gross income from all sources before taxation and other deductions were made, and was collected from all members of the selected household aged 15 years and over. The main components of income are: wages and salaries (including income-in-kind received from an employer); income derived from self-employment (including wages and income-in-kind taken from the business); Government social service benefits; income from investments (including interest, dividends, royalties and rent); and other regular income (including educational grants and scholarships received in cash, benefits received from an overseas government, income received for professional advice outside the normal job situation, superannuation, worker's compensation, alimony or maintenance, and any other allowances regularly received).

The *Head of household* was taken to be that person nominated by the member(s) of the household as the 'head'. This person was usually the male 'breadwinner'.

Adults/children were, respectively, household members aged 18 years or more and household members aged less than 18 years. Married persons were defined as adults irrespective of age.

Workers were defined as those persons aged 15 years or over who reported any 'earned' income in the survey (i.e. income from self-employment, or wage and salary income from part-time or full-time employment). The following categories of persons were asked to report earned income: persons who worked in a job or business at any time during the four weeks prior to the week of interview; persons who did not work during the four weeks prior to the week of interview but who received income from a job or business for any of the four weeks (e.g. a person on paid holiday, sickness or long-service leave, a silent partner in a business); and persons who did not work or earn income from a job or business in the four weeks prior to the week of interview but who were commencing work in the week of interview (these persons were asked to report expected income).

Retired persons were defined as those persons who reported no 'earned' income and who described themselves as being retired (e.g. having retired from work for reasons of age or sickness).

Other payments included payments such as income tax, life insurance premiums, superannuation contributions, purchases of and deposits on land and dwellings, and gambling payments. Receipts from sale of property and gambling winnings were offset against payments.

Reliability of Results

Since the estimates are based on a sample, they may differ from the figures that would have been obtained from a complete enumeration of the population using the same questionnaires and procedures. These differences are called sampling errors. One measure of the likely difference is given by the standard error percent, i.e. the standard error expressed as a percentage of the estimate. The size of the percentage standard error depends on:

- (a) The size of the sample on which the estimate is based (the smaller the sample, the larger is the standard error percent); and
- (b) the variability in the frequency of reporting and in the size of the reported values (e.g. expenditure on household appliances would be more variable, and hence have a higher standard error percent, than expenditure on meat).

A more detailed discussion of standard errors may be found in ABS publication *Household Expenditure Survey 1974-75, Bulletin 3 (Standard Errors)* (6509.0). Imprecision arising from sampling errors should not be confused with inaccuracies that may occur for other reasons, e.g. errors in response and reporting. Such errors are known as non-sampling errors and may occur in any enumeration whether it be a complete enumeration ('census') or a sample. The most significant types of non-sampling errors are:

Non-response Biases caused by differences in the characteristics of income and expenditure between respondent and non-respondent households. Some attempt was made to minimise non-response bias, but in practice it was not possible to remove all bias. (In 1974-75, 72 per cent of all eligible households co-operated fully during the survey, while in 1975-76 the figure was 73 per cent.)

Response Errors caused by incorrect data supplied by informants.

Processing Errors caused by misinterpretation of the data supplied, incorrect classification of data, errors in transcription of data to computer readable format, etc.

Summary of results

In the lower income ranges, average expenditure exceeded average income as defined (this does not imply that all households in the lower income ranges have expenditure which exceeds income), while in the higher income ranges average income substantially exceeded average expenditure (see below). It should be noted that some households will have financed some items of expenditure from savings and from other sources such as loans, receipts of maturing insurance policies, gifts, windfall gains and profits from the sale of assets which are not included as income as defined for the survey. In addition, some households classified to the lower income ranges may have had lower than usual income during the data reference period, while still maintaining their normal level of expenditure. For the medium and higher income ranges, income tax payments (included in other payments) are a large part of the difference between income and expenditure as defined.

The larger items of average weekly household expenditure in Australia in 1975-76 were transport and communication (\$33.62), food (\$33.64) and current housing costs (\$23.65). In rural regions, however, expenditure on current housing costs was substantially lower than in capital cities and urban regions.

The 1975-76 survey shows that both household income and expenditure were lower in rural and urban regions compared with the capital cities. In urban regions, household income and expenditure were respectively 15.8 per cent and 15.5 per cent less than for capital cities, while for rural regions the difference was 18.7 per cent and 26.2 per cent respectively. Variations in expenditure can be observed over a range of characteristics, e.g. between capital cities, quarter of year, household income, household composition, and age of household head. Detailed results of the two surveys have been published in a series of bulletins available on request to the ABS. Some unpublished tables are also available on request.

HOUSEHOLD EXPENDITURE SURVEY, 1975-76 HOUSEHOLD EXPENDITURE BY HOUSEHOLD INCOME, AUSTRALIA

| | <i>Weekly Household Income</i> | | | | | | <i>All households</i> |
|---|--------------------------------|-----------------------------|------------------------------|------------------------------|------------------------------|----------------------|-----------------------|
| | <i>Under \$80</i> | <i>\$80 and under \$140</i> | <i>\$140 and under \$200</i> | <i>\$200 and under \$260</i> | <i>\$260 and under \$340</i> | <i>\$340 or more</i> | |
| Number of households in sample | 927 | 818 | 1,148 | 942 | 966 | 1,068 | 5,869 |
| Estimated total number of households in population ('000) | 651.5 | 599.4 | 810.9 | 673.8 | 686.2 | 737.7 | 4,159.5 |
| Average number of persons per household | 1.76 | 2.65 | 3.23 | 3.39 | 3.48 | 3.82 | 3.09 |
| Average age of household head (years) | 61.69 | 49.72 | 41.45 | 40.92 | 40.33 | 42.93 | 45.80 |
| Average weekly household income (\$) | 50.80 | 111.33 | 169.51 | 229.27 | 295.05 | 465.15 | 225.35 |
| <i>Average Weekly Household Expenditure (\$)</i> | | | | | | | |
| Commodity or service— | | | | | | | |
| Current housing costs(a) | 9.62 | 19.35 | 22.12 | 25.23 | 29.41 | 34.42 | 23.65 |
| Fuel and power | 2.80 | 3.30 | 4.24 | 4.26 | 4.29 | 4.96 | 4.02 |
| Food | 17.96 | 25.48 | 31.67 | 35.72 | 39.67 | 48.76 | 33.64 |
| Bread, cakes and cereals | 2.46 | 3.26 | 3.99 | 4.04 | 4.20 | 4.81 | 3.83 |
| Meat and fish | 4.71 | 6.53 | 7.69 | 8.55 | 9.01 | 11.30 | 8.06 |
| Dairy products, oils and fats | 3.26 | 4.42 | 5.32 | 5.45 | 5.65 | 6.32 | 5.12 |
| Fruit and vegetables | 2.94 | 4.00 | 4.52 | 5.30 | 5.42 | 6.51 | 4.82 |
| Other food | 4.58 | 7.26 | 10.15 | 12.39 | 15.39 | 19.83 | 11.80 |
| Alcohol and tobacco | 3.19 | 6.95 | 9.28 | 10.61 | 13.38 | 16.93 | 10.24 |
| Clothing and footwear | 5.40 | 8.65 | 11.63 | 15.31 | 18.40 | 25.24 | 14.35 |
| Household equipment and operation | 7.83 | 8.84 | 12.68 | 18.33 | 25.58 | 28.85 | 17.28 |
| Medical care and health expenses | 2.27 | 4.22 | 5.11 | 6.15 | 5.82 | 7.80 | 5.30 |
| Transport and communication | 9.53 | 20.78 | 29.06 | 34.48 | 44.95 | 59.04 | 33.62 |
| Recreation and education | 4.91 | 8.05 | 11.01 | 18.37 | 18.92 | 31.63 | 15.78 |
| Miscellaneous goods and services | 5.98 | 8.64 | 10.44 | 14.92 | 17.50 | 27.89 | 14.47 |
| Total expenditure | 69.49 | 114.28 | 147.24 | 183.39 | 217.92 | 285.53 | 172.35 |
| Selected other payments(b) | 5.38 | 21.18 | 33.34 | 43.21 | 68.86 | 113.10 | 48.81 |

(a) Included in current housing costs are both principal and interest components of any housing loan repayments. Excluded are outright purchase of, or deposit on, dwellings or land, and other payments of a capital nature. (b) The main components of this item are income tax, superannuation contributions, life insurance premiums, purchases of and deposits on dwellings and land, and gambling payments. Receipts from sales of dwellings and land, and gambling winnings, are offset against payments.

HOUSEHOLD EXPENDITURE BY STATES AND TERRITORIES, 1975-76

| | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | A.C.T. | Australia |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Number of households in sample | 1,583 | 1,327 | 846 | 550 | 506 | 422 | 324 | 311 | 5,869 |
| Estimated total number of households in population ('000) | 1,471.2 | 1,163.0 | 607.2 | 374.6 | 355.4 | 121.8 | 12.7 | 53.7 | 4,159.5 |
| Average number of persons per household | 3.11 | 3.10 | 3.09 | 2.86 | 3.12 | 3.24 | 3.25 | 3.34 | 3.09 |
| Average age of household head (years) | 46.20 | 45.95 | 46.61 | 45.82 | 43.79 | 45.68 | 36.82 | 38.06 | 45.80 |
| Average weekly household income (\$) | 220.78 | 232.10 | 220.39 | 217.27 | 226.85 | 210.11 | 336.51 | 315.52 | 225.35 |
| <i>Average Weekly Household Expenditure (\$)</i> | | | | | | | | | |
| Commodity or service— | | | | | | | | | |
| Current housing costs(a) | 24.98 | 24.18 | 20.91 | 19.80 | 25.12 | 18.34 | 30.43 | 34.26 | 23.65 |
| Fuel and power | 3.87 | 4.75 | 3.40 | 3.43 | 3.58 | 4.42 | 3.35 | 5.64 | 4.02 |
| Food | 34.05 | 35.07 | 31.56 | 31.93 | 32.24 | 31.35 | 45.08 | 38.34 | 33.64 |
| Bread, cakes and cereals | 4.05 | 3.91 | 3.53 | 3.62 | 3.44 | 3.77 | 3.75 | 3.90 | 3.83 |
| Meat and fish | 7.92 | 8.64 | 8.08 | 7.20 | 7.44 | 7.88 | 9.74 | 8.91 | 8.06 |
| Dairy products, oils and fats | 5.18 | 5.27 | 5.04 | 4.53 | 5.10 | 5.02 | 5.87 | 5.52 | 5.12 |
| Fruit and vegetables | 4.94 | 4.92 | 4.82 | 4.22 | 4.67 | 4.18 | 8.24 | 5.66 | 4.82 |
| Other food | 11.96 | 12.34 | 10.10 | 12.37 | 11.59 | 10.49 | 17.50 | 14.35 | 11.80 |
| Alcohol and tobacco | 10.72 | 10.75 | 8.57 | 9.16 | 10.47 | 9.03 | 20.26 | 11.56 | 10.24 |
| Clothing and footwear | 14.14 | 16.56 | 11.17 | 14.23 | 12.92 | 15.01 | 11.42 | 17.84 | 14.35 |
| Household equipment and operation | 16.68 | 17.92 | 16.00 | 17.25 | 17.66 | 18.88 | 23.09 | 27.03 | 17.28 |
| Medical care and health expenses | 5.37 | 5.54 | 5.11 | 5.36 | 4.74 | 4.45 | 4.48 | 5.42 | 5.30 |
| Transport and communication | 33.98 | 34.14 | 30.94 | 32.42 | 33.52 | 35.47 | 49.97 | 43.99 | 33.62 |
| Recreation and education | 14.50 | 17.02 | 14.47 | 17.26 | 16.68 | 13.99 | 21.44 | 25.28 | 15.78 |
| Miscellaneous goods and services | 14.47 | 14.56 | 15.39 | 14.03 | 12.22 | 13.53 | 27.60 | 18.76 | 14.47 |
| Total expenditure | 172.78 | 180.49 | 157.52 | 164.87 | 169.15 | 164.48 | 237.12 | 228.13 | 172.35 |
| Selected other payments (b) | 52.30 | 46.43 | 44.35 | 41.68 | 51.23 | 41.24 | 54.32 | 104.94 | 48.81 |

(a) Included in current housing costs are both principal and interest components of any housing loan repayments. Excluded are outright purchase of, or deposit on, dwellings or land, and other payments of a capital nature. (b) The main components of this item are income tax, superannuation contributions, life insurance premiums, purchases of and deposits on dwellings and land, and gambling payments. Receipts from sales of dwellings and land, and gambling winnings are offset against payments.

HOUSEHOLD EXPENDITURE BY REGIONS

| | 1974-75 | 1975-76 | | | |
|---|-----------------------|-----------------------|------------------|------------------|---------------|
| | All capital cities(c) | All capital cities(d) | Urban regions(e) | Rural regions(f) | Australia |
| Number of households in sample | 9,095 | 2,813 | 2,225 | 831 | 5,869 |
| Estimated total number of households in population ('000) | 2,634.7 | 2,692.8 | 1,105.2 | 361.6 | 4,159.5 |
| Average number of persons per household | 3.08 | 3.07 | 3.05 | 3.35 | 3.09 |
| Average age of household head (years) | 44.98 | 45.24 | 46.65 | 47.40 | 45.80 |
| Average weekly household income (\$) | 205.92 | 239.28 | 201.48 | 194.63 | 225.35 |
| <i>Average Weekly Household Expenditure (\$)</i> | | | | | |
| Commodity or service— | | | | | |
| Current housing costs(a) | 22.71 | 26.95 | 19.95 | 10.38 | 23.65 |
| Fuel and power | 3.54 | 4.10 | 3.96 | 3.59 | 4.02 |
| Food | 32.38 | 35.16 | 31.03 | 30.31 | 33.64 |
| Bread, cakes and cereals | 3.54 | 3.89 | 3.72 | 3.72 | 3.83 |
| Meat and fish | 7.90 | 8.36 | 7.52 | 7.45 | 8.06 |
| Dairy products, oils and fats | 4.68 | 5.17 | 4.78 | 5.80 | 5.12 |
| Fruit and vegetables | 4.69 | 5.05 | 4.32 | 4.73 | 4.82 |
| Other food | 11.57 | 12.69 | 10.69 | 8.62 | 11.80 |
| Alcohol and tobacco | 9.25 | 10.83 | 9.94 | 6.76 | 10.24 |
| Clothing and footwear | 13.91 | 15.74 | 12.30 | 10.28 | 14.35 |
| Household equipment and operation | 14.65 | 18.65 | 14.88 | 14.38 | 17.28 |
| Medical care and health expenses | 5.84 | 5.38 | 5.08 | 5.37 | 5.30 |
| Transport and communication | 26.26 | 34.80 | 31.65 | 30.90 | 33.62 |
| Recreation and education | 13.80 | 16.86 | 14.20 | 12.61 | 15.78 |
| Miscellaneous goods and services | 14.62 | 15.66 | 12.59 | 11.32 | 14.47 |
| Total expenditure | 157.00 | 184.14 | 155.57 | 135.90 | 172.35 |
| Selected other payments(b) | 40.62 | 53.78 | 41.70 | 33.63 | 48.81 |

(a) Included in current housing cost are both principal and interest components of any housing loan repayments. Excluded are outright purchase of, or deposit on, dwellings or land, and other payments of a capital nature. (b) The main components of this item are income tax, superannuation contributions, life insurance premiums, purchases of and deposits on dwellings and land, and gambling payments. Receipts from sales of dwellings and land, and gambling winnings, are offset against payments. (c) The six State Capital Statistical Divisions and the Canberra Statistical District (excluding Queanbeyan) as defined for the purpose of the 1971 Census of Population and Housing. (d) As for footnote (c) but includes Greater Darwin. (e) All towns and urban centres with a population of more than 500 persons (excluding the capital cities) as defined for purposes of the 1971 Census of Population and Housing. (f) Localities with a population of less than 500 persons and rural areas (remote areas with less than .06 dwellings per square kilometre were excluded from the survey).

HOUSEHOLD EXPENDITURE BY HOUSEHOLD COMPOSITION, AUSTRALIA, 1975-76

| | 1 adult | 2 adults | 3 or more adults | 1 adult with children | 2 adults 1 child | 2 adults 2 children | 2 adults 3 or more children | 3 or more adults with children | All households(c) |
|---|--------------|---------------|------------------|-----------------------|------------------|---------------------|-----------------------------|--------------------------------|-------------------|
| Number of households in sample | 865 | 1,591 | 392 | 204 | 617 | 938 | 788 | 470 | 5,869 |
| Estimated total number of households in population ('000) | 642.2 | 1,158.3 | 318.2 | 142.5 | 413.1 | 650.5 | 494.4 | 338.4 | 4,159.5 |
| Average number of persons per household | 1.00 | 2.00 | 3.28 | 2.89 | 3.00 | 4.00 | 5.60 | 5.37 | 3.09 |
| Average age of household head (years) | 57.50 | 50.97 | 52.91 | 37.65 | 35.68 | 35.53 | 37.56 | 47.00 | 45.80 |
| Average weekly household income (\$). | 105.04 | 210.65 | 328.77 | 140.43 | 231.27 | 248.37 | 232.95 | 380.65 | 225.35 |
| <i>Average Weekly Household Expenditure(\$)</i> | | | | | | | | | |
| Commodity or service— | | | | | | | | | |
| Current housing costs(a) | 16.37 | 23.64 | 22.68 | 21.02 | 27.66 | 29.04 | 23.85 | 23.96 | 23.65 |
| Fuel and power | 2.35 | 3.74 | 4.17 | 3.53 | 4.18 | 4.61 | 5.13 | 5.30 | 4.02 |
| Food | 15.44 | 26.90 | 43.14 | 27.01 | 32.61 | 38.95 | 45.95 | 58.18 | 33.64 |
| Bread, cakes and cereals | 1.62 | 2.77 | 4.64 | 3.15 | 3.48 | 4.60 | 6.17 | 6.75 | 3.83 |
| Meat and fish | 3.56 | 6.96 | 10.72 | 6.16 | 7.49 | 9.00 | 10.65 | 13.74 | 8.06 |
| Dairy products, oils and fats | 2.01 | 3.70 | 5.58 | 4.73 | 5.47 | 6.32 | 8.05 | 8.65 | 5.12 |
| Fruit and vegetables | 2.28 | 3.99 | 6.16 | 3.84 | 4.81 | 5.63 | 6.47 | 7.75 | 4.82 |
| Other food | 5.97 | 9.49 | 16.04 | 9.13 | 11.36 | 13.40 | 14.61 | 21.30 | 11.80 |
| Alcohol and tobacco | 4.80 | 9.53 | 16.21 | 5.49 | 10.92 | 10.23 | 10.57 | 18.04 | 10.24 |
| Clothing and footwear | 6.92 | 10.65 | 21.71 | 10.43 | 14.47 | 16.44 | 16.86 | 28.15 | 14.35 |
| Household equipment and operation | 7.66 | 18.04 | 16.75 | 11.84 | 18.97 | 22.07 | 18.45 | 22.81 | 17.28 |
| Medical care and health expenses | 2.35 | 4.58 | 7.63 | 2.64 | 5.92 | 6.35 | 6.26 | 8.14 | 5.30 |
| Transport and communication | 14.37 | 29.11 | 52.61 | 17.46 | 34.17 | 36.35 | 37.06 | 63.83 | 33.62 |
| Recreation and education | 7.03 | 11.67 | 26.52 | 10.13 | 13.46 | 19.51 | 19.98 | 28.27 | 15.78 |
| Miscellaneous goods and services | 8.89 | 13.00 | 21.43 | 12.88 | 12.25 | 14.71 | 15.39 | 25.18 | 14.47 |
| Total expenditure | 86.18 | 150.85 | 232.87 | 122.43 | 174.61 | 198.24 | 199.51 | 281.87 | 172.35 |
| Selected other payments(b) | 19.86 | 53.26 | 66.72 | 12.02 | 54.14 | 60.22 | 45.39 | 64.00 | 48.81 |

(a) Included in current housing costs are both principal and interest components of any housing loan repayments. Excluded are outright purchases of, or deposit on, dwellings or land, and other payments of a capital nature. (b) The main components of this item are income tax, superannuation contributions, life insurance premiums, purchases of and deposits on dwellings and land, and gambling payments. Receipts from sales of dwelling and land, and gambling winnings, are offset against payments. (c) Includes four households where no person was 18 years or over. (These households are not included elsewhere in this table.)

CHAPTER 8

MANPOWER

The principal subjects covered in this chapter are the labour force, unemployment, wage rates, earnings, hours of work, industrial disputes and labour organisations. Further detail on these subjects is contained in *Labour Statistics* (6101.0) and in other publications which are referred to in the various sections of this chapter. A section on civilian employees is not included in this issue, because, at the time of publication the series was undergoing a major revision. For details see *Civilian Employees* (6213.0)

THE LABOUR FORCE

This section 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 family 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 family helpers) and personal characteristics such as age, sex, marital status and birthplace, are obtained only at a general census of population.

In addition to the population censuses, estimates of the labour force are obtained through the population survey, which is now conducted monthly by means of personal interviews at a sample of households throughout Australia (*see below*). The survey provides particulars of the demographic and labour force characteristics of the population.

Detailed industry estimates for each State and Territory are obtained only in respect of employees, through a monthly collection from employers. These estimates, which exclude employees in agriculture and in private households employing staff, are based on benchmarks established by analysing data from the population census and other relevant sources such as special returns from government bodies and the Australian Bureau of Statistics' economic censuses and surveys.

The population census

Information about the labour force questions in the population census of June 1971 and tables showing the industry and occupational status of the labour force were published in Year Book No. 61. More detailed information on the labour force characteristics of the population at June 1971 is contained in the publications *1971 Census of Population and Housing: Labour Force* (2251.0 to 2259.0). Labour force figures from the 1976 census are not yet available (October 1978).

The population survey

The population survey is the general title given to the household sample which since February 1978 has been conducted monthly in all States and Territories. Although emphasis in the survey is placed on the regular collection of data on demographic and labour force characteristics of the population, supplementary surveys of particular aspects of the labour force or of other subjects are carried out from time to time. Statistics from supplementary surveys are published in bulletins which are available free on request. A list of titles is given on page 135.

The survey is based on a multi-stage area sample of private dwellings (about 30,000 houses, flats, etc.) and non-private dwellings (hotels, motels, etc.), and covers about two-thirds of one per cent of the population of Australia. The information is obtained from the occupants of selected dwellings by carefully chosen and specially trained interviewers, the interviews generally being conducted during the two weeks beginning on the Monday between the 6th and 12th of each month. The information obtained relates to the week before the interview (i.e. the survey week). Before February 1978 the interviews were spread over four weeks, chosen so that the survey weeks generally fell within the limits of the calendar month.

The labour force survey

A description of the labour force survey and a selection of principal statistics obtained from it are given in this section. The first Australia-wide labour force survey was carried out in February 1964 and surveys were conducted quarterly until February 1978. Estimates are published in the monthly bulletins, *The Labour Force (Preliminary)* (6202.0), *The Labour Force* (6203.0), and *Unemployment (Preliminary Estimates)* (6201.0). Comprehensive statistics have also been published in special annual bulletins entitled *The Labour Force* (6204.0) covering the period 1964 to 1977. However, because of recent revisions to survey estimates (*see below*), figures in monthly bulletins prior to February 1978 and in annual bulletins to 1977 are not directly comparable with current estimates shown in the following tables.

Scope and definitions

The survey includes all persons aged fifteen years and over except members of the permanent defence forces; certain diplomatic personnel of overseas governments, customarily excluded from census and estimated populations; non-Australians on tour or holidaying in Australia; and members of non-Australian defence forces (and their dependants) stationed in Australia.

The labour force category to which a person is assigned depends on his actual activity (i.e. whether working, looking for work, etc) during the survey week. This is determined from answers given to a set of questions designed for this purpose. For further information see *Information Paper: Questionnaires used in the Labour Force Survey* (6232.0). The following definitions relate only to those persons within the scope of the survey.

Employed persons comprise all those aged 15 years and over who, during the survey week:

- (a) worked for one hour or more 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 for 15 hours or more without pay in a family business or on a farm (i.e. unpaid family helper); or
- (c) were employees who had a job but were not at work and were: on paid leave; on leave without pay for less than four weeks up to the end of the survey week; stood down without pay because of bad weather or plant breakdown at their place of employment for less than four weeks up to the end of the survey week; on strike or locked out; on workers' compensation and expected to be returning to their job; or receiving wages or salary while undertaking full-time study; or
- (d) were employers or self-employed persons who had a job, business or farm, but were not at work.

Unemployed persons are those aged 15 years and over who were not employed during the survey week, and

- (a) had actively looked for full-time or part-time work at any time in the four weeks up to the end of the survey week and:
 - (i) were available for work in the survey week, or would have been available except for temporary illness (i.e. lasting for less than four weeks to the end of the survey week); or
 - (ii) were waiting to start a new job within four weeks from the end of the survey week and would have started in the survey week if the job had been available then; or
- (b) were waiting to be called back to a full-time or part-time job from which they had been stood down without pay for less than four weeks up to the end of the survey week (including the whole of the survey week) for reasons other than bad weather or plant breakdown.

The *labour force* comprises all persons who, during the survey week, were employed or unemployed, as defined above.

These definitions conform to the international standard definitions specified by the ILO.

Revision of series

The survey estimates are calculated in such a way as to conform to the independently estimated distribution of the population by age and sex. As a consequence, whenever these population benchmarks are revised it becomes necessary to revise the labour force estimates also. Survey estimates in this section are based on revised population estimates derived from the 1971 and 1976 population census results adjusted for underenumeration. For information concerning these population estimates see *Population and Vital Statistics; June Quarter 1977* (3212.0).

Survey estimates have also been revised to make them comparable with estimates for February 1978 and subsequent months, which have been obtained by using a new sample and revised questionnaire. Revised estimates were first published in the February 1978 issue of *The Labour Force*.

(6203.0), which contains information concerning the methods used in the revision. 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.

Reliability of the estimates

Since the estimates in the following tables are based on information obtained from the occupants of a sample of dwellings, the estimates and the movements derived from them are subject to sampling variability; that is, they may differ from the figures that would have been produced if all dwellings had been included in the surveys. 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 of dwellings was included. 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 if all dwellings had been included, 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.

An example of the use of the table is as follows: if the estimate for Australia obtained from the sample is 100,000, the standard error is 3,900; there are then about two chances in three that the true figure is within the range 96,100 to 103,900 and about nineteen chances in twenty that this figure is between 92,200 and 107,800.

STANDARD ERRORS OF ESTIMATES FOR AUSTRALIA

| <i>Size of estimate</i> | <i>Number</i> | <i>Per cent of estimate</i> | <i>Size of estimate</i> | <i>Number</i> | <i>Per cent of estimate</i> |
|-------------------------|---------------|-------------------------------------|-------------------------|---------------|-------------------------------------|
| 4,500 | 970 | 21.6 | 200,000 | 5,100 | 2.6 |
| 5,000 | 1,000 | 20.0 | 300,000 | 6,000 | 2.0 |
| 10,000 | 1,400 | 14.0 | 500,000 | 7,200 | 1.4 |
| 20,000 | 2,000 | 10.0 | 1,000,000 | 9,100 | 0.9 |
| 50,000 | 2,900 | 5.8 | 2,000,000 | 11,000 | 0.6 |
| 100,000 | 3,900 | 3.9 | 5,000,000 | 15,000 | 0.3 |

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 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. However, the per cent standard error of the estimated percentage will generally be lower than the per cent standard error of the estimate of the numerator. The per cent standard errors of the numerators can be obtained from the table above.

As the standard errors in the table above 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 4,500 have not been included. Although figures for these small components can in some cases 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 AGED 15 YEARS AND OVER, BY EMPLOYMENT STATUS(a)

| <i>Unemployed</i> | | | | | | | | | |
|-------------------|---------------|---|---|--------|-----------------|---------------------------|--|------------------------------|--|
| May— | Employ- ed | Looking for full- time work | Looking for part- time work | Total | Labour force | Not in labour force | Civilian popula- tion aged 15 years and over | Unem- ployment rate(b) | Labour force parti- cipation rate(c) |
| | | | | —'000— | —per cent— | | | | |
| MALES | | | | | | | | | |
| 1973 . . | 3,804.6 | 49.9 | 13.4 | 63.2 | 3,867.8 | 843.3 | 4,711.1 | 1.6 | 82.1 |
| 1974 . . | 3,894.2 | 43.9 | 10.0 | 53.9 | 3,948.1 | 866.5 | 4,814.6 | 1.4 | 82.0 |
| 1975 . . | 3,839.4 | 127.8 | 16.7 | 144.4 | 3,983.8 | 915.2 | 4,899.0 | 3.6 | 81.3 |
| 1976 . . | 3,886.9 | 127.2 | 14.6 | 141.8 | 4,028.6 | 947.6 | 4,976.2 | 3.5 | 81.0 |
| 1977 . . | 3,891.5 | 163.0 | 21.7 | 184.7 | 4,076.2 | 985.8 | 5,062.0 | 4.5 | 80.5 |
| 1978(d) . | 3,863.5 | 194.8 | 14.4 | 209.1 | 4,072.6 | 1,087.2 | 5,159.8 | 5.1 | 78.9 |
| MARRIED WOMEN | | | | | | | | | |
| 1973 . . | 1,209.7 | 21.2 | 18.2 | 39.5 | 1,249.2 | 1,995.0 | 3,244.2 | 3.2 | 38.5 |
| 1974 . . | 1,301.8 | 18.3 | 22.4 | 40.7 | 1,342.5 | 1,974.4 | 3,317.0 | 3.0 | 40.5 |
| 1975 . . | 1,289.6 | 40.8 | 37.6 | 78.5 | 1,368.0 | 1,964.3 | 3,332.3 | 5.7 | 41.1 |
| 1976 . . | 1,346.6 | 32.2 | 30.8 | 63.0 | 1,409.6 | 1,956.0 | 3,365.5 | 4.5 | 41.9 |
| 1977 . . | 1,382.0 | 42.7 | 31.9 | 74.6 | 1,456.6 | 1,950.4 | 3,407.0 | 5.1 | 42.8 |
| 1978(d) . | 1,356.5 | 49.8 | 34.1 | 83.9 | 1,440.4 | 1,958.7 | 3,399.1 | 5.8 | 42.4 |
| ALL FEMALES | | | | | | | | | |
| 1973 . . | 1,915.0 | 41.7 | 27.6 | 69.3 | 1,984.3 | 2,817.3 | 4,801.6 | 3.5 | 41.3 |
| 1974 . . | 2,023.8 | 37.4 | 32.7 | 70.1 | 2,093.8 | 2,812.9 | 4,906.8 | 3.3 | 42.7 |
| 1975 . . | 2,012.3 | 92.2 | 51.6 | 143.8 | 2,156.1 | 2,845.2 | 5,001.2 | 6.7 | 43.1 |
| 1976 . . | 2,095.5 | 86.7 | 47.4 | 134.1 | 2,229.6 | 2,860.4 | 5,090.0 | 6.0 | 43.8 |
| 1977 . . | 2,132.7 | 112.8 | 56.3 | 169.1 | 2,301.8 | 2,878.4 | 5,180.2 | 7.3 | 44.4 |
| 1978(d) . | 2,135.3 | 136.8 | 49.3 | 186.2 | 2,321.4 | 2,964.5 | 5,285.9 | 8.0 | 43.9 |
| PERSONS | | | | | | | | | |
| 1973 . . | 5,719.6 | 91.6 | 41.0 | 132.5 | 5,852.1 | 3,660.6 | 9,512.7 | 2.3 | 61.5 |
| 1974 . . | 5,917.9 | 81.3 | 42.7 | 124.0 | 6,041.9 | 3,679.4 | 9,721.4 | 2.1 | 62.2 |
| 1975 . . | 5,851.6 | 220.0 | 68.2 | 288.2 | 6,139.8 | 3,760.4 | 9,900.2 | 4.7 | 62.0 |
| 1976 . . | 5,982.3 | 213.8 | 62.0 | 275.9 | 6,258.2 | 3,808.0 | 10,066.2 | 4.4 | 62.2 |
| 1977 . . | 6,024.2 | 275.8 | 78.0 | 353.8 | 6,378.0 | 3,864.2 | 10,242.2 | 5.5 | 62.3 |
| 1978(d) . | 5,998.7 | 331.6 | 63.7 | 395.3 | 6,394.0 | 4,051.7 | 10,445.7 | 6.2 | 61.2 |

(a) For definitions and scope of estimates see page 126.

(b) The number of unemployed expressed as a percentage of the labour force (i.e. employed and unemployed) in the same group.

(c) The labour force expressed as a percentage of the civilian population aged 15 years and over in the same group.

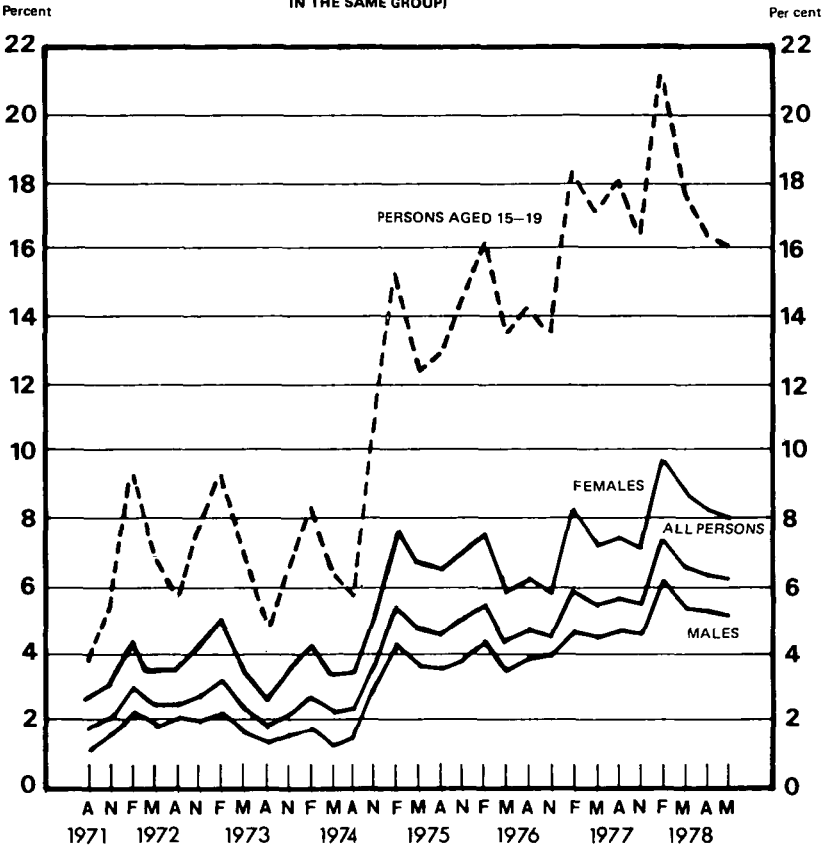
(d) See page 126 for change in timing of survey from February 1978 which may have affected the level of the figures.

NOTE : From February 1978 surveys were conducted monthly.

PLATE 23

UNEMPLOYMENT RATES

(THE UNEMPLOYED IN EACH GROUP AS A PERCENTAGE OF THE CIVILIAN LABOUR FORCE
IN THE SAME GROUP)



NOTE : From February 1978 surveys were conducted monthly.

PLATE 24

**CIVILIAN LABOUR FORCE, BY EMPLOYMENT STATUS, BIRTHPLACE AND
PERIOD OF ARRIVAL IN AUSTRALIA, MAY 1978**

| | <i>Employed</i> | | <i>Unemployed</i> | | <i>Labour force</i> | <i>Unemploy- ment rate(a)</i> | <i>Labour force partici- pation rate(b)</i> |
|----------------------------|------------------|--------------|---|--------------|-------------------------|---------------------------------------|---|
| | <i>Full-time</i> | <i>Total</i> | <i>Looking for full-time work</i> | <i>Total</i> | | | |
| | | | | | | | |
| | | | — '000— | | | —per cent— | |
| MALES | | | | | | | |
| Born in Australia | 2,647.5 | 2,805.1 | 136.2 | 146.7 | 2,951.8 | 5.0 | 79.0 |
| Born outside Australia . . | 1,020.6 | 1,058.4 | 58.6 | 62.5 | 1,120.9 | 5.6 | 81.9 |
| Arrived before 1961 . . . | 449.1 | 465.8 | 17.5 | 18.2 | 484.0 | 3.8 | 76.3 |
| 1961-1965 | 156.1 | 162.6 | 11.5 | 12.3 | 174.9 | 7.0 | 86.5 |
| 1966-1970 | 221.3 | 228.4 | 15.0 | 15.9 | 244.3 | 6.5 | 87.6 |
| 1971-1976 | 157.9 | 163.0 | 11.0 | 12.2 | 175.2 | 7.0 | 87.6 |
| Jan. 1977 to May 1978 . . | 36.2 | 38.7 | * | * | 42.5 | * | 81.0 |
| MARRIED WOMEN | | | | | | | |
| Born in Australia | 515.2 | 945.5 | 26.9 | 51.4 | 996.9 | 5.2 | 40.1 |
| Born outside Australia . . | 272.0 | 411.0 | 22.9 | 32.5 | 443.5 | 7.3 | 49.1 |
| Arrived before 1961 . . . | 95.0 | 158.2 | 5.1 | 8.3 | 166.5 | 5.0 | 41.5 |
| 1961-1965 | 49.6 | 75.1 | * | 4.3 | 79.4 | 5.4 | 55.2 |
| 1966-1970 | 62.5 | 91.0 | 5.8 | 7.6 | 98.6 | 7.7 | 54.4 |
| 1971-1976 | 57.3 | 76.1 | 6.4 | 8.6 | 84.7 | 10.1 | 57.4 |
| Jan. 1977 to May 1978 . . | 7.6 | 10.5 | * | * | 14.3 | * | 49.0 |
| ALL FEMALES | | | | | | | |
| Born in Australia | 1,030.0 | 1,587.1 | 95.4 | 131.4 | 1,718.5 | 7.6 | 43.5 |
| Born outside Australia . . | 385.8 | 548.2 | 41.4 | 54.8 | 603.0 | 9.1 | 48.4 |
| Arrived before 1961 . . . | 125.0 | 195.6 | 7.3 | 11.6 | 207.3 | 5.6 | 38.0 |
| 1961-1965 | 74.9 | 105.7 | 5.4 | 8.1 | 113.8 | 7.1 | 57.2 |
| 1966-1970 | 88.7 | 121.5 | 11.4 | 13.5 | 135.0 | 10.0 | 54.2 |
| 1971-1976 | 79.8 | 104.2 | 10.2 | 13.4 | 117.6 | 11.4 | 59.0 |
| Jan. 1977 to May 1978 . . | 17.4 | 21.2 | 7.2 | 8.1 | 29.3 | 27.7 | 55.8 |
| PERSONS | | | | | | | |
| Born in Australia | 3,677.5 | 4,392.1 | 231.6 | 278.1 | 4,670.2 | 6.0 | 60.8 |
| Born outside Australia . . | 1,406.4 | 1,606.6 | 100.1 | 117.2 | 1,723.8 | 6.8 | 66.0 |
| Italy | - | 175.8 | - | 8.5 | 184.3 | 4.6 | 66.7 |
| Greece | - | 96.6 | - | 10.8 | 107.4 | 10.1 | 68.5 |
| Yugoslavia | - | 110.2 | - | 8.1 | 118.3 | 6.8 | 75.0 |
| U.K. and Ireland | - | 584.7 | - | 41.2 | 625.9 | 6.6 | 62.2 |
| New Zealand | - | 69.1 | - | 5.2 | 74.3 | 7.0 | 72.5 |
| Other | - | 570.2 | - | 43.4 | 613.7 | 7.1 | 67.2 |
| Arrived before 1961 . . . | 574.1 | 661.4 | 24.8 | 29.9 | 691.3 | 4.3 | 58.6 |
| 1961-1965 | 231.0 | 268.3 | 16.8 | 20.4 | 288.6 | 7.1 | 72.0 |
| 1966-1970 | 310.0 | 349.9 | 26.4 | 29.4 | 379.3 | 7.8 | 71.8 |
| 1971-1976 | 237.7 | 267.2 | 21.2 | 25.7 | 292.9 | 8.8 | 73.3 |
| Jan. 1977 to May 1978 . . | 53.6 | 59.8 | 10.8 | 11.9 | 71.7 | 16.6 | 68.4 |

(a) The number of unemployed expressed as a percentage of the labour force (i.e. employed and unemployed) in the same group. (b) The labour force expressed as a percentage of the civilian population aged 15 years and over in the same group. Excludes persons in institutions. * Less than 4,500 or based on a figure less than 4,500. See page 127.

CIVILIAN LABOUR FORCE, BY AGE, MAY 1978

| Age groups (years) | Number ('000) | | | | Labour force participation rate (a) (per cent) | | | |
|------------------------|----------------|----------------|----------------|----------------|--|---------------|-------------|-------------|
| | Males | Married women | All females | Persons | Males | Married women | All females | Persons |
| 15-19 | 405.5 | 18.4 | 373.2 | 778.7 | 62.4 | 48.6 | 59.7 | 61.1 |
| 20-24 | 530.5 | 178.0 | 403.1 | 933.7 | 89.9 | 56.0 | 68.2 | 79.1 |
| 25-34 | 1,077.4 | 440.3 | 564.4 | 1,641.9 | 96.1 | 46.6 | 50.9 | 73.6 |
| 35-44 | 811.0 | 406.3 | 463.0 | 1,274.0 | 96.3 | 56.7 | 57.4 | 77.3 |
| 45-54 | 724.5 | 288.2 | 349.8 | 1,074.3 | 92.3 | 45.5 | 46.8 | 70.1 |
| 55-59 | 290.3 | 76.7 | 106.8 | 397.1 | 85.0 | 28.9 | 30.9 | 57.8 |
| 60-64 | 164.5 | 23.6 | 40.7 | 205.1 | 58.9 | 11.4 | 13.5 | 35.3 |
| 65 and over | 68.9 | 8.9 | 20.4 | 89.3 | 12.5 | 3.2 | 2.7 | 6.8 |
| Total | 4,072.6 | 1,440.4 | 2,321.4 | 6,394.0 | 78.9 | 42.4 | 43.9 | 61.2 |

(a) The labour force expressed as a percentage of the civilian population aged 15 years and over in the same group.

EMPLOYED PERSONS BY INDUSTRY AND AVERAGE HOURS WORKED, MAY 1978

| Industry | Number ('000) | | | Average hours worked (a) | | |
|--|----------------|----------------|----------------|--------------------------|-------------|-------------|
| | Males | Females | Persons | Males | Females | Persons |
| Agriculture and services to agriculture | 265.3 | 80.4 | 345.7 | 50.3 | 29.6 | 45.5 |
| Forestry, fishing and hunting | 23.1 | * | 27.1 | 37.8 | * | 35.7 |
| Mining | 80.6 | 5.1 | 85.8 | 37.4 | 30.7 | 37.0 |
| Manufacturing | 913.2 | 321.6 | 1,234.8 | 38.8 | 33.7 | 37.5 |
| Food, beverages and tobacco | 149.2 | 51.4 | 200.5 | 36.4 | 32.3 | 35.3 |
| Metal products, machinery and equipment | 176.5 | 31.0 | 207.5 | 39.4 | 33.2 | 38.5 |
| Other manufacturing | 587.6 | 239.1 | 826.8 | 39.2 | 34.0 | 37.7 |
| Construction | 444.5 | 43.5 | 488.0 | 38.1 | 19.3 | 36.4 |
| Wholesale and retail trade | 709.8 | 514.4 | 1,224.2 | 40.8 | 29.1 | 35.9 |
| Transport and storage | 274.0 | 43.2 | 317.3 | 39.5 | 29.1 | 38.0 |
| Finance, insurance, real estate and business services | 259.1 | 215.0 | 474.1 | 38.5 | 30.7 | 34.9 |
| Community services | 342.7 | 561.2 | 903.9 | 36.8 | 28.3 | 31.5 |
| Entertainment, recreation, restaurants, hotels and personal services | 155.6 | 217.0 | 372.6 | 39.7 | 26.4 | 32.0 |
| Other industries | 395.5 | 129.7 | 525.2 | 34.9 | 30.6 | 33.8 |
| Total | 3,863.5 | 2,135.2 | 5,998.7 | 39.3 | 29.4 | 35.8 |

(a) Actual hours worked during the survey week, not hours paid for. The figures may be affected by public holidays, leave, absenteeism, absence from work due to sickness, injury, accident, industrial disputes, plant breakdown, etc. * Less than 4,500 or based on a figure less than 4,500. See page 127.

EMPLOYED PERSONS BY OCCUPATION, MAY 1978

('000)

| Occupation | Males | Married women | All females | Persons |
|--|----------------|----------------|----------------|----------------|
| Professional, technical, etc. | 442.4 | 213.0 | 357.5 | 799.9 |
| Administrative, executive and managerial | 333.2 | 34.0 | 43.8 | 377.0 |
| Clerical | 310.9 | 422.5 | 726.0 | 1,037.0 |
| Sales | 253.8 | 168.2 | 281.3 | 535.0 |
| Farmers, fishermen, timber-getters, etc. | 332.4 | 68.0 | 82.0 | 414.4 |
| Transport and communication | 279.0 | 27.5 | 44.4 | 323.4 |
| Tradesmen, production-process workers and labourers, n.e.c.; and miners, quarrymen, etc. | 1,697.3 | 181.1 | 243.6 | 1,940.9 |
| Service, sport and recreation | 214.4 | 242.2 | 356.6 | 571.1 |
| Total employed | 3,863.5 | 1,356.5 | 2,135.3 | 5,998.7 |

**PART-TIME WORKERS: WHETHER PREFERRED TO WORK MORE HOURS AND WHETHER
LOOKING FOR FULL-TIME WORK, BY AGE, MAY 1978**
(^{'000})

| | Age group (years) | | | | | | |
|---|-------------------|---------|-------|-------|-------|-------------|-------|
| | 15-19 | 20-24 | 25-34 | 35-44 | 45-54 | 55 and over | Total |
| MALES | | | | | | | |
| Total | 54.2 | 27.6 | 30.0 | 16.6 | 15.4 | 51.5 | 195.4 |
| Preferred not to work more hours | 43.7 | 22.6 | 22.7 | 10.1 | 13.8 | 49.2 | 162.1 |
| Preferred to work more hours | 10.5 | 5.0 | 7.4 | 6.5 | * | * | 33.3 |
| Had actively looked for full-time work(a) | 4.8 | * | * | * | * | * | 16.3 |
| MARRIED WOMEN | | | | | | | |
| Total | * | 30.8 | 181.6 | 187.6 | 118.4 | 48.0 | 569.2 |
| Preferred not to work more hours | * | 24.8 | 156.0 | 169.2 | 110.7 | 46.4 | 508.8 |
| Preferred to work more hours | * | 6.0 | 25.6 | 18.4 | 7.7 | * | 60.4 |
| Had actively looked for full-time work(a) | * | — 5.4 — | | * | * | * | 10.3 |
| ALL FEMALES | | | | | | | |
| Total | 73.1 | 53.6 | 196.7 | 197.5 | 129.7 | 68.8 | 719.4 |
| Preferred not to work more hours | 56.7 | 43.5 | 168.0 | 177.0 | 120.3 | 66.3 | 631.8 |
| Preferred to work more hours | 16.5 | 10.1 | 28.7 | 20.6 | 9.3 | * | 87.7 |
| Had actively looked for full-time work(a) | 5.6 | * | 5.3 | * | * | * | 19.2 |
| PERSONS | | | | | | | |
| Total | 127.4 | 81.2 | 226.7 | 214.1 | 145.1 | 120.3 | 914.8 |
| Preferred not to work more hours | 100.4 | 66.1 | 190.7 | 187.1 | 134.2 | 115.5 | 793.8 |
| Preferred to work more hours | 27.0 | 15.1 | 36.0 | 27.1 | 10.9 | 4.8 | 121.0 |
| Had actively looked for full-time work(a) | 10.4 | 5.7 | 9.6 | 7.3 | * | * | 35.5 |

(a) Had actively looked for full-time work in the four weeks up to the end of the survey week. * Less than 4,500. See page 127.

EMPLOYED PERSONS, BY HOURS WORKED (a), MAY 1978
(^{'000})

| | <i>Males</i> | <i>Married women</i> | <i>Other females (b)</i> | <i>All females</i> | <i>Persons</i> |
|---------------------------------|----------------|----------------------|--------------------------|--------------------|----------------|
| Weekly hours worked (a)~ | | | | | |
| 0(c) | 232.3 | 106.4 | 47.3 | 153.7 | 386.0 |
| 1-15 | 113.2 | 253.6 | 92.1 | 345.7 | 459.0 |
| 16-29 | 190.4 | 247.1 | 62.5 | 309.5 | 499.9 |
| 30-34 | 309.7 | 118.3 | 75.0 | 193.3 | 503.0 |
| 35-39 | 454.7 | 180.6 | 169.0 | 349.6 | 804.2 |
| 40 | 1,266.1 | 302.9 | 238.8 | 541.7 | 1,807.8 |
| 41-44 | 251.7 | 41.5 | 37.9 | 79.3 | 331.0 |
| 45-48 | 337.8 | 33.3 | 26.1 | 59.4 | 397.2 |
| 49 and over | 707.7 | 72.9 | 30.2 | 103.1 | 810.7 |
| Total | 3,863.5 | 1,356.5 | 778.8 | 2,135.3 | 5,998.7 |

(a) The figures relate to hours worked, not hours paid for. The persons had actively looked for full-time work in the four weeks up to the survey week. (b) Never married, widowed or divorced. (c) Persons who had a job but were not at work.

**UNEMPLOYED PERSONS, BY INDUSTRY AND OCCUPATION OF LAST FULL-TIME JOB
MAY 1978**

| <i>Industry division or sub-division</i> | <i>Unemploy- ment</i> | | <i>Occupation group</i> | <i>Unemploy- ment</i> | |
|---|---------------------------|------------------------------|---|---------------------------|------------------------------|
| | <i>Total</i> ('000) | <i>rate(a)</i> (per cent) | | <i>Total</i> ('000) | <i>rate(a)</i> (per cent) |
| Had worked for two weeks or more in a full-time job in the last two years | 266.3 | 4.3 | Had worked for two weeks or more in a full-time job in the last two years | 266.3 | 4.3 |
| Agriculture and services to agriculture | 14.9 | 4.1 | Professional, technical, etc. | 16.0 | 2.0 |
| Manufacturing | 73.6 | 5.6 | Administrative, executive and managerial | 4.5 | 1.2 |
| Food, beverages and tobacco | 16.9 | 7.8 | Clerical | 30.5 | 2.9 |
| Metal products, machinery and equipment | 11.7 | 5.3 | Sales | 29.9 | 5.3 |
| Other manufacturing | 45.0 | 5.2 | Farmers, fishermen, timber-getters, etc. | 21.0 | 4.8 |
| Construction | 29.1 | 5.6 | Miners, quarrymen, etc. | * | * |
| Wholesale and retail trade | 62.2 | 4.8 | Transport and communication | 13.3 | 3.9 |
| Transport and storage | 11.1 | 3.4 | Tradesmen, production-process workers and labourers, n.e.c. | 116.6 | 5.8 |
| Finance, insurance, real estate and business services | 11.2 | 2.3 | Service, sport and recreation | 32.6 | 5.4 |
| Community services | 24.1 | 2.6 | | | |
| Entertainment, recreation, restaurants, hotels and personal services | 23.3 | 5.9 | | | |
| Other industries | 16.9 | 2.6 | | | |
| Other(b) | 129.0 | .. | | | |
| Total | 395.3 | 6.2 | | | |

(a) The number of unemployed expressed as a percentage of the labour force (i.e. employed and unemployed) in the same group. (b) Had never worked for two weeks or more in a full-time job, or had not done so in the last two years. Industry and occupation were not obtained from these persons. * Less than or based on a figure less than 4,500. See page 127.

UNEMPLOYED PERSONS, BY DURATION OF UNEMPLOYMENT (a), BY AGE, ETC., MAY 1978

| Duration of unemployment (weeks) (a) | Age (years) | | | Married | Not married (b) | Looking for— | | Total |
|---|-------------|-------|----------------|---------|-----------------------|-------------------|-------------------|-------|
| | 15-19 | 20-24 | 25 and over | | | Full-time work | Part-time work | |
| MALES | | | | | | | | |
| Number unemployed ('000)— | | | | | | | | |
| Under 2 | 5.7 | * | 9.1 | 6.2 | 11.5 | 14.8 | | 17.7 |
| 2 and under 4 | 7.1 | 7.0 | 10.9 | 10.1 | 15.0 | 23.1 | 4.8 | 25.0 |
| 4 and under 8 | 7.9 | 7.7 | 13.8 | 11.5 | 17.9 | 27.4 | | 29.4 |
| 8 and under 13 | 9.0 | 6.1 | 10.6 | 7.7 | 18.0 | 23.2 | 4.5 | 25.7 |
| 13 and under 26 | 18.9 | 8.0 | 21.8 | 15.8 | 32.8 | 45.4 | * | 48.6 |
| 26 and under 39 | 5.0 | 5.4 | 13.6 | 9.3 | 14.7 | 23.4 | * | 24.0 |
| 39 and under 52 | | | 5.5 | 4.5 | 4.8 | 9.1 | * | 9.3 |
| 52 and under 65 | 6.2 | 6.2 | 7.1 | * | 6.0 | 10.1 | * | 10.3 |
| 65 and over | | | 13.8 | 9.9 | 9.2 | 18.3 | * | 19.1 |
| Total | 59.8 | 43.1 | 106.2 | 79.3 | 129.8 | 194.8 | 14.4 | 209.1 |
| Average duration of unem- ployment | 18.6 | 19.6 | 30.3 | 27.5 | 23.1 | 25.4 | 16.6 | 24.8 |
| FEMALES | | | | | | | | |
| Number unemployed ('000)— | | | | | | | | |
| Under 2 | 4.7 | 4.0 | 12.1 | 12.9 | 7.8 | 11.2 | 9.5 | 20.7 |
| 2 and under 4 | 6.6 | 5.0 | 13.7 | 13.9 | 11.4 | 15.9 | 9.5 | 25.3 |
| 4 and under 8 | 8.4 | 6.7 | 10.0 | 13.2 | 12.0 | 18.6 | 6.6 | 25.2 |
| 8 and under 13 | 6.8 | 4.4 | 11.4 | 10.7 | 11.9 | 16.5 | 6.1 | 22.6 |
| 13 and under 26 | 22.5 | 5.9 | 16.5 | 16.1 | 28.8 | 35.0 | 9.9 | 45.0 |
| 26 and under 39 | | | 6.4 | 5.1 | 12.3 | 14.4 | | 17.4 |
| 39 and under 52 | 8.5 | 5.0 | * | | * | * | 5.2 | 4.4 |
| 52 and under 65 | | | 5.2 | 5.5 | 5.6 | 8.0 | | 9.4 |
| 65 and over | 7.4 | 5.5 | 7.4 | 6.4 | 9.8 | 13.6 | * | 16.2 |
| Total | 65.1 | 36.4 | 84.6 | 83.9 | 102.3 | 136.8 | 49.3 | 186.2 |
| Average duration of unem- ployment | 21.4 | 23.2 | 22.6 | 19.5 | 24.6 | 24.6 | 16.0 | 22.3 |
| PERSONS | | | | | | | | |
| Number unemployed ('000)— | | | | | | | | |
| Under 2 | 10.4 | 6.8 | 21.2 | 19.1 | 19.2 | 26.0 | 12.4 | 38.4 |
| 2 and under 4 | 13.8 | 12.0 | 24.6 | 24.0 | 26.4 | 39.0 | 11.4 | 50.4 |
| 4 and under 8 | 16.4 | 14.4 | 23.8 | 24.7 | 29.9 | 46.0 | 8.6 | 54.6 |
| 8 and under 13 | 15.8 | 10.5 | 22.0 | 18.4 | 29.9 | 39.7 | 8.6 | 48.3 |
| 13 and under 26 | 41.4 | 13.8 | 38.3 | 32.0 | 61.6 | 80.4 | 13.2 | 93.6 |
| 26 and under 39 | 12.2 | 9.3 | 20.0 | 14.4 | 27.1 | 37.8 | | 41.4 |
| 39 and under 52 | * | | 7.4 | 6.3 | 7.4 | 12.7 | 4.6 | 13.7 |
| 52 and under 65 | * | 6.6 | 12.3 | 8.1 | 11.6 | 18.1 | | 19.7 |
| 65 and over | 7.9 | 6.2 | 21.2 | 16.3 | 19.1 | 31.9 | 5.0 | 35.3 |
| Total | 124.9 | 79.6 | 190.8 | 163.2 | 232.1 | 331.6 | 63.7 | 395.3 |
| Average duration of unem- ployment | 20.1 | 21.3 | 26.9 | 23.4 | 23.8 | 25.0 | 16.1 | 23.6 |

(a) Period from the time the person began looking for work, or was laid off, to the end of the survey week. Periods of unemployment are recorded in complete weeks and this results in a slight understatement of duration. (b) Never married, widowed and divorced. * Less than 4,500. See page 127.

Population Survey Reports

As explained earlier in this chapter, the labour force survey questions are regularly supplemented by additional questions on particular aspects of the labour force or of other subjects. A list of supplementary surveys is given below.

| Title | Catalogue number |
|---|---------------------|
| Alcohol and Tobacco Consumption Patterns, February 1977 | 4312.0 |
| Annual Leave, August 1974 | 6317.0 |
| Assisted and Unassisted Migrants, August 1972 | 3406.0 |

| <i>Title</i> | <i>Catalogue number</i> |
|---|-------------------------|
| Birth Expectations of Married Women, November 1976 | 3213.0 |
| Child Care— | |
| May 1969; May 1973; May 1977 | 4402.0 |
| Chronic Illnesses, Injuries and Impairments— | |
| May 1968; May 1974 | 4305.0 |
| Employment Status of Teenagers, August 1978 | 6234.0 |
| Evening and Night Work, November 1976 | 6329.0 |
| Ex-Service Personnel, November 1966 and 1971 | 4403.0 |
| Family Status and Employment Status of the Population, November 1974 and November 1975 | 6223.0 |
| Frequency of Pay— | |
| August 1974; August 1976; August 1977 | 6320.0 |
| Income Distribution, 1968–69 (Consolidated and Revised Edition) | 6505.0 |
| Income Distribution, 1973–74— | |
| Part 1 | 6502.0 |
| Part 2 | 6503.0 |
| Part 3 (Supplementary Tables) | 6504.0 |
| Internal Migration— | |
| 1969–70 to 1972–73 (annually); Twelve months ended April 1972, 1973 and 1974; December 1974; January 1977 | 3408.0 |
| Job Tenure— | |
| February 1974; February 1975; August 1976 | 6211.0 |
| Journey to Work and Journey to School— | |
| May 1970; August 1974 | 9205.0 |
| Labour Force Experience— | |
| During 1968; During 1972; During 1974; During 1975; During 1976 | 6206.0 |
| Labour Force Status and Other Characteristics of Families, November 1974 | 6224.0 |
| Labour Mobility— | |
| November 1972; February 1975; February 1976 | 6209.0 |
| Leavers from Schools, Universities and Other Educational Institutions, Surveys of—February 1964, 1965, 1966 and 1967; February 1968, 1969 and 1970; February 1971 to February 1974 (annually); May 1975; May 1976; August 1977; August 1978 | 6227.0 |
| Migrants in the Labour Force, 1972 to 1976 | 6230.0 |
| Multiple Jobholding— | |
| November 1965; August 1966; August 1967; May 1971; August 1973; August 1975; August 1977 | 6216.0 |
| Non-school Study Courses, Survey of, August 1968 | (a) |
| Persons Covered by Hospital and Medical Expenditure Assistance Schemes, August 1972 | 4303.0 |
| Persons Aged 15 to 64 Years: Employment Status and Period Since Leaving School, May 1976 | 6225.0 |
| Persons Not in the Labour Force, November 1975; May 1977 | 6220.0 |
| Persons Looking for Work— | |
| May 1976; November 1976; May 1977; July 1978 | 6222.0 |
| School Leavers, 1970 to 1974: Their Employment Status and Education Experience in May 1975 | 6226.0 |
| Superannuation Survey of— | |
| Victoria, May 1968 | (a) |
| February 1974 | 6319.0 |
| The Labour Force: Country of Birth and Period of Residence, February 1972 | 6207.0 |
| Trade Union Members, November 1976 | 6325.0 |
| Weekly Earnings of Employees (Distribution)— | |
| August 1975; August 1976; August 1977 | 6310.0 |
| Work Patterns of Employees, November 1976 | 6328.0 |

(a) No Catalogue number allocated.

Commonwealth Employment Service

Statutory warrant for the Commonwealth Employment Service (CES) is to be found in the *Commonwealth Employment Service Act 1978*. In brief, the main functions of the CES 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 CES conform to the provisions of the Employment Service Convention, 1948 of the International Labour Organisation (ILO), which was ratified by Australia in December 1949. In addition, CES practices accord substantially with the provisions of the ILO Employment Service Recommendation, 1948.

The CES is a part of the Department of Employment and Youth Affairs. There is a central administration in Melbourne and a regional office in the capital city of each State and the Northern Territory. There are 217 offices of the CES in suburban and the larger provincial centres, including eight Professional Employment Offices in the six State capital cities and Canberra and Darwin. The employment offices are distributed as follows: New South Wales 62, Victoria 55, Queensland 39,

South Australia 22, Western Australia 22, Tasmania 8, Northern Territory 5 and Australian Capital Territory 4. In addition, there are 7 Youth Job Centres in the six State Capital cities and Darwin, a total of 51 either full-time or part-time branch offices in the metropolitan and country centres and 156 CES agents in the smaller country centres.

Fares assistance is available to eligible persons to travel to and return from interviews arranged through CES. Relocation assistance to eligible persons who wish to enter employment at a new location is also available.

Training assistance under the National Employment and Training System (NEAT) is available to eligible persons through CES. Full or part-time training may be undertaken within educational or training institutions by correspondence or on-the-job to assist individuals to obtain suitable employment. Persons approved for training in formal courses are eligible for living and other allowances. Assistance under the Commonwealth Rebate for Apprentice Full-time Training (CRAFT), which encourages the employment of apprentices and also offers living-away-from-home allowances, is also available through CES.

Specialised facilities are provided for young people, Aborigines, handicapped persons, ex-members of the defence forces, migrants, ex-prisoners, and youth trainees, rural workers and persons with professional and technical qualifications. The CES provides vocational counselling and assessment free of charge in all States and has a staff of qualified psychologists for this function. Vocational counselling is available to any person in the labour force or about to enter the labour force as well as to ex-service members and handicapped persons.

Specially trained staff visit institutions, hospitals and rehabilitation units to interview and counsel people with complex employment problems. CES provides a supportive information service to intending school-leavers by liaising with schools through its schools' employment programme. Since 1971 CES has opened Career Reference Centres which provide occupational information in written and audio visual form for school-leavers, students, parents and teachers and other professionals in Sydney, Brisbane, Melbourne, Adelaide, Perth, Hobart, Newcastle, Wollongong and Geelong.

All applicants for unemployment benefit under the *Social Services Act* 1947 are required by the Director-General of the Department of Social Security to register at an office or agency of the CES, which is responsible for certifying whether or not suitable employment can be offered to them. The CES is responsible for assisting all migrant workers sponsored by the Commonwealth Government to obtain suitable employment. This includes recommending the hostels to which migrants should be allocated on arrival and, where necessary, arranging their movement to initial employment. Assistance is also offered to other migrants. Since 1951 it has been responsible for recruiting Australian experts for overseas service under the United Nations Expanded Programme of Technical Assistance (now replaced by the U.N. Development Programme), the World Bank, the Asian Development Bank and the Commonwealth Fund for Technical Co-operation. 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 Commonwealth 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.

During 1977 there were 1,870,523 applicants who registered for employment, of whom 1,227,104 were referred to employers and 467,600 placed in employment. New vacancies notified numbered 666,306.

Persons registered for employment

The following table shows the number of persons registered with the CES 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 CES. All recipients of unemployment benefit are included. Before July 1973, school leavers comprised all persons under the age of 21 who, at the time of registering with the CES, (i) had ceased full-time primary or secondary education within the previous three months; or (ii) were still at school but notified the CES that they would leave school before the end of the school year if a full-time job was 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 CES, 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 Employment and Youth Affairs)

| <i>June(a)</i> | <i>N.S.W.(b)</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> |
|----------------|------------------|-------------|------------|-------------|-------------|-------------|-------------|--------------|
| 1973 . . . | 27,003 | 22,219 | 10,636 | 8,599 | 8,461 | 3,718 | 740 | 81,376 |
| 1974(c) . . . | 28,957 | 21,258 | 9,537 | 7,128 | 7,782 | 3,310 | 855 | 78,827 |
| 1975 . . . | 94,595 | 70,360 | 37,491 | 19,119 | 17,003 | 6,190 | 1,217 | 245,975 |
| 1976 . . . | 111,127 | 66,118 | 38,586 | 17,593 | 21,103 | 8,986 | 1,738 | 265,251 |
| 1977 . . . | 140,957 | 77,613 | 48,582 | 27,590 | 25,573 | 8,786 | 3,692 | 332,793 |
| 1978 . . . | 144,101 | 95,172 | 63,181 | 40,491 | 34,443 | 11,944 | 4,510 | 393,842 |

(a) Generally at Friday nearest end of month. (b) Includes Australian Capital Territory. (c) The discontinuity between June 1973 and 1974 is caused by a change in definition of school leavers. This change in definition is explained on page 137.

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 for full-time, part-time, permanent, temporary and seasonal positions are included. The figures differ substantially from those obtained through sample surveys, as shown below.

VACANCIES REGISTERED WITH THE COMMONWEALTH EMPLOYMENT SERVICE

(Source: Department of Employment and Youth Affairs)

| <i>June(a)</i> | <i>N.S.W.(b)</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> |
|----------------|------------------|-------------|------------|-------------|-------------|-------------|-------------|--------------|
| 1973 . . . | 21,532 | 16,522 | 6,986 | 4,362 | 3,302 | 1,014 | 790 | 54,508 |
| 1974 . . . | 23,160 | 23,561 | 6,180 | 4,231 | 3,302 | 1,078 | 668 | 62,180 |
| 1975 . . . | 8,984 | 7,868 | 2,484 | 2,381 | 2,346 | 823 | 631 | 25,517 |
| 1976 . . . | 5,950 | 7,187 | 1,605 | 1,749 | 1,626 | 654 | 423 | 19,194 |
| 1977 . . . | 6,405 | 6,816 | 1,911 | 1,063 | 1,760 | 947 | 227 | 19,129 |
| 1978 . . . | 6,383 | 5,291 | 2,208 | 1,234 | 1,296 | 613 | 178 | 17,203 |

(a) Generally at Friday nearest end of month. (b) Includes Australian Capital Territory.

Sample surveys of job vacancies were conducted by the Australian Bureau of Statistics in March each year from 1974 to 1978 and quarterly from May 1977 to May 1978. A summary of the results of some of these surveys is shown in the table below. More detailed information and explanatory notes are contained in *Job Vacancies, March 1978* (6218.0) and *Job Vacancies, May 1978* (6231.0). For a number of reasons the estimates obtained from these surveys differ substantially from the number of vacancies registered with CES at the same dates, the principal reason being that many vacancies are not registered by employers. For example, the survey estimate of total vacancies in May 1978 was 32,200 while the CES figure was 17,904. Reasons why the survey estimates differ from CES statistics were published in *Job Vacancies, May 1978* (6231.0). As part of the measures necessary to bring the activities of the ABS within the resources available to it, the surveys of job vacancies were terminated from May 1978.

JOB VACANCIES

| | <i>Annual surveys</i> | | | | | <i>Quarterly surveys</i> | | |
|--------------------------------------|-----------------------|-------------|-------------|-------------|-------------|--------------------------|-----------------|-------------|
| | <i>March</i> | | | | | <i>May</i> | <i>February</i> | <i>May</i> |
| | <i>1974</i> | <i>1975</i> | <i>1976</i> | <i>1977</i> | <i>1978</i> | <i>1977</i> | <i>1978</i> | <i>1978</i> |
| NUMBER OF VACANCIES ('000) | | | | | | | | |
| For males | 106.4 | 31.7 | 27.8 | 27.5 | 17.9 | 18.6 | 13.6 | 13.2 |
| For females | 39.2 | 11.3 | 11.1 | 7.9 | 4.9 | 8.1 | 6.8 | 5.8 |
| For males and females(a) | 19.7 | 12.2 | 11.8 | 14.2 | 13.5 | 12.6 | 15.6 | 13.2 |
| Total | 165.2 | 55.2 | 50.8 | 49.6 | 36.3 | 39.3 | 36.0 | 32.2 |
| JOB VACANCY RATE (PERCENT)(b) | | | | | | | | |
| Persons | 3.6 | 1.3 | 1.2 | 1.2 | 0.8 | 0.9 | 0.8 | 0.8 |

(a) Vacancies for males and females are those jobs open to male or female applicants without preference. (b) The job vacancy rate is calculated by expressing the number of job vacancies as a percentage of the number of employees plus vacancies.

Labour Turnover

Surveys of labour turnover were conducted annually in the period March 1949 to March 1976. Results of the 1976 survey were published in *Labour Turnover, March 1976* (6210.0).

INCOME, EARNINGS AND HOURS

Industrial Conciliation and Arbitration

General

Legal minimum rates of pay for most Australian wage and salary earners (90 percent in 1976) are prescribed in awards and determinations of Federal and State industrial arbitration tribunals or in collective agreements registered with them. (In 1976 less than one percent of employees were affected by unregistered collective agreements.)

The main tribunals operative at the end of 1977 were as follows:

Federal Tribunals: Australian Conciliation and Arbitration Commission, Public Service Arbitrator, Flight Crew Officers' Industrial Tribunal, Coal Industry Tribunal.

New South Wales Tribunals: Industrial Commission of New South Wales, Public Service Board of New South Wales.

Victorian Tribunals: Wages Boards, Industrial Appeals Court, Public Service Board, Teachers Tribunal, Police Service Board.

Queensland Tribunals: Industrial Conciliation and Arbitration Commission of Queensland.

South Australian Tribunals: Industrial Commission, Conciliation Committees, Public Service Arbitrator, Teachers Salaries Board.

Western Australian Tribunals: Western Australian Industrial Commission, Western Australian Coal Industry Tribunal, Public Service Arbitrator, Railway Classification Board, Government School Teachers Tribunal.

Tasmanian Tribunals: Industrial Boards, Public Service Board, Public Service Arbitrator.

Federal tribunals

The Australian Conciliation and Arbitration Commission has jurisdiction in respect of the prevention and settlement of industrial disputes extending beyond the limits of any one State. The Commission consists of a President, Deputy Presidents and Commissioners. The work of the Commission is normally done by individual members; however, certain matters such as standard hours, national wage cases, the minimum wage, equal pay principles, annual leave and long service leave must be determined by a Full Bench of the Commission consisting of a number of Presidential members and Commissioners. A Full Bench of the Commission also deals with appeals and references from single members of the Commission and from the Public Service Arbitrator. Where a State law or an award, etc. of a State Tribunal is inconsistent with a Federal award, etc., the latter prevails to the extent of the inconsistency.

Conditions of employment of Federal government employees are regulated by determinations of the Australian Public Service Arbitrator and the Deputy Arbitrators. Appeals and references may be made to the Australian Conciliation and Arbitration Commission.

The Flight Crew Officers' Industrial Tribunal is empowered to prevent and settle industrial disputes involving pilots, navigators and flight engineers of aircraft.

The Coal Industry Tribunal was established under the authority of Federal and New South Wales legislation, and is empowered to determine interstate and New South Wales disputes in the coal mining industry.

State tribunals

State tribunals have jurisdiction over industrial disputes confined within their own State boundaries. For details of the composition and operation of the State tribunals listed above, reference should be made to the various State Year Books.

Determination of rates of pay

The awards, etc. of the various Federal and State tribunals prescribe minimum rates of pay, standard hours of work and other conditions of employment for particular occupations. Most awards also prescribe a minimum wage for adult males and for adult females, i.e. the minimum amount which must be paid to an adult employee, regardless of occupation, for working the standard weekly hours

of work. In all awards, etc. except those of Western Australia tribunals, the minimum wage is the same amount for adult females and adult males. The concept of equal pay for the sexes is applicable in most Federal and State awards. In recent years the wage fixing principles of the Australian Conciliation and Arbitration Commission have generally been followed by State tribunals.

As mentioned in Year Book No. 61, page 298, the Australian Conciliation and Arbitration Commission in April 1975 decided to introduce wage indexation in the form of quarterly adjustments to award wages based on increases in the Consumer Price Index. Indexation increases in 1976, 1977 and 1978 were as follows: February 1976, 6.4 per cent increase; May 1976, 3 per cent up to a maximum of \$3.80 a week; August 1976, 1.5 per cent with a minimum of \$2.50 a week; November 1976, 2.2 per cent; March 1977, \$5.70 a week; May 1977, 1.9 per cent to a maximum of \$3.80 a week; August 1977, 2 per cent; December 1977, 1.5 per cent; February 1978, 1.5 per cent to a maximum of \$2.60 a week; and June 1978, 1.3 per cent. These increases were applied to all rates of pay prescribed in awards of the Commission, including rates of minimum wage for adult males and adult females. In addition, a further increase of \$5 a week was added to the minimum wage in April 1976. At the end of June 1978, the six capital cities' minimum wage in Commission awards was \$115.50 a week.

Following the completion of the Wage Fixation Principles Inquiry, a Full Bench of the Commission decided on 14 September 1978 to hold future wage indexation hearings six-monthly, each October and April, beginning in October 1978.

State tribunals generally granted similar wage increases to those of the Australian Commission, including wage indexation increases. For details of increases in Federal and State awards, etc., and for rates of minimum wage for adult males and adult females, see *Wage Rates* (6312.0).

For details of wage determination in earlier periods see previous issues of the Year Book, the *Labour Report* (last issue 1973) and the 1975, 1976 and 1977 issues of *Labour Statistics* (6101.0).

Rates of wage

This section contains indexes (with base: year 1954 = 100) of minimum weekly and hourly rates of wage 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. The 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: a Survey of Awards and a Survey of Award Occupations. Raised indexes based on a more up-to-date weighting pattern, with a more recent base period and a wider scope are currently being developed.

The minimum wage rates used in the 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 1954 surveys mentioned 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.

Further particulars of wage rates and index numbers will be found in bulletins *Minimum Wage Rates*, March 1939 to June 1965 (6313.0), *Wage Rates Indexes*, June 1965 to June 1968 (6314.0) and *Wage Rates Indexes*, June 1968 to June 1972 (6314.0). Current figures are published in the monthly bulletins *Wage Rates* (6312.0) and *Wage Rates Indexes (Preliminary Statement)* (6311.0).

Weighted average minimum weekly wage rates for adult males and adult females covered by Federal awards, etc. and 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: 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— | Rates of wage (\$) | | | Index Nos. (Base 1954 = 100) |
|------------------|-------------------------|-----------------------|---------------------|------------------------------------|
| | Federal awards, etc. | State awards, etc. | All awards, etc. | All awards, etc. |
| ADULT MALES | | | | |
| 1972 | 68.03 | 67.37 | 67.71 | 239.8 |
| 1973 | 77.28 | 78.13 | 77.69 | 275.1 |
| 1974 | 105.64 | 105.51 | 105.57 | 373.8 |
| 1975 | 119.24 | 116.39 | 117.95 | 417.6 |
| 1976 | 135.98 | 134.45 | 135.29 | 479.0 |
| 1977p | 149.41 | 148.55 | 149.02 | 527.7 |
| ADULT FEMALES | | | | |
| 1972 | 50.30 | 53.52 | 52.04 | 261.4 |
| 1973 | 62.65 | 67.33 | 65.16 | 327.3 |
| 1974 | 87.62 | 95.09 | 91.62 | 460.2 |
| 1975 | 102.76 | 113.69 | 108.61 | 545.6 |
| 1976 | 119.14 | 131.49 | 125.75 | 631.7 |
| 1977p | 131.92 | 144.84 | 138.84 | 697.4 |

(a) Excludes rural industry.

(b) As prescribed in awards, determinations and collective agreements.

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, INDUSTRIES

WEIGHTED AVERAGE MINIMUM WEEKLY RATES(a) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME)
AND INDEX NUMBERS OF WAGE RATES

| Industry | End of December— | | | | | |
|--|------------------|--------|--------|--------|--------|--------|
| | 1972 | 1973 | 1974 | 1975 | 1976 | 1977p |
| RATES OF WAGE(b) (\$) | | | | | | |
| Mining and quarrying(c) | 73.30 | 82.16 | 122.79 | 147.00 | 168.02 | 185.36 |
| Manufacturing— | | | | | | |
| Engineering, metals, vehicles, etc. | 65.25 | 73.40 | 101.40 | 110.38 | 126.83 | 139.94 |
| Textiles, clothing and footwear | 62.94 | 72.76 | 92.22 | 108.41 | 124.27 | 137.12 |
| Food, drink and tobacco | 64.67 | 76.38 | 101.83 | 114.90 | 132.39 | 145.88 |
| Sawmilling, furniture, etc. | 62.52 | 72.60 | 101.51 | 111.77 | 128.15 | 141.49 |
| Paper, printing, etc. | 71.93 | 82.55 | 107.02 | 119.16 | 136.74 | 150.12 |
| Other manufacturing | 65.81 | 76.25 | 101.77 | 112.99 | 129.92 | 143.25 |
| All manufacturing | 65.27 | 74.76 | 101.17 | 111.96 | 128.64 | 141.88 |
| Building and construction | 70.03 | 79.32 | 110.92 | 127.14 | 146.11 | 160.37 |
| Railway services | 64.03 | 71.77 | 101.94 | 108.96 | 124.40 | 137.82 |
| Road and air transport | 67.97 | 77.25 | 107.48 | 116.52 | 133.29 | 146.68 |
| Shipping and stevedoring(d) | 84.41 | 93.89 | 118.19 | 144.80 | 164.17 | 179.56 |
| Communication | 86.72 | 102.57 | 130.75 | 141.67 | 160.85 | 175.98 |
| Wholesale and retail trade | 67.52 | 78.76 | 105.75 | 117.58 | 134.99 | 148.84 |
| Public authority (n.e.i.) and community and business services | 67.87 | 81.98 | 104.19 | 120.15 | 138.34 | 151.95 |
| Amusement, hotels personal service, etc. | 60.62 | 72.38 | 97.66 | 108.96 | 124.98 | 137.86 |
| All industries(e) | 67.71 | 77.69 | 105.57 | 117.95 | 135.29 | 149.02 |

MANPOWER

INDEX NUMBERS

(Base: Weighted Average Minimum Weekly Wage Rate for Australia, Year 1954 = 100)

| | | | | | | |
|---|-------|-------|-------|-------|-------|-------|
| Minining and quarrying(c) | 259.5 | 290.9 | 434.8 | 520.5 | 594.9 | 656.3 |
| Manufacturing— | | | | | | |
| Engineering, metals, vehicles, etc. | 231.0 | 259.9 | 359.0 | 390.8 | 449.1 | 495.5 |
| Textiles, clothing and footwear | 222.8 | 257.6 | 326.5 | 383.9 | 440.0 | 485.5 |
| Food, drink and tobacco | 229.0 | 270.5 | 360.6 | 406.9 | 468.4 | 516.5 |
| Sawmilling, furniture, etc. | 221.4 | 257.1 | 359.4 | 395.8 | 453.8 | 501.0 |
| Paper, printing, etc. | 254.7 | 292.3 | 378.9 | 421.9 | 484.2 | 531.6 |
| Other manufacturing | 233.0 | 270.0 | 360.4 | 400.1 | 460.0 | 507.2 |
| All manufacturing | 231.1 | 264.7 | 358.2 | 396.4 | 455.5 | 502.4 |
| Building and construction | 248.0 | 280.9 | 392.7 | 450.2 | 517.4 | 567.8 |
| Railway services | 226.7 | 254.1 | 360.9 | 385.8 | 440.5 | 488.0 |
| Road and air transport | 240.7 | 273.5 | 380.6 | 412.6 | 471.9 | 519.4 |
| Shipping and stevedoring(d) | 298.9 | 332.5 | 418.5 | 512.7 | 581.3 | 635.8 |
| Communication | 307.1 | 363.2 | 463.0 | 501.6 | 569.6 | 623.1 |
| Wholesale and retail trade | 239.1 | 278.9 | 374.5 | 416.3 | 478.0 | 527.0 |
| Public authority (n.e.i.) and community and business services | 240.3 | 290.3 | 368.9 | 425.4 | 489.8 | 538.0 |
| Amusement, hotels, personal service, etc. | 214.6 | 256.3 | 345.8 | 385.8 | 442.5 | 488.1 |
| All industries(e) | 239.8 | 275.1 | 373.8 | 417.6 | 479.0 | 527.7 |

(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.

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, INDUSTRIES

WEIGHTED AVERAGE MINIMUM WEEKLY RATES(a) PAYABLE FOR A FULL WEEK'S WORK (EXCLUDING OVERTIME) AND INDEX NUMBERS OF WAGE RATES

| Industry | End of December— | | | | | |
|---|------------------|-------|--------|--------|--------|--------|
| | 1972 | 1973 | 1974 | 1975 | 1976 | 1977p |
| RATES OF WAGE(b) (\$) | | | | | | |
| Manufacturing— | | | | | | |
| Engineering, metals, vehicles, etc. | 55.66 | 65.65 | 93.31 | 106.85 | 123.32 | 136.15 |
| Textiles, clothing and footwear | 46.66 | 58.97 | 81.09 | 101.11 | 118.55 | 131.07 |
| Food, drink and tobacco | 48.45 | 62.06 | 91.36 | 107.29 | 124.30 | 137.30 |
| Other manufacturing | 50.65 | 62.06 | 90.60 | 107.04 | 123.32 | 136.20 |
| All manufacturing | 49.36 | 61.24 | 86.67 | 104.22 | 121.19 | 133.91 |
| Transport and communication | 58.35 | 74.17 | 100.55 | 112.49 | 129.26 | 142.31 |
| Wholesale and retail trade | 54.66 | 68.31 | 98.07 | 115.21 | 133.28 | 147.17 |
| Public authority (n.e.i.) and community and business services | 56.41 | 71.81 | 94.69 | 113.77 | 131.49 | 144.66 |
| Amusement, hotels, personal service, etc. | 50.10 | 63.85 | 90.28 | 105.06 | 120.36 | 133.09 |
| All industries(c) | 52.04 | 65.16 | 91.62 | 108.61 | 125.75 | 138.84 |

INDEX NUMBERS

(Base: Weighted Average Minimum Weekly Wage Rate for Australia, Year 1954 = 100)

| | | | | | | |
|---|-------|-------|-------|-------|-------|-------|
| Manufacturing— | | | | | | |
| Engineering, metals, vehicles, etc. | 279.6 | 329.8 | 468.7 | 536.7 | 619.5 | 683.9 |
| Textiles, clothing and footwear | 234.4 | 296.2 | 407.3 | 507.9 | 595.5 | 658.4 |
| Food, drink and tobacco | 243.4 | 311.7 | 458.9 | 538.9 | 624.4 | 689.7 |
| Other manufacturing | 237.0 | 311.7 | 455.1 | 537.7 | 619.4 | 684.2 |
| All manufacturing | 247.9 | 307.6 | 435.4 | 523.5 | 608.7 | 672.6 |
| Transport and communication | 293.1 | 372.5 | 505.1 | 565.1 | 649.3 | 714.9 |
| Wholesale and retail trade | 274.6 | 343.1 | 492.6 | 578.7 | 669.5 | 739.2 |
| Public authority (n.e.i.) and community and business services | 283.4 | 360.7 | 475.6 | 571.5 | 660.5 | 726.7 |
| Amusement, hotels, personal service, etc. | 251.7 | 320.7 | 453.5 | 527.7 | 604.6 | 668.5 |
| All industries(c) | 261.4 | 327.3 | 460.2 | 545.6 | 631.7 | 697.4 |

(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.

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 for adult males given in the following tables relate to all industries except the rural industry and shipping and stevedoring; for adult females the rates exclude rural industry, mining and quarrying, and building and construction.

HOURLY WAGE RATES: ALL GROUPS(a)
WEIGHTED AVERAGE MINIMUM HOURLY RATES PAYABLE AND INDEX NUMBERS OF HOURLY RATES

| <i>End of December—</i> | <i>Adult males</i> | | <i>Adult females</i> | |
|-------------------------|-------------------------------------|-----------------------------|-------------------------------------|-----------------------------|
| | <i>Rates of wage (cents)(b)</i> | <i>Index numbers(c)</i> | <i>Rates of wage (cents)(b)</i> | <i>Index numbers(c)</i> |
| 1972 | 168.67 | 238.4 | 131.18 | 261.5 |
| 1973 | 193.78 | 273.9 | 164.25 | 327.4 |
| 1974 | 263.97 | 373.1 | 230.95 | 460.3 |
| 1975 | 294.06 | 415.6 | 273.78 | 545.7 |
| 1976 | 337.70 | 477.3 | 316.99 | 631.8 |
| 1977p | 372.29 | 526.2 | 349.98 | 697.6 |

(a) 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. (c) Base: weighted average minimum hourly wage rate, Australia, 1954 = 100.

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 shown below. The main features of the reduction of hours to forty-four, and later to forty, per week were 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. However the number of hours constituting a full week's work (excluding overtime) differs between occupations and/or 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 1978, were: New South Wales, 39.71; Victoria, 39.90; Queensland, 39.82; South Australia, 39.90; Western Australia, 39.78; Tasmania, 39.87; Australia, 39.80. Corresponding figures for adult female workers at 31 December 1978, 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.

Evening and Night Work

In November 1976, a survey based on the quarterly population survey (see the section *The Population Survey* earlier in this chapter) was conducted throughout Australia in order to obtain information about type of work being done in the evening and at night. Results of this survey are published in *Evening and Night Work*, November 1976 (6329.0).

Male 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 civilian male wage and salary earners. 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 surveys of earnings and hours and from other sources, are used for individual States and Territories. Ratios used for the June 1978 quarter are as follows: New South Wales 68 per cent, Victoria 68, Queensland 67, South Australia 67, Western Australia 62, Tasmania 65, Northern Territory 64 and the Australian Capital Territory 64. As the number of male units used in calculating Australian average weekly earnings is the sum of the estimates for the States and Territories, a separate ratio for Australia is not used, but the weighted average of the State ratios is approximately 67 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 the average weekly earnings of \$200 would be overstated by about 70 cents.

Annual averages for each State, Territory and Australia 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. | N.T.(b) | A.C.T.(b) | Aust. |
|---------|--------|--------|--------|--------|--------|--------|---------|-----------|--------|
| 1966-67 | 63.30 | 64.10 | 57.30 | 57.30 | 59.40 | 58.50 | n.a. | n.a. | 61.90 |
| 1967-68 | 66.70 | 67.80 | 60.30 | 60.60 | 64.10 | 62.00 | n.a. | n.a. | 65.50 |
| 1968-69 | 72.30 | 72.40 | 64.50 | 64.80 | 69.00 | 65.70 | n.a. | n.a. | 70.40 |
| 1969-70 | 78.50 | 78.40 | 69.40 | 70.30 | 75.70 | 70.90 | n.a. | n.a. | 76.30 |
| 1970-71 | 87.30 | 86.40 | 78.00 | 77.20 | 84.90 | 78.50 | n.a. | n.a. | 84.80 |
| 1971-72 | 96.30 | 93.90 | 87.40 | 86.00 | 93.60 | 87.50 | n.a. | n.a. | 93.40 |
| 1972-73 | 104.60 | 102.80 | 97.10 | 93.40 | 98.80 | 95.20 | n.a. | n.a. | 101.80 |
| 1973-74 | 121.20 | 118.80 | 113.50 | 110.40 | 115.00 | 110.50 | n.a. | n.a. | 118.30 |
| 1974-75 | 152.10 | 147.80 | 142.50 | 138.60 | 145.60 | 140.20 | 168.50 | 184.30 | 148.30 |
| 1975-76 | 172.70 | 170.50 | 163.50 | 158.50 | 169.10 | 157.80 | 190.00 | 209.00 | 169.60 |
| 1976-77 | 193.60 | 191.10 | 184.50 | 179.50 | 190.80 | 181.20 | 216.80 | 237.70 | 190.70 |
| 1977-78 | 213.40 | 209.30 | 202.20 | 197.40 | 209.20 | 199.00 | 240.70 | 259.10 | 209.50 |

(a) See explanation on page 143. (b) Estimates for the Northern Territory and the Australian Capital Territory have been calculated on a basis which excludes the effect of varying numbers of Australian Government pay-days in each quarter. Estimates prior to 1974-75 are not available.

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 for the 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* (6302.0).

SURVEYS OF INCOME, EARNINGS AND HOURS

Since 1960 a number of statistical surveys have been undertaken by the ABS in order to obtain information on income, earnings and hours of work in Australia. Particulars of most of the surveys from 1960 to 1976 were shown in earlier issues of the Year Book. Information on the most recent surveys is given below.

Earnings and hours of employees (distribution and composition), May 1978

Preliminary results of the May 1978 survey contained in the tables below relate to the pay-period which included 22 May 1978. Similar surveys were conducted in May each year from 1974, the results of which were published in *Earnings and Hours of Employees, Distribution and Composition* (6305.0).

Scope of survey

All wage and salary earners were represented in the survey except (i) members of the defence forces, (ii) employees in agriculture, (iii) employees in private households employing staff, (iv) waterside workers employed on a casual basis, (v) employees on worker's compensation and (vi) persons employed by private employers (other than hospitals) not subject to payroll tax. At the time of sample selection, payroll tax was payable by employers in the States and Territories paying \$48,000 (Queensland \$83,200) or more a year in wages and salaries. In general, Australian Government bodies, religious and benevolent institutions, public hospitals and other similar organisations were specifically exempted under the Australian and State Payroll Tax Acts.

Coverage

The survey covered all Australian and State Government departments and authorities, and stratified random samples of local government authorities, hospitals and private employers subject to payroll tax.

Survey Design

The majority of employers selected were requested to supply relevant details, on separate questionnaires, for only a sample of their employees. Individual employees were randomly selected by the employers in accordance with instructions supplied by the ABS. Employers with fewer than 10 employees were required to complete a questionnaire for every employee.

Definitions

Employees comprise male and female wage and salary earners within the survey scope who received pay for the specified pay-period.

Full-time employees are employees who received pay for the specified pay-period and whose standard (or rostered) weekly hours of work for that pay-period were at least 30 hours. 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 and paid holidays. Some employees (e.g. aircrews, teachers, university lecturers), although paid for a weekly attendance of less than 30 hours, were classified as full-time.

For employees in the private sector, *non-managerial employees* 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 employees in the government sector, *managerial, executive, professional and higher supervisory staff* were generally defined as those employees who (i) were ineligible to receive payment for overtime, or (ii) although subject to payment for overtime, were in charge of a significant number of employees in a separate establishment (or establishments). The basis of allocation of employees to these two categories may have varied between individual private employers and between employers in the private and government sectors, with consequent effects on survey results. 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 hours paid for refers to the hours for which payment was made. It comprises *ordinary time hours* (see below) and *overtime hours*, which are those in excess of ordinary time hours. Weekly hours paid for were not reported for managerial, executive, professional and higher supervisory staff.

Ordinary time hours refers to award, standard or agreed hours of work. It includes stand-by or reporting time which are part of standard hours, and that part of paid annual leave, paid sick leave and long-service leave taken during the specified pay-period.

Weekly earnings refers to gross earnings before taxation and other deductions have been made. It includes *overtime earnings*, which refers to payment for overtime hours as defined above, and *ordinary time earnings*, as defined below. It includes one week's proportion of payments made other than on a weekly basis, e.g. salary paid fortnightly or monthly and paid annual or other leave taken during the specified pay-period. Pay in advance, retrospective pay and annual or periodical bonuses, etc. are excluded.

Ordinary time earnings refers to that part of weekly earnings which is attributable to ordinary time hours, as defined above. It comprises award or agreed base rates of pay for ordinary time hours paid for, including all allowances (other than overtime) specified in the award, etc.; payment by measured result, i.e. payment by piecework, task bonus, commission, etc.; and other earnings, i.e. attendance and good timekeeping bonuses, profit-sharing and any other forms of over-award, etc. pay.

Median earnings is the amount which divides the distribution into two equal groups, one having earnings above the median and the other having earnings below it. Medians were calculated from grouped data, linear interpolation being used within the class interval in which the median fell.

Mean (or average) earnings is the amount obtained by dividing the total earnings of a group (e.g. full-time employees) by the number of employees in that group.

Reliability of the estimates

Since the estimates from this survey are based on a sample they may differ from the figures that would have been obtained from a complete census using the same questionnaire 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 was included in the survey. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would be obtained if all employers had been included and about nineteen chances in twenty that the difference will be less than two standard errors.

The figures in Table A below provide an indication of the magnitude of the standard error of estimates of numbers of persons (distribution of weekly earnings) shown in the table on page 147. An example of the use of Table A is as follows: if the estimate for Australia obtained from the sample is 30,000, the standard error is 2,100 (7 per cent), i.e. there are about two chances in three that the true figure is within the range 27,900 to 32,100 and about nineteen chances in twenty that this figure is between 25,800 and 34,200.

Table B indicates the relative standard error of estimates of averages (composition of average weekly earnings and hours). An example of the use of this table is as follows: the tables on the composition of average weekly earnings indicates that average overtime earnings of full-time male non-manual employees aged 21 years and over (Australia) were \$17.70. Table B below shows the approximate standard error for this estimate to be 2.6 per cent (i.e. about 50 cents). There are about two chances in three that the true figure is within the range \$17.20 to \$18.20, and about nineteen chances in twenty that the true figure is between \$16.70 and \$18.70.

The percentage standard errors in Table B relate only to estimates for Australia. Estimates for the States and Territories have higher standard errors, those for New South Wales and Victoria being about 1.5 times and those for the small States about 3 to 5 times as great as those for Australia.

The smaller the estimate the higher is the relative standard error. Estimates with a standard error greater than 15 per cent have not been published, except those relating to overtime earnings and hours; for these categories all estimates with a standard error less than 20 per cent have been published. Estimates with standard errors 20 per cent but not greater than 30 per cent have also been published if the standard errors are not greater than \$1.00 or 0.5 hours respectively.

The standard errors for average weekly hours paid for are generally much lower than the corresponding figures shown in Table B for average weekly earnings.

Note. Estimates of average weekly earnings shown in the tables are rounded to the nearest 10 cents, and those of average weekly hours paid for are rounded to the first decimal place. Any discrepancies between sums of components and totals in tables are due to rounding.

TABLE A. APPROXIMATE STANDARD ERRORS OF ESTIMATES OF NUMBERS OF PERSONS

| Standard error | Size of estimate (persons) | | | | | | |
|--------------------|----------------------------|--------|--------|--------|--------|--------|---------|
| | 7,000 | 10,000 | 20,000 | 30,000 | 40,000 | 60,000 | 100,000 |
| Number | 1,050 | 1,200 | 1,800 | 2,100 | 2,400 | 3,000 | 4,000 |
| Per cent | 15 | 12 | 9 | 7 | 6 | 5 | 4 |

**TABLE B. APPROXIMATE STANDARD ERRORS OF AVERAGE WEEKLY EARNINGS, FULL-TIME
NON-MANAGERIAL EMPLOYEES, AUSTRALIA
(Per cent)**

| | Aged 21 years and over | | | Aged under 21 years | | |
|-------------------------|------------------------|----------------------------|----------------------------|---------------------|----------------------------|----------------------------|
| | Manu- facturing | Non- manu- facturing | Total all industries | Manu- facturing | Non- manu- facturing | Total all industries |
| Males— | | | | | | |
| Overtime | 2.7 | 3.9 | 2.6 | 7.2 | 7.2 | 5.2 |
| Ordinary time | 0.5 | 0.7 | 0.5 | 1.0 | 1.1 | 0.8 |
| Total | 0.5 | 0.7 | 0.5 | 1.1 | 1.1 | 0.8 |
| Females— | | | | | | |
| Overtime | 5.9 | 7.3 | 5.5 | 23.3 | 13.4 | 11.8 |
| Ordinary time | 0.6 | 1.3 | 1.2 | 1.4 | 0.7 | 0.7 |
| Total | 0.6 | 1.2 | 1.1 | 1.5 | 0.8 | 0.7 |

ALL EMPLOYEES(a): WEEKLY EARNINGS, MAY 1978

| | Males | | | Females | | | Persons | | |
|------------------------------|-------------------------------|----------------------|------------------------------------|-------------------------------|----------------------|------------------------------------|-------------------------------|----------------------|------------------------------------|
| | Number (^{'000}) | Per cent of total | Cumulative per cent of total | Number (^{'000}) | Per cent of total | Cumulative per cent of total | Number (^{'000}) | Per cent of total | Cumulative per cent of total |
| Weekly earnings (\$)— | | | | | | | | | |
| Under 10 | | | | 8.9 | 0.6 | 0.6 | 11.8 | 0.3 | 0.3 |
| 10 and under 20 | (b) 15.3 | 0.6 | 0.6 | 22.4 | 1.5 | 2.1 | 34.8 | 0.8 | 1.1 |
| 20 " " 30 | 16.9 | 0.6 | 1.2 | 23.7 | 1.6 | 3.7 | 40.6 | 1.0 | 2.1 |
| 30 " " 40 | 15.6 | 0.6 | 1.8 | 23.5 | 1.6 | 5.3 | 39.1 | 0.9 | 3.0 |
| 40 " " 50 | 12.6 | 0.5 | 2.3 | 21.1 | 1.4 | 6.7 | 33.7 | 0.8 | 3.9 |
| 50 " " 60 | 12.7 | 0.5 | 2.7 | 25.8 | 1.7 | 8.5 | 38.6 | 0.9 | 4.8 |
| 60 " " 70 | 22.6 | 0.8 | 3.6 | 32.1 | 2.2 | 10.6 | 54.7 | 1.3 | 6.1 |
| 70 " " 80 | 28.2 | 1.1 | 4.6 | 51.8 | 3.5 | 14.1 | 80.0 | 1.9 | 8.0 |
| 80 " " 90 | 27.5 | 1.0 | 5.6 | 47.0 | 3.2 | 17.3 | 74.5 | 1.8 | 9.8 |
| 90 " " 100 | 25.7 | 1.0 | 6.6 | 51.8 | 3.5 | 20.8 | 77.5 | 1.9 | 11.7 |
| 100 " " 110 | 27.5 | 1.0 | 7.6 | 56.6 | 3.8 | 24.7 | 84.1 | 2.0 | 13.7 |
| 110 " " 120 | 30.7 | 1.1 | 8.8 | 56.9 | 3.9 | 28.5 | 87.6 | 2.1 | 15.8 |
| 120 " " 130 | 39.5 | 1.5 | 10.2 | 67.8 | 4.6 | 33.1 | 107.3 | 2.6 | 18.4 |
| 130 " " 140 | 54.3 | 2.0 | 12.2 | 96.4 | 6.5 | 39.6 | 150.7 | 3.6 | 22.0 |
| 140 " " 150 | 99.9 | 3.7 | 16.0 | 112.6 | 7.6 | 47.2 | 212.5 | 5.1 | 27.1 |
| 150 " " 160 | 140.2 | 5.2 | 21.2 | 143.1 | 9.7 | 56.9 | 283.2 | 6.8 | 33.9 |
| 160 " " 170 | 169.3 | 6.3 | 27.5 | 136.8 | 9.3 | 66.1 | 306.1 | 7.4 | 41.2 |
| 170 " " 180 | 173.1 | 6.4 | 33.9 | 102.4 | 6.9 | 73.1 | 275.5 | 6.6 | 47.8 |
| 180 " " 190 | 186.5 | 6.9 | 40.9 | 78.6 | 5.3 | 78.4 | 265.1 | 6.4 | 54.2 |
| 190 " " 200 | 163.2 | 6.1 | 46.9 | 58.1 | 3.9 | 82.3 | 221.3 | 5.3 | 59.5 |
| 200 " " 210 | 160.8 | 6.0 | 52.9 | 47.8 | 3.2 | 85.5 | 208.6 | 5.0 | 64.5 |
| 210 " " 220 | 153.5 | 5.7 | 58.7 | 44.7 | 3.0 | 88.6 | 198.2 | 4.8 | 69.3 |
| 220 " " 230 | 134.6 | 5.0 | 63.7 | 34.3 | 2.3 | 90.9 | 168.8 | 4.1 | 73.3 |
| 230 " " 240 | 115.4 | 4.3 | 68.0 | 28.4 | 1.9 | 92.8 | 143.8 | 3.5 | 76.8 |
| 240 " " 250 | 97.0 | 3.6 | 71.6 | 20.8 | 1.4 | 94.2 | 117.9 | 2.8 | 79.6 |
| 250 " " 260 | 99.5 | 3.7 | 75.3 | 24.5 | 1.7 | 95.9 | 123.9 | 3.0 | 82.6 |
| 260 " " 270 | 87.1 | 3.2 | 78.5 | 13.4 | 0.9 | 96.8 | 100.4 | 2.4 | 85.0 |
| 270 " " 280 | 69.0 | 2.6 | 81.1 | 8.1 | 0.6 | 97.3 | 77.1 | 1.9 | 86.9 |
| 280 " " 290 | 68.8 | 2.6 | 83.6 | 8.3 | 0.6 | 97.9 | 77.1 | 1.9 | 88.7 |
| 290 " " 300 | 50.6 | 1.9 | 85.5 | 7.8 | 0.5 | 98.4 | 58.4 | 1.4 | 90.1 |
| 300 " " 320 | 90.9 | 3.4 | 88.9 | 8.4 | 0.6 | 99.0 | 99.3 | 2.4 | 92.5 |
| 320 " " 340 | 75.6 | 2.8 | 91.7 | | | | 82.7 | 2.0 | 94.5 |
| 340 " " 360 | 47.0 | 1.8 | 93.5 | | | | 49.7 | 1.2 | 95.7 |
| 360 " " 380 | 45.4 | 1.7 | 95.2 | | | | 46.9 | 1.1 | 96.8 |
| 380 " " 400 | 27.9 | 1.0 | 96.2 | (b) 15.0 | 1.0 | 100.0 | 29.0 | 0.7 | 97.5 |
| 400 " " 450 | 48.3 | 1.8 | 98.0 | | | | 49.8 | 1.2 | 98.7 |
| 450 " " 500 | 22.7 | 0.8 | 98.8 | | | | 23.2 | 0.6 | 99.3 |
| 500 " " 550 | 11.3 | 0.4 | 99.3 | | | | 11.6 | 0.3 | 99.5 |
| 550 and over | 19.2 | 0.7 | 100.0 | | | | 19.7 | 0.5 | 100.0 |
| Total | 2,685.9 | 100.0 | .. | 1,479.0 | 100.0 | .. | 4,164.9 | 100.0 | .. |
| —dollars— | | | | | | | | | |
| Median earnings | 205.20 | .. | .. | 152.90 | .. | .. | 183.40 | .. | .. |
| Mean earnings | 218.00 | .. | .. | 149.80 | .. | .. | 193.80 | .. | .. |

(a) Full-time and part-time employees, including managerial, etc. staff. See definitions on page 145 for particulars of employees excluded from the survey. (b) Although individual figures can be derived by deduction, they have not been shown separately as they are subject to sampling variability too high for most practical uses. See *Reliability of the estimates* on page 146.

**COMPOSITION OF AVERAGE WEEKLY EARNINGS AND HOURS FULL-TIME NON-MANAGERIAL
EMPLOYEES: INDUSTRIES, MAY 1978**

| Industry | Aged 21 years and over | | | | | | Aged under 21 years | |
|---|------------------------|------------------|---------------|-------------|------------------|---------------|---------------------|---------------|
| | Males | | | Females | | | Males | Females |
| | Overtime | Ordinary time(a) | Total | Overtime | Ordinary time(a) | Total | Total | Total |
| AVERAGE WEEKLY EARNINGS (\$) | | | | | | | | |
| Manufacturing— | | | | | | | | |
| Food, beverages and tobacco | 21.00 | 182.20 | 203.20 | 5.50 | 150.70 | 156.20 | 134.90 | 114.90 |
| Textiles; clothing and footwear | 20.30 | 175.50 | 195.80 | 4.00 | 146.70 | 150.60 | 115.00 | 100.50 |
| Paper, printing, etc. | 22.90 | 203.40 | 226.30 | 5.60 | 156.30 | 161.80 | 127.10 | 107.70 |
| Chemical, petroleum and coal products | 24.50 | 203.90 | 228.40 | * | 163.80 | 168.10 | 136.40 | 115.40 |
| Metal products, machinery and equipment— | | | | | | | | |
| Basic metal products | 26.10 | 200.90 | 227.00 | * | 172.40 | 177.80 | 136.50 | 134.70 |
| Fabricated metal products; other machinery, etc. (b) | 23.00 | 177.40 | 200.40 | 6.00 | 150.50 | 156.60 | 115.10 | 111.00 |
| Transport equipment | 17.50 | 183.40 | 200.90 | 4.30 | 155.90 | 160.20 | 119.30 | 119.30 |
| Total metal products, etc. | 22.00 | 184.40 | 206.40 | 5.60 | 153.60 | 159.20 | 120.80 | 115.40 |
| Other(c) | 26.10 | 179.20 | 205.30 | 4.20 | 150.30 | 154.50 | 122.00 | 110.30 |
| Total manufacturing | 22.70 | 185.40 | 208.00 | 4.90 | 151.80 | 156.70 | 124.20 | 108.90 |
| Non-manufacturing— | | | | | | | | |
| Mining | 45.30 | 248.70 | 294.00 | * | 186.20 | 192.40 | 182.70 | 153.90 |
| Electricity, gas and water | 16.70 | 210.80 | 227.40 | * | 179.30 | 184.50 | 134.70 | 126.60 |
| Construction | 21.70 | 197.30 | 219.00 | * | 169.50 | 172.60 | 144.90 | 117.00 |
| Wholesale trade | 12.60 | 187.20 | 199.70 | 2.20 | 161.90 | 164.10 | 116.70 | 110.60 |
| Retail trade | 9.30 | 181.10 | 190.40 | 3.30 | 153.80 | 157.10 | 108.80 | 100.80 |
| Transport and storage; communication | 21.30 | 206.50 | 227.80 | 5.30 | 179.80 | 185.10 | 143.00 | 135.00 |
| Finance, business services | 6.70 | 203.80 | 210.50 | 2.20 | 174.20 | 176.30 | 122.20 | 117.70 |
| Public administration and defence; community services (d) | 7.40 | 225.40 | 232.70 | 1.90 | 198.70 | 200.70 | 142.20 | 137.00 |
| Other(e) | 15.70 | 187.00 | 202.70 | 4.40 | 158.00 | 162.40 | 126.50 | 121.50 |
| Total non-manufacturing | 15.40 | 207.00 | 222.40 | 2.60 | 182.50 | 185.10 | 128.80 | 119.90 |
| Total all industries | 17.70 | 200.10 | 217.80 | 3.20 | 175.10 | 178.30 | 127.30 | 118.20 |
| AVERAGE WEEKLY HOURS PAID FOR | | | | | | | | |
| Manufacturing— | | | | | | | | |
| Food, beverages and tobacco | 2.9 | 39.0 | 41.9 | 0.9 | 38.1 | 39.0 | 40.1 | 38.9 |
| Textiles; clothing and footwear | 3.3 | 39.4 | 42.7 | 0.7 | 38.5 | 39.2 | 40.2 | 39.3 |
| Paper, printing, etc. | 2.8 | 39.3 | 42.1 | 0.9 | 38.6 | 39.6 | 40.6 | 39.2 |
| Chemical, petroleum and coal products | 3.0 | 38.3 | 41.3 | * | 38.2 | 38.9 | 39.9 | 37.4 |
| Metal products, machinery and equipment— | | | | | | | | |
| Basic metal products | 3.5 | 39.0 | 42.5 | * | 38.2 | 39.0 | 40.1 | 39.7 |
| Fabricated metal products; other machinery, etc. (b) | 3.3 | 38.8 | 42.1 | 1.0 | 38.5 | 39.5 | 40.3 | 38.8 |
| Transport equipment | 2.3 | 39.0 | 41.3 | 0.7 | 38.8 | 39.6 | 39.9 | 39.3 |
| Total metal products, etc. | 3.0 | 38.9 | 41.9 | 0.9 | 38.5 | 39.5 | 40.2 | 39.0 |
| Other(c) | 3.7 | 39.0 | 42.7 | 0.7 | 38.3 | 39.1 | 40.2 | 39.3 |
| Total manufacturing | 3.1 | 39.0 | 42.1 | 0.8 | 38.4 | 39.2 | 40.2 | 39.1 |
| Non-manufacturing— | | | | | | | | |
| Mining | 5.1 | 37.0 | 42.2 | * | 38.0 | 38.9 | 42.1 | 39.4 |
| Electricity, gas and water | 2.0 | 39.0 | 41.0 | * | 36.7 | 37.4 | 39.2 | 37.4 |
| Construction | 2.8 | 39.1 | 41.9 | * | 37.3 | 37.7 | 40.6 | 38.1 |
| Wholesale trade | 1.6 | 38.9 | 40.6 | 0.3 | 37.9 | 38.2 | 40.1 | 38.7 |
| Retail trade | 1.5 | 39.7 | 41.1 | 0.5 | 38.8 | 39.3 | 40.8 | 39.9 |
| Transport and storage; communication | 2.6 | 37.7 | 40.3 | 0.7 | 36.8 | 37.5 | 38.5 | 37.8 |
| Finance, business services | 0.9 | 38.2 | 39.0 | 0.3 | 37.4 | 37.7 | 38.5 | 38.0 |
| Public administration and defence; community services (d) | 0.9 | 37.7 | 38.5 | 0.3 | 37.0 | 37.2 | 38.8 | 38.4 |
| Other(e) | 2.2 | 39.5 | 41.7 | 0.7 | 37.0 | 37.7 | 40.4 | 40.1 |
| Total non-manufacturing | 1.9 | 38.3 | 40.3 | 0.4 | 37.3 | 37.7 | 39.8 | 38.7 |
| Total all industries | 2.3 | 38.5 | 40.8 | 0.5 | 37.6 | 38.1 | 39.9 | 38.8 |

(a) See definitions on page 145. (b) ASIC sub-divisions 31 and 33. (c) ASIC sub-divisions 25, 28 and 34 (wood, wood products and furniture; non-metallic mineral products; and miscellaneous manufacturing). (d) Excludes defence forces. (e) ASIC sub-divisions 03 and 04 (forestry and logging; fishing and hunting) and part of division L (entertainment, recreation, restaurants, hotels and personal services, excluding private households employing staff). * Although individual figures can be derived by deduction, they have not been shown separately as they are subject to sampling variability too high for most practical uses.

AVERAGE WEEKLY EARNINGS, FULL-TIME NON-MANAGERIAL EMPLOYEES, MAY 1978
(**\$**)

| <i>State or Territory</i> | <i>Males</i> | | | <i>Females</i> | | |
|--|-----------------|----------------------|---------------|-----------------|----------------------|---------------|
| | <i>Overtime</i> | <i>Ordinary time</i> | <i>Total</i> | <i>Overtime</i> | <i>Ordinary time</i> | <i>Total</i> |
| AGED 21 YEARS AND OVER | | | | | | |
| New South Wales | 18.40 | 202.00 | 220.50 | 3.80 | 174.20 | 177.90 |
| Victoria | 17.70 | 200.50 | 218.30 | 3.00 | 174.40 | 177.40 |
| Queensland | 16.70 | 196.10 | 212.80 | 2.70 | 174.30 | 177.00 |
| South Australia | 12.50 | 191.70 | 204.20 | 2.40 | 175.70 | 178.10 |
| Western Australia | 22.40 | 198.60 | 221.00 | 3.20 | 175.30 | 178.50 |
| Tasmania | 13.30 | 201.40 | 214.70 | 2.30 | 180.00 | 182.30 |
| Northern Territory | 23.80 | 223.30 | 247.10 | 4.20 | 195.30 | 199.50 |
| Australian Capital Territory | 21.60 | 231.80 | 253.40 | 2.20 | 190.00 | 192.10 |
| Australia | 17.70 | 200.10 | 217.80 | 3.20 | 175.10 | 178.30 |
| AGED UNDER 21 YEARS | | | | | | |
| New South Wales | 6.70 | 125.20 | 132.00 | 2.20 | 117.80 | 120.00 |
| Victoria | 5.70 | 118.70 | 124.40 | 1.00 | 118.50 | 119.50 |
| Queensland | 6.30 | 120.10 | 126.40 | 1.60 | 111.90 | 113.50 |
| South Australia | 4.60 | 116.40 | 121.00 | 1.90 | 115.80 | 117.70 |
| Western Australia | 5.90 | 118.00 | 123.90 | 1.40 | 113.30 | 114.70 |
| Tasmania | 6.60 | 121.10 | 127.70 | * | 108.10 | 111.10 |
| Northern Territory | * | 136.60 | 148.00 | * | 146.10 | 155.80 |
| Australian Capital Territory | * | 126.30 | 130.10 | * | 135.30 | 136.70 |
| Australia | 6.10 | 121.20 | 127.30 | 1.70 | 116.50 | 118.20 |

(*) See below.

AVERAGE WEEKLY HOURS PAID FOR, FULL-TIME NON-MANAGERIAL EMPLOYEES, MAY 1978

| <i>State or Territory</i> | <i>Males</i> | | | <i>Females</i> | | |
|--|-----------------------|----------------------------|--------------------|-----------------------|----------------------------|--------------------|
| | <i>Overtime hours</i> | <i>Ordinary time hours</i> | <i>Total hours</i> | <i>Overtime hours</i> | <i>Ordinary time hours</i> | <i>Total hours</i> |
| AGED 21 YEARS AND OVER | | | | | | |
| New South Wales | 2.4 | 38.2 | 40.5 | 0.6 | 37.1 | 37.7 |
| Victoria | 2.4 | 38.7 | 41.1 | 0.5 | 38.1 | 38.5 |
| Queensland | 2.1 | 38.6 | 40.8 | 0.4 | 37.8 | 38.2 |
| South Australia | 1.7 | 38.9 | 40.6 | 0.4 | 37.6 | 38.0 |
| Western Australia | 2.9 | 38.7 | 41.6 | 0.5 | 38.1 | 38.6 |
| Tasmania | 1.7 | 38.5 | 40.2 | 0.3 | 36.8 | 37.1 |
| Northern Territory | 3.0 | 38.3 | 41.3 | 0.6 | 37.6 | 38.1 |
| Australian Capital Territory | 2.6 | 37.9 | 40.4 | 0.3 | 36.9 | 36.6 |
| Australia | 2.3 | 38.5 | 40.8 | 0.5 | 37.6 | 38.1 |
| AGED UNDER 21 YEARS | | | | | | |
| New South Wales | 1.3 | 38.5 | 39.7 | 0.4 | 38.3 | 38.7 |
| Victoria | 1.1 | 38.9 | 40.0 | 0.2 | 38.4 | 38.6 |
| Queensland | 1.2 | 39.1 | 40.4 | 0.4 | 38.5 | 38.8 |
| South Australia | 1.0 | 39.2 | 40.3 | 0.4 | 38.8 | 39.2 |
| Western Australia | 1.1 | 38.4 | 39.5 | 0.3 | 38.5 | 38.8 |
| Tasmania | 1.2 | 38.7 | 39.9 | * | 38.8 | 39.5 |
| Northern Territory | * | 38.0 | 40.0 | * | 37.9 | 39.6 |
| Australian Capital Territory | * | 38.5 | 39.3 | * | 37.3 | 37.5 |
| Australia | 1.2 | 38.8 | 39.9 | 0.4 | 38.4 | 38.8 |

* Although individual figures can be derived by deduction, they have not been shown separately as they are subject to sampling variability too high for most practical uses.

Earnings and hours of employees, October 1977

Results of this survey, which was conducted in respect of the last pay-period in October 1977, are shown below. More detailed results were published in the bulletin *Earnings and Hours of Employees, October 1977* (6304.0).

Scope of survey. The scope of this survey is the same as that for the May 1978 survey given earlier in this chapter.

Coverage. The survey covered all Australian and State government departments and authorities and stratified random samples of local government authorities, non-government hospitals not subject to payroll tax and other private employers.

Although the sample was not designed to provide estimates of the number of employers represented, it has been calculated that the survey was representative of approximately 2,639,000 male and 1,403,000 female wage and salary earners, comprising 1,725,000 males and 912,000 females in private employment and 914,000 males and 492,000 females in government employment.

Definitions

Adult employees comprises employees 21 years of age and over and employees under 21 years of age who are paid at the adult rate for their occupation.

Junior employees are all other employees under 21 years of age.

Weekly earnings refers to gross earnings before taxation and other deductions have been made. It comprises overtime earnings (defined on page 145) and ordinary time earnings (defined on page 145). Where payments are made other than on a weekly basis, e.g. salary paid fortnightly or monthly; paid annual or other leave taken during the specified pay period; periodic payments under incentive, piece-work, profit-sharing, etc. schemes; commissions; annual or periodical bonuses, etc., one week's proportion of such payments are included. Retrospective payments are excluded.

Definitions for other items are the same as those for the May 1978 survey shown earlier in this chapter.

Reliability of the estimates

Since the estimates from the survey are based on information which, in some instances, was obtained from samples of employers (see *Coverage* above), they may differ from the figures that would have been produced if the information had been obtained from all employers. One measure of the likely difference is given by the *standard error* (for definition see page 146).

Relative standard errors for the published estimates of average weekly ordinary time earnings and average weekly total earnings are generally less than 2 per cent. Relative standard errors for the figures of average weekly overtime earnings and hours are generally less than 10 per cent.

**AVERAGE EARNINGS AND HOURS: FULL-TIME NON-MANAGERIAL EMPLOYEES, INDUSTRIES,
OCTOBER 1977**

| <i>Manufacturing</i> | | | | | | | | | | |
|--|------------------------------------|--|------------------------------|--|-----------------------------|---|-----------------------------------|------------------------------------|--------------|--------------------------------|
| <i>Metal Products, machinery and equipment</i> | | | | | | | | | | |
| | <i>Food, beverages and tobacco</i> | <i>Textiles, clothing and footwear</i> | <i>Paper, printing, etc.</i> | <i>Chemical, petroleum and coal products</i> | <i>Basic metal products</i> | <i>Fabricated metal products; other machinery, etc.</i> | <i>Transport equipment</i> | <i>Total</i> | <i>Other</i> | <i>Total manufacturing</i> |
| AVERAGE WEEKLY EARNINGS (\$) | | | | | | | | | | |
| Adult males . . | 198.60 | 187.50 | 215.10 | 215.50 | 221.60 | 189.10 | 192.40 | 197.30 | 188.50 | 198.10 |
| Junior males . . | 113.50 | 97.70 | 112.50 | 123.80 | 123.00 | 102.40 | 102.80 | 106.50 | 100.90 | 107.00 |
| Adult females . . | 153.30 | 142.30 | 154.20 | 161.30 | 169.00 | 144.80 | 156.20 | 149.10 | 150.20 | 149.30 |
| Junior females . . | 104.00 | 92.20 | 99.40 | 112.10 | 117.20 | 99.90 | 109.00 | 102.80 | 98.80 | 99.10 |
| AVERAGE WEEKLY HOURS PAID FOR | | | | | | | | | | |
| Adult males . . | 42.2 | 42.3 | 41.5 | 40.8 | 41.3 | 40.9 | 40.6 | 40.9 | 41.4 | 41.3 |
| Junior males . . | 40.6 | 39.1 | 40.6 | 39.8 | 39.2 | 39.6 | 39.0 | 39.4 | 39.8 | 39.7 |
| Adult females . . | 39.2 | 38.7 | 39.4 | 39.0 | 39.2 | 38.8 | 39.0 | 38.9 | 39.4 | 39.0 |
| Junior females . . | 39.2 | 38.5 | 39.2 | 38.6 | 39.8 | 39.2 | 38.7 | 39.2 | 39.0 | 38.9 |
| AVERAGE HOURLY EARNINGS (\$) | | | | | | | | | | |
| Adult males . . | 4.71 | 4.43 | 5.19 | 5.28 | 5.36 | 4.62 | 4.74 | 4.82 | 4.55 | 4.79 |
| Junior males . . | 2.80 | 2.50 | 2.77 | 3.11 | 3.14 | 2.59 | 2.63 | 2.70 | 2.54 | 2.69 |
| Adult females . . | 3.91 | 3.67 | 3.91 | 4.14 | 4.31 | 3.73 | 4.00 | 3.84 | 3.81 | 3.83 |
| Junior females . . | 2.65 | 2.40 | 2.54 | 2.91 | 2.95 | 2.55 | 2.82 | 2.62 | 2.53 | 2.55 |
| <i>Non-manufacturing</i> | | | | | | | | | | |
| | <i>Mining</i> | <i>Electricity, gas and water</i> | <i>Construction</i> | <i>Wholesale trade</i> | <i>Retail trade</i> | <i>Transport and storage; communication</i> | <i>Finance, business services</i> | <i>Public administration, etc.</i> | <i>Other</i> | <i>Total non-manufacturing</i> |
| | | | | | | | | | | <i>Total all industries</i> |
| AVERAGE WEEKLY EARNINGS (\$) | | | | | | | | | | |
| Adult males . . | 281.90 | 216.90 | 207.90 | 190.50 | 173.40 | 221.50 | 205.80 | 224.70 | 193.70 | 212.70 |
| Junior males . . | 154.00 | 119.70 | 119.40 | 105.10 | 102.30 | 122.80 | 116.40 | 120.00 | 107.60 | 113.50 |
| Adult females . . | 187.10 | 177.60 | 158.30 | 156.60 | 151.30 | 175.20 | 165.90 | 191.50 | 156.40 | 176.60 |
| Junior females . . | 127.80 | 121.90 | 110.60 | 104.40 | 98.80 | 119.80 | 111.30 | 120.40 | 99.60 | 110.30 |
| AVERAGE WEEKLY HOURS PAID FOR | | | | | | | | | | |
| Adult males . . | 41.2 | 40.4 | 41.8 | 40.5 | 40.8 | 41.1 | 39.4 | 38.7 | 41.4 | 40.4 |
| Junior males . . | 39.5 | 39.1 | 39.8 | 40.1 | 40.7 | 39.6 | 39.2 | 38.0 | 40.5 | 39.7 |
| Adult females . . | 38.6 | 37.0 | 38.5 | 38.6 | 39.5 | 39.2 | 38.0 | 37.7 | 39.3 | 38.2 |
| Junior females . . | 38.9 | 37.1 | 39.1 | 39.0 | 39.7 | 39.3 | 38.4 | 38.3 | 39.0 | 38.8 |
| AVERAGE HOURLY EARNINGS (\$) | | | | | | | | | | |
| Adult males . . | 6.84 | 5.36 | 4.98 | 4.71 | 4.25 | 5.38 | 5.22 | 5.80 | 4.68 | 5.27 |
| Junior males . . | 3.90 | 3.06 | 3.00 | 2.62 | 2.52 | 3.10 | 2.97 | 3.15 | 2.66 | 2.85 |
| Adult females . . | 4.85 | 4.80 | 4.11 | 4.06 | 3.83 | 4.46 | 4.37 | 5.08 | 3.98 | 4.62 |
| Junior females . . | 3.29 | 3.29 | 2.83 | 2.68 | 2.49 | 3.05 | 2.90 | 3.14 | 2.55 | 2.84 |

**AVERAGE WEEKLY OVERTIME^(a) AND ORDINARY EARNINGS AND HOURS: FULL-TIME
NON-MANAGERIAL EMPLOYEES, STATES, OCTOBER 1977**

| | Adult males | | | Junior males | | | Adult females | | | Junior females | | |
|--|----------------------|-----------------------|---------------|----------------------|-----------------------|---------------|----------------------|-----------------------|---------------|----------------------|-----------------------|---------------|
| | Over- time (a) | Ordin- ary time | Total | Over- time (a) | Ordin- ary time | Total | Over- time (a) | Ordin- ary time | Total | Over- time (a) | Ordin- ary time | Total |
| AVERAGE WEEKLY EARNINGS (\$) | | | | | | | | | | | | |
| New South Wales | 19.00 | 191.50 | 210.50 | 5.10 | 106.20 | 111.30 | 4.40 | 165.40 | 169.80 | 1.90 | 108.50 | 110.30 |
| Victoria | 18.20 | 188.70 | 206.90 | 4.90 | 108.30 | 113.20 | 4.30 | 164.10 | 168.30 | 1.70 | 109.60 | 111.30 |
| Queensland | 17.00 | 184.50 | 201.50 | 4.80 | 104.90 | 109.70 | 2.70 | 165.20 | 167.90 | 1.00 | 102.60 | 103.60 |
| South Australia | 12.30 | 183.50 | 195.80 | 4.50 | 105.20 | 109.70 | 3.20 | 166.70 | 169.90 | 1.90 | 108.10 | 109.90 |
| Western Australia | 24.80 | 189.50 | 214.20 | 6.40 | 103.60 | 110.00 | 4.00 | 162.50 | 166.50 | 1.40 | 103.00 | 104.40 |
| Tasmania | 11.50 | 191.80 | 203.30 | 3.80 | 106.60 | 110.40 | 2.20 | 165.00 | 167.10 | 1.60 | 104.50 | 106.20 |
| Northern Territory | 28.00 | 204.10 | 232.20 | 8.90 | 112.50 | 121.40 | 4.90 | 185.10 | 190.10 | 3.20 | 108.60 | 111.80 |
| Australian Capital Territory | 12.20 | 223.10 | 235.40 | 4.90 | 114.10 | 119.00 | 3.80 | 189.10 | 192.90 | 1.80 | 107.20 | 109.10 |
| Australia | 18.20 | 189.50 | 207.70 | 5.00 | 106.30 | 111.30 | 4.00 | 165.60 | 169.60 | 1.60 | 107.10 | 108.70 |

| AVERAGE WEEKLY HOURS PAID FOR | | | | | | | | | | | | |
|--|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|------------|-------------|-------------|
| New South Wales | 2.5 | 38.2 | 40.7 | 1.1 | 38.5 | 39.6 | 0.7 | 37.6 | 38.3 | 0.4 | 38.3 | 38.7 |
| Victoria | 2.5 | 38.4 | 40.9 | 1.1 | 38.6 | 39.7 | 0.7 | 37.9 | 38.6 | 0.4 | 38.5 | 38.9 |
| Queensland | 2.2 | 38.1 | 40.3 | 1.1 | 38.7 | 39.8 | 0.4 | 37.9 | 38.4 | 0.2 | 38.7 | 38.9 |
| South Australia | 1.8 | 38.5 | 40.3 | 1.1 | 38.7 | 39.8 | 0.5 | 38.1 | 38.6 | 0.4 | 38.3 | 38.7 |
| Western Australia | 3.3 | 38.3 | 41.6 | 1.4 | 38.7 | 40.1 | 0.6 | 38.0 | 38.6 | 0.3 | 38.6 | 38.9 |
| Tasmania | 1.5 | 38.3 | 39.8 | 0.9 | 39.0 | 39.9 | 0.3 | 37.6 | 38.0 | 0.4 | 38.8 | 39.2 |
| Northern Territory | 3.5 | 37.7 | 41.2 | 1.6 | 38.6 | 40.2 | 0.7 | 37.2 | 37.9 | 0.7 | 37.7 | 38.4 |
| Australian Capital Territory | 1.6 | 37.7 | 39.3 | 0.9 | 38.8 | 39.7 | 0.6 | 36.8 | 37.4 | 0.4 | 37.8 | 38.2 |
| Australia | 2.5 | 38.2 | 40.7 | 1.1 | 38.6 | 39.7 | 0.6 | 37.8 | 38.4 | 0.4 | 38.4 | 38.8 |

(a) Average overtime earnings and hours paid for are averages for all employees represented in the survey. (b) Information not available because relatively few employees reported.

Weekly earnings of employees (distribution) August 1977

In August 1977 a survey based on the quarterly population survey (see the section *The population survey* earlier in this chapter) was conducted throughout Australia in order to obtain information about weekly earnings of all persons aged 15 years and over who were employed as wage or salary earners in their main job.

Some results on weekly earnings of wage and salary earners are presented below. Additional details may be obtained from the publication *Weekly Earnings of Employees (Distribution), August 1977* (6310.0).

In many cases the answer to the question on earnings was based on the knowledge of one person, generally the housewife. Some understatement in the estimates may be expected because of imperfect recall of minor or irregular sources of earnings.

Definitions

Weekly earnings refers to gross weekly wages and salaries from all jobs (i.e. before taxation and other deductions have been made). For persons paid other than weekly, earnings were converted to a weekly equivalent.

Median weekly earnings is the amount which divides the distribution of individuals into two equal groups, one having earnings above the median and the other having earnings below it. Medians were calculated from grouped data with linear interpolation being used within the class interval in which the median fell.

Mean weekly earnings is the amount obtained by dividing the total earnings of a group by the number of units in that group.

Full-time workers are those who usually work 35 hours a week or more and others who, although usually part-time workers, worked 35 hours or more during the survey week.

Part-time workers are those who usually work less than 35 hours a week and who did so during the survey week. When recording hours of work, fractions of an hour were disregarded.

Reliability of estimates

Since the estimates from this survey are based on information obtained from the occupants of a sample of dwellings, they may differ from the figures that would have been produced if the information had been obtained from occupants of all dwellings. One measure of the likely difference is given by the *standard error* (for definition see page 146)).

The following estimates have not been shown as they are subject to sampling variability too high (more than 20 per cent) for most practical uses: less than 4,000 for Australia, New South Wales and Victoria; less than 3,000 for Queensland; less than 2,500 for South Australia; less than 2,000 for Western Australia; and less than 1,500 for Tasmania, the Northern Territory and the Australian Capital Territory.

Means and medians are also subject to sampling variability. Standard errors vary according to the size and distribution of the population for which the mean and median have been obtained. Standard errors of means in this survey could generally be expected to be below 7 per cent, and of medians below 8 per cent. For populations of 100,000, the standard errors of the mean and median would both be about 1.5 per cent.

FULL-TIME EMPLOYEES: WEEKLY EARNINGS IN ALL JOBS AND AGE, AUGUST 1977

| | Age group (years) | | | | | | | | |
|-----------------------|-------------------|-------|-------|-------|---------|-------|-------|----------------|---------|
| | 15-19 | 20-24 | 25-34 | 35-44 | 45-54 | 55-59 | 60-64 | 65 and over | Total |
| MALES | | | | | | | | | |
| Weekly earnings (\$)— | | | | | | | | | |
| Under 60 | 20.3 | * | 5.4 | | - '000- | | | | 36.7 |
| 60 and under 80 | 54.4 | 4.4 | 4.1 | 5.0 | 4.1 | | | | 69.5 |
| 80 " " 100 | 55.1 | 8.5 | * | | 4.3 | 7.1 | 5.5 | 4.0 | 78.0 |
| 100 " " 110 | 31.5 | 13.2 | 10.2 | 5.7 | 6.6 | | | | 70.4 |
| 110 " " 120 | 23.1 | 20.5 | 13.5 | 9.7 | 10.3 | 5.9 | * | | 87.2 |
| 120 " " 130 | 21.8 | 35.7 | 20.6 | 22.1 | 23.1 | 10.0 | 6.7 | 4.2 | 142.0 |
| 130 " " 140 | 13.9 | 40.9 | 32.3 | 30.0 | 33.7 | 15.5 | 10.9 | | 179.5 |
| 140 " " 150 | 11.9 | 44.6 | 58.0 | 39.5 | 42.7 | 16.5 | 16.4 | 4.2 | 231.6 |
| 150 " " 160 | 9.8 | 48.5 | 65.0 | 41.4 | 51.2 | 22.9 | 11.4 | | 252.4 |
| 160 " " 170 | 7.0 | 41.5 | 66.5 | 46.6 | 44.9 | 19.7 | 12.5 | | 241.1 |
| 170 " " 180 | | 32.7 | 57.6 | 38.2 | 39.1 | 15.0 | 10.0 | 4.2 | 197.1 |
| 180 " " 190 | 6.8 | 27.2 | 64.7 | 38.9 | 35.6 | 15.0 | 11.5 | | 196.4 |
| 190 " " 200 | | 23.5 | 54.8 | 31.0 | 29.4 | 11.2 | 5.6 | | 158.5 |
| 200 " " 220 | 4.9 | 30.1 | 95.2 | 60.8 | 47.4 | 18.7 | 9.8 | | 266.2 |
| 220 " " 240 | | 16.6 | 65.7 | 38.7 | 34.0 | 12.1 | 4.8 | 4.7 | 174.0 |
| 240 " " 260 | | 9.8 | 62.6 | 41.3 | 31.8 | 8.5 | | | 159.3 |
| 260 " " 280 | | 6.5 | 32.5 | 27.7 | 19.7 | 5.3 | 6.6 | | 95.0 |
| 280 " " 300 | 4.1 | 4.0 | 27.5 | 20.3 | 17.9 | 4.2 | | | 77.5 |
| 300 " " 350 | | 4.7 | 39.2 | 34.8 | 25.5 | 8.0 | 7.2 | * | 116.8 |
| 350 " " 400 | | * | 12.4 | 17.1 | 16.3 | 4.5 | | * | 54.1 |
| 400 " " 450 | | * | 7.5 | 8.5 | 9.3 | | | * | 30.2 |
| 450 and over | | | 10.8 | 16.2 | 15.2 | 7.6 | * | * | 50.4 |
| Total | 264.3 | 419.3 | 809.8 | 573.3 | 542.1 | 207.7 | 123.8 | 23.6 | 2,964.0 |
| —dollars— | | | | | | | | | |
| Median earnings | 101 | 158 | 191 | 193 | 183 | 174 | 167 | 157 | 175 |
| Mean earnings | 106 | 166 | 205 | 215 | 209 | 197 | 182 | 182 | 192 |
| FEMALES | | | | | | | | | |
| Weekly earnings (\$)— | | | | | | | | | |
| Under 60 | 11.6 | | | | - '000- | | | (a) | |
| 60 and under 80 | 47.6 | 6.5 | 6.4 | 5.9 | 6.0 | | | | 27.7 |
| 80 " " 100 | 62.9 | 8.1 | 5.2 | 4.8 | 4.8 | | 4.8 | | 62.4 |
| 100 " " 110 | 32.2 | 12.8 | 7.0 | 9.7 | 11.7 | | | 7.5 | 88.3 |
| 110 " " 120 | 22.2 | 20.6 | 14.1 | 13.0 | 12.5 | 7.7 | | | 78.5 |
| 120 " " 130 | 16.2 | 35.0 | 25.4 | 24.2 | 23.5 | 8.1 | | 4.9 | 88.6 |
| 130 " " 140 | 5.0 | 39.1 | 28.8 | 19.3 | 18.9 | 6.8 | | | 134.9 |
| 140 " " 150 | 6.2 | 40.2 | 24.7 | 20.8 | 24.7 | 5.5 | | | 120.2 |
| 150 " " 160 | 4.2 | 38.0 | 34.9 | 25.5 | 21.0 | 5.8 | | 5.6 | 124.3 |
| 160 " " 170 | | 26.8 | 24.5 | 15.5 | 15.0 | 5.2 | | | 130.8 |
| 170 " " 180 | 5.6 | 22.0 | 21.1 | 10.6 | 7.4 | * | | | 90.5 |
| 180 " " 220 | | 41.8 | 48.1 | 21.7 | 22.3 | 5.1 | | 5.0 | 67.8 |
| 220 and over | * | 9.9 | 38.3 | 21.6 | 13.8 | 5.4 | | | 142.8 |
| Total | 215.3 | 300.8 | 278.7 | 192.6 | 181.4 | 57.1 | | 22.9 | 1,248.8 |
| —dollars— | | | | | | | | | |
| Median earnings | 95 | 147 | 158 | 149 | 145 | 142 | | 136 | 142 |
| Mean earnings | 98 | 151 | 168 | 158 | 152 | 151 | | 133 | 147 |

(a) Aged 60 years and over. * Less than 4000.

**ALL EMPLOYEES: WEEKLY EARNINGS IN ALL JOBS AND FULL-TIME OR PART-TIME STATUS,
STATES AND TERRITORIES, AUGUST 1977(a)**

| | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | A.C.T. | Australia |
|-----------------------------------|----------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|----------------|
| MALE FULL-TIME EMPLOYEES | | | | | | | | | |
| — '000 — | | | | | | | | | |
| <i>Weekly earnings (\$)—</i> | | | | | | | | | |
| Under 60 | 11.1 | 8.5 | 7.2 | 4.0 | 3.0 | 1.5 | 1.7 | 1.5 | 36.7 |
| 60 and under 80 | 21.0 | 17.2 | 11.7 | 9.4 | 6.9 | 2.4 | 1.7 | 1.5 | 69.5 |
| 80 " " 100 | 25.7 | 19.2 | 12.7 | 8.3 | 7.5 | 4.1 | 1.7 | 1.5 | 78.0 |
| 100 " " 110 | 24.2 | 18.3 | 11.6 | 7.8 | 5.0 | 2.6 | 1.7 | 1.5 | 70.4 |
| 110 " " 120 | 27.7 | 23.0 | 16.5 | 8.1 | 6.7 | 3.7 | 1.7 | 1.5 | 87.2 |
| 120 " " 130 | 47.2 | 44.1 | 22.1 | 12.3 | 9.9 | 5.5 | 1.6 | 1.7 | 142.0 |
| 130 " " 140 | 59.0 | 51.0 | 29.4 | 18.8 | 12.9 | 5.6 | 1.6 | 1.7 | 179.5 |
| 140 " " 150 | 77.3 | 68.4 | 36.6 | 22.4 | 17.7 | 7.0 | 1.6 | 1.8 | 231.6 |
| 150 " " 160 | 88.5 | 72.5 | 34.7 | 26.2 | 18.9 | 7.4 | 1.6 | 2.6 | 252.4 |
| 160 " " 170 | 86.8 | 68.0 | 31.8 | 24.2 | 19.4 | 7.8 | 2.2 | 2.3 | 241.1 |
| 170 " " 180 | 74.1 | 53.7 | 24.6 | 18.7 | 16.0 | 6.3 | 2.2 | 2.1 | 197.1 |
| 180 " " 190 | 77.4 | 52.6 | 24.8 | 16.8 | 14.7 | 6.8 | 1.8 | 2.2 | 196.4 |
| 190 " " 200 | 58.7 | 46.1 | 18.8 | 14.0 | 12.8 | 4.3 | 1.8 | 3.2 | 158.5 |
| 200 " " 220 | 103.1 | 72.4 | 32.7 | 22.1 | 23.1 | 8.0 | 1.7 | 3.0 | 266.2 |
| 220 " " 240 | 66.9 | 42.6 | 23.0 | 15.4 | 15.8 | 4.2 | 1.7 | 4.4 | 174.0 |
| 240 " " 260 | 64.8 | 38.5 | 17.5 | 11.0 | 17.9 | 4.2 | 2.5 | 2.9 | 159.3 |
| 260 " " 280 | 35.8 | 23.7 | 11.3 | 7.8 | 9.4 | 1.8 | 1.5 | 3.7 | 95.0 |
| 280 " " 300 | 27.3 | 21.1 | 11.3 | 5.4 | 6.6 | 2.2 | 1.7 | 1.9 | 77.5 |
| 300 " " 350 | 44.7 | 27.3 | 13.8 | 9.2 | 11.6 | 2.8 | 1.9 | 6.3 | 116.8 |
| 350 " " 400 | 21.3 | 11.4 | 6.4 | 4.2 | 5.0 | 1.7 | 1.9 | 3.4 | 54.1 |
| 400 " " 450 | 10.5 | 9.2 | 3.9 | 3.4 | 3.8 | • | • | 2.2 | 30.2 |
| 450 " " 500 | 6.2 | 5.1 | 3.8 | • | • | • | • | • | 19.3 |
| 500 and over | 8.3 | 9.7 | 5.4 | • | 3.5 | • | • | • | 31.1 |
| Total | 1,067.7 | 803.6 | 411.6 | 271.9 | 248.1 | 90.8 | 22.9 | 47.4 | 2,964.0 |
| — dollars — | | | | | | | | | |
| Median earnings | 179 | 172 | 167 | 168 | 180 | 167 | 205 | 224 | 175 |
| Mean earnings | 194 | 190 | 186 | 183 | 197 | 179 | 217 | 246 | 192 |
| MALE PART-TIME EMPLOYEES | | | | | | | | | |
| — '000 — | | | | | | | | | |
| <i>Weekly earnings (\$)—</i> | | | | | | | | | |
| Under 20 | 13.7 | 9.5 | 6.2 | 4.4 | 4.0 | • | • | 1.7 | 39.2 |
| 20 and under 40 | 9.2 | 7.8 | 3.6 | 2.8 | 2.2 | 1.8 | • | 1.7 | 26.2 |
| 40 " " 60 | 4.0 | 5.9 | • | • | • | • | • | • | 13.7 |
| 60 " " 80 | 5.3 | 5.9 | 3.0 | 4.3 | 5.2 | • | • | • | 9.2 |
| 80 " " 100 | 16.2 | 11.6 | 5.1 | • | • | • | • | • | 8.6 |
| 100 and over | • | • | • | • | • | • | • | • | 42.1 |
| Total | 48.5 | 40.8 | 17.8 | 12.6 | 12.4 | 2.7 | • | 3.0 | 139.1 |
| — dollars — | | | | | | | | | |
| Median earnings | 46 | 50 | 45 | 33 | 40 | 39 | • | 46 | 46 |
| Mean earnings | 90 | 81 | 77 | 71 | 81 | 65 | • | 95 | 84 |
| FEMALE FULL-TIME EMPLOYEES | | | | | | | | | |
| — '000 — | | | | | | | | | |
| <i>Weekly earnings (\$)—</i> | | | | | | | | | |
| Under 60 | 9.6 | • | 6.9 | 3.2 | 2.4 | 1.5 | 1.7 | 4.4 | 27.7 |
| 60 and under 80 | 17.5 | 17.7 | 12.0 | 7.1 | 5.8 | 1.7 | 1.7 | 4.4 | 62.4 |
| 80 " " 100 | 26.1 | 25.7 | 14.5 | 9.0 | 8.7 | 2.8 | 1.7 | 4.4 | 88.3 |
| 100 " " 110 | 29.9 | 21.6 | 11.1 | 6.8 | 6.0 | 2.2 | 1.7 | 4.4 | 78.5 |
| 110 " " 120 | 31.5 | 25.6 | 12.3 | 10.1 | 6.1 | 1.7 | 1.7 | 4.4 | 88.6 |
| 120 " " 130 | 49.3 | 44.2 | 16.5 | 12.0 | 8.3 | 3.1 | 1.7 | 4.4 | 134.9 |
| 130 " " 140 | 46.1 | 35.2 | 16.2 | 9.6 | 8.0 | 2.5 | 1.8 | 2.1 | 120.2 |
| 140 " " 150 | 43.0 | 32.7 | 17.5 | 9.8 | 13.2 | 3.7 | 1.8 | 3.0 | 124.3 |
| 150 " " 160 | 49.5 | 40.3 | 16.9 | 10.3 | 8.2 | 2.4 | 1.8 | 2.5 | 130.8 |
| 160 " " 170 | 35.3 | 26.1 | 9.3 | 9.2 | 5.3 | 2.4 | 1.8 | 2.6 | 90.5 |
| 170 " " 180 | 29.0 | 21.2 | 5.1 | 5.2 | 4.1 | 2.4 | 1.5 | 1.7 | 67.8 |
| 180 " " 190 | 19.2 | 11.9 | 4.6 | 4.6 | 3.8 | 2.4 | 1.5 | 2.2 | 47.6 |
| 190 " " 200 | 17.9 | 11.2 | 5.5 | 2.5 | 2.6 | 2.3 | • | 1.8 | 42.0 |
| 200 " " 220 | 18.0 | 13.5 | 7.4 | 5.7 | 4.5 | • | • | 2.0 | 53.2 |
| 220 " " 240 | 12.1 | 10.3 | 3.3 | 3.3 | 3.3 | • | • | • | 35.6 |
| 240 " " 260 | 8.4 | 6.7 | 3.2 | • | • | • | • | • | 21.9 |
| 260 and over | 12.4 | 10.4 | 4.0 | 2.7 | 3.2 | • | • | • | 34.5 |
| Total | 454.6 | 358.1 | 166.3 | 112.6 | 94.8 | 30.8 | 7.9 | 23.7 | 1,248.8 |
| — dollars — | | | | | | | | | |
| Median earnings | 144 | 142 | 136 | 138 | 142 | 140 | 157 | 159 | 142 |
| Mean earnings | 148 | 148 | 140 | 143 | 146 | 142 | 167 | 163 | 147 |

ALL EMPLOYEES: WEEKLY EARNINGS—continued

| | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | A.C.T. | Australia |
|----------------------------|-------------|-------|------|------|------|------|------|--------|-----------|
| FEMALE PART-TIME EMPLOYEES | | | | | | | | | |
| | —'000— | | | | | | | | |
| Weekly earnings (\$)— | | | | | | | | | |
| Under 20 | 23.2 | 18.7 | 9.3 | 8.3 | 7.6 | 2.1 | 2.6 | • | 70.5 |
| 20 and under 40 | 29.1 | 22.5 | 11.6 | 8.5 | 8.7 | 3.0 | | 2.1 | 85.7 |
| 40 " " 60 | 24.9 | 22.4 | 9.7 | 8.0 | 8.6 | 2.5 | | • | 77.3 |
| 60 " " 80 | 28.7 | 27.9 | 10.7 | 10.4 | 11.8 | 4.0 | | • | 94.9 |
| 80 " " 100 | 27.4 | 24.3 | 6.7 | 8.9 | 8.5 | 2.5 | 2.3 | 1.7 | 81.1 |
| 100 " " 110 | 14.8 | 11.7 | 3.3 | 4.6 | 2.5 | • | | • | 38.9 |
| 110 " " 120 | 8.4 | 6.7 | 5.1 | 2.7 | 2.4 | • | | • | 23.7 |
| 120 " " 130 | 10.3 | 5.3 | | 3.3 | 3.0 | • | | • | 24.0 |
| 130 " " 140 | 4.8 | 4.0 | | 3.8 | 4.5 | 2.6 | • | • | 12.1 |
| 140 " " 150 | 6.9 | | | | | | | | |
| 150 and over | 17.4 | 11.9 | 3.2 | | | | | | 13.2 |
| Total | 195.9 | 155.5 | 63.4 | 59.2 | 55.6 | 18.2 | 3.9 | 9.4 | *39.8 |
| | — dollars — | | | | | | | | |
| Median earnings | 74 | 70 | 62 | 69 | 65 | 68 | 90 | 77 | 70 |
| Mean earnings | 80 | 76 | 70 | 73 | 67 | 70 | 93 | 88 | 76 |

(a) Since part-time employees are defined as those who usually work less than 35 hours, and who did so in the survey week, this figure may include school teachers, academic staff in universities, aircrew, etc. * Subject to sampling variability too high for most practical uses.

Income distribution, 1973-74

In November 1974, a survey based on the quarterly population survey (see the section *The population survey* earlier in this chapter) was conducted throughout Australia in order to obtain information about the distribution of personal and family income within Australia. Details of the income of individuals, families, and income units can be obtained from the publication *Income Distribution, 1973-74 Part 1* (6502.0) individuals, *Part 2* (6503.0) families, and *Part 3* (6504.0) individuals, families, and income units.

A similar survey was conducted in November 1969 in respect of individual and family income received during 1968-69. Results of this survey were published in *Income Distribution 1968-69, Consolidated and Revised Edition* (6505.0).

Annual leave

The majority of employees in Australia at present receive four weeks paid annual leave.

Four weeks annual leave was granted to State government employees in New South Wales in 1964, in South Australia in 1971 and in Tasmania in October 1972. Australian Government employees received the entitlement in 1973, as did State Government employees in Victoria, Queensland and Western Australia. (Northern Territory Government employees are entitled to four weeks annual leave.)

In December 1973, Queensland day workers employed under State awards were granted four weeks paid annual leave. Subsequently, workers covered by State awards in other States were granted similar benefits.

In May 1974, the Australian Conciliation and Arbitration Commission granted four weeks paid annual leave to persons employed under the Metal Industry Award, to accrue from 1 January 1974. As a result, this benefit was extended to other Federal awards. In addition to the leave entitlement, workers also received a leave bonus which varies in amount (but a 17½ per cent addition to leave pay is a frequent provision in awards).

In August 1974, a survey based on the quarterly population survey (see the section *The Population Survey* earlier in this chapter) was conducted throughout Australia in order to obtain information about the incidence and extent of leave-taking within Australia. Results of this survey were published in *Annual Leave, August 1974* (6317.0).

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.

INDUSTRIAL DISPUTES

The tables in this section refer to disputes involving stoppages of work of ten man-days or more; statistics of persons affected at establishments other than those at which the stoppages occurred are not included.

Detailed information, including explanatory notes, definitions, etc. on industrial disputes involving stoppages of work, is given in *Labour Statistics* (6101.0). 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 monthly bulletin *Industrial Disputes* (6321.0). Quarterly figures are published in the bulletin *Industrial Disputes* (6322.0).

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 tables give, for Australia as a whole, particulars of industrial disputes which were in progress during the years 1972 to 1977, classified according to industries (*Australian Standard Industrial Classification* (ASIC), Preliminary Edition, 1969, Vol. 1).

INDUSTRIAL DISPUTES: INDUSTRIES, 1972 TO 1977

| Year | Manufacturing | | | | Transport and storage; communication | | | Other industries (a) | All industries |
|--------------------|---------------|-------|---|-------|---|------------------------------|-------|-------------------------|----------------|
| | Mining | | Metal products, machinery and equipment | Other | Con- struction | Stevedor- ing services | Other | | |
| | Coal | Other | | | | | | | |
| | | | | | | | | | |
| NUMBER OF DISPUTES | | | | | | | | | |
| 1972 . . | 151 | 61 | 787 | 411 | 257 | 235 | 224 | 172 | 2,298 |
| 1973 . . | 208 | 132 | 736 | 415 | 276 | 275 | 209 | 287 | 2,538 |
| 1974 . . | 201 | 178 | 700 | 422 | 350 | 363 | 227 | 368 | 2,809 |
| 1975 . . | 175 | 188 | 681 | 388 | 309 | 279 | 183 | 229 | 2,432 |
| 1976(b) . | 172 | 203 | 510 | 341 | 302 | 139 | 179 | 209 | 2,055 |
| 1977 . . | 247 | 194 | 501 | 361 | 258 | 85 | 203 | 241 | 2,090 |

WORKERS INVOLVED (DIRECTLY AND INDIRECTLY) ('000)

| | | | | | | | | | |
|-----------|------|------|-------|-------|-------|------|-------|-------|---------|
| 1972 . . | 33.6 | 16.9 | 505.4 | 127.4 | 128.6 | 52.9 | 124.6 | 124.4 | 1,113.8 |
| 1973 . . | 34.4 | 35.7 | 204.3 | 114.7 | 128.8 | 53.6 | 53.7 | 177.6 | 803.0 |
| 1974 . . | 55.3 | 57.1 | 685.8 | 151.1 | 517.3 | 99.9 | 124.0 | 314.4 | 2,004.8 |
| 1975 . . | 49.5 | 33.0 | 553.5 | 190.5 | 158.4 | 46.9 | 125.5 | 240.7 | 1,398.0 |
| 1976(b) . | 65.7 | 73.4 | 484.4 | 426.2 | 264.8 | 35.4 | 294.7 | 545.5 | 2,189.9 |
| 1977(c) . | 48.2 | 31.4 | 111.3 | 101.9 | 51.5 | 19.2 | 105.1 | 127.6 | 596.2 |

WORKING DAYS LOST ('000)

| | | | | | | | | | |
|-----------|-------|-------|---------|-------|---------|-------|-------|-------|---------|
| 1972 . . | 60.8 | 62.0 | 620.2 | 393.7 | 407.8 | 39.2 | 205.2 | 221.2 | 2,010.3 |
| 1973 . . | 87.5 | 155.3 | 800.8 | 661.4 | 439.3 | 49.5 | 93.2 | 347.6 | 2,634.7 |
| 1974 . . | 163.0 | 146.5 | 2,850.8 | 756.7 | 1,188.7 | 111.1 | 516.2 | 559.4 | 6,292.5 |
| 1975 . . | 343.3 | 90.0 | 1,279.2 | 464.1 | 497.0 | 46.2 | 146.7 | 643.5 | 3,509.9 |
| 1976(b) . | 159.1 | 215.0 | 775.0 | 856.5 | 535.8 | 37.1 | 388.0 | 832.6 | 3,799.2 |
| 1977(c) . | 102.8 | 170.9 | 204.4 | 455.7 | 215.2 | 39.9 | 172.6 | 293.3 | 1,654.8 |

ESTIMATED LOSS IN WAGES (\$'000)

| | | | | | | | | | |
|-----------|--------|-------|--------|--------|--------|-------|--------|--------|---------|
| 1972 . . | 1,027 | 1,157 | 9,776 | 5,690 | 7,442 | 561 | 3,064 | 3,358 | 32,074 |
| 1973 . . | 1,629 | 3,320 | 13,731 | 10,328 | 8,006 | 777 | 1,665 | 5,752 | 45,207 |
| 1974 . . | 3,657 | 3,956 | 54,069 | 16,016 | 27,169 | 1,969 | 10,301 | 11,164 | 128,302 |
| 1975 . . | 11,457 | 2,808 | 33,073 | 11,990 | 14,861 | 1,181 | 3,737 | 16,655 | 95,761 |
| 1976(b) . | 6,165 | 7,780 | 22,235 | 23,866 | 18,659 | 1,003 | 11,573 | 23,271 | 114,552 |
| 1977(c) . | 4,591 | 7,300 | 6,906 | 14,714 | 8,218 | 1,307 | 6,386 | 10,252 | 59,674 |

(a) ASIC divisions A, D, F, I to L. (b) Includes Medibank stoppages in June and July which involved an estimated 1,570,000 workers and resulted in a loss of 2,060,000 working days and \$59,060,000 in wages. (c) Excludes an estimated 150,000 Victorian workers stood down as a result of the electricity supply dispute in October in that State (but at establishments other than those at which the stoppage occurred). These workers lost an estimated 2.1 million working days.

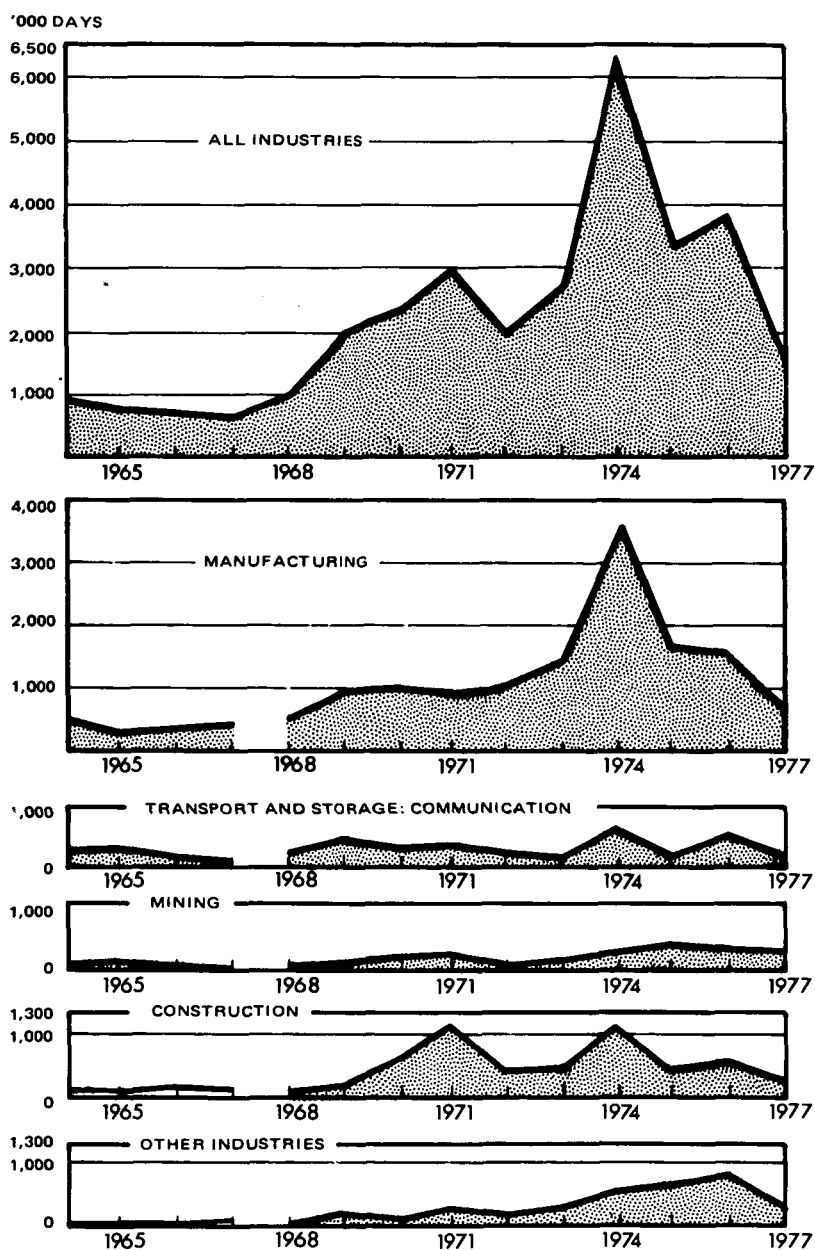
INDUSTRIAL DISPUTES: WORKING DAYS LOST, INDUSTRIES
(^{'000})

| <i>ASIC division</i> | <i>ASIC industry</i> | <i>1975</i> | <i>1976</i> | <i>1977</i> |
|--------------------------|--|----------------|--------------------|--------------------|
| A | Agriculture, forestry, fishing and hunting | 3.8 | 1.7 | 0.3 |
| B | Mining | 433.3 | 374.2 | 273.7 |
| | Coal mining | 343.3 | 159.1 | 102.8 |
| | Other mining | 90.0 | 215.0 | 170.9 |
| C | Manufacturing | 1,743.3 | 1,631.6 | 660.1 |
| | Food, beverages and tobacco | 253.2 | 397.1 | 328.7 |
| | Textiles; clothing and footwear | 22.6 | 61.8 | 20.9 |
| | Textiles | 20.7 | 40.6 | 20.6 |
| | Clothing and footwear | 1.9 | 21.2 | 0.3 |
| | Wood, wood products and furniture | 13.0 | 59.3 | 0.6 |
| | Paper and paper products, printing and publishing | 63.8 | 153.5 | 19.4 |
| | Chemical, petroleum and coal products | 34.5 | 64.0 | 23.9 |
| | Metal products, machinery and equipment | (a) 1,279.2 | 775.0 | 204.4 |
| | Basic metal products | 98.6 | 189.9 | 76.4 |
| | Fabricated metal products | 105.7 | 107.8 | 18.8 |
| | Transport equipment | 178.9 | 289.5 | 29.0 |
| | Other machinery and equipment | 128.6 | 187.8 | 80.2 |
| | Other manufacturing | 77.0 | 120.8 | 62.2 |
| | Non-metallic mineral products | 47.0 | 50.4 | 36.9 |
| | Miscellaneous manufacturing | 30.0 | 70.4 | 25.3 |
| D | Electricity, gas and water | 253.4 | 112.4 | 139.3 |
| | Electricity and gas | 26.8 | 88.2 | 129.2 |
| | Water, sewerage and drainage | 226.5 | 24.2 | 10.2 |
| E | Construction | 497.0 | 535.8 | 215.2 |
| F | Wholesale and retail trade | 203.3 | 272.3 | 64.5 |
| | Wholesale trade | 109.0 | 146.9 | 52.5 |
| | Retail trade | 94.3 | 125.3 | 12.0 |
| G,H | Transport and storage; communication | 192.9 | 425.1 | 212.5 |
| | Road transport; other transport and storage; communication | 45.3 | 202.4 | 48.8 |
| | Road transport | 37.8 | 93.4 | 12.0 |
| | Other transport and storage; communication | 7.4 | 109.0 | 36.8 |
| | Railway transport; air transport | 83.6 | 147.1 | 110.9 |
| | Railway transport | 78.0 | 119.4 | 84.1 |
| | Air transport | 5.6 | 27.7 | 26.9 |
| | Water transport | 64.0 | 75.5 | 52.7 |
| | Stevedoring services | 46.2 | 37.1 | 39.9 |
| | Water transport (except stevedoring services) | 17.9 | 38.4 | 12.9 |
| I | Finance, insurance, real estate and business services | 14.0 | 43.5 | 6.8 |
| J,K | Public administration and defence; community services | 155.4 | 223.3 | 50.2 |
| | Health | 62.4 | 6.0 | 5.7 |
| | Education, libraries, museums and art galleries | 45.0 | 119.4 | 27.7 |
| | Other | 48.0 | 97.9 | 16.9 |
| L | Entertainment, recreation, restaurants, hotels and personal services | 13.7 | 179.5 | 32.2 |
| | Total | 3,509.9 | (b) 3,799.2 | (c) 1,654.8 |

(a) Includes working days lost which cannot be allocated to component groups. (b) Includes Medibank stoppages which resulted in the loss of an estimated 2,060,000 working days. (c) Excludes an estimated 2.1 million working days lost as a result of the electricity supply dispute in October in Victoria (but at establishments other than those at which the stoppage occurred).

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 shows, for the years 1975 to 1977, working days lost in industrial disputes classified according to duration, causes and methods of settlement. Causes (i.e. the direct causes of stoppages of work) 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.

INDUSTRIAL DISPUTES: DURATION, CAUSES AND METHODS OF SETTLEMENT, WORKING DAYS
LOST, 1975 TO 1977

('000)

| | 1975 | 1976 | 1977 |
|---|----------------|-------------------|-------------------|
| DURATION | | | |
| Up to 1 day | 401.9 | 741.5 | 210.1 |
| Over 1 to 2 days | 382.0 | 1,133.8 | 111.2 |
| Over 2 to 3 days | 805.3 | 691.2 | 158.2 |
| Over 3 to less than 5 days | 191.1 | 153.7 | 226.0 |
| 5 to less than 10 days | 378.9 | 375.1 | 246.5 |
| 10 to less than 20 days | 820.0 | 364.0 | 263.2 |
| 20 to less than 40 days | 426.5 | 187.4 | 278.2 |
| 40 days and over | 104.4 | 152.6 | 161.5 |
| Total | 3,509.9 | (a)3,799.2 | (b)1,654.8 |
| CAUSES(c) | | | |
| Wages | 2,565.0 | 698.7 | 867.6 |
| Hours of work | 20.2 | 58.0 | 51.1 |
| Leave, pensions, compensation provisions, etc. | 10.1 | 111.4 | 44.1 |
| Managerial policy | 405.6 | 574.2 | 394.5 |
| Physical working conditions | 95.9 | 130.0 | 155.4 |
| Trade unionism | 211.7 | 119.0 | 75.0 |
| Other | 201.4 | 2,107.8 | 67.0 |
| Total | 3,509.9 | (a)3,799.2 | (b)1,654.8 |
| METHODS OF SETTLEMENT (d) | | | |
| Negotiation | 607.1 | 554.8 | 272.8 |
| Mediation | 35.1 | 9.9 | 5.5 |
| State legislation— | | | |
| (a) Under State conciliation, etc., legislation | 479.3 | 360.6 | 278.0 |
| (b) Intervention, etc. of State Government officials | 1.7 | 1.5 | 0.7 |
| Federal and joint Federal State legislation (e) | 1,440.1 | 384.0 | 255.6 |
| Filling the places of workers on strike or locked out | 0.3 | — | 0.7 |
| Closing down the establishment permanently | — | 1.6 | — |
| Resumption without negotiation | 936.8 | 2,486.6 | 838.4 |
| Other methods | 9.6 | 0.2 | 3.3 |
| Total | 3,509.9 | (a)3,799.2 | (b)1,654.8 |

(a) Includes Medibank stoppages which resulted in the loss of an estimated 2,060,000 working days. (b) Excludes an estimated 2.1 million working days lost as a result of the electricity supply dispute in October in Victoria (but at establishments other than those at which the stoppage occurred). (c) For nature of classification, see text above. (d) Method directly responsible for ending the stoppage of work. (e) Includes Industrial Tribunals under (i) Conciliation and Arbitration Act, (ii) Coal Industry Acts, (iii) Stevedoring Act, (iv) Other Acts, and intervention, etc. of Federal government officials.

The following table shows the number of working days lost per 1,000 employees in the years 1972 to 1977. Figures are given both for all causes, and excluding those causes where the employer/employee relationship is not involved. For classification of causes *see* grouping on page 159.

INDUSTRIAL DISPUTES: WORKING DAYS LOST PER 1,000 EMPLOYEES

| | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 |
|---|------|------|-------|------|------|------|
| All causes | 449 | 570 | 1,320 | 742 | 803 | 350 |
| All causes excluding those not involving employer/employee relationship (a) | 416 | 541 | 1,290 | 700 | 357 | 336 |

(a) See text above.

Statistics of industrial accidents and diseases and workers' compensation are currently available only on a State basis and are included in the various State Year Books and bulletins. Some work to develop a collection including national totals and estimates on a uniform basis throughout the States began in 1978 and is continuing.

LABOUR ORGANISATIONS

Labour organisations in Australia

Trade unions

For the purpose of these statistics a *trade union* is defined as an organisation, consisting predominantly of employees; whose principal activities include the negotiation of rates of pay and conditions of employment for its members. Returns showing membership by States and Territories at 31 December each year are obtained for all trade unions and employee organisations. Results of this collection are published in the annual bulletin *Trade Union Statistics: Australia* (6323.0). The following table shows the position at the end of each of the years 1972 to 1977.

TRADE UNIONS: NUMBER, MEMBERSHIP AND PROPORTION OF TOTAL EMPLOYEES

| End of December— | Number of separate unions(a) | Number of members ('000) | | Proportion of total employees (per cent) |
|------------------|---------------------------------------|------------------------------|---------|---|
| | | Males | Females | |
| 1972 | 305 | 1,827.4 | 696.2 | 54 |
| 1973 | 294 | 1,904.9 | 755.0 | 55 |
| 1974 | 286 | 1,975.3 | 798.3 | 56 |
| 1975 | 280 | 1,966.0 | 847.9 | 58 |
| 1976 | 280 | 1,952.6 | 849.6 | 57 |
| 1977 | 281 | 1,944.4 | 850.0 | 57 |

(a) Without inter-state duplication.

In the table above the approximate percentages of wage and salary earners in employment who were members of trade unions are shown. The estimates of employees have been derived by adding figures for employees in agriculture and in private households employing staff to the estimates of employees in all other industries as at the end of each year. The percentages shown should be regarded as giving only a broad indication of the extent of union membership among wage and salary earners because they are based on estimates of *employed* wage and salary earners which are subject to revision. The degree of unemployment of reported union members would affect the percentages for a particular year and comparison over time.

TRADE UNIONS: CLASSIFICATION ACCORDING TO NUMBER OF MEMBERS, 1977

| Number of members | Separate unions | | Members | |
|-----------------------------|-----------------|---------------------|---------|---------------------|
| | Number | Proportion of total | Number | Proportion of total |
| | | (per cent) | ('000) | (per cent) |
| Under 100 | 25 | 8.9 | 1.1 | - |
| 100 and under 250 | 37 | 13.2 | 5.9 | 0.2 |
| 250 " " 500 | 27 | 9.6 | 9.8 | 0.4 |
| 500 " " 1,000 | 43 | 15.3 | 29.9 | 1.1 |
| 1,000 " " 2,000 | 40 | 14.2 | 58.0 | 2.1 |
| 2,000 " " 5,000 | 36 | 12.8 | 115.9 | 4.1 |
| 5,000 " " 10,000 | 21 | 7.5 | 152.1 | 5.4 |
| 10,000 " " 20,000 | 16 | 5.7 | 228.9 | 8.2 |
| 20,000 " " 30,000 | 8 | 2.8 | 205.2 | 7.3 |
| 30,000 " " 40,000 | 7 | 2.5 | 246.6 | 8.8 |
| 40,000 " " 50,000 | 5 | 1.8 | 223.8 | 8.0 |
| 50,000 " " 80,000 | 7 | 2.5 | 425.1 | 15.2 |
| 80,000 and over | 9 | 3.2 | 1,091.8 | 39.1 |
| Total | 281 | 100.0 | 2,794.4 | 100.0 |

In November 1976 a survey based on the population survey (for details see the section *The Population Survey* earlier in this chapter) was conducted throughout Australia in order to obtain information about the industry and occupation, and some demographic characteristics, of wage and salary earners who were members of trade unions. Results of the survey are published in *Trade Union Members, November 1976* (6325.0).

Employer and employee organisations registered under Industrial Arbitration Acts, etc.

The Federal *Conciliation and Arbitration Act* 1904 and a number of State industrial arbitration Acts provide for the registration of employer and employee organisations as outlined below. 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 and Industrial Boards respectively, there is no provision in industrial arbitration legislation for registration of trade unions or employer organisations.

Federal. At the end of 1977 the number of employers' organisations registered under the provisions of the *Conciliation and Arbitration Act* 1904 was 79. The number of unions registered at the end of 1977 was 144, with membership of 2,303,800, representing 82 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. 30 No. 1, January 1975 published by the former Department of Labor and Immigration. (Branches of employer organisations and unions may also register under various State Acts, as outlined below.)

New South Wales. At 30 June 1978 there were 114 employee unions and 294 employer unions registered under provisions of the *Industrial Arbitration Act* 1940, and 128 employee unions, 15 employer unions, and 2 other unions registered under the *Trade Union Act* 1881. (Unions may register under either or both Acts.) Lists of unions registered under these Acts are included in the *New South Wales Industrial Gazette*. (See Vol. 210 Part 11 for details at 30 June 1978.)

Queensland. At 31 December 1977 there were 74 employee unions registered under the *Industrial Conciliation and Arbitration Act* 1961-1976 with a reported membership of 345,460. At the same date, 43 employer unions with a reported membership of 36,242 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 1977 there were 8 employer associations and 73 employee associations registered under the provisions of the *Industrial Conciliation and Arbitration Act* 1972 as amended. Membership of these employee associations totalled approximately 200,200.

Western Australia. At 30 June 1978 there were 76 unions of workers, with an aggregate membership of 184,578, registered under the provisions of the *Industrial Arbitration Act*, 1912-1976. At the same date there were 15 registered unions of employers with a reported aggregate membership of 2,156 employers. Lists of registered unions of workers and of employers, together with membership figures, are published in the *Western Australian Industrial Gazette*. (See Vol. 56, Appendix XVI.)

Central Labour Organisations

There are four main central labour organisations in Australia: the *Australian Council of Trade Unions*, which came into being in 1927, had approximately 131 unions and Trades and Labour Councils affiliated with it in 1978.; the *Council of Australian Government Employee Organisations*, formed in May 1969 by a conference of delegates from 19 affiliated associations of employees with an aggregate membership of approximately 100,000 in the Australian Public Service and instrumentalities; the *Council of Professional Associations* which was formed in 1956 and, at the end of 1978, had 10 organisations with aggregate membership of approximately 32,000 affiliated with it; and the *Australian Council of Salaried and Professional Associations*, formed in 1956 as a council of industrial associations for the purpose of co-ordinating industrial activities on common problems, which had 35 associations with an aggregate membership of approximately 400,000 affiliated with it at the end of 1978.

International Labour Organisation

The International Labour Organisation (ILO) 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 ILO 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 ILO known as the Declaration of Philadelphia, which was added to the constitution at the 1944 Session of the International Labour Conference, asserted the responsibility of ILO 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 ILO 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: 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. In June 1977 there were 135 member States, each of which is entitled to be represented by four delegates—two representing the government, one representing the employers and one representing the 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-eight governments and fourteen employers' and fourteen workers' representatives. Particulars of the proceedings of International Labour Conferences up to the 58th Session and details of ILO conventions ratified by Australia are given in *Labour Report* No. 58, 1973, pages 255–59.

One of the functions of the ILO is to sponsor the International Conferences of Labour Statisticians at which the ABS is usually represented. It is proposed that the next Conference will be held in 1981. These conferences are responsible for recommending and reviewing standards which the ABS adopts whenever practicable.

CHAPTER 9

SOCIAL SECURITY AND WELFARE

This chapter describes social welfare services provided by the Commonwealth Government (through the Departments of Social Security, Aboriginal Affairs and Veterans' Affairs), the State Governments and voluntary welfare organisations. Details of services administered by the Commonwealth Department of Health are given in the Health chapter. For information on the many important welfare services provided by the 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 of pension and superannuation schemes for government and semi-government employees, mine workers, parliamentarians, and employees of private business are included in the Private Finance chapter.

Commonwealth 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 listed at the end of this chapter.

Under the provisions of Section 51 of the Constitution, the Commonwealth 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*.

The social security benefits provided by the Commonwealth Government under the *Social Services Act 1947*, and the date on which each came into operation, are shown on page 421 of Year Book No. 61. In addition, a supporting parent's benefit, replacing the supporting mother's benefit, was introduced in November 1977.

AUTHORITIES OF THE COMMONWEALTH GOVERNMENT, SOCIAL SECURITY AND WELFARE CASH BENEFITS TO PERSONS

| | (\$'000) | | |
|--|-----------|-----------|-----------|
| | 1975-76 | 1976-77 | 1977-78 |
| Assistance to aged persons— | | | |
| Aged pensions | 2,129,366 | 2,483,563 | 2,933,897 |
| Delivered meals | 1,288 | 1,369 | 1,629 |
| Personal care | 9,493 | 11,072 | 12,564 |
| Telephone concessions | 10,577 | 12,220 | 13,244 |
| Total | 2,150,724 | 2,508,224 | 2,961,334 |
| Assistance to incapacitated and handicapped persons— | | | |
| Invalid pensions | 407,056 | 511,019 | 598,375 |
| Sheltered employment allowances | 9,778 | 13,835 | 16,190 |
| Handicapped children's benefits | 9,678 | 15,685 | 18,036 |
| Rehabilitation services | 11,564 | 12,737 | 14,995 |
| Total | 438,076 | 553,276 | 647,596 |
| Assistance to unemployed and sick persons— | | | |
| Unemployment benefits | 506,000 | 618,074 | 794,144 |
| Sickness benefits | 90,961 | 105,408 | 117,929 |
| Special benefits | 17,154 | 21,913 | 30,318 |
| Structural adjustment assistance | 8,489 | 131 | 2 |
| Other | 24 | 34 | 62 |
| Total | 622,628 | 745,560 | 942,455 |

AUTHORITIES OF THE COMMONWEALTH GOVERNMENT, SOCIAL SECURITY AND WELFARE
CASH BENEFITS TO PERSONS—*continued*
(\$'000)

| | 1975-76 | 1976-77 | 1977-78 |
|---|------------------|------------------|------------------|
| Assistance to ex-servicemen(a)— | | | |
| Disability and dependants pensions and allowances | 559,556 | 654,603 | 790,983 |
| Other benefits | 4,095 | 3,767 | 3,536 |
| <i>Total</i> | <i>563,651</i> | <i>658,370</i> | <i>794,519</i> |
| Assistance to widowed and deserted spouses— | | | |
| Widows' pensions | 325,260 | 370,201 | 439,497 |
| Assistance to families and children— | | | |
| Family allowances | 265,462 | 1,023,303 | 1,038,115 |
| Maternity allowances | 7,211 | 6,923 | 7,179 |
| Supporting parent's benefit(b) | 127,230 | 158,483 | 192,825 |
| Orphans pensions | 1,775 | 2,402 | 1,943 |
| <i>Total</i> | <i>401,678</i> | <i>1,191,111</i> | <i>1,240,062</i> |
| Other social security and welfare programs— | | | |
| Funeral benefits | 1,526 | 1,528 | 1,551 |
| Telephone rental concessions n.e.c. | 1,762 | 1,940 | 2,131 |
| Compassionate allowances | 94 | 80 | 78 |
| Assistance to homeless persons | 677 | 756 | 955 |
| Other | 511 | 900 | 960 |
| <i>Total</i> | <i>4,570</i> | <i>5,204</i> | <i>5,675</i> |
| Total social security and welfare | 4,506,587 | 6,031,946 | 7,031,138 |

(a) For details see section on Veterans' Affairs in this Chapter.
November, 1977.

(b) Changed from supporting mother's to parent's benefit on 10

GOVERNMENT OUTLAY ON SOCIAL SECURITY AND WELFARE

| | 1973-74 | 1974-75 | 1975-76 |
|---|--------------|--------------|--------------|
| | (\$Million) | | |
| Final consumption expenditure | 170 | 257 | 333 |
| Expenditure on new fixed assets | 21 | 21 | 28 |
| <i>Final expenditure</i> | <i>191</i> | <i>278</i> | <i>361</i> |
| Cash benefits to persons— | | | |
| Commonwealth | 2,316 | 3,355 | 4,507 |
| State and local | 43 | 54 | 71 |
| Other transfers to private sector for social security and welfare (a) | 34 | 72 | 115 |
| Other outlay | 3 | 1 | 6 |
| Total outlay | 2,586 | 3,761 | 5,060 |
| | (Per cent) | | |
| As per cent of government outlay, all purposes | 16.0 | 16.5 | 18.4 |
| | (\$) | | |
| Final expenditure per head | 14.2 | 20.3 | 26.1 |
| | (\$) | | |
| Commonwealth, State and local cash benefits per head | 174.9 | 248.9 | 330.6 |
| | (Per cent) | | |
| Final expenditure as per cent of gross domestic product | 0.38 | 0.46 | 0.51 |

(a) Mainly grants for private capital purposes.

Age and invalid pensions and associated payments

Age pensions are payable to residentially qualified men and women who have reached the ages of 65 and 60 respectively. They are subject to an income test unless the person is permanently blind or has reached the age of 70. For persons over 70 years of age, increases above the base rate are subject to an income test. These payments are subject to tax.

To be residentially qualified for age pension a person must generally be living in Australia on the date of application for the pension and have lived in Australia for ten years continuously at some time. If a person has completed five years but not ten years continuous residence at some time, 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 may be counted as residence, and any absence in an external territory other than Norfolk Island counts as 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 are permanently incapacitated for work to the extent of at least eighty-five per cent, or permanently blind. In the former case, they are subject to an income test.

There is no residence qualification for invalid pension if the incapacity or permanent blindness occurred within Australia (including an external Territory other than Norfolk Island) or during temporary absence from Australia. As a result, some people not residually qualified for age pension but who have reached age pension age receive an invalid pension. Invalid pension is subject to tax in these cases but not in others.

A wife's pension is payable to the wife of a pensioner not entitled, in her own right, to an age, invalid or repatriation service pension. There is no residence qualification, but an income test applies. A wife's pension is taxable only if her husband has reached the age of 65.

Rates of pension. The maximum standard rate was increased to \$2,766.40 per annum (\$53.20 a week) from November 1978. 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 married pensioner couple (known as the married rate) was increased to \$4,612.40 per annum (\$88.70 a week) from November 1978 (i.e. \$2,306.20 per annum or \$44.35 a week each). For a married person whose spouse receives a tuberculosis allowance or a service pension, the maximum rate is also \$2,306.20 per annum (\$44.35 a week).

For qualified persons over the age of 70, the base standard rate is \$2,675.40 per annum (\$51.45 a week) and the base married rate is \$4,461.60 per annum (\$85.80 a week). Subject to an income test, these persons can qualify for further amounts not exceeding the rates applicable to those under 70 years of age.

Additional pension for each dependent child under 16 years is payable, subject to the income test, at the rate of up to \$390 per annum (\$7.50 a week). Widowed or other unmarried age or invalid pensioners with a dependent child may receive a guardian's allowance of 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. A guardian's allowance is also subject to the income 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 \$5 a week (standard rate pensioners) and \$2.50 a week (married rate pensioners) subject to a special income test, is available to pensioners if they pay rent or pay for board and lodging or for lodging.

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 repatriation service pension, 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 in recent years are shown in the Annual Reports of the Department of Social Security.

The income test is the same for age and invalid pension purposes. As already noted, it does not apply to the permanently blind or, in the case of age pensions, to people who have reached 70 years of age unless they wish to claim payment above the base rate. In other cases, the income test operates to reduce pension payable if a claimant's *income as assessed*—in effect, the claimant's annual income—exceeds prescribed limits. In the case of a person entitled to the standard rate of pension, the limit is \$1,040; in other cases, it is \$897. If income as assessed exceeds these figures, half the excess is subtracted from the appropriate maximum rate of pension. If income as assessed does not exceed these figures, the appropriate maximum rate is payable.

The effect of the income test is to preclude from entitlement to any pension a person subject to the income test and whose income exceeds \$126.40 a week. The corresponding figure for a married couple without children is \$105.80 a week (each partner).

Supplementary assistance is subject to a special income test, the effect of which is to reduce the maximum annual rate by the excess of a person's income as assessed over \$52 (standard rate pensioner) or half the excess of income as assessed over \$52 (married rate pensioners).

Certain types of income are exempted. The main exemptions are: gifts or allowances from children, parents, brothers, or sisters; benefits from friendly societies; family allowances; Commonwealth Government health benefits and amounts received from registered hospital or medical benefit organisations. The amount of a pensioner's income included in income as assessed may also

be reduced by up to \$312 per annum (\$6 per week) for each dependent child under sixteen years or full-time student in the pensioner's care.

For the purposes of the income test, the income as assessed of a married person is normally taken to be half of the combined income as assessed of the married couple. Exceptions may be made where the spouses are legally separated or where other special circumstances exist.

AGE PENSIONERS, BY AGE: 30 JUNE 1978

| | 60-64 years | 65-69 years | 70-74 years | 75 years and over | Total |
|-------------------|----------------|----------------|--------------------|----------------------|--------|
| | | | ('000) | | |
| Males | - | 137.4 | 141.1 | 140.6 | 419.2 |
| Females | 164.9 | 197.0 | 189.3 | 294.4 | 845.6 |
| Persons | 164.9 | 334.4 | 330.4 | 435.1 | 1264.8 |
| | 13.0 | 26.4 | (Per cent) 26.1 | 34.4 | 100.0 |

INVALID PENSIONERS, BY AGE: 30 JUNE 1978

| | 16-19 years | 20-44 years | 45-59 years | 60-64 years | 65 years and over | Total |
|-------------------|----------------|----------------|--------------------|----------------|----------------------|-------|
| | | | | ('000) | | |
| Males | 4.0 | 31.7 | 57.2 | 40.6 | 3.6 | 137.2 |
| Females | 3.4 | 24.7 | 38.4 | 0.9 | 0.5 | 67.7 |
| Persons | 7.5 | 56.4 | 95.6 | 41.4 | 4.1 | 204.9 |
| | 3.6 | 27.5 | (Per cent) 46.6 | 20.2 | 2.0 | 100.0 |

AGE AND INVALID PENSIONS: SUMMARY

| | 1975-76 | 1976-77 | 1977-78 |
|---|-------------------|-----------|-----------|
| Age pensions— | | | |
| Number admitted during year | 127,980 | 111,986 | 120,560 |
| Number at end of year | 1,158,657 | 1,205,347 | 1,264,778 |
| Per cent of aged population (a) | % 75.4 | 76.5 | (c) 78.3 |
| Total payments during year (b) | \$ '000 2,129,366 | 2,483,563 | 2,933,897 |
| Average weekly pension at end of year (b) | \$ 37.68 | 43.04 | 46.69 |
| Invalid pensions— | | | |
| Number admitted during year | 37,446 | 40,403 | 43,173 |
| Number at end of year | 183,787 | 202,963 | 204,944 |
| Total payments during year (b) | \$ '000 407,056 | 511,019 | 598,375 |
| Average weekly pension at end of year (b) | \$ 41.68 | 45.81 | 48.05 |

(a) Per cent of persons of pensionable age (males aged 65 years and over and females aged 60 years and over). (b) Includes allowances, supplementary assistance and wives' pensions where applicable. (c) Preliminary.

Sheltered employment allowance and associated payments

Sheltered employment allowance is payable to disabled people who are employed in sheltered workshops and are otherwise qualified to receive an invalid pension or would become so qualified if they ceased to be provided with sheltered employment. The allowance is subject to the same income test as applies to invalid pension and is paid at the same rate. It is payable in the form of a supplement to the sheltered employee's wages. The allowance is not taxable unless the sheltered employee has reached age pension age.

A sheltered employee is entitled to the same additional payments as an invalid pensioner except that no supplementary assistance is payable. Instead, all people in receipt of sheltered employment allowance receive an incentive allowance of \$5 a week. There is no income test on the allowance, but a person precluded by his or her income from receiving sheltered employment allowance is not entitled to incentive allowance.

All sheltered workshops are required to pay sheltered employment allowances on behalf of the Department of Social Security. At 30 June 1978, 133 workshops were paying the allowance to 5,936 disabled employees. Expenditure during the year 1977-78 was \$16,190,000.

Widows' pensions and associated payments

There are three categories of widow pensioners:

Class 'A'. A widow who has the custody, care and control of one or more qualifying children under the age of sixteen years or dependent full time student aged 16-24;

Class 'B'. A widow who, because she has no qualifying children or students in her custody, care and control, is not eligible for a Class 'A' widow's pension but is either at least 50 years of age or, after having reached the age of 45, has ceased to receive a Class 'A' pension by reason of ceasing to have the custody, care and control of a qualifying child or student; and

Class 'C'. A widow not eligible for Class 'A' or Class 'B' widow's pension, who is under 50 years of age and is in necessitous circumstances following her husband's death. In normal circumstances, the Class 'C' pension is not payable after 26 weeks have elapsed from the death of the husband, but if the widow is pregnant the period is extended until the child's birth, whereupon the widow may then become eligible for a Class 'A' widow's pension.

For classes 'A' and 'B', the term 'widow' includes: a wife who has been deserted by her husband for a period of at least six months; a divorcee; and a woman whose husband has been in prison or in a mental hospital for at least six months. A woman who, although not legally married, has been living with a man for at least three years as his wife on a *bona fide* domestic basis and subsequently loses her partner by reason of death, desertion or his imprisonment or admission to a mental hospital is treated as though she had been legally married to him.

A period of residence in Australia before claiming a 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 preceding lodgment of the claim may be 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, or a war widow's pension. A deserted wife or a divorcee who has not taken reasonable action to obtain maintenance from her husband or former husband may be ineligible for a widow's pension.

Current rates of pension. With effect from November 1978, the maximum rate of pension for all classes of widow is \$2,766.40 per annum (\$53.20 a week) plus, in the case of widows with children, a mother's allowance of \$208 per annum (\$4 a week) or \$312 per annum (\$6 a week) where at least one child is under 6 or is an invalid requiring full-time care, plus \$390 per annum (\$7.50 a week) for each dependent child who is under 16 years or is a dependent full-time student. Supplementary assistance of up to \$260 a year (\$5 a week) is also available to widows who pay rent, or for board and lodgings or for lodgings, and who are wholly or substantially dependent on their pension. The amount of this assistance cannot exceed the amount of rent paid.

Income test. Widow's pensions are subject to an income test and are taxable. The income test for widows' pensions also applies to recipients of the supporting parent's benefit described below. The rate of pension payable depends on the claimant's income as assessed. As for age and invalid pensions, some types of income are disregarded for purposes of calculating income as assessed. For Class 'A' and 'B' widows and supporting mothers, the annual maximum standard rate of pension plus any additional allowances is reduced by half of the amount of any income as assessed in excess of \$1,040. There is no specific income test for the Class 'C' pension, which is paid only where it is evident that a widow has insufficient means of support. Supplementary assistance is reduced by the amount by which income as assessed exceeds \$52.

It should be noted that a deserted wife ineligible for Class 'A' or Class 'B' widow's pension because six months have not expired from the date of desertion by her husband may be eligible for assistance from the Government of the State in which she lives. The Commonwealth Government subsidises the State Governments for this purpose under the *States Grants (Deserted Wives) Act*. It also assists deserted wives in the Territories during the first six months after desertion.

CLASS A AND B WIDOW PENSIONERS, BY AGE: 30 JUNE 1978

| Category | Under 20 | 20-29 | 30-39 | 40-49 | 50-59 | 60 and over | Total | Per cent |
|-------------------------------|----------|-------|-------|------------|-------|-------------|-------|----------|
| | | | | ('000) | | | | |
| Class 'A' | 0.2 | 16.7 | 30.8 | 22.8 | 11.6 | 0.4 | 82.4 | 55.0 |
| Class 'B' | - | - | - | 2.5 | 50.7 | 14.4 | 67.5 | 45.0 |
| Total Class 'A' and 'B' . . . | 0.2 | 16.7 | 30.8 | 25.2 | 62.2 | 14.7 | 149.9 | 100.0 |
| | | | | (Per cent) | | | | |
| | 0.1 | 11.1 | 20.6 | 16.8 | 41.5 | 9.8 | 100.0 | .. |

At 30 June 1978, 82,872 widow pensioners were receiving additional pension for 164,385 children.

WIDOWS' PENSIONS: SUMMARY

| Year | Number admitted —all classes (a) | Pensions current at end of year | | | All classes | Average weekly pension at end of year (b) | Amount paid in pensions during year (c) |
|---------|--|---------------------------------|--------------|--------------|----------------|--|--|
| | | Class 'A' | Class 'B' | Class 'C' | | | |
| 1972-73 | 28,863 | 57,872 | 47,768 | 77 | 105,717 | \$ 28.28 | \$'000 140,505 |
| 1973-74 | 26,204 | 64,084 | 51,137 | 89 | 115,310 | 32.79 | 180,957 |
| 1974-75 | 24,636 | 66,518 | 54,177 | 96 | 120,791 | 44.89 | 241,392 |
| 1975-76 | 27,609 | 71,009 | 58,408 | 74 | 129,491 | 49.90 | 325,260 |
| 1976-77 | 32,468 | 76,059 | 63,329 | 97 | 139,485 | 55.71 | 370,201 |
| 1977-78 | 34,624 | 82,392 | 67,461 | 103 | 149,956 | 59.90 | 439,497 |

(a) Excludes transfers from one class to another.
to benevolent homes for maintenance of pensioners.

(b) Includes supplementary assistance and allowances.

(c) Includes payments

Supporting parent's benefit

Supporting parent's benefit was introduced in November 1977 to extend to supporting fathers the same benefit as had previously been available to supporting mothers through supporting mother's benefit. The benefit is for unmarried mothers or fathers, parents who are the deserted partner of a de facto relationship, de facto spouses of prisoners or separated spouses. 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 parent is qualified to receive a benefit if he/she is residing in Australia on the date on which he/she lodges his/her claim for the benefit and, if unmarried, the child was born while he/she was residing in Australia; or, in the case of a married person living apart from his/her spouse, he/she was residing in Australia immediately before they commenced to live apart; or, in the case of a deserted partner of a de facto relationship or the de facto spouse of a prisoner, if he/she was residing in Australia immediately before the de facto relationship ceased; or if a person has been continuously resident in Australia for not less than five years immediately preceding the date on which he/she lodged a claim for the benefit. To be eligible for the benefit a person must be supporting an eligible child under the age of 16 years, or an older, dependent, full-time student. The rate of supporting parent's benefit, including guardian's allowance and payments for children, is the same as for the Class 'A' widow's pension. It is also subject to the same income test as the Class 'A' widow's pension and is taxable.

It should be noted that a woman ineligible for supporting parent's benefit because six months have not expired from the date of the event otherwise giving rise to eligibility may be entitled in the meantime to assistance from the Government of the State in which she lives. The Commonwealth Government subsidises the States for this purpose under the *States Grants (Deserted Wives) Act*. If the woman is living in one of the Territories, the Commonwealth Government may make assistance available in the first six months after desertion.

SUPPORTING PARENTS BY AGE AND TYPE: 30 JUNE 1978

| Type of beneficiary | Under 20 | 20-29 | 30-39 | 40-49 | 50-59 | 60 and over | Total | Per cent |
|--------------------------|--------------|-------------|-------------|------------|------------|----------------|--------------|--------------|
| | ('000) | | | | | | | |
| Unmarried mother | 4.9 | 16.2 | 3.3 | 0.6 | 0.1 | - | 25.2 | 42.7 |
| Deserted wife | 0.2 | 6.8 | 5.9 | 2.2 | 0.5 | - | 15.5 | 26.2 |
| Other female | 0.6 | 7.5 | 5.6 | 2.2 | 0.6 | - | 16.4 | 27.7 |
| Male | - | 0.3 | 0.3 | 0.6 | 0.3 | - | 2.0 | 3.3 |
| Total | 5.7 | 30.8 | 15.6 | 5.6 | 1.5 | - | 59.0 | 100.0 |
| | (Per cent) | | | | | | | |
| | 9.6 | 52.0 | 26.3 | 9.6 | 2.5 | 0.1 | 100.0 | .. |

At 30 June 1978, 59,039 supporting parents were receiving additional benefit for 100,137 children.

SOCIAL SECURITY AND WELFARE
SUPPORTING PARENT'S BENEFIT: SUMMARY

169

| | 1975-76 | 1976-77 | 1977-78 |
|--|---------|---------|---------|
| Number admitted during year | 20,952 | 20,528 | 25,935 |
| Beneficiaries current at end of year— | | | |
| Females | 45,542 | 50,954 | 57,067 |
| Males | — | — | 1,972 |
| Total | 45,542 | 50,954 | 59,039 |
| Average weekly benefit at end of year (a) \$ | 58.44 | 65.09 | 69.37 |
| Amount paid in benefits during year (a) \$'000 | 127,230 | 158,483 | 192,825 |

(a) Includes supplementary assistance and allowances

Fringe benefits

The Commonwealth Government makes available to pensioners (and, in certain cases, recipients of supporting parent's benefits) several 'fringe benefits'. In most cases these are subject to a special income test. These benefits include:

- a one-third reduction in telephone rental—this is available to the blind without an income test;
- a 50 per cent reduction in fares for Commonwealth Government railway and shipping services;
- certain postal concessions;
- a 10 per cent discount on book purchases from Australian Government Publishing Service Bookshops (this is available free of income test);
- free hearing aids;
- the availability without charge of certain pharmaceutical prescriptions;
- free optometrical consultations; and
- additional nursing home benefits.

State Governments, local government authorities and private organizations also provide certain fringe benefits. The most valuable of these are reductions in local government rates and in public transport charges.

The income test operates on the basis of income as assessed as defined for pension purposes. A standard-rate pensioner whose income as assessed is less than \$1,716 qualifies for those fringe benefits subject to the income test. A married pensioner couple qualify if their combined income as assessed is less than \$2,990.

Funeral benefits

A benefit of up to \$40 is payable to an eligible age, invalid, wife 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. These benefits are subject to the 'fringe benefits' income test, applied in the first case to the person liable for the funeral costs and in both cases to the income of the deceased pensioner or beneficiary (where relevant) prior to his or her death.

FUNERAL BENEFITS GRANTED

| | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|-------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| \$20 grants in respect of— | | | | | | |
| Age or invalid pensioners | 26,119 | 25,279 | 27,333 | 24,190 | 25,436 | 23,905 |
| Others | 7 | 16 | 18 | 17 | 13 | 20 |
| Total | 26,126 | 25,295 | 27,351 | 24,207 | 25,449 | 23,925 |
| \$40 grants in respect of— | | | | | | |
| Age or invalid pensioners | 23,841 | 24,995 | 25,879 | 24,195 | 24,720 | 24,590 |
| Others | 2,836 | 2,277 | 2,233 | 1,898 | 1,447 | 1,294 |
| Total | 26,677 | 27,272 | 28,102 | 26,093 | 26,167 | 25,884 |
| Total grants | 52,803 | 52,567 | 55,453 | 50,300 | 51,616 | 49,809 |

Total cost of funeral benefits granted during 1977-78 was \$1,551,000.

Portability of social service payment

Age, invalid and widows' pensions and supporting parent's benefits continue in force for recipients who have left Australia unless they left before 8 May 1973 or their pension or benefit is subject to the provisions of either of the reciprocal agreements with New Zealand or the United Kingdom. In certain cases of hardship, the pension or benefit may continue for people who left before 8 May 1973.

Maternity allowances

Maternity allowance ceased to be payable on 1 November 1978, except for births occurring before that date.

Family allowances

An approved institution of which children are inmates or 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 sixteen or more but under twenty-five years, is qualified to receive a family allowance in respect of each such child or student. Full-time students 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 maintain the rate of payment which would be paid to a unified family, in cases where the family is divided because of divorce, separation, unemployment or death of a parent. There is also provision for family allowance to be shared between two persons. There is no income 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, family allowance 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, family allowance may be paid to Australians who are temporarily absent overseas.

From 1 January 1979 family allowance will no longer be paid for students receiving TEAS or other related Commonwealth education allowances.

Rates of allowance. Since June 1976 the weekly rates have been: \$3.50 for the first or only child; \$5.00 for the second; \$6.00 for the third; \$6.00 for the fourth; and \$7.00 for each subsequent child. The rate payable for each child or student in an approved institution is \$5.00 a week.

The following table shows, as at 30 June 1978, the number of families and the number of children under sixteen years and students aged 16 to under 25 years in respect of whom family allowance is paid, in family groups classified according to the number of children or students 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.

FAMILY ALLOWANCES: NUMBER OF CHILDREN AND STUDENTS IN FAMILIES
30 JUNE 1978

| <i>Number of children and students in family group</i> | <i>Families</i> | <i>Children and students</i> | <i>Number of children and students in family group</i> | <i>Families</i> | <i>Children and students</i> |
|--|-----------------|--------------------------------------|--|-----------------|--------------------------------------|
| 1 | 690,802 | 690,802 | 10 | 148 | 1,480 |
| 2 | 806,225 | 1,612,450 | 11 | 51 | 561 |
| 3 | 388,736 | 1,166,208 | 12 | 21 | 252 |
| 4 | 131,485 | 525,940 | 13 | 12 | 156 |
| 5 | 36,146 | 180,730 | 14 | 2 | 28 |
| 6 | 11,741 | 70,446 | 15 or more | 2 | 34 |
| 7 | 3,779 | 26,453 | | | |
| 8 | 1,413 | 11,304 | | | |
| 9 | 495 | 4,455 | Total | 2,071,058 | 4,291,299 |

FAMILY ALLOWANCES: SUMMARY

| | 1975-76 | 1976-77 | 1977-78 |
|--|-----------|-----------|-----------|
| Children and students at end of year in— | | | |
| Families | 4,274,072 | 4,287,758 | 4,291,299 |
| Approved institutions | 18,618 | 14,586 | 13,388 |
| <i>Total</i> | 4,292,690 | 4,302,344 | 4,304,687 |
| Families at end of year | (a) | 2,051,673 | 2,071,058 |
| Approved institutions at end of year | 527 | 504 | 493 |
| Amount paid during year \$'000 | 265,463 | 1,023,303 | 1,038,115 |

(a) Prior to the introduction of the revised family allowance system in June 1976, statistics of child and student endowments were recorded separately. Consequently the combined number of families is not available.

Double orphan's pension

This pension is payable to the guardian of a child whose parents or adoptive parents are both dead, or one of whom is dead and the other missing. It is also payable in cases where one parent is dead and the other is a long-term inmate of a prison or mental hospital. Payment is made for orphans who are under 16 years or who are full-time students under 25. There is no income test. The pension is payable at the rate of \$11 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. The number of double orphan's pensions at 30 June 1978 was 3,974. The expenditure on these pensions during the year 1977-78 was \$1,943,000.

Handicapped child's allowance

Parents or guardians of a child under 16 years or a dependent full time student who is severely handicapped mentally and/or physically, is living in the family home, and needs constant care and attention, are entitled to a handicapped child's allowance of \$15 a week. The allowance is not subject to an income test, but a residence qualification similar to that for family allowance applies. The allowance is also available to persons on low income who are caring for a substantially handicapped child and are suffering severe financial hardship as a result of expenditure associated with the child's disability. The number of handicapped child's allowances being paid at 30 June 1978 was 21,219. The total amount paid through these allowances during the year 1977-78 was \$16,349,000.

Unemployment and sickness benefits and associated payments

Unemployment and sickness benefits are paid to men over sixteen and under sixty-five years of age, and to women over sixteen and under sixty years of age, who are unemployed or temporarily incapacitated for work and are thereby suffering loss of income. They must have been living in Australia during the preceding twelve months or be likely to remain permanently in Australia. Both benefits are subject to an income test. A person cannot receive both benefits simultaneously, nor can a person receive either benefit at the same time as an invalid, widow's or repatriation service pension.

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 a 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.

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 November 1978, are as follows:

| | <i>Maximum Weekly Rate</i> | | |
|--|-----------------------------|-------------------------|----------------------------------|
| | <i>Unemployment benefit</i> | <i>Sickness benefit</i> | <i>Permissible weekly income</i> |
| | \$ | \$ | \$ |
| Married person (including additional benefit for spouse) | 88.70 | 88.70 | 6 |
| Single person aged 21 or more with dependants | 53.20 | 53.20 | 6 |
| Single person aged 21 or more, no dependants | 51.45 | 53.20 | 6 |
| Single person aged 18 to 20 with dependants | 53.20 | 53.20 | 3 |
| Single person aged 18 to 20, no dependants | 51.45 | 53.20 | 3 |
| Single person under 18 years | 36.00 | 36.00 | 3 |

These amounts are increased by \$7.50 for each child under 16 years or full-time student in the care of the beneficiary.

After the benefit has been paid for six consecutive weeks a sickness beneficiary who is paying rent or is paying for lodgings may be entitled to supplementary allowance of up to \$5.00 a week. The amount of any such allowance cannot exceed the amount of rent paid.

The weekly rate of benefit is reduced by the amount by which a beneficiary's other income exceeds the amount of permissible income. 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 family allowance or other

payments for children, health benefits and payments from Medibank or registered benefit organisations, 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 in the case of a single person and by half of the excess of the beneficiary's income over \$2.00 a week in the case of a married person.

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 it is paid in respect of the same period. If it is not paid in respect of the same incapacity, compensation in respect of the same period 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 usually payable, but this waiting period is not required to be served 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 any other reason, is unable to earn a sufficient livelihood for himself and his dependants. Recipients of special benefits include, among others, unmarried women for a period before and after the birth of a child, persons caring for invalid parents or sick relatives/children, persons ineligible for a pension because of lack of residence qualifications and persons remanded in custody pending court proceedings.

Special benefits are also paid to immigrants who are in Commonwealth 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 income 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: SUMMARY

| Year | Number admitted to benefit during year | | Average number of persons on benefit at end of each week | | | Amount paid in benefits | | | |
|---------|--|----------|--|--------------|----------|-------------------------|--------------|----------|-------------|
| | Unemployment | Sickness | Special (a) | Unemployment | Sickness | Special (a) | Unemployment | Sickness | Special (a) |
| 1972-73 | 280,573 | 101,249 | 16,267 | 39,580 | 16,163 | 4,090 | (\$'000) | (\$'000) | (\$'000) |
| 1973-74 | 229,231 | 118,190 | 16,698 | 34,148 | 20,655 | 4,480 | 46,553 | 26,610 | 4,368 |
| 1974-75 | 701,302 | 131,377 | 19,633 | 116,603 | 24,346 | 5,331 | 58,246 | 41,407 | 6,983 |
| 1975-76 | 891,904 | 153,869 | 36,805 | 191,723 | 28,081 | 6,821 | 251,740 | 62,833 | 10,992 |
| 1976-77 | 803,461 | 148,508 | 41,502 | 215,871 | 32,385 | 8,181 | 513,923 | 92,215 | 17,198 |
| 1977-78 | 879,637 | 145,910 | 45,014 | 265,828 | 34,724 | 10,272 | 618,074 | 105,408 | 21,913 |
| | | | | | | | 794,144 | 117,929 | 30,318 |

(a) Includes immigrants in Government centres or hostels awaiting their first placement in employment in Australia.

Appeals Tribunals

Appeals Tribunals operate in all States, the Australian Capital Territory and the Northern Territory. The purpose of the Tribunals is to provide an independent avenue of redress for people who feel aggrieved by decisions of the Department of Social Security, which administers payments made under the *Social Services Act*. Each Tribunal consists of two independent members, usually a lawyer and a welfare worker, and a seconded officer from the Department of Social Security. The Tribunals operate as informally as possible. Appeals may be lodged by personal attendance, telephone, letter or on a special form.

The Tribunals do not have the power themselves to overturn decisions by the Department of Social Security, but they make recommendations to the Department.

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, widow's pensions, family allowance 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.

Commonwealth Rehabilitation Service (CRS)

The Commonwealth Rehabilitation Service assists people who are unable to work because of long-term disability or who have had to give up their employment because of sickness or injury. It aims to help disabled people to reach their maximum physical, mental and social usefulness and to assist them to live as independently as possible. Towards this aim, it provides co-ordinated programs of treatment and training to meet the special needs of each disabled person. Responsibility for the delivery of these services rests with the twelve residential and day-attendance centres and the thirteen regional rehabilitation units which are currently operated by the service.

The CRS assists all persons within the broad working age group who, in spite of substantial handicaps can be assisted to live at home. Those who are capable of doing some form of work are given, where practicable, part-time housebound or sheltered employment.

Rehabilitation may also be made available to people aged 14 or 15 years who, without treatment or training, would be likely to qualify for invalid pension at age 16; to national servicemen and members of the permanent forces who are disabled at time of discharge but are ineligible for rehabilitation assistance from the Department of Veterans' Affairs; and to people who become disabled while working for the Commonwealth Government and are covered by the *Compensation (Commonwealth Employees) Act, 1971*. People from these groups may be selected for rehabilitation if their disabilities are a substantial handicap but they would benefit from its services.

For those eligible, payment of pension or benefit continues during treatment. When vocational training begins, pension or benefit is suspended and replaced by training allowance. This allowance is determined by the Director-General, Department of Social Security, having regard to the adult male average award wage. Living-away-from-home allowance is paid where necessary. Fares and living expenses (including those of an attendant where required) 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.

Treatment, training and assessment programs are undertaken at rehabilitation centres where occupational therapists, vocational counsellors and qualified trade and commerce teachers determine the skills which make best use of ability and which are best adapted to the person's needs. In addition to the services provided at each centre, technical schools, business colleges, universities, training on-the-job in commerce or industry and correspondence courses are all used for training purposes. Essential text books and equipment may be provided during treatment or training; alternatively, these may be supplied after treatment or training is discontinued to enable a rehabilitee to engage in employment.

Throughout the process of rehabilitation, counsellors maintain contact with the disabled person and provide guidance and encouragement where necessary. The Commonwealth Rehabilitation Service currently employs 88 such counsellors who play a significant role in the co-ordination of the non-medical aspects of rehabilitation.

Between its inception in 1948 and 30 June 1978, the Rehabilitation Service has assisted some 53,381 severely handicapped people.

Compassionate allowances

These allowances are paid by the Commonwealth Government on a discretionary basis to certain people who are unable to qualify for pensions or other benefits under provisions of the *Social Services Act*. Expenditure on compassionate allowances and payments of a similar nature, excluding war relief measures, during 1977-78 was \$13,500.

Commonwealth Government assistance to welfare organisations

The *Aged or Disabled Persons Homes Act* 1954-1974 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 Commonwealth or any State Government is not eligible for assistance under the Act.

The Director-General of the Department of Social Security or his delegate 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 but is limited to \$11,130 for a single unit of accommodation and \$12,910 for a double unit plus up to \$1,920 per unit for land. Money which the organisation received from a governmental body other than a local governing body does not attract subsidy.

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 for each of the past six 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 OR DISABLED PERSONS HOMES: GRANTS AND AMOUNTS APPROVED AND BEDS PROVIDED

| | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|----------------------------------|---------|---------|---------|---------|---------|---------|
| Grants approved | 228 | 171 | 228 | 33 | 71 | 126 |
| Amount approved \$'000 | 19,741 | 18,999 | 37,299 | 10,531 | 21,381 | 23,719 |
| Beds provided— | | | | | | |
| Self-contained | 2,008 | 1,899 | 2,243 | 385 | 233 | 505 |
| Hostel | 827 | 669 | 675 | 181 | 769 | 428 |
| Nursing | 1,154 | 849 | 992 | 52 | 1,015 | 1,225 |
| Total | 3,989 | 3,417 | 3,910 | 618 | 2,017 | 2,158 |

Since the commencement of the Act in December 1954, 3,368 grants amounting to \$280,413,753 have been approved, and accommodation has been provided for 60,927 aged and disabled persons.

The *Aged or Disabled Persons Homes Act* also provides a *personal care subsidy* of \$15 a week paid to eligible organisations for persons of eighty years of age or over and other persons requiring and receiving approved personal care while living in hostel type accommodation provided by organisations eligible under the *Aged or Disabled 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 OR DISABLED PERSONS HOMES ACT: PERSONAL CARE SUBSIDIES, 30 JUNE 1978

| | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | A.C.T. | Aust. |
|---|--------|-------|-------|-------|-------|-------|-------|--------|--------|
| Approved premises No. | 180 | 161 | 109 | 73 | 63 | 19 | 2 | 2 | 609 |
| Residents qualifying No. | 4,306 | 4,207 | 3,063 | 2,159 | 1,906 | 490 | 8 | 27 | 16,166 |
| Percentage of qualifying residents to total residents | 49.00 | 60.20 | 54.11 | 67.80 | 76.09 | 85.81 | 40.00 | 50.94 | 60.94 |
| Subsidies paid, 1977-78 \$'000 | 3,480 | 3,449 | 2,086 | 1,684 | 1,420 | 375 | 6 | 21 | 12,521 |

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 Commonwealth Government meets the full cost of providing new hostel accommodations 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 is not required to make any contribution from its own resources unless the capital cost exceeds \$16,700 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 plus an additional \$2,400 per person for land and/or site development where applicable.

The scheme was 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 offered.

This Act had 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 had received a \$2 for \$1 subsidy, i.e. where two-thirds of their accommodation was 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, 264 grants have been approved, totalling \$126,430,487 as at 30 June 1978.

Although the Act was terminated for the purposes of approving new projects, amending legislation has preserved the rights of organisations whose projects have been accepted under the Act, but which for one reason or another did not proceed.

AGED PERSONS HOSTELS ACT: SUMMARY OF GRANTS

| | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|------------------------------------|---------|---------|----------|---------|---------|---------|
| Number of grants during year . . . | 12 | 55 | 148 | 12 | 51 | 53 |
| Beds provided— | | | | | | |
| Hostel beds | 349 | 2,111 | 5,385 | 393 | 1,574 | 1,704 |
| Staff beds | 7 | 64 | 174 | 17 | 56 | 56 |
| Total | 356 | 2,175 | 5,559 | 410 | 1,630 | 1,760 |
| | | | (\$'000) | | | |
| Amount paid during year— | | | | | | |
| Capital grants | 2,766 | 16,500 | 57,385 | 11,527 | 26,562 | 28,658 |
| Furnishings grants | 62 | 535 | 1,357 | 104 | 396 | 442 |
| Total | 2,827 | 17,035 | 58,742 | 11,631 | 26,957 | 29,100 |

The *Handicapped Persons Assistance Act* 1974-76 replaced both the *Sheltered Employment (Assistance) Act* 1967 and the *Handicapped Children (Assistance) Act* 1970. Under this legislation, eligible organisations may apply for subsidies towards the cost of providing capital projects, maintenance and equipment. Grants are also available in respect of rental and certain salary payments.

Grants on purchases of buildings, equipment etc. take the form of a \$4 subsidy for each \$1 raised by an eligible organisation from non-government sources. Rent is subsidised at a rate equal to 80 per cent of the approved rental paid subject to certain conditions. Salary costs may be subsidised to an amount equal to 100 per cent of salary paid to staff employed in new ventures, but this is reduced to 50 per cent after the premises have been providing the service for 2 years or more.

As well as assisting organisations with establishment and running costs, the legislation also provides financial encouragement to sheltered workshop administrators to provide the type of training for the handicapped which will prepare them, where possible, for open employment. A *training fee* of \$500 is paid to organisations providing approved sheltered employment for each handicapped employee who, having received at least 6 months training in the workshop, graduates to open employment and remains there for at least 12 months.

Introduction of the *Handicapped Persons Assistance Act* in December 1974 also saw the legal transfer of the administration of Handicapped Children's Benefit from the Commonwealth Department of Health to the Department of Social Security. Where an organisation provides approved residential accommodation for mentally or physically handicapped children under 16 years, it becomes entitled to receive a Commonwealth benefit of \$5.00 per day in respect of each resident child.

HANDICAPPED PERSONS ASSISTANCE ACT: SUMMARY OF EXPENDITURE

| | 1975-76 | 1976-77 | 1977-78 |
|--|---------|----------|---------|
| Approved premises(a) | 643 | 952 | 949 |
| Number of capital grants during year (b) | 2,451 | 2,021 | 2,290 |
| Total expenditure during year (c)— | | (\$'000) | |
| New South Wales (d) | 8,697 | 8,405 | 12,554 |
| Victoria | 8,085 | 7,589 | 8,845 |
| Queensland | 3,151 | 3,943 | 5,243 |
| South Australia (e) | 5,449 | 5,570 | 6,314 |
| Western Australia | 3,140 | 3,472 | 3,623 |
| Tasmania | 1,470 | 1,006 | 1,291 |
| Total | 29,992 | 29,985 | 37,870 |

(a) Total approved sheltered workshops, activity therapy centres, training centres and residentials as at 30 June. (b) Residential and non-residential buildings, equipment and maintenance. (c) Includes capital and recurrent expenditure. (d) Includes Australian Capital Territory. (e) Includes Northern Territory.

HANDICAPPED CHILDREN'S BENEFIT

| | 1975-76 | 1976-77 | 1977-78 |
|---------------------------------------|-------------|-------------|-------------|
| Approved handicapped persons homes(a) | 86 | 92 | 95 |
| Handicapped children accommodated(a) | 1,392 | 1,497 | 1,349 |
| Days of benefit paid during year | 335,863 | 380,249 | 337,212 |
| Total amount paid during year | \$1,191,075 | \$1,589,264 | \$1,686,912 |

(a) As at 30 June.

The *Homeless Persons Assistance Act* was introduced in December 1974 to help non-profit organisations and local governing bodies which provide accommodation, food and social welfare services for homeless men and women.

The Act enables grants to be made to eligible organisations to meet the cost of purchasing, constructing, altering or renting buildings to be used as homeless persons' assistance centres, as well as to meet the cost of purchasing furniture, furnishings and equipment for such centres. Grants also meet half the salary of a social welfare worker employed at a centre. The amount of grants made for these purposes during 1977-78 was \$1,732,548.

A subsidy is also available to help meet the cost of providing food and accommodation for homeless persons at an approved centre, or of meals provided at such centres for non-resident homeless persons. The rate of the food and accommodation subsidy has been prescribed at 75 cents per day and the rate of meals subsidy as 25 cents per meal. During 1977-78 the amount of this subsidy totalled \$955,000.

The *Delivered Meals Subsidy Act* 1970 helps organisations to establish, maintain, expand and improve 'meals on wheels' services. The subsidy is at the rate of 30 cents for every meal provided on approved vitamin C supplement and 25 cents for each other meal provided by approved organisations. At 30 June 1978, 609 organisations had received a total subsidy of \$10,242,362 under the Act. During 1977-78 the amount of this subsidy totalled \$2,198,000. Organisations eligible for grants under the Act are the same as those specified under the *Aged or Disabled Persons Homes Act*.

Commonwealth Government assistance to States

The *States Grants (Deserted Wives) Act* 1968 provides for assistance to be given by the Commonwealth 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 Commonwealth 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 parent'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 1977-78 payments by the Commonwealth Government amounted to \$20,083,003.

The *States Grants (Home Care) Act 1969* provides that the Commonwealth 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 Commonwealth Government will also share on a \$2 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.

**PAYMENTS TO STATES FOR HOME CARE, SENIOR CITIZENS' CENTRES,
AND WELFARE OFFICERS, 1977-78**
(\$)

| <i>State</i> | <i>Home Care Services</i> | <i>Senior Citizens' Centres</i> | <i>Welfare Officers</i> | <i>Total</i> |
|-----------------------------|-------------------------------|---|-----------------------------|-------------------|
| New South Wales | 1,933,333 | 1,064,213 | 225,756 | 3,223,302 |
| Victoria | 2,519,887 | 1,615,815 | 328,308 | 4,464,010 |
| Queensland | 2,744,155 | 439,103 | 44,820 | 3,228,078 |
| South Australia | 1,416,965 | 342,331 | 66,450 | 1,819,746 |
| Western Australia | 56,000 | 348,473 | 55,990 | 460,463 |
| Tasmania | 473,508 | 136,261 | - | 609,769 |
| Total | 9,137,848 | 3,946,196 | 721,324 | 13,805,368 |

Children's Services

The Children's Services Program is administered by the Office of Child Care, within the Department of Social Security. It provides grants to State governments and community organisations for a range of services for children and their families.

There have been two main thrusts to the Program: (i) Capital and recurrent contributions to sessional pre-schools, and (ii) Capital and recurrent grants for a range of other services for children and their families, including day care, out of school hours care and family support programs.

Since expenditure under the Program commenced in 1973 over 70 per cent has been allocated to support pre-schools. There has, however, been a change in emphasis in the program since mid 1976 towards the provision of day care and other services. Since 1 January 1977 assistance towards the recurrent costs of pre-schools has been in the form of block grants to State governments and the capital side of the pre-school program was completed in 1977-78.

EXPENDITURE ON CHILDREN'S SERVICES PROGRAM
(\$'000)

| <i>Year</i> | <i>To or for States</i> | | <i>Direct to organisations</i> | | <i>Total</i> |
|------------------------|-------------------------|-----------------------------|--------------------------------|-----------------------------|----------------|
| | <i>Pre-school</i> | <i>Other child care</i> | <i>Pre-school</i> | <i>Other child care</i> | |
| 1973-74 | 6,204 | 308 | 275 | 2,187 | 8,974 |
| 1974-75 | 36,127 | 1,373 | 950 | 6,780 | 45,230 |
| 1975-76 | 46,535 | 2,235 | 494 | 14,706 | 63,970 |
| 1976-77 | 48,931 | 3,205 | - | 14,951 | 67,087 |
| 1977-78 | 45,994 | 7,006 | - | 18,132 | 71,132 |
| Total | 183,791 | 14,127 | 1,719 | 56,756 | 256,393 |

Other services of the Department of Social Security

The Department of Social Security provides a professional social work service and recently appointed Aboriginal Liaison Officers. It administers grants to major national welfare organisations or distinct bodies such as: Australian Council of Social Service, Australian Council on the Ageing, Australian Council for Rehabilitation of Disabled, Australian Council of Trade Unions for a research unit, Australian Pre-school Association and locally-based community welfare agencies in serious financial difficulty (emergency funding only).

To assist in its role of advising the Government on welfare policy, the Department of Social Security initiates, develops and evaluates experimental projects in social welfare and undertakes research studies. The experimental projects currently being administered and evaluated by the Department are the Community Information Centres and Welfare Rights Program.

A pilot project of twelve Community Information Centres aims to determine ways of establishing an effective system of information and referral for all members of the community.

The Welfare Rights Pilot Program consists of grants to 10 self-help organisations to enable them to employ a Welfare Rights Officer who aims to improve the access of disadvantaged persons to welfare services and entitlements.

The Department supports the work of the Family Research Unit at the University of New South Wales and will support the Social Welfare Research Centre which is being established at the same University.

State Welfare Departments, the Australian Bureau of Statistics and the Department of Social Security are co-operating on a project to develop standardized social welfare statistics.

The role of voluntary agencies

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 Commonwealth 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 in carrying out its traditional role, but also 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 services 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, 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 a 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 also 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 those suffering serious emotional disturbance 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 who are temporarily destitute.

This list of activities by no means covers all the work done by the voluntary sector. Lifeline and Samaritans, drug contact centres, drop-in coffee houses, street workers for alienated youth and many other services are evidence of the continuing 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.

Studies of social needs and of the quality and the adequacy of present services are a continuing concern of the voluntary sector which, through the work of Councils of Social Service at the State, Territory and national levels, promotes the well-being of the deprived and disadvantaged sections of the community and the general social development of Australia.

Establishment of the Social Welfare Policy Secretariat

The establishment of the Social Welfare Policy Secretariat was announced by the Prime Minister on 19 December 1977 following a recommendation of the Task Force on Co-ordination in Welfare and Health. The Secretariat commenced operations in March 1978. It has a small staff comprising mainly expert officials seconded from Departments. The Secretariat works through a Permanent Heads Committee (comprising the Heads of the Departments of The Prime Minister and Cabinet; Finance; Health; and Social Security) to the Social Welfare Policy Committee of Cabinet.

The Secretariat's functions are to:

- Be responsible to the Permanent Heads Committee on Social Welfare for the provision of advice on, and the integrated development of, plans and policies and programs in the broad field of Health and Welfare.
- Provide or ensure the provision of support to the Social Welfare Policy Committee of Cabinet on matters in the broad field of Health and Welfare.
- Assist the Permanent Heads Committee on Social Welfare to carry out its functions, including those of any sub-committee it might establish.
- Ensure the co-ordinated development and review of Health and Welfare policy and that appropriate research activities are directed to these ends.

In developing its policy proposals the Secretariat consults with relevant Commonwealth Departments through a system of ongoing working parties. Wherever relevant the views of interested organisations and individuals are also sought.

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 Commonwealth Government's aim is to help Aborigines become self-managing and self-sufficient while, at the same time, to preserve and to develop their own distinctive culture. It now shares with the States power to legislate in respect of Aboriginal people. The Commonwealth Government has assumed full responsibility for policy, planning and co-ordination in respect of Aboriginal affairs at the national level, and has established a Department of Aboriginal Affairs with regional offices in all States and the Northern Territory. In November 1973, an election was held by Aborigines throughout Australia to establish the first National Aboriginal Consultative Committee, a group of forty-one Aborigines and Torres Strait Islanders elected to advise the Government on Aboriginal

needs. At the request of the Committee, the second election, which was scheduled for November 1975, was deferred for nine months. Subsequently, the Government established an independent inquiry into the role of the Committee. As a result of the findings of this Committee of Inquiry, a National Aboriginal Conference (NAC) has been established composed of thirty-five members who are elected for a period of three years. Members meet annually at the national level and at least 4 times each year in their State or Territory as State or Territory Branches of the NAC.

The executive which meets twice a year is comprised of 10 delegates; half are elected by the members and half are nominated by the Minister. The role of the NAC is to provide a forum in which Aboriginal views can be expressed at State and national level and, in particular, to express Aboriginal views on the long term goals and objectives which the Government should pursue, the programs it should adopt in Aboriginal affairs, and on the need for new programs in Aboriginal affairs. The NAC also participates, through its entitlement to choose five of the ten members, in the work of a new body, the Council for Aboriginal Development. This Council is the body from which the Government seeks formal advice.

Migrant welfare

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. Assisted migrants and refugees nominated by the Commonwealth Government are provided with transitory accommodation in migrant hostels operated by Commonwealth Accommodation and Catering Services Ltd, a non-profit-making Government-sponsored company. These hostels provide a range of services to help migrants to settle in Australia, including child minding centres, English language classes, youth recreation activities, welfare officers and assistance in obtaining permanent accommodation.

The total capacity of hostels is about 9,600. Additionally 396 two and three bedroom self-contained flats can accommodate migrants nominated by the Commonwealth Government.

British assisted migrants nominated by State Governments are, in most cases, provided with initial accommodation in reception centres operated by the State authorities.

Ethnic affairs and migrant settlement

The Department of Immigration and Ethnic Affairs provides services to facilitate the successful settlement and welfare of migrants, and these services are currently being modified and extended in accordance with the *Report of the Review of Post-Arrival Programs and Services for Migrants* (1978) (the 'Galbally' Report).

In addition, the Department is responsible, through its Ethnic Affairs Branch, which was established in 1976 in accordance with a Cabinet decision, for advancing policies designed to secure the integration of migrants. In particular, through Ethnic Liaison Officers in senior positions in each Commonwealth Government Department and Authority, it seeks to ensure that the needs of migrants and their integration into Australian society are fully taken into account in the day-to-day operations of the Government.

Departmental social workers and welfare officers provide information and advice, and, in more complex cases, professional counselling for migrants in their own language. They operate from the Regional Offices of the Department in the State Capital cities and some are outposted to voluntary welfare organisations, and other centres in areas of high migrant density. They are also involved in community development work and provide consultancy services to other agencies assisting migrant settlement.

Departmental activities are complemented by those of social workers and welfare officers employed by voluntary agencies funded by Commonwealth grants administered by the Settlement Branch. In many respects, these voluntary agencies are best placed to assist migrants.

The recommendations of the Galbally Report envisaged a greater emphasis being placed on the role of non-government agencies. The Commonwealth is therefore increasing the number of grants to agencies and will reduce its own direct services as the latter become effective. Its own professional staff, released from this responsibility, will give greater attention to consultancy and community development in support of the agencies.

Since 1959 the Department has been providing a translation and interpreting service for migrants and for Commonwealth Departments. At the present time translation units are operating in Canberra, Sydney and Melbourne. However in accordance with a recommendation of the Galbally Report, action is being taken to extend this service to other mainland State capitals.

In 1973 a Telephone Interpreter Service (TIS) was introduced to help overcome communication problems by providing over the telephone, in a wide range of languages, a general interpreting, information and advisory service for migrants and others having dealings with migrants. Where necessary and especially in emergency situations, arrangements may be made for the personal attendance of an interpreter. TIS currently operates in all mainland State capitals and Wollongong and is to be extended to Canberra and Hobart early in 1979. During the year ended 30 June 1978, a total of 117,000 calls was received by TIS. The aggregate number of calls received since the inception of the Service in 1973 is 413,000.

A National Accreditation Authority for Translators and Interpreters was established in 1977 to develop uniform standards of competence for interpreters and translators as a means to upgrade the standing of the profession and the delivery of language services in Australia. This body will accredit interpreters and translators at the five levels of competence it has determined.

Also in keeping with the recommendations of the Galbally Report, Settlement Centres are being established in migrant hostels, and progressively, over a three-year period, in the community where there are high concentrations of migrants. These centres will provide on-arrival English instruction and orientation courses and activities concerning various aspects of life in Australia such as employment, housing, education and health and welfare services. They will also provide counselling concerning immediate settlement needs. The new programs will incorporate previously existing programs, including those developed for refugees. These initial, on-arrival programs will be co-ordinated by new consultative mechanisms, including Migrant Settlement Councils, being established in the States and Territories as recommended in the Galbally Report.

The Report also envisages the setting up of 18 migrant resource centres over a period of three years. These resource centres will provide support for all agencies (both government and voluntary) which assist migrants, and also provide a focus for community participation and development of local resources to meet migrant needs.

The Department also prepares information on the ethnic background of migrants, which is used by various organisations and individuals, as a community education service to develop better understanding and appreciation of ethnic communities.

VETERANS' AFFAIRS

The Repatriation Commission, established under the *Repatriation Act* 1920, 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 provision of benefits under the legislation. The Chairman of the Commission is also the Secretary of the Department of Veterans' Affairs (formerly the Department of Repatriation), 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 disability and dependants' pensions (previously called war pensions) and service pensions and allowances to eligible veterans and their dependants; the provision of medical treatment for veterans for injuries and illnesses caused or aggravated by their service; the provision of medical treatment in certain circumstances for veterans who are suffering from injuries and illnesses not caused or aggravated by service; the provision of medical treatment for widows and dependants of deceased veterans whose deaths are service-related; and a wide range of other benefits for eligible persons. Since 5 October 1976, the *Defence Service Homes Act* 1918 has been administered by the Defence Service Homes Corporation (previously the Australian Housing Corporation) within the departmental framework. At the same time, the Department was given responsibility for the Office of Australian War Graves.

Repatriation 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, in the Korea and Malaya operations, in prescribed areas with the British Commonwealth Far East Strategic Reserve and the Special Overseas Forces and, in certain circumstances, in the Regular Defence Forces.

For information on war service land settlement see Year Book No. 61 (Chapter 22, Rural Industry) and for statistics relating to defence service homes see Chapter 19, Housing and Construction, of this Year Book.

For detailed information about repatriation pensions, allowances, benefits and services reference should be made to the annual reports of the Repatriation Commission.

SOCIAL SECURITY AND WELFARE
REPATRIATION: TOTAL EXPENDITURE(a)
('000)

| Class | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|---|----------------|----------------|----------------|----------------|----------------|------------------|
| Pensions, allowances and other benefits | 303,183 | 362,196 | 477,608 | 568,068 | 662,876 | 799,264 |
| Medical treatment | 97,297 | 120,446 | 162,340 | 201,488 | 223,058 | 251,589 |
| Administration | 20,791 | 24,807 | 32,143 | 37,130 | 39,556 | 41,999 |
| Works, rent and maintenance | 6,870 | 8,903 | 14,792 | 19,332 | 14,020 | 17,477 |
| Total expenditure | 428,141 | 516,352 | 686,883 | 826,018 | 939,510 | 1,110,329 |

(a) Includes expenditure by Departments other than Veterans' Affairs as follows: 1972-73, \$6,645,558; 1973-74, \$8,369,015; 1974-75, \$14,088,376; 1975-76, \$18,846,000; 1976-77, \$13,710,296; 1977-78, \$15,718,166.

Disability and dependants' pensions

The first provision for the payment of disability pensions to veterans and pensions to 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 disability and dependants' pensions, the conditions for payment of the various rates and allowances, and of the operation of the Appeals Tribunals, see Year Book No. 55, pages 91-93.

Main pension rates vary each year; current rates are available from Department of Veterans' Affairs Branch Offices.

Summary of disability and dependant's pensions

The following tables provide a summary of disability and dependants' pensions for the 1914-18 War, the 1939-45 War (including pensions payable under the *Interim Forces Benefits Act* 1947), the Korea and Malaya operations and the Far East Strategic Reserve, and Special Overseas Service and the Regular Forces. Statistics relating to miscellaneous disability and dependants' pensions are included collectively in each table, with further details being provided later in this section.

DISABILITY AND DEPENDANTS' PENSIONS: SUMMARY 1977-78

| | | 1914-18 War | 1939-45 War(a) | Korea, Malaya and F.E.S.R. | Special Overseas Service | Peace time forces | Miscel- laneous | Total |
|---|--------|----------------|-------------------|-------------------------------------|--------------------------------|-------------------------|--------------------|------------|
| New claims granted | No. | 75 | 5,586 | 370 | 1,002 | 989 | 17 | 8,089 |
| Restorations | No. | 6 | 2,648 | 177 | 98 | 31 | 2 | 2,962 |
| Claims disallowed(b) | No. | 484 | 8,150 | 233 | 443 | 902 | - | 10,212 |
| Pensions cancelled (gross) | No. | 68 | 12,986 | 980 | 442 | 182 | 4 | 14,662 |
| Deaths of pensioners | No. | 3,923 | 7,345 | 66 | 30 | 6 | 20 | 11,390 |
| Pensions in force at 30 June 1978(c) | No. | 45,338 | 384,198 | 11,227 | 19,066 | 2,363 | 494 | 462,686 |
| Annual pension liability at 30 June 1978 | \$'000 | 80,254 | 317,940 | 4,737 | 4,120 | 576 | 611 | (d)408,238 |
| Amount paid in pensions during the year 1977-78 | \$'000 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | 419,034 |

(a) Includes Interim Forces. (b) Number of veterans who had their claims for all their disabilities disallowed. (c) At 30 June 1978 includes 11,391 student children over 16 years of age. (d) This figure excludes an annual liability of \$3,027,000 payable to veterans and dependants overseas.

DISABILITY AND DEPENDANTS' PENSIONS(a): SUMMARY

| | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|--------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| New claims granted | 17,859 | 12,688 | 11,302 | 10,417 | 9,856 | 8,039 |
| Restorations | 2,259 | 2,356 | 2,984 | 3,532 | 2,607 | 2,962 |
| Total additions | 20,118 | 15,044 | 14,286 | 13,949 | 12,463 | 11,001 |
| Pensions cancelled (gross) | 15,629 | 18,164 | 19,131 | 17,111 | 14,449 | 14,662 |
| Deaths of pensioners | 11,692 | 11,665 | 12,600 | 12,323 | 11,637 | 11,390 |
| Total reductions | 27,321 | 29,829 | 31,731 | 29,434 | 26,086 | 26,052 |

(a) Including miscellaneous pensions.

Classes of disability and dependants' pensions

The following tables provide an analysis of the total number of new claims granted, pensions in force, and class of pension for 1977-78.

DISABILITY AND DEPENDANTS' PENSIONS: NEW CLAIMS GRANTED, 1977-78

| <i>Class</i> | <i>1914-18 War</i> | <i>1939-45 War(a)</i> | <i>Korea, Malaya and F.E.S.R.</i> | <i>Special Overseas Service</i> | <i>Peace time forces</i> | <i>Miscel- laneous</i> | <i>Total</i> |
|--|------------------------|---------------------------|---|---|----------------------------------|----------------------------|--------------|
| Veterans | 24 | 1,583 | 76 | 160 | 388 | 7 | 2,238 |
| Wives and widows of veterans | 46 | 2,160 | 108 | 226 | 250 | 8 | 2,798 |
| Children | 2 | 1,781 | 186 | 613 | 351 | 2 | 2,935 |
| Other dependants | 3 | 62 | - | 3 | - | - | 68 |
| Total | 175 | 5,586 | 370 | 1,002 | 989 | 17 | 8,039 |

(a) Includes Interim Forces.

DISABILITY AND DEPENDANTS' PENSIONS IN FORCE: 30 JUNE 1978

| <i>Class</i> | <i>1914-18 War</i> | <i>1939-45 War(a)</i> | <i>Korea, Malaya and F.E.S.R.</i> | <i>Special Overseas Service</i> | <i>Peace time forces</i> | <i>Miscel- laneous</i> | <i>Total (b)</i> |
|---|------------------------|---------------------------|---|---|------------------------------|----------------------------|----------------------|
| Veterans | 9,928 | 166,284 | 3,953 | 6,147 | 937 | 178 | 187,427 |
| Wives | 17,238 | 152,064 | 3,195 | 4,675 | 572 | 163 | 177,907 |
| Children | 29 | 30,159 | 3,673 | 7,818 | 796 | 24 | 42,499 |
| War widows | 17,777 | 31,219 | 234 | 139 | 38 | 120 | 49,527 |
| Children of deceased veterans | 16 | 1,163 | 80 | 203 | 14 | - | 1,476 |
| Orphans | 2 | 52 | 2 | 2 | 6 | 1 | 65 |
| Parents | 3 | 482 | 16 | 20 | - | 3 | 524 |
| Others | 345 | 2,775 | 74 | 62 | - | 5 | 3,261 |
| Total | 45,338 | 384,198 | 11,227 | 19,066 | 2,363 | 494 | 462,686 |

(a) Includes Interim Forces. (b) Includes 11,391 student children over 16 years of age.

**DISABILITY PENSIONS FOR INCAPACITATED VETERANS IN FORCE: BY CLASS OF PENSION
30 JUNE 1978**

| <i>Class</i> | <i>1914-18 War</i> | <i>1939-45 War</i> | <i>Korea, Malaya and F.E.S.R.</i> | <i>Special Overseas Service</i> | <i>Peace time forces</i> | <i>Miscel- laneous</i> | <i>Total</i> |
|--|------------------------|------------------------|---|---|------------------------------|----------------------------|----------------|
| Special Rate (T. & P. I.) or equivalent | 2,641 | 13,285 | 156 | 58 | 9 | 20 | 16,169 |
| Intermediate Rate | 105 | 1,803 | 28 | 10 | - | - | 1,946 |
| General Rate—from 10 per cent to 100 per cent assessed disability(a) | 7,182 | 151,196 | 3,796 | 6,079 | 928 | 158 | 169,312 |
| Total | 9,928 | 166,284 | 3,953 | 6,147 | 937 | 178 | 187,427 |

(a) Excludes 53 veterans who also receive benefits under items 1-6 of Schedule 5 and are included above under Special Rate or equivalent.

Number of disability and dependants' pensions and annual liability, States, etc.

The following table shows the number of pensions in force and annual liability at 30 June 1978, according to place of payment.

**DISABILITY AND DEPENDANTS' PENSIONS: NUMBER OF PENSIONS AND ANNUAL LIABILITY,
30 JUNE 1978**

| <i>Place of payment</i> | <i>Number of disability and dependants' pensions in force at 30 June 1978 (a)</i> | | | | <i>Annual pension liability at 30 June (b) (\$'000)</i> |
|-------------------------|---|---|--|----------------|---|
| | <i>Incapacitated veterans</i> | <i>Dependants of incapacitated veterans</i> | <i>Dependants of deceased veterans</i> | <i>Total</i> | |
| New South Wales(c) | 67,568 | 77,768 | 20,217 | 165,553 | 153,346 |
| Victoria | 46,965 | 56,238 | 15,116 | 118,319 | 106,171 |
| Queensland | 31,117 | 37,595 | 7,870 | 76,582 | 67,965 |
| South Australia(d) | 17,452 | 20,409 | 4,651 | 42,512 | 34,152 |
| Western Australia | 15,684 | 18,489 | 3,880 | 38,053 | 28,113 |
| Tasmania | 7,756 | 9,186 | 1,932 | 18,874 | 18,491 |
| Overseas | 885 | 1,283 | 625 | 2,793 | 3,027 |
| Total | 187,427 | 220,968 | 54,291 | 462,686 | 411,265 |

(a) Includes Interim Forces 1939-45 War Territory.

(b) Includes domestic allowance payable to widows.

(c) Includes Australian Capital Territory.

(d) Includes Northern Territory.

Summary of disability and dependants' pensions, 1972-73 to 1977-78

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 1973 to 1978.

DISABILITY AND DEPENDANTS' PENSIONS: SUMMARY

| <i>Year</i> | <i>Number of disability and dependants' pensions in force at 30 June (a)</i> | | | | | <i>Annual pension liability at 30 June(c) (\$'000)</i> |
|-------------|--|--------------------------------------|---|---|--|--|
| | <i>Pensions granted</i> | <i>Claims disallowed (b)</i> | <i>Incapaci- tated veterans</i> | <i>Dependants of incapac- itated veterans</i> | <i>Dependants of deceased veterans</i> | |
| 1972-73 | 17,859 | 3,853 | 211,559 | 276,266 | 58,446 | 546,271 |
| 1973-74 | 12,688 | 3,680 | 207,055 | 267,136 | 57,664 | 531,855 |
| 1974-75 | 11,302 | 3,187 | 202,047 | 255,537 | 56,783 | 514,367 |
| 1975-76 | 10,417 | 3,720 | 197,463 | 245,682 | 55,716 | 498,861 |
| 1976-77 | 9,856 | 3,951 | 193,123 | 237,237 | 54,804 | 485,164 |
| 1977-78 | 8,039 | 2,736 | 187,427 | 220,968 | 54,291 | 462,686 |

(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 1972-73 to 1977-78, the amounts paid in pensions and the place of payment.

DISABILITY AND DEPENDANTS' PENSIONS: AMOUNT PAID(a)

(\$'000)

| <i>Place of payment</i> | <i>1972-73</i> | <i>1973-74</i> | <i>1974-75</i> | <i>1975-76</i> | <i>1976-77</i> | <i>1977-78</i> |
|-------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| New South Wales(b) | 81,599 | 91,874 | 115,502 | 128,335 | 136,198 | 156,692 |
| Victoria | 60,739 | 67,329 | 83,673 | 89,249 | 97,934 | 108,827 |
| Queensland | 36,821 | 41,174 | 50,685 | 54,622 | 61,161 | 68,629 |
| South Australia(c) | 18,405 | 20,962 | 26,525 | 27,908 | 30,974 | 34,870 |
| Western Australia | 15,428 | 17,338 | 21,812 | 23,077 | 25,541 | 28,728 |
| Tasmania | 9,851 | 11,176 | 13,698 | 14,827 | 16,637 | 18,676 |
| Overseas | 1,646 | 1,832 | 2,162 | 2,068 | 2,161 | 2,613 |
| Total | 224,489 | 251,685 | 314,058 | 340,086 | 370,606 | 419,034 |

(a) Includes domestic allowances paid to widows.

(b) Includes Australian Capital Territory.

(c) Includes Northern Territory.

Miscellaneous disability and dependants' 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*, the *Papua New Guinea (Members of the Forces Benefits) Act 1957* and Cabinet decisions granting eligibility to persons who were attached to the armed forces during war-time.

MISCELLANEOUS DISABILITY AND DEPENDANTS' PENSIONS: NUMBER OF PENSIONS AND ANNUAL LIABILITY, 30 June 1978

(a) 'Veterans' in this context is a person in respect of whose war-time experience a pension is paid, payable to widows. (b) Includes domestic allowances

(S'000)

(a) Includes domestic allowance payable to widows. (b) Includes Australian Capital Territory. (c) Includes Northern Territory.

A veteran 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.

[illegible]

SOCIAL SECURITY AND WELFARE

SERVICE PENSIONS: SUMMARY

| | 1972-73 | 1973-74 | 1974-75 | 1975-76(a) | 1976-77 | 1977-78 |
|-----------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| New claims granted | 24,888 | 23,229 | 23,173 | 29,989 | 32,404 | 37,491 |
| Restorations | 1,384 | 641 | 414 | 510 | 378 | 353 |
| <i>Total additions</i> | <i>26,272</i> | <i>23,870</i> | <i>23,587</i> | <i>30,499</i> | <i>32,782</i> | <i>37,844</i> |
| Cancellations (gross) | 2,538 | 5,793 | 3,940 | 3,443 | 3,774 | 4,345 |
| Deaths | 5,238 | 5,692 | 6,447 | 7,131 | 6,875 | 7,092 |
| <i>Total reductions</i> | <i>7,776</i> | <i>11,485</i> | <i>10,387</i> | <i>10,574</i> | <i>10,649</i> | <i>11,437</i> |

(a) The increased number of new claims granted in 1975-76 was partly due to the abolition of the means test for persons 70 years and over 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 inforce for 1977-78.

SERVICE PENSIONS: NEW CLAIMS GRANTED, 30 JUNE 1978

| Class | 1914-18 War | 1939-45 War | Korea- Malaya operations | Special Overseas Service | Act of Grace | British Common- wealth | Total |
|------------------------------------|----------------|----------------|--------------------------------|--------------------------------|--------------------|------------------------------|---------------|
| Veterans | 82 | 19,765 | 108 | 17 | 12 | 1,359 | 21,343 |
| Wives and widows of veterans . . . | 33 | 15,073 | 69 | 11 | 9 | 953 | 16,148 |
| Children | - | - | - | - | - | - | - |
| Total | 115 | 34,838 | 177 | 28 | 21 | 2,312 | 37,491 |

SERVICE PENSIONS: NUMBER IN FORCE, 30 JUNE 1978

| State | 1914-18 War | 1939-45 War | Korea- Malaya operations | Special Overseas Service | Act of Grace | British Common- wealth | Total |
|------------------------------|----------------|----------------|--------------------------------|--------------------------------|--------------------|------------------------------|----------------|
| New South Wales(a) | 5,750 | 53,819 | 343 | 20 | 63 | 1,235 | 61,230 |
| Victoria | 5,367 | 40,850 | 120 | 7 | 53 | 1,254 | 47,651 |
| Queensland | 2,966 | 31,008 | 176 | 21 | 40 | 835 | 35,046 |
| South Australia(b) | 2,001 | 16,032 | 45 | 11 | 19 | 1,022 | 19,130 |
| Western Australia | 1,665 | 14,759 | 57 | 4 | 13 | 477 | 16,975 |
| Tasmania | 705 | 7,215 | 29 | 2 | 4 | 156 | 8,111 |
| Overseas | 17 | 319 | 7 | - | - | 31 | 374 |
| Total | 18,471 | 164,002 | 777 | 65 | 192 | 5,010 | 188,517 |

(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 annul liability and the amounts paid for the years 1972-73 to 1977-78.

SERVICE PENSIONS: NUMBER OF EACH CLASS OF PENSION AND ANNUAL LIABILITY

| Number of service pensions at 30 June payable to— | | | | | | | | |
|---|-------------------|--------------------------|---------------------------------------|--|--------------------------|---------------------------------------|---------|--|
| Year | Veterans who are— | | | Dependants (a) of veterans where the veteran is— | | | Total | Annual pension liability at 30 June (\$'000) |
| | Aged veterans | Permanently unemployable | Suffering from pulmonary tuberculosis | An aged veteran | Permanently unemployable | Suffering from pulmonary tuberculosis | | |
| 1972-73 | 47,430 | 19,121 | 1,333 | 9,539 | 17,635 | 1,067 | 96,125 | 82,011 |
| 1973-74 | 56,119 | 19,191 | 1,417 | 15,532 | 15,393 | 853 | 108,505 | 119,181 |
| 1974-75 | 62,523 | 19,298 | 1,425 | 22,153 | 15,438 | 889 | 121,726 | 181,364 |
| 1975-76 | 72,432 | 20,224 | 1,424 | 30,773 | 15,973 | 849 | 141,675 | 237,182 |
| 1976-77 | 82,567 | 21,652 | 1,466 | 40,104 | 17,045 | 881 | 163,715 | 310,512 |
| 1977-78 | 95,369 | 22,253 | 1,333 | 51,270 | 17,532 | 760 | 188,517 | 393,909 |

(a) Includes dependants of deceased service pensioners.

SOCIAL SECURITY AND WELFARE
SERVICE PENSIONS: AMOUNTS PAID
(S'000)

187

| <i>Place of payment</i> | <i>1972-73</i> | <i>1973-74</i> | <i>1974-75</i> | <i>1975-76</i> | <i>1976-77</i> | <i>1977-78</i> |
|-------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| New South Wales(a) | 23,011 | 33,105 | 49,985 | 73,181 | 90,577 | 121,972 |
| Victoria | 18,033 | 26,532 | 40,180 | 55,141 | 72,127 | 93,631 |
| Queensland | 13,567 | 19,070 | 28,033 | 39,181 | 52,419 | 68,367 |
| South Australia(b) | 7,467 | 10,340 | 15,133 | 21,406 | 28,668 | 34,234 |
| Western Australia | 7,394 | 10,191 | 15,149 | 20,560 | 26,933 | 33,785 |
| Tasmania | 2,827 | 4,356 | 6,669 | 9,314 | 12,327 | 15,806 |
| Overseas | 17 | 32 | 58 | 143 | 230 | 1,306 |
| Total | 72,316 | 103,626 | 155,207 | 218,926 | 283,281 | 372,101 |

(a) Includes Australian Capital Territory. (b) Includes Northern Territory.

Medical treatment for veterans and dependants of veterans

Medical treatment is provided for all disabilities which have been accepted as service-related, and for pulmonary tuberculosis and cancer not related to service. In addition, and subject to certain conditions, treatment is provided for most non-service-related disabilities for: incapacitated veterans receiving disability pensions at or above the maximum (100 per cent) General Rate; veterans or nurses who served in the 1914-18 War; veterans of the Boer War; ex-prisoners-of-war; war widows and certain other dependants of deceased male veterans whose deaths have been accepted as service-related, and of deceased T. & P. I. pensioners; and certain service pensioners.

Treatment is provided at six Repatriation General Hospitals (one in each State) and five auxiliary hospitals and an ANZAC hostel in Victoria. The total number of available beds for patients in wards or parts of wards open for use in all these institutions at 30 June 1978 was 3,197 and expenditure during 1977-78 amounted to \$116,173,916. In addition, expenditure of \$135,415,299 was incurred during 1977-78 on medical services outside these institutions.

Community patients. Where spare bed capacity exists in the Repatriation Hospitals, patients may be admitted from the general community (mainly veterans with conditions that are not service-related, hospital staff and the local community).

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 1978

| <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 | 214 | 103 | 75 | 54 | 29 | 11 | 486 |
| Nursing staff | 900 | 489 | 363 | 271 | 260 | 73 | 2,356 |
| Other staff | 1,261 | 891 | 568 | 392 | 529 | 122 | 3,763 |
| Total, general hospitals | 2,375 | 1,483 | 1,006 | 717 | 818 | 206 | 6,605 |
| Other in-patient institutions | 293 | 141 | 211 | — | 53 | — | 698 |
| Out-patient clinics | (a)145 | 44 | — | (a)32 | — | — | 221 |
| Limb and appliance centres | 78 | 83 | 32 | 24 | 16 | 13 | 246 |
| Grand total | 2,891 | 1,751 | 1,249 | 773 | 887 | 219 | 7,770 |

(a) Out-patient clinics located at repatriation general hospitals.

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, 1977-78

| | <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> |
|--|---------------|---------------|---------------|--------------|--------------|--------------|---------------|
| REPATRIATION GENERAL HOSPITALS | | | | | | | |
| In-patients at beginning of year | 762 | 380 | 363 | 283 | 309 | 83 | 2,180 |
| Admissions and re-admissions during year | 20,632 | 10,367 | 9,996 | 5,543 | 7,313 | 1,718 | 55,569 |
| <i>Total in-patients treated</i> | <i>21,394</i> | <i>10,747</i> | <i>19,359</i> | <i>5,826</i> | <i>7,622</i> | <i>1,801</i> | <i>57,749</i> |
| Discharges | 19,852 | 9,671 | 9,649 | 5,301 | 7,029 | 1,631 | 53,133 |
| Deaths | 855 | 649 | 380 | 312 | 320 | 92 | 2,608 |
| In-patients at end of year | 687 | 360 | 330 | 213 | 273 | 78 | 1,941 |
| Average daily beds occupied | 689 | 418 | 336 | 227 | 274 | 70 | 2,021 |
| OTHER REPATRIATION INSTITUTIONS | | | | | | | |
| In-patients at beginning of year | 214 | 106 | 133 | - | 43 | - | 496 |
| Admissions and re-admissions during year | 2,461 | 686 | 1,104 | - | 226 | - | 4,477 |
| <i>Total in-patients treated</i> | <i>2,675</i> | <i>792</i> | <i>1,237</i> | <i>-</i> | <i>269</i> | <i>-</i> | <i>4,973</i> |
| Discharges | 2,349 | 565 | 1,021 | - | 213 | - | 4,148 |
| Deaths | 131 | 121 | 92 | - | 17 | - | 361 |
| In-patients at end of year | 195 | 106 | 124 | - | 39 | - | 464 |
| Average daily beds occupied | 199 | 106 | 120 | - | 38 | - | 463 |

In addition to the Repatriation institutions, eligible patients are treated in other country and metropolitan hospitals and nursing homes at Repatriation expense. During 1977-78, 26,568 Repatriation in-patients were accommodated and treated in hospitals and 7,659 in nursing homes.

Repatriation psychiatric patients requiring custodial care are, by agreement with the State Governments, accommodated at the expense of the Department of Veterans' Affairs in separate wings of psychiatric hospitals administered by the State authorities. Excluding 52 on trial leave, there were 604 Repatriation patients in these hospitals at 30 June 1978.

Out-patient treatment is provided throughout Australia at Repatriation hospitals and clinics and through the Repatriation Local Medical Officer Scheme. During 1977-78, 696,122 out-patients were treated at Repatriation institutions, and visits to or by local medical officers totalled 2,541,638. The number of Repatriation local medical officers in Australia at 30 June 1978 was 8,074.

Artificial limb and appliance services

A wide range of artificial limbs and other surgical aids is supplied by the artificial limb and appliance centre in each State capital and Darwin. In addition, the Department maintains the Central Development Unit located in Melbourne, and engages in research and development in the prosthetic and orthotic field.

Since 1973, artificial limbs have been provided free of charge to all members of the community who need them, either through the Department's artificial limb and appliance centres or on order through commercial limb-makers. The number of limbs supplied through the Department has increased significantly as the community has taken advantage of the free-limbs scheme.

Details of production at all centres during 1977-78 are as follows: arms, 286; legs, 2,724; surgical and adapted footwear, 6,826; other surgical appliances, 1,630; and repairs, 28,092.

General Repatriation benefits and miscellaneous

Other activities of Department of Veterans' Affairs

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 veterans and their dependants. These include the Soldiers' Children Education Scheme (see page 189).

In addition, gift cars and an annual allowance for their upkeep are provided for veterans 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 veterans and certain of their dependants. Payment of up to

\$10 may be made to provide such necessities as meals, sleeping accommodation, etc. for veterans in need of immediate relief. Also, certain concessions in telephone rental charges are provided for some classes of veterans and their dependants, including blinded veterans, war and defence widows and certain service and Special Rate disability pensioners. Veterans 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 1977-78 on general Repatriation benefits for all wars was \$8,130,000 comprising Soldiers' Children Education Scheme, \$3,391,000; recreation transport allowance, \$818,000; and other benefits, \$3,921,000.

As at 30 June 1978, trust and other funds administered by the Department of Veterans' Affairs held \$20,538,150 in securities (face value) and \$1,297,312 in cash, a total of \$21,835,462.

Reciprocal arrangements with the United Kingdom, New Zealand and other countries provide for the payment of pensions, etc. to eligible Australian veterans living overseas and to eligible veterans 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 veterans. 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 veterans whose deaths have been accepted as service-related; or of veterans who died from causes not service-related but who were receiving at the date of death a disability pension at a Special Rate for blindness, total and permanent incapacity, or amputation of two or more limbs; or of veterans who, as a result of service, are blinded totally and permanently incapacitated. From the commencement of primary education until the child reaches twelve years of age, school requisites and fares are provided. From the commencement of secondary education or from the age of twelve years, whichever is earlier, an education allowance is payable while the child is undertaking primary or secondary education. Assistance beyond 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 income test, i.e. the amount of education allowance payable depends on the amount of income a child receives over the allowed limit. Weekly rates of allowances vary from time to time; current rates are available from the Department of Veterans' Affairs' Branch Offices.

The following tables show the costs of education under the scheme for the year ended 30 June 1978, and the number of children in receipt of benefit at 30 June 1978.

SOLDIERS' CHILDREN EDUCATION SCHEME: EXPENDITURE, 1977-78
(S'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 | 2 | 2 | 4 | 1 | — | 1 | 10 |
| 12 years of age and over | 1,357 | 886 | 540 | 267 | 191 | 115 | 3,356 |
| Total expenditure | 1,359 | 888 | 544 | 268 | 191 | 116 | (c)3,366 |

(a) Includes Australian Capital Territory.

(b) Includes Northern Territory.

(c) Excludes overseas expenditure of \$24,000.

SOLDIERS' CHILDREN EDUCATION SCHEME: NUMBER RECEIVING BENEFITS(a) AT 30 JUNE 1978

| <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) . . . | 214 | 136 | 103 | 38 | 29 | 39 | 8 | 567 |
| Aged 14 and under 16 years . . . | 377 | 217 | 198 | 75 | 57 | 71 | 4 | 999 |
| Aged 16 and under 18 years . . . | 306 | 242 | 108 | 54 | 32 | 20 | 3 | 765 |
| <i>Total at school</i> | <i>897</i> | <i>595</i> | <i>409</i> | <i>167</i> | <i>118</i> | <i>130</i> | <i>15</i> | <i>2,331</i> |
| Professional | 409 | 272 | 173 | 78 | 67 | 31 | 9 | 1,039 |
| Agricultural | — | — | — | — | — | — | — | — |
| Industrial | — | — | — | — | — | — | — | — |
| Grand total | 1,306 | 867 | 582 | 245 | 185 | 161 | 24 | 3,370 |

(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 Chapter 13, Rural Industry.

Re-establishment benefits for former regular and former national servicemen

Subject to prescribed conditions, vocational training and business loans are provided for former regular and former national servicemen with a view to ensuring that they are not at a disadvantage when they return to civil life. Loans from \$5,000 (business and professional) and \$10,000 (agricultural) may be granted to veterans in these categories who satisfy prescribed requirements in respect of suitability of their proposed business propositions and adequacy of security. Agricultural loans are administered by the Department of Primary Industry.

Survey of Ex-service personnel, widows and children

In November 1971, a survey based on the quarterly population survey (see Chapter 8, Manpower) was conducted at the request of the then Department of Repatriation and the Services Canteen Trust Fund. Details of the survey were published in Year Book No. 59, page 112 and in the mimeographed bulletin *Ex-service Personnel, Widows and Children* (November 1971) (4403.0).

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 1977 was \$11,059,603. 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 veterans, and that the balance of the Fund should be used to provide relief for veterans and their dependants in necessitous circumstances.

The Fund is administered by seven 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 various schemes for providing financial assistance to needy eligible veterans and their dependants. The total cash assistance granted to individuals under all schemes from the inception of the Fund to 31 December 1977 was \$14,848,050 (\$457,808 during 1977) distributed as follows:

- welfare relief, \$4,696,971 (\$196,658 during 1977)
- children's education, \$9,768,306 (\$259,850 during 1977)
- other schemes, \$382,773 (\$1,300 during 1977)

For detailed information on the operation of the Fund, reference should be made to the annual reports of the Services Canteens Trust Fund.

Further information—ABS publications

Further information on subjects dealt with in this chapter is included in the annual bulletins *Australian National Accounts* (5204.0); *Public Authority Finance: Federal Authorities* (5502.0); *Public Authority Finance: State and Local Government Authorities* (5504.0); *Public Authority Finance: State Governments: Social Services* (5508.0); *Public Authority Finance: Outlay on Aboriginal Affairs by Federal Authorities* (5509.0); and *Social Indicators* (4101.0). Current and summarised information on Commonwealth Government social services is contained in the *Monthly Review of Business Statistics* (1304.0).

CHAPTER 10

HEALTH

This chapter is concerned with activities of the Commonwealth Department of Health including quarantine, national health benefits programs and Federal grants for health purposes; activities of the State Health Departments; statistics of hansenite hospitals and mental health institutions; and statistics of notifiable diseases, causes of death, and cremations.

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.

NATIONAL HEALTH SERVICES

Prior to an amendment to the Constitution in 1946, the only health function of the Commonwealth Department of Health was in relation to quarantine. Consequent upon this amendment, the Commonwealth Government was given powers to make laws about pharmaceutical, hospital and sickness benefits and medical and dental services. The Commonwealth Government also has used its powers under Section 96 of the Constitution to make grants to the States for health purposes. In addition, the Commonwealth Government gives financial assistance to certain organisations concerned with public health matters. A number of Commonwealth 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 Commonwealth Director-General of Health.

Quarantine

The *Quarantine Act* 1908 is administered by the Commonwealth Department of Health and provides for the taking of measures to prevent the introduction or spread of diseases affecting humans, animals and plants.

Human quarantine

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 minor ports local doctors may act as part-time quarantine officers. In each State and in the Northern Territory, quarantine activities are controlled by the Directors of Health, each of whom is a senior medical officer of the Commonwealth Department of Health.

The main concern of examining officers is the detection of quarantinable diseases including smallpox, cholera, yellow fever, plague, typhus fever, Marburg virus disease and Lassa fever. These diseases are not endemic to Australia and it is of great importance to prevent their entry. Sufferers or suspected sufferers are isolated in quarantine.

Valid International Certificates of Vaccination are required of travellers to Australia as follows:

Smallpox. From travellers over the age of 12 months who, within the last 14 days, have been in a country of which any part is infected with smallpox.

Yellow fever. From travellers who have been in yellow fever endemic zones within the past 6 days.

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 an endemic zone within 6 days of arrival and not possessing a yellow fever vaccination certificate; or (ii) having arrived by air without a smallpox vaccination certificate and refusing to be vaccinated on arrival.

Animal quarantine

Policy decisions are developed by the Department and, in general, are executed by State officers acting as agents for the Commonwealth.

Movement of animals between New Zealand and Australia is relatively free but importation of horses, dogs, cats, zoo and laboratory animals may be permitted from certain other countries only if strict health conditions are met.

Animal quarantine stations are located at Brisbane, Sydney, Melbourne, Adelaide, and Perth. A maximum security animal quarantine station is being constructed at the Cocos Islands and, when completed, will permit the safe importation of a wider range of animals than is currently possible. Other major works are underway to increase the capacity of mainland animal quarantine stations. Funds have been allocated to enhance considerably the extent of northern surveillance through the use of chartered aircraft in daily searches of the coastline for possible illegal introductions of quarantinable products.

Plant quarantine

Arising from both its dependence upon exotic plant species for agriculture, horticulture and forestry and its island continental isolation, Australia is free of numerous plant pests and diseases that occur elsewhere in 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 exclude from the country unwanted pests and plant diseases. It is not possible to predict how a new plant pest or disease will perform when introduced to a new environment free of its natural enemies. Hence the general objective is to keep any pest or disease out of the country which could cause serious economic losses to Australia's agriculture, horticulture or forests.

For further details *see* Year Book No. 61, page 449.

Personal health services and subsidies

National Health Benefits

In May 1978, the Minister for Health announced in the House of Representatives that coverage for the whole Medical Benefits Schedule was to be changed to 75 percent with a maximum patient payment of \$10 when the Schedule fee was charged, except for pensioners with Pensioner Health Benefit entitlement and their dependants, which would remain at 85 percent or the Schedule fee less \$5 whichever is the greater.

This change came into effect on 1 July 1978 and was applicable to both Standard Medibank and privately insured persons.

The Treasurer announced in the 1978-79 Budget speech new health insurance arrangements, which were introduced on 1 November 1978.

These arrangements are designed to provide all residents with a basic level of coverage against the costs of medical and hospital treatment. Individuals are free to choose additional coverage from private insurers.

Medical

From 1 November 1978 all Australian residents are eligible to receive a new Commonwealth medical benefit to cover 40 per cent of Schedule medical fees, with a maximum patient contribution of \$20 for any one service where the Schedule fee is charged.

For pensioners with Pensioner Health Benefit cards, and their dependants, there has been no change to the level of medical benefits. Doctors are able to bulk-bill the Department of Health for these patients and receive 85 percent of the Schedule fee or the Schedule fee less \$5 whichever is the greater.

A new concept of bulk-billing for disadvantaged patients was introduced whereby the doctors receive from the Government 75 percent of the Schedule fee as payment in full for the service rendered (provided the patient is not privately insured). Bulk billing is not available for other persons.

Hospital

The system of standard hospital coverage, by which everyone without private insurance for hospital benefits is entitled to free standard ward accommodation in recognised hospitals with treatment by doctors engaged by the hospital, continued without alteration (except that in Queensland those with private insurance for hospital benefits are also eligible for free standard ward coverage if they so choose).

Private Insurance

Registered medical benefits organisations including Medibank Private are required as a condition of their registration, to offer a basic medical benefits table which, when added to the Commonwealth medical benefit, provides coverage for 75 percent of the Schedule fee with a maximum patient contribution of \$10 for any one service where the Schedule fee is charged.

Those who elect to insure for the 75 percent level which comprises both the Commonwealth and fund benefit are eligible for refunds from their organisations.

Those who elect not to insure for fund benefits need to register with a registered medical benefits organisation that has agreed to pay the new Commonwealth medical benefit to uninsured persons on behalf of the Commonwealth.

Registered medical benefits organisations claim reimbursement of the Commonwealth medical benefits paid for both insured and uninsured people from the Department of Health.

In addition to providing a basic medical benefits table, registered medical benefits organisations are able to offer a variety of medical benefits packages up to a maximum of the Schedule fee level, ancillary benefits tables and introduce deductibles if they so choose.

Registered hospital benefits organisations are also obliged to continue providing a basic table covering the hospital charges raised for shared ward accommodation in recognised hospitals, currently \$40 a day, for patients who choose to be treated by the private doctor of their choice. Organisations may also provide optional tables which can include deductibles if they so choose. The basic and optional tables provide contributors with nursing home benefits. Since 1 October 1977, all payments by registered hospital benefits organisations in respect to nursing home patients, have been made under the re-insurance arrangements.

Registered hospital benefits organisations are also able to continue offering supplementary benefits covering charges raised for single bed wards in recognised hospitals and benefits to wholly or substantially cover private hospital charges. In addition these organisations are free to devise attractive and competitive tables of ancillary benefits.

The introduction of deductibles for both medical and hospital benefits tables are subject to guidelines approved by the Minister.

Financing

The health insurance levy has been abolished and the Commonwealth Government pays the new universal medical benefit from consolidated revenue.

The compulsion on every Australian to pay for one type of health insurance or another has been removed, and the subsidies for 'hospital only' insurance have been discontinued.

The subsidy of \$16 per occupied bed day paid to private hospitals, the reinsurance arrangements, health program grant payments and Commonwealth payments under the hospital cost sharing agreements all remain.

Administration

With the ending of the Standard Medibank benefits system the Health Insurance Commission's activities are confined to the operation of Medibank Private.

The Department of Health is responsible for administering the Commonwealth medical benefit payments to the registered medical benefits organisations, bulk-billing arrangements, hospital payments and subsidies, nursing home benefits for persons without hospital insurance and health program grants.

Nursing Home Benefits

There are two forms of Commonwealth benefit payable in respect of patients accommodated in premises approved as nursing homes under the National Health Act. These benefits are as follows:

(i) Basic Nursing Home Benefit.

Basic nursing home benefit is payable in respect of all qualified nursing home patients other than those patients who are eligible to receive benefits from a registered hospital benefits organisation or from some other source such as compensation, third party insurance, etc. The amount of basic benefit payable varies between States on the basis of an amount which, when combined with the minimum patient contribution (as explained below) will fully cover the costs of 70% of patients in non-Government nursing homes in each State. The benefit is reviewed and adjusted annually on this basis, the last such adjustment taking effect on 9 November 1978.

As at 9 November 1978 the maximum amount of basic nursing home benefit payable per day, in each State was: New South Wales \$13.65; Victoria \$20.40; Queensland \$11.80; South Australia \$18.90; Western Australia \$11.75 and Tasmania \$14.85.

(ii) *Commonwealth Extensive Care Benefit.*

The Commonwealth extensive care benefit is payable at the rate of \$6 a day, in addition to the Commonwealth basic benefit, in respect of patients who need and receive 'extensive care' as defined in the National Health Act. As in the case of the Commonwealth basic benefit, the extensive care benefit is payable in respect only of qualified patients who are not entitled to receive such benefits from a registered hospital benefits organisation, workers' compensation or third party insurance.

Patients who are insured with a registered hospital benefits organisation receive all of their benefit entitlement, whether at the basic benefit or extensive care benefit levels, from that organisation and not from the Commonwealth. In all circumstances the amount of benefit payable by a hospital benefits organisation will be equivalent to the amount otherwise payable by the Commonwealth in respect of uninsured patients in nursing homes.

Generally speaking all nursing home patients are required to make a minimum contribution towards the approved nursing home fee charged (while an exception to this rule is provided for, that exception relates basically to certain circumstances involving handicapped children in nursing homes).

As at 9 November 1978, the minimum patient contribution payable by patients accommodated in nursing homes approved under the National Health Act was \$7.25 a day.

Where the fees charged by a nursing home are in excess of the combined total of nursing home benefits plus the patient contribution, the difference must be met by the patient. Conversely, where the nursing home fee is less than this combined total, the basic benefit (whether private health insurance benefit or Government benefit) is reduced by that amount.

Deficit Financing Arrangements

As an alternative to the provision of patient benefits under the National Health Act (as outlined above), the *Nursing Homes Assistance Act 1974* provides for an arrangement whereby the Commonwealth Government may meet the net operating deficits of religious and charitable nursing homes.

All organisations wishing to participate in the deficit financing arrangements must enter into a formal agreement with the Commonwealth Government for that purpose.

Commonwealth nursing home benefits as provided under the National Health Act are not payable to a nursing home during any period in respect of which that nursing home participates under the deficit financing arrangements and uninsured patients are charged only a prescribed fee equivalent to the minimum patient contribution. However, the usual arrangements, as for nursing homes approved under the National Health Act, apply to insured patients and registered hospital benefits organisations pay the full normal benefit rate.

Domiciliary Nursing Care Benefit

A domiciliary nursing care benefit is payable at the rate of \$14 a week (\$2 daily) 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 receiving 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.

Health Program Grants

Health Program Grants, authorised under the *Health Insurance Act 1973*, are payable to eligible organisations to meet the cost, or such proportion of the cost as the Minister may determine, of approved health services, provided outside of hospitals by medical practitioners employed on a salaried or sessional basis. Eligible organisations impose charges, where appropriate, for services involving privately insured patients. From 1 November 1978 the grant covers the cost of scheduled medical services provided to patients in respect of whom a doctor in private practice would bulk-bill i.e. Pensioner Health Benefits cardholders and their dependants, and uninsured patients classified by the doctor as disadvantaged.

Health Program Grants are also available for research projects that develop and test new forms of health care delivery systems (e.g. Health Maintenance Organisations). The total amount paid to approved organisations during 1977-78 was \$4.4 million.

Federal Authorities Expenditure

Pharmaceutical benefits

A person receiving treatment from a medical practitioner registered in Australia is eligible for benefits on a comprehensive range of drugs and medicines when they are supplied by an approved pharmacist upon presentation of a prescription or by an approved private hospital when that person is 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.

Following the introduction of the Commonwealth/State cost sharing arrangements, patients in recognised hospitals are supplied with drugs and medical preparations in accordance with those agreements.

Patients other than eligible pensioners and their dependants now pay a contribution of \$2.50 for each benefit prescribed. The total cost of prescriptions for eligible pensioners and their dependants is met by the Commonwealth Government.

Under the Pharmaceutical Benefit Scheme the total cost, including patient contributions, for prescription drugs was \$338.0 million in 1976-77 and \$361.2 million in 1977-78. These figures do not include benefits supplied by certain hospitals and miscellaneous services or retrospective adjustments of chemists' remunerations.

Summary of cash benefits to persons

For an analysis by function and economic type of expenditure by all Commonwealth Government authorities see Chapter 22, Public Finance.

Most Commonwealth Government health benefits are financed through the National Welfare Fund and the Health Insurance Commission. The following table shows cash benefits to persons by Federal Authorities for 1976-77.

FEDERAL AUTHORITIES: HEALTH CASH BENEFITS TO PERSONS 1976-77
(\$'000)

| | N.S.W. (a) | Vic. | Qld | S.A. (a) | W.A. | Tas. | N.T. (a) | A.C.T. (a) | Total |
|---|----------------|----------------|----------------|----------------|---------------|---------------|-------------|---------------|------------------|
| Hospital and clinical services— | | | | | | | | | |
| Hospital benefits for pensioners | 14 | 1 | 2 | — | — | 2 | — | 3 | 21 |
| Medibank—Private hospital daily bed payments | 22,936 | 21,178 | 12,860 | 8,181 | 5,993 | 1,914 | — | 176 | 73,238 |
| Hospital benefits, n.e.c. | 14,866 | 8,469 | 3,337 | 2,787 | 1,225 | 410 | — | 8 | 31,102 |
| Nursing home benefits | 91,820 | 52,553 | 33,266 | 26,460 | 22,228 | 7,795 | — | — | 234,122 |
| Tuberculosis campaign allowances | 419 | 300 | 221 | 81 | 62 | 45 | — | — | 1,127 |
| Rehabilitation of ex-servicemen | 86 | 98 | 39 | 24 | 30 | 10 | — | 16 | 303 |
| Total | 130,141 | 82,599 | 49,725 | 37,533 | 29,538 | 10,176 | — | 203 | 339,913 |
| Other health services— | | | | | | | | | |
| Medibank—Medical benefits | 234,717 | 140,950 | 69,397 | 46,551 | 35,702 | 10,634 | — | 2,305 | 540,258 |
| Medical benefits, n.e.c. | 823 | 650 | 64 | 66 | 74 | 65 | — | — | 1,741 |
| Pharmaceutical benefits for pen- sioners | 49,013 | 26,765 | 17,995 | 10,047 | 7,609 | 3,248 | 39 | 486 | 115,202 |
| Pharmaceutical benefits, n.e.c. | 45,265 | 30,528 | 18,854 | 9,842 | 8,185 | 2,788 | 279 | 3,961 | 119,701 |
| Domiciliary care | 2,410 | 1,830 | 1,521 | 913 | 912 | 503 | — | — | 8,089 |
| Total | 332,228 | 200,723 | 107,831 | 67,419 | 52,482 | 17,238 | 318 | 6,752 | 784,991 |
| Total health | 462,369 | 283,322 | 157,556 | 104,952 | 82,020 | 27,414 | 318 | 6,955 | 1,124,903 |

(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.

Tuberculosis

An arrangement between the Commonwealth and the States under which the Commonwealth reimbursed the States for all approved capital expenditure on tuberculosis and for net maintenance expenditure to the extent that it exceeded that for 1947-48 was discontinued from 31 December 1976. The National Tuberculosis Advisory Council, however, has been retained to keep abreast of advances and to advise the Minister for Health and, through him, the State Ministers for Health on the best means of prevention, diagnosis and control of tuberculosis. There are eleven members of the Council, the chairman being the Director-General of the Commonwealth Department of Health.

Final payments of \$1,626,000, \$668,000 and \$39,000 were made in 1977-78 to New South Wales, Queensland and South Australia, respectively for maintenance expenditure incurred prior to 31 December 1976.

To reduce the spread of infection the Commonwealth Government pays allowances to persons suffering from infectious tuberculosis so that they may give up work and undergo treatment. Commonwealth Government Expenditure on Tuberculosis Allowances over the last three years has been \$898,000 in 1975-76; \$861,000 in 1976-77 and \$762,000 in 1977-78.

Immunisation campaigns

Continuing immunisation programs against poliomyelitis, measles, rubella, diphtheria, tetanus, and whooping cough are maintained in all States and Territories.

Rubella immunisation is limited to females during their reproductive years; mass campaigns are routinely undertaken only on girls aged between 10 and 14 years. Whooping cough immunisation is given only to infants less than 2 years of age.

National health services organisations

The Commonwealth Department of Health Pathology Laboratory Services provides diagnostic and investigational facilities at laboratories situated in Albury, Alice Springs, Bendigo, Cairns, Darwin, 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 1977-78, the laboratories carried out approximately 4.3 million pathology tests and investigations in respect of 1.2 million patient requests.

The Commonwealth Serum Laboratories (CSL) are both 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. Their 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 biological research and development relating to many kinds of human and veterinary diseases covering the fields of bacteriology, biochemistry, immunology and virology. The laboratories and central administration are located at Parkville, Victoria, with storage and distribution facilities in each capital city.

For several decades, CSL has been Australia's chief supplier of biological medicines, insulins, vaccines, penicillins, human blood fractions, BCG and an increasing range of veterinary biological products needed by Australia's sheep, cattle, pig and poultry industries. It is also well known and respected overseas, and export income forms a significant part of total revenue.

The Laboratories employ more than 1,000 people, including medical officers, veterinarians, bacteriologists, biochemists, physicists, engineers, accountants, laboratory assistants, skilled tradesmen and experienced marketing staff to promote the sale of its products.

The Australian Radiation Laboratory is concerned with:

- (a) The formulation of policy, development of codes of practice, national surveillance and provision of scientific services relating to the public and occupational health implications of ionising and non-ionising radiation; and
- (b) The maintenance of national radiation measurement standards and quality evaluation and assurance of radioactive materials used for medicine diagnosis and treatment.

The National Acoustic Laboratories undertake scientific investigations into hearing and problems associated with noise as it affects individuals, and advise Commonwealth Government Departments and instrumentalities on hearing conservation and the reduction of noise. A free audiological service is provided for pensioners with medical benefit entitlements and their dependants, persons under 21, war widows, Social Security rehabilitees and Veterans Affairs patients. During 1977-78 the number of new cases examined was 43,022 and the number of hearing aids fitted was 31,014.

The Ultrasonic Institute conducts research and provides advisory services on the use of ultrasonic radiation in the diagnosis and treatment of disease. The Institute is recognised as a world leader in its field.

Commonwealth Government health advisory organisations

The National Health and Medical Research Council advises the Commonwealth 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 Commonwealth 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 Commonwealth Minister for Health on the application of funds from the Medical Research Endowment Fund which provides assistance to Commonwealth Government Departments or to a State Department engaged in medical research; to universities for the purpose of medical research; and to institutions and persons

engaged in medical research and in the training of persons in medical research. The Commonwealth Government makes annual appropriations to the fund on the basis of a three year rolling program. The allocation for 1978-79 is \$12.8 million. The secretariat for the Council and its Committees is provided by the Commonwealth 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. Costs for the School in 1977-78 were \$1,602,406 for administration, and \$189,655 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 Colombo Plan Fellows. Costs of the Institute paid by the Commonwealth Government during 1977-78 were \$561,869 for administration and \$57,386 for plant and equipment.

The Australian Dental Standard Laboratory is concerned with the quality, standards, and research related to dental and other biomedical materials. The number of samples tested in 1977-78 was 89.

The National Biological Standards Laboratory is responsible for the development of standards for therapeutic goods and for testing such products for compliance with standards to ensure that they are safe, pure, potent and efficacious. Other responsibilities, including the inspection of manufacturing premises, the evaluation of new and modified products and the investigation of complaints, make it the linchpin of a uniform national system of control over therapeutic goods.

The British Pharmacopoeia, the British Pharmaceutical Codex and the British Veterinary Codex are specified 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 Commonwealth 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 1977-78 were \$2,966,356 and a further \$133,486 was expended on plant and equipment.

The Australian Drug Evaluation Committee makes medical and scientific evaluations both of such goods for therapeutic use as the Minister for Health refers to it for evaluation and of other goods for therapeutic use which, in the opinion of the Committee, should be so evaluated, and advises the Minister for Health as it considers necessary relating to the importation into and the distribution within Australia of goods for therapeutic use that have been the subject of evaluation by the Committee. It has the powers to co-opt and seek advice from specialist medical colleges and associations and from the medical and allied professions, drug manufacturers and other sources. During 1977-78 eighty-eight applications for approval to market new drugs and twenty-six applications to extend the indications or amend dosage regimes for currently marketed drugs were considered by the Committee. Eighty-six applications were approved, twenty-two rejected and six deferred pending production of further information on safety and efficacy. Under the Committee's control are the Australian Registry of Adverse Reactions to Drugs, which provides an early warning system based on reports of reactions to drugs forwarded voluntarily by medical practitioners; the Adverse Drug Reaction Advisory Committee, which prepares more detailed evaluations of reports and increased feedback to the medical profession; the Vaccines Sub-Committee; the Endocrinology Sub-Committee; the Congenital Abnormalities Sub-Committee; the Parenteral Nutrition Sub-Committee; the Anti-Cancer Drugs Sub-Committee; the Radiopharmaceuticals Sub-Committee; and the National Drug Information Advisory Sub-Committee, formed to oversight administrative aspects of the technical input to the National Drug Information Service.

The Therapeutic Goods Advisory Committee considers, and advises 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 Therapeutic Goods Standards Committee*, under the same Act, advises the Minister for Health on standards and requirements relating to the labelling and packaging of any such goods.

The National Therapeutic Goods Committee comprises Federal and State representatives. Its function is to make recommendations to the Commonwealth 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, establishment of a National Product Register, a Code of Good Manufacturing Practice, electro-medical devices and standards for disinfectants.

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 hospitals and allied services. The Council now consists of representatives of each State Health Department or Commission, the Commonwealth Departments of Health and Veterans' Affairs, the Social Welfare Policy Secretariat, the Northern Territory Department of Health and the Capital Territory Health Commission. The Council is assisted in carrying out its work by several committees, sub-committees and working parties.

In 1978 the Social Welfare Policy Secretariat was established, having responsibility ranging over the whole field of health and welfare. The Hospital and Health Services Commission was consequently wound-up; a number of its ongoing activities were absorbed by the Policy Secretariat, while others were transferred to the Department of Health.

Other Commonwealth Government subsidies and grants to States

Home nursing subsidy scheme

The Home Nursing Subsidy Scheme provides for an annual Commonwealth subsidy to approved home nursing services. Organisations eligible for the subsidy are those which are non-profit making, employ registered nurses, and receive assistance from a State Government or from local government bodies. During 1977-78 subsidies totalling \$10.7m were paid to 193 organisations providing home nursing services in the States. Home nursing services in the Northern Territory were provided by the Commonwealth Department of Health until 1 January 1979, when responsibility was transferred to the Northern Territory Government. In the Australian Capital Territory, these services have been provided by the Capital Territory Health Commission.

Paramedical services

The States Grants (Paramedical Services) Act 1969 provides for the Commonwealth Government to share on \$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 1977-78 amounted to \$582,000.

Community health program

The Commonwealth Government's Community Health Program provides grants for both capital and operating costs in the establishment or improvement of a wide range of community-based health and health-related welfare services in areas of health service scarcity. The Program is also intended to promote particular aspects of health care such as prevention, health education, health maintenance and rehabilitation.

Commonwealth grants are made to the State governments for projects conducted within the States. These are in the form of annual block grants for total programs of approved projects.

The Commonwealth also provides grants to the States under the Community Health Program for women's refuges, which provide short-term accommodation and support for women and children in crisis situations.

In 1978-79, an amount of \$48.3m was allocated by the Commonwealth in the form of block grants to the States for general community health projects, on the basis of a Commonwealth contribution of 50 per cent for both capital and operating costs. An additional \$3m was made available to the States for women's refuges, on the basis of Commonwealth contributions of 75 per cent for operating costs and 50 per cent for capital costs.

In addition to these grants to the States for projects operating at State or local levels, the Commonwealth provides funds—generally on a 100 per cent basis—direct to national projects conducted by non-government organisations. An amount of \$6.4m was made available for this purpose in 1978-79.

School Dental Scheme

The School Dental Scheme was established in 1973 by co-operation between the Commonwealth and State Governments. The aim of the Scheme is to offer free dental care including dental health education to all school children under fifteen years of age, with initial emphasis on primary school children thereby, in the longer term, improving the dental health of the community.

The Scheme is based on the training and employment of dental therapists working under the general direction and control of dentists. Some 25 per cent of the nation's primary school population is presently covered by the School Dental Scheme.

A total of 10 dental therapy schools, located in all States, are presently operating. These schools have an annual graduate capacity of 370. In addition, some 540 school dental clinics, including mobile clinics, are also in operation throughout Australia.

The overall costs of the Scheme are being shared by the Commonwealth and the States on a 50:50 basis. Details of Commonwealth expenditure on the Scheme to date, together with the number of primary school children examined during the 1977-78 financial year appear below:

COMMONWEALTH EXPENDITURE—SCHOOL DENTAL SCHEME

(\$ million)

| Year | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | Aust. |
|---------|--------|------|------|------|------|------|-------|
| 1973-74 | 1.34 | 1.35 | .47 | 1.96 | 1.05 | 1.37 | 7.54 |
| 1974-75 | 4.19 | 4.10 | 2.98 | 3.94 | 2.07 | 1.31 | 18.59 |
| 1975-76 | 3.96 | 3.40 | 6.30 | 3.37 | 5.13 | 1.86 | 24.02 |
| 1976-77 | 5.78 | 3.60 | 3.92 | 3.93 | 3.59 | 1.61 | 22.43 |
| 1977-78 | 3.98 | 3.86 | 4.87 | 5.34 | 3.85 | 1.81 | 23.71 |

The number of children examined under the various school dental services in 1977-78 were:— New South Wales, 88,368; Victoria, 26,670; Queensland, 63,932; South Australia, 93,803; Western Australia, 64,692; Tasmania, 59,869; Australian Capital Territory, 28,706; Northern Territory, 7,084; Australia, 433,124.

Commonwealth Government grants to organisations associated with public health

In addition to providing the services mentioned on pages 193-200 the Commonwealth 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 that was commenced on 1 January 1979 by the Northern Territory Government. The Royal Flying Doctor Service is financed mostly from donations and government contributions. For the year ended 30 June 1978, the Commonwealth Government paid grants totalling \$1,700,000 towards operational costs, and matching assistance of \$699,500 towards an approved program of capital expenditure. The Service made flights during 1977-78 totalling 4.5 million kilometres and transported 7,629 patients. In the same period medical staff conducted a total of 86,670 consultations and dental treatment was given to 4,462 patients.

The Red Cross Blood Transfusion Service is conducted by the Australian Red Cross Society throughout Australia. The operating costs of the Service in the States are met by the State Governments paying 60 per cent, the Society 5 per cent of net operating costs or 10 per cent of donations, whichever is the less, and the Commonwealth Government meeting the balance. In the Northern Territory the Society contributes to operating costs as it does in the States, and the Commonwealth met the balance prior to 1 January 1979. After this date the Northern Territory is in the same position as the States. Approved capital expenditure by the Service in the States is shared on a \$1 per \$1 basis with the States and after 1 January 1979, with the Northern Territory Government. Commonwealth Government expenditure for each State and the Northern Territory during 1977-78 was \$5,833,479, made up as follows: New South Wales, \$1,597,205; Victoria, \$1,888,500; Queensland, \$773,315; South Australia, \$637,676; Western Australia, \$630,326; Tasmania, \$126,500; and Northern Territory, \$179,957.

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 now has an annual income from public donations and bequests of over \$2,400,000. Expenditure in 1977 came to \$2,463,443, of which almost half was devoted to supporting research into cardiovascular disease. Such research is the single most important function of the Foundation, and from its inception to the end of 1977, it had allocated well over \$8.5 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 Foundation's education program receives support from the Commonwealth Government under the Community Health Program. For 1977-78 the Commonwealth made available \$58,600 to the Foundation for these purposes.

The World Health Organization (WHO) is a specialised agency of the United Nations having as the objective the attainment by all peoples of the highest level of health. Australia is assigned to the Western Pacific Region, the headquarters of which is at Manila and is represented annually at both the World Health Assembly in Geneva and the Regional Committee Meeting in Manila. Australia's contribution to WHO for 1977-78 was \$A2,096,521.

The International Agency for Research on Cancer was established 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 to provide for planning, promoting and developing research in all phases of the causation, treatment and prevention of cancer. Australia's contribution to the IARC for 1977-78 was \$A325,568.

STATE GOVERNMENT ACTIVITIES

(Includes activities of the Commonwealth 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:

The *Anatomy Act* 1977, amends and re-enacts the law relating to anatomy and repeals the *Anatomy Act*, 1901.

The *Health Commission (Amendment) Act* 1977, amends the *Health Commission Act* 1972, so that certain offices under that Act are deemed not to be offices or places of profit under the Crown.

The *Public Hospitals (Amendment) Act* 1978, amends the *Public Hospitals Act* 1929, to make provision for the appointment of an arbitrator to determine the terms and conditions of work and the remuneration of medical practitioners performing sessional work at incorporated hospitals or separate institutions.

In Victoria:

The *Health Commission Act* 1977 establishes the Health Commission of Victoria and provides for the subsumation by that Commission of the functions of the Health Department, the Commission of Public Health, the Hospitals and Charities Commission, and the Mental Health Authority.

The *Poisons (Drugs of Addiction) Act* 1977 amends the *Poisons Act* 1962. It increases the penalty for trafficking in drugs of addiction other than fresh or dried cannabis from \$10,000 or four years gaol or both to \$100,000 or 15 years or both: provides that the possession of a specified quantity of a drug of addiction shall be *prima facie* evidence of trafficking in that drug of addiction: empowers courts to order the forfeiture of any money or valuable thing following conviction for trafficking in a drug of addiction: expands the powers of members of the police force to stop and search and if necessary seize persons and vehicles, etc.

The *Health (Amendment) Act* 1977 provides for a scheme for the re-use of waste water for the purpose of irrigation for foodstuffs, orchards, plants, and public gardens.

In Queensland:

The *Hospitals Act Amendment Act* 1978 contains among others, amendments to provide for the appointment of an Administrator or the constitution of a Board on the creation of a new Hospitals District, revised procedures in relation to emergent expenditure by Hospitals Boards and power for Hospitals Boards to retire employees on the grounds of ill-health.

The *Pharmacy Act Amendment Act* 1978 provides that a pharmacist with a pecuniary interest in more than four pharmacies did not have to dispose of his pecuniary interest in a pharmacy if there was a change of ownership in that pharmacy.

The *Radioactive Substances Act Amendment Act* 1978—This Act received Royal Assent on 22 August, 1978 but has not yet been proclaimed. The amendment will provide that, subject to such exemptions as may be prescribed, all persons will have to possess a licence to have possession of or to use or to sell any irradiating apparatus.

The *Health Act Amendment Act* 1978 provides for the repeal of the provisions relating to leprosy, the cancellation and suspension of private hospital licences, mandatory reporting by medical practitioners of cases of suspected child abuse to the Director-General of Health and Medical Services, power to make regulations with respect to tattooing and ear-piercing, variations to the provisions relating to licensing of pest control operators and the storage, labelling and disposal of containers used for holding pesticides, the divesting of the powers of the former X-Ray and Other Electro-Medical Equipment Advisory Board from the Queensland Radium Institute.

In South Australia:

The *Mental Health Act* 1976-77 amended the *Mental Health Act* 1935-74 and provides among other things for the establishment of a Guardianship Board and the establishment of a Mental Health Review Tribunal to periodically review the circumstances involving the detention or custody of a mentally handicapped person.

The *Criminal Law Consolidation Act Amendment Act* 1978 provides that it is mandatory for the superintendent or Manager of a hospital to notify abortions and complications.

In Western Australia:

The *Physiotherapists Act* 1977—minor amendment to the composition of the Board.

The *Clean Air Act* 1977—the schedule under the *Clean Air Act* is extended to include stockyards and certain construction sites.

The *Health Act* 1978—amends the act to include the establishment of a Perinatal and Infant Mortality Committee and also the Anaesthetic Mortality Committee.

The *Poisons Act* 1978—amended the schedules under the *Poisons Act* relating to the labelling of poisonous substances.

In Tasmania:

The *Hospitals Act* 1977 amends procedures relating to appointment of officers to, and constitution of, various hospital boards.

The *Public Health Act* 1977 lays down regulations controlling establishments where tattooing, ear piercing, acupuncture or any other cutting or piercing of human skin is performed.

The *Alcohol and Drug Dependancy Act* 1977 revises details of the constitution of the Board.

The *Road Safety (Alcohol and Drugs) Act* 1977 made minor changes to laws relating to drivers with excessive blood alcohol levels.

The *Radiation Control Act* 1977 made provisions for regulating the use of radioactive materials and electronic products producing radiation.

The *Sale of Hazardous Goods Act* 1977 provides for the prohibition or regulation of the sale of dangerous goods and established a Products Safety Committee to investigate any product which may be covered by the Act.

The *Nurses Registration Act* 1977 revised qualifications and registration requirements of nurses in Tasmania.

The *Medical Act* 1977 amended the powers of the Medical Council of Tasmania in relation to registrations and disqualifications.

The *Mental Health Act* 1977 provides for the establishment of an institution for accommodation and treatment of patients who, having been subject to criminal proceedings, need to be detained under conditions of special security.

In the Northern Territory:

The *Hospitals and Medical Services (Charges) Regulations* 1977 provides for increases in charges for dental treatment.

The *Prohibited Drugs Bill* 1977, *Dangerous Drugs Bill* 1977 and *Poisons Bill* 1977 provide new improved legislation to replace existing legislation required to comply with UN Convention on Psychotropic Substances.

The *Pharmacy Ordinance* 1977 provides for pharmacies to remain open during temporary absences of pharmacists.

In the Australian Capital Territory:

The *Poisons and Dangerous Drugs (Amendment) Ordinance* 1978 introduces the prescribing of restricted substances by dentists.

The *Termination of Pregnancy Ordinance* 1978 provides for a permanent prohibition on the termination of a pregnancy other than at a public hospital.

The *Public Health (Prohibited Drugs) (Amendment) Ordinance* 1978 provides for review by the Administrative Appeals Tribunal of decisions of the Commissioner relating to the possession of prohibited drugs for research purposes.

The *Health Commission (Amendment) Ordinance* 1978 provides for a nurse commissioner and a simplification of the prescribed functions of the Commission.

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. Stringent conditions regulate the adopting, nursing and maintaining of children placed in foster-homes by private persons.

Nursing activities

Several State Governments maintain centres which provide advice and treatment for mothers and children. In addition, subsidies are granted to various associations engaged in welfare work.

The following table shows particulars of infant welfare centres in States where they can be separately identified. In other areas, infant welfare services have been largely absorbed into the more general Community Health Services.

INFANT WELFARE CENTRES

| | <i>Qld</i> | <i>S.A.</i> | <i>W.A.</i> | <i>Tas.</i> | <i>A.C.T.</i> |
|-------------------------------|------------|-------------|-------------|-------------|---------------|
| | 1976-77 | 1976-77 | 1977 | 1977-78 | 1977-78 |
| Number of centres (a) | 303 | 302 | 207(b) | 103 | 62 |
| Attendance at centres— | | | | | |
| Pre-natal | 8,365 | 6,174 | 19,876(b) | 3,157 | n.a. |
| Post-natal—Number of children | 519,429 | 285,726 | 276,787 | 151,809 | 89,678 |
| Nurses' home-visits (c) | 5,246 | 36,886 | 40,636 | 56,462 | 21,731 |
| Nurses hospital visits (d) | 38,173 | n.a. | n.a. | 9,422 | 208 |

(a) At end of year shown. (b) Part-time centres now included. (c) Pre- and post-natal. (d) Post-natal.

HOSPITALS AND NOTIFIABLE DISEASES

Public and Private Hospitals and Nursing Homes

The ABS no longer publishes Australia-wide details of these institutions although some limited State information is published by State offices of the ABS. Information is also published in the Annual Reports of the Commonwealth Department of Health.

Repatriation hospitals

A full range of services for the medical care and treatment of eligible veterans and certain dependants is available from the Department of Veterans' Affairs hospital system. Patients from the general community may also receive treatment at Repatriation hospitals provided bed capacity is available above the needs of the entitled veteran and the hospital facilities are appropriate to the treatment required.

In-patient treatment is provided at the six acute-care Repatriation General Hospitals (one in each State) and five auxiliary hospitals. In-patient treatment may also be provided in non-departmental public and private 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 9 Social Security and Welfare.

Hansenide hospitals

There are three 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 in the year ended 31 December 1977 were: Little Bay, New South Wales, 3; Fairfield, Victoria, 9; and Derby, Western Australia, 36.

In Queensland, leprosy sufferers are treated at the leprosy annex of the Palm Island Hospital and at a number of other hospitals which do not have facilities set aside specifically for leprosy patients.

In the Northern Territory at 31 December 1977 there were approximately 10 in-patients for the care and repair of deformity at the East Arm Hospital.

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. Numbers of institutions, beds available, staff and patients treated at locations catering only for the mentally ill in 1973-74 were published in Year Book No. 61, page 465. More recent figures indicate that fewer patients were treated as in-patients in nearly every State, but this should not be considered as an indication of improved mental health; it is rather a more advanced method of treatment, allowing patients greater contact with the outside world.

In recent years, in-patient treatment facilities have been opened in the Australian Capital Territory, particularly for mentally retarded children. In the past, such cases were mostly treated in State institutions elsewhere, and the new development allows much greater contact between patients and other members of the family.

Hospital morbidity statistics

A major factor in the cost of health care in Australia is hospital treatment of patients. Attempts to measure the number of in-patients treated and bed-days involved for each disease or injury have been going on for some years, but as coverage is incomplete it is not yet possible to present national statistics. Figures for Queensland, Western Australia and Tasmania, however, are published in *Patients Treated in Hospitals, 1976* (4303.3), *Hospital In-patient Statistics, 1976* (4301.5) and *Hospital Morbidity, 1976* (4301.6) respectively.

An examination of Western Australian figures for 1976 indicates that the largest numbers of patients were treated for injury (11.8 per cent), respiratory diseases (10.9 per cent) and maternity (10.6 per cent), but, in terms of hospital bed-days, the greatest occupancy rate was caused by diseases of the circulatory system (11.9 per cent) followed by injury (10.8 per cent) and maternity (10.0 per cent).

Notifiable diseases

Although State and Territory Health Authorities are responsible for the prevention and control of infectious diseases within their areas of jurisdiction, certain powers and responsibility may be delegated to local authorities within each State. These usually involve such activities as personal health services, environmental sanitation and local communicable disease control.

The Commonwealth Department of Health receives notification figures from the States and Territories on a monthly basis and the national totals for the year are published in the annual report of the Director-General of Health.

The following table shows, by State and Territory, the number of cases notified in 1977 for those diseases which are notifiable in all States and Territories. The table does not include diseases which are notifiable only in certain States or Territories. 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 authorities.

NOTIFIABLE DISEASES(a) NUMBER OF CASES NOTIFIED 1977

| Disease | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | A.C.T. | N.T. | Aust. |
|--------------------------------|--------|-------|-------|-------|-------|------|--------|------|--------|
| Anthrax | 1 | - | - | - | - | - | - | - | 1 |
| Brucellosis | 26 | 21 | 19 | 7 | 1 | 1 | - | - | 75 |
| Cholera | - | - | 2 | - | - | - | - | - | 2 |
| Diphtheria | 1 | - | 2 | - | - | - | - | 4 | 7 |
| Gonorrhoea | 3,807 | 2,138 | 1,678 | 1,921 | 1,373 | 157 | 145 | 560 | 11,779 |
| Hepatitis, infective | 1,024 | 699 | 294 | 262 | 211 | 204 | 44 | 161 | 2,899 |
| Hepatitis, serum | 222 | 188 | 43 | 107 | 9 | - | 40 | 28 | 637 |
| Hydatid | 9 | 3 | 1 | 3 | 1 | - | 2 | - | 19 |
| Leprosy | 7 | 6 | 6 | 1 | 17 | - | - | 16 | 53 |
| Leptospirosis | 4 | 8 | 23 | 2 | - | - | - | - | 37 |
| Malaria | 99 | 47 | 61 | 16 | 26 | 1 | 15 | 12 | 277 |
| Ornithosis | - | 1 | - | - | 1 | - | 1 | - | 3 |
| Poliomyelitis | 1 | 1 | - | - | - | - | - | - | 2 |
| Salmonella | 872 | 185 | 70 | 230 | 277 | 54 | 50 | 55 | 1,763 |
| Syphilis | 597 | 100 | 836 | 360 | 280 | 3 | 2 | 867 | 3,045 |
| Tetanus | 2 | 3 | 4 | 1 | 1 | 2 | - | - | 13 |
| Tuberculosis | 518 | 269 | 228 | 105 | 155 | 29 | 18 | 20 | 1,342 |
| Typhoid fever | 12 | 41 | 3 | - | - | - | 2 | 1 | 59 |
| Typhus (all forms) | 1 | - | 2 | - | - | - | - | - | 3 |

(a) There were no cases of plague, smallpox or yellow fever.

Health-related surveys conducted by the ABS

Alcohol and Tobacco Consumption Survey

A survey conducted by ABS in February 1977 into alcohol and tobacco consumption patterns of the Australian population aged 18 years and over showed that 2.2 per cent of them drank over 80 grams of alcohol per day (considered by health authorities to be heavy drinking) and 35.9 per cent currently smoked cigarettes.

Consumption patterns by State and by such personal characteristics as sex, age, marital status and occupation are published in the bulletins *Alcohol and Tobacco Consumption Patterns, February 1977* (4308.0 and 4312.0).

Australian Health Survey

A survey was conducted by ABS during the period July 1977-June 1978 to obtain information on the health of Australians and the use of and need for various health services and facilities. Topics covered by the survey included recent and chronic illness, accidents, use of medicines, and use of doctors, dentists, and other health workers and facilities, as well as a range of personal and family characteristics. The items are described more fully in *Australian Health Survey Information Paper* (4340.0). Some preliminary results of the survey have been published in *Australian Health Survey Bulletins Nos 1, 2 and 3* (4309.0, 4310.0 and 4311.0), and work is continuing on the production of more detailed information.

The main features of the survey results so far published are:

- 65.3 per cent of the total population reported having had one or more conditions of illness in the two weeks before interview.
- 9.6 per cent of all persons working had at least one day off work due to sickness or injury in the two weeks before interview.
- 17.7 per cent of the total population had consulted a doctor in the two weeks before interview.
- 54.6 per cent of all persons aged 15 years and over reported having taken some form of medication in the two days before interview.

DEATHS

Causes of Death and Perinatal Deaths

Causes of death in Australia are currently classified according to the Eighth Revision of the International Classification of Diseases (ICD) produced by the World Health Organisation. Detailed statistics are published in the bulletin *Causes of Death* (3303.0), and only broad groupings of causes of death are reproduced in this Year Book. Figures shown relate to the year 1976.

The major causes of death in the community are heart disease (accounting for 35.8 per cent), malignant neoplasms (cancers) (17.0 per cent), cerebrovascular disease (strokes) (13.6 per cent) and external injuries (7.5 per cent). Infectious diseases have caused few deaths in Australia in recent years, largely as a result of quarantine activities, immunisation campaigns and similar measures. In 1976, only 0.6 per cent of all deaths were due to such diseases.

As can be seen from the following table, the relative importance of groups of causes of death varies with age. Heart disease, cancer and strokes are predominant in middle and old age. Accidents, particularly those involving motor vehicles, are the primary cause of death in childhood and early adulthood. Most deaths (71 per cent) of infants occur within 28 days after birth and are due to congenital anomalies, birth injury or other conditions present from birth.

PRINCIPAL CAUSES OF DEATH IN VARIOUS AGE GROUPS, 1976

| Age group and causes of death | Number | | | Rate(a) | | | Percentage(b) | | |
|--|--------|---------|---------|---------|---------|---------|---------------|---------|---------|
| | Males | Females | Persons | Males | Females | Persons | Males | Females | Persons |
| Under 1 year— | | | | | | | | | |
| Other causes of perinatal mortality | 604 | 485 | 1,089 | 517 | 437 | 478 | 34.1 | 35.1 | 34.6 |
| Congenital anomalies | 448 | 362 | 810 | 383 | 326 | 356 | 25.3 | 26.2 | 25.7 |
| Birth injury, difficult labour and other anoxic and hypoxic conditions | 263 | 174 | 437 | 225 | 157 | 192 | 14.9 | 12.6 | 13.9 |
| Symptoms and ill-defined conditions | 195 | 117 | 312 | 167 | 105 | 137 | 11.0 | 8.5 | 9.9 |
| 1–4 years— | | | | | | | | | |
| All other accidents | 102 | 57 | 159 | 20 | 12 | 16 | 26.0 | 21.3 | 24.1 |
| Motor vehicle accidents | 82 | 35 | 117 | 16 | 7 | 12 | 20.9 | 13.1 | 17.7 |
| Congenital anomalies | 54 | 51 | 105 | 10 | 10 | 10 | 13.7 | 19.1 | 15.9 |
| All other diseases | 38 | 38 | 76 | 7 | 8 | 8 | 9.7 | 14.2 | 11.5 |
| 5–14 years— | | | | | | | | | |
| Motor vehicle accidents | 150 | 92 | 242 | 12 | 7 | 10 | 30.2 | 28.9 | 29.7 |
| All other accidents | 127 | 46 | 173 | 10 | 4 | 7 | 25.6 | 14.5 | 21.3 |
| Malignant neoplasms | 67 | 62 | 129 | 5 | 5 | 5 | 13.5 | 19.5 | 15.8 |
| All other diseases | 49 | 38 | 87 | 4 | 3 | 3 | 9.9 | 11.9 | 10.7 |
| 15–24 years— | | | | | | | | | |
| Motor vehicle accidents | 1,112 | 235 | 1,347 | 91 | 20 | 56 | 57.2 | 40.7 | 53.4 |
| All other accidents | 238 | 42 | 280 | 19 | 4 | 12 | 12.2 | 7.3 | 11.1 |
| Suicide and self-inflicted injuries | 184 | 48 | 232 | 15 | 4 | 10 | 9.5 | 8.3 | 9.2 |
| Malignant neoplasms | 120 | 63 | 183 | 10 | 5 | 8 | 6.2 | 10.9 | 7.3 |
| 25–34 years— | | | | | | | | | |
| Motor vehicle accidents | 377 | 110 | 487 | 34 | 10 | 23 | 26.7 | 16.8 | 23.5 |
| Malignant neoplasms | 163 | 162 | 325 | 15 | 15 | 15 | 11.5 | 24.7 | 15.7 |
| Suicide and self-inflicted injuries | 226 | 62 | 288 | 21 | 6 | 13 | 16.0 | 9.5 | 13.9 |
| All other accidents | 219 | 32 | 251 | 20 | 3 | 12 | 15.5 | 4.9 | 12.1 |
| 35–44 years— | | | | | | | | | |
| Malignant neoplasms | 361 | 386 | 747 | 44 | 50 | 47 | 17.0 | 32.7 | 22.6 |
| Ischaemic heart disease | 462 | 121 | 583 | 57 | 16 | 37 | 21.7 | 10.3 | 17.6 |
| Motor vehicle accidents | 224 | 86 | 310 | 28 | 11 | 20 | 10.5 | 7.3 | 9.4 |
| All other diseases | 165 | 142 | 307 | 20 | 19 | 19 | 7.8 | 12.0 | 9.3 |
| 45–54 years— | | | | | | | | | |
| Ischaemic heart disease | 2,146 | 474 | 2,620 | 269 | 63 | 169 | 36.7 | 15.5 | 29.5 |
| Malignant neoplasms | 1,281 | 1,168 | 2,449 | 161 | 154 | 158 | 21.9 | 38.3 | 27.5 |
| Cerebrovascular disease | 367 | 302 | 669 | 46 | 40 | 43 | 6.3 | 9.9 | 7.5 |
| All other diseases | 393 | 252 | 645 | 49 | 33 | 42 | 6.7 | 8.3 | 7.3 |
| 55–64 years— | | | | | | | | | |
| Ischaemic heart disease | 4,600 | 1,503 | 6,103 | 769 | 240 | 499 | 39.8 | 25.5 | 35.0 |
| Malignant neoplasms | 2,838 | 1,919 | 4,757 | 475 | 307 | 389 | 24.6 | 32.5 | 27.3 |
| Cerebrovascular disease | 834 | 713 | 1,547 | 139 | 114 | 126 | 7.2 | 12.1 | 8.9 |
| All other diseases | 742 | 445 | 1,187 | 124 | 71 | 97 | 6.4 | 7.5 | 6.8 |
| 65–74 years— | | | | | | | | | |
| Ischaemic heart disease | 6,450 | 3,375 | 9,825 | 1,776 | 779 | 1,233 | 38.1 | 32.9 | 36.2 |
| Malignant neoplasms | 3,855 | 2,335 | 6,190 | 1,061 | 539 | 777 | 22.8 | 22.8 | 22.8 |
| Cerebrovascular disease | 1,803 | 1,698 | 3,501 | 496 | 392 | 440 | 10.7 | 16.6 | 12.9 |
| All other diseases | 1,158 | 822 | 1,980 | 319 | 190 | 249 | 6.8 | 8.0 | 7.3 |
| 75 years and over— | | | | | | | | | |
| Ischaemic heart disease | 6,609 | 8,015 | 14,624 | 4,260 | 2,816 | 3,325 | 33.0 | 30.2 | 31.4 |
| Cerebrovascular disease | 3,091 | 6,154 | 9,245 | 1,992 | 2,162 | 2,102 | 15.4 | 23.2 | 19.8 |
| Malignant neoplasms | 3,064 | 3,100 | 6,164 | 1,975 | 1,089 | 1,402 | 15.3 | 11.7 | 13.2 |
| All other diseases | 1,898 | 2,909 | 4,807 | 1,223 | 1,022 | 1,093 | 9.5 | 11.0 | 10.3 |

(a) Rates are per 100,000 of population at risk, except for children under one year of age which are per 1,000 live births registered.

(b) Percentage of all deaths within each age group.

Perinatal deaths

Since deaths within the first four weeks of life (neonatal deaths) are mainly due to conditions originating before or during birth, and the same conditions can cause foetal death (stillbirth), special tabulations are prepared combining the two. These are termed 'perinatal deaths' and include all children born dead after the twentieth week of gestation or weighing 400 grams or more at delivery and all live-born children who die within 28 days after birth. The following table shows the number of foetal, neonatal and perinatal deaths from the major groups of causes in 1976; further details are published in *Perinatal Deaths* (3304.0).

Within the largest group, 'Other complications of pregnancy and childbirth', the main individual causes were maternal incompetent cervix (5.2 per cent of all perinatal deaths) and multiple births (5.4 per cent). Placental conditions were responsible for 17.0 per cent, and congenital anomalies for 19.6 per cent.

PERINATAL DEATHS BY CAUSE, 1976

| Cause of death | Number of deaths | | | Rate | | |
|--|------------------|----------|-----------|-----------|--------------|---------------|
| | Foetal | Neonatal | Perinatal | Foetal(a) | Neonatal (b) | Perinatal (a) |
| Chronic circulatory and genito-urinary disease in mother | 37 | 11 | 48 | 0.2 | — | 0.2 |
| Other maternal conditions unrelated to pregnancy | 130 | 58 | 188 | 0.6 | 0.3 | 0.8 |
| Toxaemias of pregnancy | 192 | 76 | 268 | 0.8 | 0.3 | 1.2 |
| Maternal ante- and intrapartum infection | 23 | 17 | 40 | 0.1 | 0.1 | 0.2 |
| Difficult labour | 55 | 71 | 126 | 0.2 | 0.3 | 0.5 |
| Other complications of pregnancy and childbirth | 348 | 495 | 843 | 1.5 | 2.2 | 3.7 |
| Conditions of placenta | 584 | 205 | 789 | 2.5 | 0.9 | 3.4 |
| Conditions of umbilical cord | 223 | 25 | 248 | 1.0 | 0.1 | 1.1 |
| Birth injury without mention of cause | 7 | 27 | 34 | — | 0.1 | 0.1 |
| Haemolytic disease of newborn | 46 | 22 | 68 | 0.2 | 0.1 | 0.3 |
| Anoxic and hypoxic conditions not elsewhere classified | 163 | 324 | 487 | 0.7 | 1.4 | 2.1 |
| Other conditions of foetus and newborn | 273 | 171 | 444 | 1.2 | 0.8 | 1.9 |
| Congenital anomalies | 309 | 601 | 910 | 1.3 | 2.6 | 4.0 |
| Infections of foetus and newborn | 3 | 49 | 52 | — | 0.2 | 0.2 |
| Other diseases of foetus and newborn | 10 | 90 | 100 | — | 0.4 | 0.4 |
| External causes of injury to newborn | — | 9 | 9 | — | — | — |
| All causes | 2,403 | 2,251 | 4,654 | 10.4 | 9.9 | 20.2 |

(a) Per 1,000 total births (live and dead). (b) Per 1,000 live births.

The perinatal death rate in 1976 was 20.22 per 1,000 total births, compared with 23.37 per 1,000 births in 1972 when the present definition was first adopted. Prior to 1972, stillbirths comprised only those of at least 28 weeks gestation but, even on this limited basis, the perinatal death rate was 24.8 per 1,000 births in 1965; so it is obvious there has been considerable improvement over the last ten years.

Cremation

The first crematorium in Australia was opened in South Australia in 1903. At 31 December 1977 there were thirty-four crematoria in Australia, situated as follows: New South Wales, 16; Victoria, 4; Queensland, 6; South Australia, 2; Western Australia, 3; Tasmania, 2; Australian Capital Territory, 1. There is no crematorium in the Northern Territory. The number of cremations carried out in 1976 was 50,587 (44.9 per cent of all deaths); in 1977 it was 49,265 (43.7 per cent of all deaths).

CHAPTER 11

LAW AND ORDER

Law and order throughout Australia are matters for Federal, State and Territorial governments and authorities.

This chapter provides information about the Federal courts structure and Federal matters, including bankruptcy, patents and design and copyright; summary details of police strength; statistics of selected crime reported to or becoming known to police; drug offences which are reported on a national basis; and convicted prisoners.

Detailed information about State and Territorial police, courts, prisoners and other law and order functions are provided in State Year Books and other statistical bulletins, and in annual and other reports of the relevant authorities.

Information about public safety, such as details of fire brigade and ambulance services is provided in State Year Books and other statistical bulletins and in reports of the relevant authorities.

FEDERAL COURTS

The judicial power of the Commonwealth is vested in the High Court of Australia, in the Federal courts created by Parliament and in the State courts invested by Parliament with Federal jurisdiction. The nature and extent of the judicial powers of the Commonwealth are prescribed by Chapter III of the Australian Constitution.

High Court of Australia

The High Court consists of a Chief Justice and six other Justices, and has its principal seat in Sydney. However, sittings are held in every State capital as the need arises.

A new building to permanently accommodate the High Court is being built in Canberra and is scheduled to open in 1980.

The Australian Constitution itself confers original jurisdiction on the High Court in all matters:

- (i) arising under any treaty;
- (ii) affecting consuls or other representatives of other countries;
- (iii) in which the Commonwealth of Australia, or a person suing or being sued on behalf of the Commonwealth of Australia, 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 of Australia.

In addition, the Federal Parliament may, under the Constitution, confer additional original jurisdiction on the High Court in certain classes of matters. The Court currently has original jurisdiction in all matters arising under the Constitution or involving its interpretation, in trials of indictable offences against the laws of the Commonwealth, and in respect of certain other matters specified in various laws made by the Parliament.

The High Court's jurisdiction is made exclusive of the jurisdiction of State courts in:

- (i) matters arising directly under any treaty;
- (ii) suits between States or between persons suing or being sued on behalf of different States, or between a State and a person suing or being sued on behalf of another State;
- (iii) suits by the Commonwealth of Australia or any person suing on behalf of the Commonwealth of Australia against a State, or any person being sued on behalf of a State;
- (iv) suits by a State, or any person suing on behalf of a State against the Commonwealth of Australia or any person being sued on behalf of the Commonwealth of Australia;
- (v) matters in which a writ of mandamus or prohibition is sought against an officer of the Commonwealth of Australia or a Federal court.

The High Court's exclusive jurisdiction no longer includes matters involving the limits *inter se* of the constitutional powers of the Commonwealth and those of the States. Where the High Court has concurrent jurisdiction, it may remit a matter commenced in the High Court to a court of concurrent jurisdiction and remove a matter commenced in another such court into the High Court.

Under the Constitution the High Court has jurisdiction, with such exceptions and subject to such regulations as the Federal Parliament prescribes, to hear and determine appeals from all judgments, decrees, orders, and sentences of:

- (i) any Justice or Justices exercising the original jurisdiction of the High Court,
- (ii) any other Federal court or court exercising Federal jurisdiction, and
- (iii) the Supreme Court or other court of any State from which appeal lay to the Privy Council at the establishment of the Commonwealth of Australia.

Subject to the exception mentioned below, an appeal may be brought as of right from a final judgment of a Full Court of a State Supreme Court where the interpretation of the Australian Constitution is involved; from judgments for the sum of \$20,000 or upwards; and from judgments in any proceedings in which the matter in issue amounts to or is of the value of \$20,000 or upwards or which involve a claim, demand or question relating to any property or civil right amounting to or of the value of \$20,000 or upwards. The exception to the generality of this statement is that an appeal on a ground relating to quantum of damages for death or personal injury lies only with special leave of the High Court. In all other cases in which the High Court has appellate jurisdiction, appeals lie only by special leave of the Court.

Appeal to the Privy Council

In 1968 the Federal Parliament passed an Act, which came into operation on 1 September 1968, restricting appeals to the Privy Council. Under the Act no appeal can be taken to the Privy Council from a judgment of the Supreme Court of any Territory or a Federal court other than the High Court.

Until 1975, special leave of the Privy Council to appeal from the High Court could be sought only in matters that came to the High Court on appeal from the Supreme Court of a State exercising jurisdiction not derived from Federal legislation, and which did not raise in the High Court any question of the application or interpretation of the Australian Constitution, or of Federal or Territory legislation. In 1975 the right to apply for special leave in these cases was removed. An exception to the generality of the foregoing is that under the Australian Constitution an appeal lies to the Privy Council in cases involving the powers of the Commonwealth vis-a-vis the States if the High Court certifies that the question is one that ought to be determined by the Privy Council. No such certificate has in fact been granted since 1913.

High Court of Australia Transactions 1977

| | |
|---|----------|
| <i>Original jurisdiction</i> | |
| Number of writs issued | 148 |
| Number of matters heard | 20 |
| <i>Appellate jurisdiction</i> | |
| Number of appeals filed | |
| by plaintiff as appellant | 29 |
| by defendant as appellant | 25 |
| Number of applications for leave/special leave to appeal: | |
| filed | 108 |
| allowed | 42 |
| refused | 41 |
| Number of judgments | |
| reserved | 86 |
| oral | 66 |
| <i>Result of hearings</i> | |
| Verdict/judgments | |
| plaintiff/appellant | 67 |
| defendant/respondent | 60 |
| Otherwise disposed of | 10 |
| <i>Miscellaneous</i> | |
| Number of | |
| matters remitted to State Courts | 46 |
| matters removed into High Court under the Judiciary Act | 5 |
| demurrers set down and heard | 5 |
| cases stated for opinion of a Full Court | 4 |
| <i>Amount of fees collected</i> | \$16,637 |

Federal Court of Australia

The Federal Court of Australia was created in 1976 and commenced to exercise jurisdiction on 1 February 1977.

For the purposes of its organisation and business, the Federal Court of Australia consists of two Divisions: an Industrial Division and a General Division. Matters arising under the *Conciliation and Arbitration Act* 1904 and under the *Stevedoring Industry Act* 1956 are dealt with in the Industrial Division. All other matters are dealt with in the General Division of the Court. The Federal Court of Australia sits as required in each State and in the Australian Capital Territory and the Northern Territory.

The *Federal Court of Australia Act* 1976 provides that the Court has such original jurisdiction as is invested in it by laws made by the Federal Parliament.

In respect of matters the hearing of which commenced on or after 1 February 1977, the Court's original jurisdiction includes that formerly exercised by the Federal Court of Bankruptcy and the Australian Industrial Court. Further, original jurisdiction has been conferred by a number of Acts, the most significant being the *Federal Court of Australia (Consequential Provisions) Act* 1976.

The Federal Court of Australia has appellate jurisdiction with respect to judgments of the Court constituted by a single judge; judgments of the Supreme Courts of the Territories; and, in certain circumstances provided for by legislation, with respect to judgments of State courts other than those of the Full Court of a State Supreme Court (e.g. *Patents Act* 1966, *Trade Marks Act* 1955, *Bankruptcy Act* 1966, *Income Tax Assessment Act* 1936).

Australian Industrial Court and Federal Court of Bankruptcy

The hearing of matters which had commenced in these courts at 1 February 1977 continues to be dealt with by these Courts. Subject to this, the respective jurisdictions formerly exercised by these Courts is now vested in the Federal Court of Australia and each of the Courts is to be abolished when there ceases to be a person holding office as a Judge of the Court.

Family Law Act

The *Family Law Act* 1975 commenced operation on 5 January 1976. It introduced a new law dealing with human problems in marriage, viz. the custody and welfare of the children, divorce, maintenance and the split up of property of the marriage.

The law is administered by the Family Court of Australia and by certain other courts in the States and Territories. A State Family Court has been established in Western Australia to administer family law in that State.

Under the Act, great emphasis is placed on the counselling services available through the family courts to persons involved in proceedings and to any persons who have encountered marriage problems. It is not necessary to start proceedings to make use of these services.

The Act provides that there is only one ground for divorce—that of irretrievable breakdown of a marriage. Irretrievable breakdown of a marriage is established under the law if the husband and wife have separated and have lived apart from each other for 12 months and there is no reasonable likelihood of reconciliation. The main change made by the Act is that fault is no longer taken into account as a ground for divorce.

The Family Court of Australia

Applications can be made to the Family Court of Australia for custody and maintenance even if a divorce is not sought. People may approach the Court for counselling (and help) with regard to their marital problems whether or not they are contemplating proceedings for divorce or other relief.

The judges of the Family Court are chosen because of their suitability to deal with matters of family law by reason of their training, experience and personality. They do not wear wigs and gowns and have a competent back-up staff attached to the Court to assist them.

In dealing with a marriage problem, the Family Court is guided by the following principles:

- the need to preserve and protect the institution of marriage as the union of a man and a woman to the exclusion of all others voluntarily entered into for life;
- the need to give the widest possible protection and assistance to the family as the natural and fundamental group unit of society, particularly while it is responsible for the care and education of dependent children;
- the need to protect the rights of children and to promote their welfare; and
- the means available for assisting parties to a marriage to consider reconciliation or the improvement of their relationship to each other and to the children of the marriage.

The same principles apply to all courts exercising jurisdiction under the *Family Law Act*. Proceedings under the Act in the Family Court are heard in private, and no publicity in newspapers or elsewhere about any proceedings under the Act is permitted.

Counselling

The Family Court aims to be a 'helping' court. A principal Director of Court Counselling and a staff of court counsellors are attached to the Court to help parties settle their problems. Their help is available to people who are not even contemplating divorce or other proceedings, but who may need counselling assistance. These services complement those already provided by voluntary marriage counselling agencies. People may approach the Court counselling service directly—in person, in writing or by telephone—or through a legal advisor.

Children

The Family Court has the special task of protecting and promoting the welfare and rights of dependent children. The paramount consideration guiding the Court in all custody proceedings is the welfare of the children. Further, a divorce decree will not become effective unless the Court is satisfied that proper arrangements have been made by parties for the welfare of their children.

A feature of the new Act is that, in the absence of any court order, both parents of a child have joint custody of the child as a matter of law. However, one parent can ask the Court for sole custody of a child. In disputes over custody, the child may be separately represented. The wishes of children over 14 in such disputes are given special consideration.

Maintenance

The right to maintenance under the new Act is based on the needs of the party seeking it and the ability of the other party to pay. There are specific matters for the Court to consider when it is dealing with maintenance applications. These include:

- the age and state of health of each of the parties;
- the income and financial resources of each of the parties and their financial obligations;
- whether either party is entitled to a pension or superannuation;
- the length of the marriage and what is an appropriate standard of living for each party;
- whether persons seeking maintenance have to care for children;
- the extent to which a marriage has affected the earning capacity of the marriage partners; and
- the possibility of the persons concerned taking on training courses or further educational courses to improve employment prospects.

Both parties are liable to maintain their children according to their respective means and the Court is guided by similar considerations in deciding what order to make.

Matrimonial Property

The Court has power to settle disputes about the family assets, including the power to order a transfer of legal interests in property. When dealing with these disputes, the Court considers the interest each of the parties has in the property and the contribution made during the marriage. The new Act directs the Court to look at the financial contributions made by the parties and at the contribution made by either party in the capacity of homemaker or parent.

Legal Aid

The new Act recognises that even with the simpler procedures, many people will not be able to afford the legal costs associated with Court proceedings. Specific provision is made in the Act for legal assistance to be given to people who are unable to afford legal representation. This is provided on a means and needs test.

The Court has pamphlets printed in English, Arabic, Finnish, German, Italian, Serbo-Croat, Spanish and Turkish to explain the operation of the new Family Law.

LEGAL AID

Australian Legal Aid Office

The Australian Legal Aid Office was established by the Australian Government in July 1973. It provides a general problem-solving service of legal advice for persons with an element of need. Each person seeking help from the Office is seen by a lawyer, the problem is identified and advice is given. Further assistance, including assistance in litigation, is available in matters arising under Federal law, including family law, to all persons, and in matters arising under State or Federal law to persons for whom the Australian Government has a special responsibility such as those in receipt of social services, Aborigines, ex-servicemen, students and newcomers to Australia. The assistance is provided by lawyers of the Office or by referral to private legal practitioners.

The criteria for the provision of further assistance are the merit of the applicant's case and the financial position of the applicant, i.e. whether he satisfies the means and needs test of the Office. In considering the merits, regard is had to all the circumstances, particularly to any advantage the applicant might gain from the provision of assistance and any disadvantage he might suffer if assistance is refused, and the likelihood that the proceedings will be terminated by a decision, settlement or otherwise so as to result in a proper and just advantage to the applicant. The means and needs test is the inability of the applicant to afford the cost of representation in the particular case. A system of contributions by applicants towards the cost of assistance has been in operation since August 1975.

The Office operates in each State and Territory of the Commonwealth: there is a branch in each of the capital cities, and twenty-seven regional offices have been established in suburban and provincial centres. In 1977 the Office employed some 160 lawyers and 200 supporting administrative staff. The lawyers provide advice at interview to approximately 11,000 persons each month; further assistance is provided by the lawyers or by referral to private legal practitioners to an average of 4,800 persons each month. However, since then a number of State Governments have established State operated Legal Aid Offices that have assumed some of the functions of the Australian Legal Aid Office.

ADMINISTRATIVE LAW

There have been a number of important developments in the field of administrative law:

Australian Law Reform Commission

In 1973 the Australian Government established the Australian Law Reform Commission to reform, modernise and simplify Australia's laws. The Attorney-General makes a reference to the Commission on matters requiring attention and, after examination and study, the Commission reports its findings to the Federal Parliament. The Commission has worked in close association with State law reform bodies and with similar agencies overseas.

Since starting formal operations at the beginning of 1975, the Commission has undertaken law reform studies in criminal investigation procedures; complaints against the police; alcohol, drugs, and driving; the legal protection of privacy; defamation; consumers in debt; insurance contract law; the law on organ transplants; the use of Aboriginal customary law in the Australian legal system; the right of access to civil proceedings; the provision of the *Lands Acquisition Act* 1955; and sentencing submissions. Legislative action has been initiated following reports on some of these references.

Administrative Appeals Tribunal

The Administrative Appeals Tribunal came into operation on 1 July 1976. The main purpose of the Tribunal is to reassess bureaucratic decisions. Since the Tribunal's inception, the Australian Government has reviewed and enlarged the Tribunal's jurisdiction, so that it is now an effective and efficient body to which citizens can turn when adversely affected by bureaucratic decisions. The Government has also established an Administrative Review Council to make sure that there are safeguards in legislation to give citizens the right of appeal.

Commonwealth Ombudsman

The Office of Commonwealth Ombudsman was established in mid-1977 to investigate complaints about the administrative actions of officials of Federal Government departments, statutory authorities and other official bodies. It complements the Administrative Appeals Tribunal.

BANKRUPTCY

For a description of the provisions of the *Bankruptcy Act* 1966, see Year Book No. 55, Pages 586-7. The *Bankruptcy Act* was amended in 1970 to remove any obstacle the Act might 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.

The following table shows the number of bankruptcies of the various types together with the disclosed assets and liabilities of the debtors. Details for each State are published in the Annual Report by the Minister for Consumer and Business Affairs on the operation of the *Bankruptcy Act*.

BANKRUPTCY PROCEEDINGS: AUSTRALIA

| | | <i>Bankruptcies and orders for administration of deceased debtors' estates</i> | <i>Compositions</i> | <i>Deeds of assignment</i> | <i>Deeds of arrangement</i> | <i>Total</i> |
|-------------|--------------------|--|---------------------|--------------------------------|---------------------------------|--------------|
| <i>Year</i> | | | | | | |
| 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 |
| 1973-74 | Number | 1,637 | 54 | 110 | 63 | 1,864 |
| | Liabilities \$'000 | 17,194 | 1,196 | 3,569 | 2,280 | 24,241 |
| | Assets \$'000 | 5,970 | 646 | 2,364 | 1,307 | 10,288 |
| 1974-75 | Number | 2,061 | 63 | 128 | 80 | 2,332 |
| | Liabilities \$'000 | 33,788 | 1,693 | 15,776 | 2,742 | 53,999 |
| | Assets \$'000 | 13,529 | 1,069 | 5,129 | 2,034 | 21,761 |
| 1975-76 | Number | 1,900 | 67 | 118 | 92 | 2,177 |
| | Liabilities \$'000 | 48,829 | 8,969 | 6,374 | 15,823 | 79,995 |
| | Assets \$'000 | 14,188 | 490 | 3,864 | 11,667 | 30,209 |
| 1976-77 | Number | 2,196 | 72 | 109 | 75 | 2,452 |
| | Liabilities \$'000 | 48,862 | 6,996 | 6,409 | 15,130 | 77,397 |
| | Assets \$'000 | 20,936 | 723 | 4,389 | 9,947 | 35,995 |
| 1977-78 | Number | 3,134 | 75 | 163 | 89 | 3,461 |
| | Liabilities \$'000 | 74,723 | 12,061 | 9,551 | 6,042 | 102,377 |
| | Assets \$'000 | 27,524 | 646 | 5,152 | 2,521 | 35,843 |

PATENTS, TRADE MARKS AND DESIGNS

Patents

Patents for inventions are granted under the *Patents Act* 1952, which applies to Australia and to the Territory of Norfolk Island and which is administered by the Commissioner of Patents.

PATENTS: AUSTRALIA

| | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 |
|--|--------|--------|--------|--------|--------|--------|
| Total applications | 16,165 | 16,460 | 15,950 | 14,082 | 14,117 | 14,246 |
| Applications accompanied by provisional specifications | 4,195 | 4,354 | 4,036 | 4,250 | 4,214 | 4,248 |
| Letters patent sealed | 10,920 | 11,670 | 12,828 | 12,161 | 11,074 | 9,636 |

Trade marks and designs

Under the *Trade Marks Act* 1955, 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 the Commissioner of Patents is also Registrar of Designs.

TRADE MARKS AND DESIGNS: AUSTRALIA

| | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 |
|----------------------|-------|--------|-------|-------|--------|--------|
| Trade marks— | | | | | | |
| Received | 9,204 | 10,026 | 9,209 | 9,046 | 10,195 | 10,888 |
| Registered | 5,012 | 5,665 | 5,303 | 7,087 | 4,941 | 4,881 |
| Designs— | | | | | | |
| Received | 2,228 | 2,115 | 1,991 | 2,105 | 2,571 | 2,695 |
| Registered | 1,608 | 1,732 | 1,570 | 1,733 | 1,519 | 2,290 |

Copyright

Copyright is regulated by the Commonwealth *Copyright Act* 1968-1973, 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 administered by the Attorney-General's Department.

POLICE AND SELECTED CRIME

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 Commonwealth 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.

Commonwealth Police Force

The Commonwealth Police Force commenced operations on 21 April 1960. It is the principal agency for the enforcement of the laws passed by the Commonwealth Parliament. It is also responsible for the protection of Commonwealth Government property and interests at various buildings and establishments under the control of the Commonwealth 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 suppression of obscene literature and trafficking in women.

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 strength of the police forces in Australia and the ranks of the personnel involved in the Commonwealth, State and Territorial police forces are shown in the following table.

POLICE FORCES(a)

| At 30 June— | C'wealth | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | A.C.T. |
|--------------------------|----------|--------|----------|-------|-------|-------|-------|------|--------|
| 1975 | 1,502 | 8,537 | (b)6,018 | 3,949 | 2,879 | 2,280 | 976 | 457 | 557 |
| 1976 | 1,466 | 8,628 | (b)6,730 | 4,034 | 3,007 | 2,358 | 1,004 | 417 | 551 |
| 1977 | 1,505 | 8,959 | 6,663 | 4,230 | 3,216 | 2,345 | 1,026 | 451 | 549 |
| Comprising in 1977— | | | | | | | | | |
| Executive officers . . . | 15 | 51 | 66 | 17 | 37 | 35 | 8 | 8 | 6 |
| Inspectors | 48 | 216 | 269 | 112 | 64 | 63 | 53 | 23 | 19 |
| Sergeants | 198 | 2,112 | 436 | 964 | 366 | 556 | 145 | 105 | 96 |
| Constables(a) | 1,244 | 6,580 | (b)5,892 | 3,137 | 2,749 | 1,691 | 820 | 315 | 428 |

(a) Includes trainees, cadets and probationary constables in all States and Territories, but excludes cadets in Victoria. (b) Excludes cadets. See footnote (a).

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. For definitions and explanatory notes relating to the following statistics see Year Book No. 61, pp 475-7.

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(a)**

| <i>Category of Crime</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> |
|--|---------------|-------------|------------|-------------|-------------|-------------|-------------|---------------|--------------|
| Homicide (b)— | | | | | | | | | |
| 1974-75 | 272 | 142 | 121 | 68 | 61 | 17 | 19 | 1 | 701 |
| 1975-76 | 273 | 127 | 152 | 74 | 53 | 16 | 17 | 2 | 714 |
| 1976-77 | 314 | 171 | 136 | 57 | 39 | 11 | 33 | 4 | 765 |
| Serious assault— | | | | | | | | | |
| 1974-75 | 908 | 1,104 | 307 | 213 | 238 | 33 | 42 | 34 | 2,879 |
| 1975-76 | 837 | 1,413 | 537 | 244 | 320 | 45 | 43 | 34 | 3,473 |
| 1976-77 | 895 | 1,277 | 544 | 251 | 429 | 42 | 58 | 42 | 3,538 |
| Robbery— | | | | | | | | | |
| 1974-75 | 1,705 | 889 | 343 | 288 | 141 | 46 | 39 | 16 | 3,467 |
| 1975-76 | 1,319 | 826 | 332 | 269 | 145 | 35 | 29 | 18 | 2,973 |
| 1976-77 | 1,353 | 965 | 282 | 265 | 127 | 38 | 19 | 21 | 3,070 |
| Rape— | | | | | | | | | |
| 1974-75 | 364 | 212 | 75 | 91 | 43 | 11 | 22 | 7 | 825 |
| 1975-76 | 342 | 273 | 64 | 131 | 71 | 25 | 7 | 7 | 920 |
| 1976-77 | 307 | 264 | 77 | 148 | 93 | 17 | 15 | 7 | 928 |
| Breaking and entering— | | | | | | | | | |
| 1974-75 | 43,722 | 34,921 | 14,387 | 14,628 | 14,833 | 2,564 | 920 | 1,203 | 127,178 |
| 1975-76 | 41,135 | 33,525 | 15,657 | 14,027 | 14,013 | 2,792 | 978 | 1,196 | 123,323 |
| 1976-77 | 42,142 | 37,347 | 14,318 | 14,562 | 14,433 | 2,835 | 1,141 | 1,512 | 128,290 |
| Motor vehicle theft (c)— | | | | | | | | | |
| 1974-75 | 22,301 | 11,194 | 5,451 | 4,679 | 5,524 | 1,052 | 797 | 542 | 51,540 |
| 1975-76 | 21,769 | 10,880 | 5,199 | 4,846 | 5,279 | 1,032 | 605 | 495 | 50,105 |
| 1976-77 | 23,443 | 13,067 | 5,189 | 4,496 | 5,499 | 858 | 675 | 481 | 53,708 |
| Fraud, forgery and false pretences— | | | | | | | | | |
| 1974-75 | 14,768 | 10,047 | 5,932 | 3,612 | 3,167 | 932 | 312 | 593 | 39,363 |
| 1975-76 | 15,372 | 15,982 | 8,293 | 3,238 | 4,103 | 809 | 559 | 701 | 49,057 |
| 1976-77 | 18,349 | 14,166 | 8,946 | 3,604 | 3,524 | 984 | 503 | 1,695 | 51,771 |

(a) Includes attempts and a small number of unfounded reports. (b) Comprising murder, attempted murder, and manslaughter, including manslaughter arising from motor vehicle accidents. (c) Includes illegal, unlawful or unauthorised use, etc.

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. Subdivisions of the categories homicide, breaking and entering, and fraud, etc., are provided.

HOMICIDE: CRIMES REPORTED OR BECOMING KNOWN, CRIMES CLEARED AND PERSONS INVOLVED

| | <i>Murder</i> | | | <i>Attempted murder</i> | | | <i>Manslaughter(a)</i> | | | <i>All homicide</i> | | |
|--|----------------|----------------|----------------|-------------------------|----------------|----------------|------------------------|----------------|----------------|---------------------|----------------|----------------|
| | <i>1974-75</i> | <i>1975-76</i> | <i>1976-77</i> | <i>1974-75</i> | <i>1975-76</i> | <i>1976-77</i> | <i>1974-75</i> | <i>1975-76</i> | <i>1976-77</i> | <i>1974-75</i> | <i>1975-76</i> | <i>1976-77</i> |
| Numbers reported or becoming known | 225 | 250 | 252 | 172 | 140 | 148 | 314 | 332 | 365 | 701 | 714 | 765 |
| Numbers cleared | 203 | 225 | 231 | 158 | 131 | 143 | 304 | 325 | 362 | 665 | 698 | 736 |
| Persons involved in crimes cleared— | | | | | | | | | | | | |
| Aged(b)— | | | | | | | | | | | | |
| 16 years and under . . . | 11 | 7 | 13 | 10 | 2 | 4 | 10 | 6 | 6 | 31 | 15 | 23 |
| 17 and 18 years | 12 | 16 | 15 | 10 | 11 | 14 | 53 | 50 | 37 | 75 | 77 | 66 |
| 19 and 20 years | 24 | 18 | 21 | 8 | 12 | 9 | 43 | 54 | 58 | 75 | 84 | 88 |
| 21 years and over | 159 | 156 | 196 | 104 | 84 | 99 | 216 | 211 | 210 | 479 | 451 | 507 |
| Total persons involved | 206 | 197 | 245 | 132 | 109 | 126 | 322 | 321 | 311 | (c)660 | (c)627 | (c)684 |

(a) Includes manslaughter arising from motor vehicle accidents. (b) Age last birthday at time of clearance. (c) Includes 58 females in 1974-75, 55 in 1975-76 and 73 in 1976-77.

| | <i>Serious assault</i> | | | <i>Robbery</i> | | | <i>Rape</i> | | |
|--|------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | <i>1974-75</i> | <i>1975-76</i> | <i>1976-77</i> | <i>1974-75</i> | <i>1975-76</i> | <i>1976-77</i> | <i>1974-75</i> | <i>1975-76</i> | <i>1976-77</i> |
| Numbers reported or becoming known | 2,879 | 3,473 | 3,538 | 3,467 | 2,973 | 3,070 | 825 | 920 | 928 |
| Numbers cleared | 2,046 | 2,600 | 2,532 | 1,018 | 911 | 845 | 458 | 483 | 433 |
| Persons involved in crimes cleared— | | | | | | | | | |
| Aged(a)— | | | | | | | | | |
| 16 years and under | 202 | 219 | 209 | 258 | 209 | 183 | 84 | 80 | 74 |
| 17 and 18 years | 274 | 326 | 293 | 299 | 243 | 210 | 106 | 134 | 109 |
| 19 and 20 years | 240 | 320 | 357 | 207 | 167 | 193 | 105 | 91 | 95 |
| 21 years and over | 1,350 | 1,734 | 1,763 | 537 | 457 | 460 | 263 | 284 | 249 |
| Total persons involved . . . | (b)2,066 | (b)2,599 | (b)2,622 | (c)1,301 | (c)1,076 | (c)1,046 | 558 | 589 | 527 |

**BREAKING AND ENTERING: CRIMES REPORTED OR BECOMING KNOWN, CRIMES
CLEARED AND PERSONS INVOLVED**

| | Dwellings | | | Shops | | | Other buildings | | | All breaking and entering | | |
|-------------------------------------|-----------|---------|---------|---------|---------|---------|-----------------|---------|----------|---------------------------|-----------|---------|
| | 1974-75 | 1975-76 | 1976-77 | 1974-75 | 1975-76 | 1976-77 | 1974-75 | 1975-76 | 1976-77 | 1974-75 | 1975-76 | 1976-77 |
| Numbers reported or becoming known | 64,572 | 62,750 | 64,712 | 24,807 | 23,035 | 22,092 | 37,799 | 37,500 | 41,486 | 127,178 | 123,323 | 128,290 |
| Numbers cleared | 12,815 | 11,756 | 11,049 | 5,959 | 5,750 | 5,132 | 6,285 | 6,693 | 6,893 | 25,059 | 24,199 | 22,074 |
| Persons involved in crimes cleared— | | | | | | | | | | | | |
| Aged(a)— | | | | | | | | | | | | |
| 16 years and under . . . | 4,657 | 4,036 | 3,951 | 2,524 | 2,816 | 2,495 | 3,181 | 3,610 | 3,787 | 10,362 | 10,462 | 10,233 |
| 17 and 18 years . . . | 1,051 | 871 | 884 | 1,013 | 900 | 864 | 701 | 649 | 827 | 2,765 | 2,420 | 2,575 |
| 19 and 20 years . . . | 500 | 495 | 552 | 609 | 530 | 509 | 413 | 377 | 466 | 1,522 | 1,402 | 1,537 |
| 21 years and over . . . | 1,216 | 1,383 | 1,319 | 1,329 | 1,126 | 1,125 | 956 | 889 | 1,034 | 3,501 | 3,398 | 3,478 |
| Total persons involved . . . | 7,414 | 6,785 | 6,706 | 5,475 | 5,372 | 4,993 | 5,251 | 5,525 | 6,114(b) | 18,150(b) | 17,682(b) | 17,813 |

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

| | Motor vehicle theft, (a) | | | Fraud, forgery, false pretences | | | | | | | | |
|--|-----------------------------|---------|---------|---------------------------------|---------|---------|---------|---------|---------|-----------------|---------|---------|
| | | | | Valueless cheques | | | Other | | | All fraud, etc. | | |
| | 1974-75 | 1975-76 | 1976-77 | 1974-75 | 1975-76 | 1976-77 | 1974-75 | 1975-76 | 1976-77 | 1974-75 | 1975-76 | 1976-77 |
| Numbers reported or becoming known . . . | 51,540 | 50,105 | 53,708 | 10,382 | 10,946 | 10,916 | 24,912 | 33,310 | 40,855 | 39,363 | 49,057 | 51,771 |
| Numbers cleared . . . | 10,939 | 10,668 | 10,866 | 6,904 | 6,966 | 6,894 | 19,062 | 23,745 | 24,533 | 25,966 | 30,731 | 31,427 |
| Persons involved in offences cleared— | | | | | | | | | | | | |
| Males aged (b)— | | | | | | | | | | | | |
| 16 years and under . . | 5,183 | 4,738 | 4,828 | 90 | 90 | 76 | 384 | 436 | 420 | 474 | 526 | 496 |
| 17 and 18 years . . . | 2,787 | 2,583 | 2,642 | 115 | 113 | 118 | 431 | 465 | 501 | 546 | 578 | 619 |
| 19 and 20 years . . . | 1,252 | 1,199 | 1,302 | 148 | 122 | 130 | 451 | 557 | 541 | 599 | 679 | 671 |
| 21 years and over . . . | 1,981 | 2,047 | 1,983 | 1,492 | 1,259 | 1,426 | 3,596 | 3,667 | 3,792 | 5,088 | 4,926 | 5,218 |
| Total Males | 11,203 | 10,567 | 10,775 | 1,845 | 1,584 | 1,750 | 4,862 | 5,125 | 5,254 | 6,707 | 6,709 | 7,004 |
| Females aged (b)— | | | | | | | | | | | | |
| 16 years and under . . | 195 | 193 | 216 | 30 | 19 | 12 | 192 | 194 | 190 | 222 | 213 | 202 |
| 17 and 18 years . . . | 55 | 55 | 66 | 29 | 59 | 29 | 164 | 206 | 220 | 193 | 265 | 249 |
| 19 and 20 years . . . | 22 | 25 | 31 | 45 | 42 | 29 | 164 | 176 | 167 | 209 | 218 | 196 |
| 21 years and over . . . | 57 | 53 | 58 | 214 | 242 | 235 | 787 | 815 | 919 | 1,001 | 1,057 | 1,154 |
| Total females | 329 | 326 | 371 | 318 | 362 | 305 | 1,307 | 1,391 | 1,496 | 1,625 | 1,753 | 1,801 |
| Total persons involved | 11,532 | 10,893 | 11,146 | 2,163 | 1,946 | 2,055 | 6,169 | 6,516 | 6,752 | 8,332 | 8,462 | 8,805 |

The number of stolen motor vehicles recovered was: 1974-75, 44,813; 1975-76, 42,648; 1976-77, 46,803.

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, tranquillisers and certain other sedatives.

Legislative provisions

Regulation 5 of the Customs (Prohibited Imports) Regulations made under Section 50 of the *Customs Act* 1901 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 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. The regulation, control and prohibition of the selling, using, possessing and administering (including smoking) of poisons, restricted substances, drugs of addiction, dangerous drugs and deleterious substances are subject to State and Territory legislation.

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.

Since 1970 some States have 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 Commonwealth Government legislation.

Law enforcement

Law enforcement in respect of drugs is handled by State police forces, the Commonwealth Police Force and the Department of Business and Consumer Affairs. 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 Secretary of the Department of Business and Consumer Affairs. The Department administers the Australian Narcotics Bureau and the Bureau of Customs, and has responsibility for the enforcement of laws controlling importing and exporting of drugs. Membership of the Committee is comprised of senior officers of the Commonwealth and State police and health authorities. Its Deputy Chairman is the Director-General of the Australian Department of Health.

The National Standing Control Committee on Drugs of Dependence recommended that the Australian Crime Intelligence Centre (formerly known as the Central Crime Intelligence Bureau) of the Commonwealth Police Force serve as the national agency for the systematic collection, collation, evaluation and dissemination of information concerning the illicit drug traffic in Australia. The following extracts are from detailed statistics published in *Drug Abuse in Australia: A Statistical Survey* prepared annually by the Australian Crime Intelligence Centre of the Commonwealth Police. They include information from all police forces and the Department of Business and Consumer Affairs.

DRUG OFFENCES: OFFENCE TYPE, CLEARED BY CHARGE, 1974 TO 1976

| Year | Possess | Import | Use/ administer | Traffic | Steal | False pretences | Forged scripts | Other and non- related crime |
|----------------|---------|--------|--------------------|---------|-------|--------------------|-------------------|---------------------------------------|
| 1974 | 5,097 | 172 | 2,532 | 470 | 161 | 42 | 66 | 199 |
| 1975 | 7,878 | 81 | 4,537 | 877 | 228 | 103 | 343 | 1,238 |
| 1976 | 9,812 | 210 | 5,510 | 1,048 | 231 | 215 | 447 | 1,966 |

DRUG OFFENCES: NUMBER OF CHARGES (a) INVOLVING SPECIFIC DRUG TYPES, 1974 TO 1976

| Type of drug and Year | Possess | Import | Use/ administer | Traffic | Steal | False pretences | Forged scripts | Other | Total |
|--------------------------------|---------|--------|--------------------|---------|-------|--------------------|-------------------|-------|--------|
| Narcotics— | | | | | | | | | |
| 1974 | 367 | 36 | 312 | 89 | 165 | 57 | 89 | 43 | 1,158 |
| 1975 | 590 | 15 | 581 | 147 | 73 | 78 | 305 | 87 | 1,876 |
| 1976 | 941 | 92 | 1,061 | 219 | 70 | 228 | 391 | 126 | 3,128 |
| Cannabis— | | | | | | | | | |
| 1974 | 4,125 | 152 | 1,964 | 342 | 2 | — | — | 591 | 7,176 |
| 1975 | 7,518 | 68 | 3,809 | 686 | 1 | — | — | 926 | 13,008 |
| 1976 | 9,143 | 149 | 4,379 | 766 | 6 | 1 | — | 1,245 | 15,689 |
| Amphetamines— | | | | | | | | | |
| 1974 | 29 | 2 | 20 | 5 | — | — | — | 3 | 59 |
| 1975 | 26 | — | 17 | 3 | 3 | — | 20 | 1 | 70 |
| 1976 | 36 | — | 32 | 11 | — | 2 | 10 | 2 | 93 |
| Barbiturates hypnotics— | | | | | | | | | |
| 1974 | 58 | — | 20 | 11 | 10 | 1 | 3 | 1 | 104 |
| 1975 | 150 | 1 | 97 | 20 | 11 | 6 | 22 | 8 | 315 |
| 1976 | 197 | 1 | 142 | 72 | 4 | 26 | 59 | 12 | 513 |
| Tranquillisers— | | | | | | | | | |
| 1974 | 18 | — | 1 | — | 10 | 1 | 4 | — | 34 |
| 1975 | 17 | — | 11 | 3 | 3 | 12 | 46 | 7 | 99 |
| 1976 | 25 | — | 15 | 9 | 3 | — | 14 | 2 | 68 |
| Hallucinogens— | | | | | | | | | |
| 1974 | 133 | 5 | 79 | 27 | — | — | — | 2 | 246 |
| 1975 | 282 | 4 | 104 | 57 | — | — | — | 2 | 449 |
| 1976 | 259 | 2 | 91 | 58 | — | 1 | — | 5 | 416 |
| Other— | | | | | | | | | |
| 1974 | 172 | 2 | 15 | 24 | 40 | 3 | 9 | 23 | 288 |
| 1975 | 7 | — | 5 | — | 5 | 3 | 1 | — | 21 |
| 1976 | 23 | — | 7 | 1 | 2 | 2 | 4 | 2 | 41 |
| Grand total— | | | | | | | | | |
| 1974 | 4,902 | 197 | 2,411 | 498 | 227 | 62 | 105 | 663 | 9,065 |
| 1975 | 8,590 | 88 | 4,624 | 916 | 96 | 99 | 394 | 1,031 | 15,847 |
| 1976 | 10,624 | 244 | 5,727 | 1,136 | 85 | 260 | 478 | 1,394 | 19,948 |

(a) If a number of different drug types have been involved in an offence, they are counted under each drug category.

PROSECUTIONS AND CONVICTIONS FOR DRUG OFFENCES REPORTED TO THE AUSTRALIAN CRIME INTELLIGENCE CENTRE: PERSONS INCLUDED

| | Number of offenders | | | Number of individual charges | | | Convictions on individual charges | | |
|-----------------------------|------------------------|---------------|---------------|---------------------------------|---------------|---------------|--------------------------------------|--------------|--------------|
| | 1974 | 1975 | 1976 | 1974 | 1975 | 1976 | 1974 | 1975 | 1976 |
| Males aged— | | | | | | | | | |
| 16 years and under | 295 | 598 | 793 | 308 | 688 | 864 | 95 | 92 | 228 |
| 17 and 18 years | 1,403 | 2,441 | 3,053 | 1,536 | 2,725 | 3,307 | 572 | 674 | 1,097 |
| 19 and 20 years | 1,935 | 3,112 | 3,736 | 2,163 | 3,448 | 4,167 | 968 | 1,035 | 1,460 |
| 21 years and over | 3,489 | 5,641 | 7,147 | 4,060 | 6,504 | 8,568 | 1,741 | 1,848 | 2,786 |
| Females aged— | | | | | | | | | |
| 16 years and under | 98 | 144 | 157 | 106 | 167 | 171 | 28 | 23 | 44 |
| 17 and 18 years | 211 | 420 | 481 | 240 | 452 | 536 | 82 | 117 | 195 |
| 19 and 20 years | 275 | 426 | 527 | 307 | 470 | 602 | 139 | 135 | 204 |
| 21 years and over | 409 | 705 | 963 | 459 | 831 | 1,215 | 180 | 202 | 297 |
| Persons | 8,115 | 13,487 | 16,857 | 9,179 | 15,285 | 19,430 | 3,805 | 4,126 | 6,311 |

Sentences on convictions

| | Fines imposed | | | Gaol sentences | | | Number of bonds granted | | |
|-----------------------------|---------------|--------------|--------------|----------------|------------|------------|----------------------------|------------|------------|
| | 1974 | 1975 | 1976 | 1974 | 1975 | 1976 | 1974 | 1975 | 1976 |
| Males aged— | | | | | | | | | |
| 16 years and under | 36 | 32 | 108 | 1 | — | — | 51 | 45 | 84 |
| 17 and 18 years | 406 | 489 | 843 | 17 | 14 | 42 | 131 | 163 | 187 |
| 19 and 20 years | 708 | 783 | 1,141 | 87 | 51 | 89 | 134 | 176 | 204 |
| 21 years and over | 1,239 | 1,319 | 1,983 | 186 | 177 | 280 | 233 | 299 | 298 |
| Females aged— | | | | | | | | | |
| 16 years and under | 4 | 3 | 17 | — | — | — | 16 | 20 | 25 |
| 17 and 18 years | 50 | 81 | 125 | 4 | 3 | 6 | 33 | 33 | 52 |
| 19 and 20 years | 97 | 95 | 131 | 4 | 2 | 9 | 33 | 42 | 56 |
| 21 years and over | 105 | 123 | 194 | 10 | 9 | 20 | 53 | 57 | 81 |
| Persons | 2,645 | 2,925 | 4,542 | 309 | 256 | 446 | 684 | 835 | 987 |

Convicted prisoners

There are prisons in all States and the Northern Territory. In the Australian Capital Territory there are lock-ups attached to each of the police stations in Canberra and at Jervis Bay, as well as a remand centre in the Canberra suburb of Belconnen where offenders are held for short periods. Prisoners sentenced by a court in the Australian Capital Territory to more than five days are usually held in New South Wales prisons.

CONVICTED PRISONERS

| <i>30 June—</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>Aust.</i> |
|-----------------|------------------|-------------|------------|-------------|-------------|-------------|-------------|--------------|
| 1972 | 3,641 | 2,192 | 1,313 | 816 | 1,269 | 339 | 252 | 9,822 |
| 1973 | 3,419 | 2,096 | 1,414 | 675 | 1,105 | 332 | 282 | 9,323 |
| 1974 | 2,696 | 1,568 | 1,224 | 640 | 915 | 346 | 144 | 7,533 |
| 1975 | 3,009 | 1,488 | 1,305 | 632 | 867 | 361 | 158 | 7,820 |
| 1976 | 3,221 | 1,490 | 1,399 | 594 | 873 | 297 | 160 | 8,034 |
| 1977 | 3,272 | 1,386 | 1,393 | 618 | 1,032 | 267 | 175 | 8,143 |

(a) Includes Australian Capital Territory prisoners held in New South Wales prisons.

CHAPTER 12

EDUCATION

State and Commonwealth Government responsibilities in education

Under Australia's federal constitution, education is a responsibility of the six State Governments, although the Commonwealth Government is responsible for education in the Australian Capital Territory, Northern Territory, Norfolk Island, Christmas Island and the Cocos (Keeling) Islands. As from 1 July 1979 education in the Northern Territory will become the responsibility of the Northern Territory Government.

The six State Governments administer their own systems of primary, secondary, and technical education through government departments responsible to State Ministers. In each State except New South Wales and South Australia, a single Education Department is responsible for these three levels of education. In New South Wales and South Australia the Education Department concentrates on primary and secondary education and a separate department is responsible solely for technical and further education. The Commonwealth Government provides similar education services in the Australian Capital Territory and the Northern Territory. Universities and colleges of advanced education in Australia are autonomous institutions established under acts of the appropriate parliament.

Detailed information on the education systems of the States may be found in the respective State year books. Chapter 27 of this Year Book provides details of the situation in the mainland and external Territories.

General Characteristics of Schools

Compulsory education

School attendance is compulsory throughout Australia between the ages of 6 and 15 years (16 years in Tasmania), but many States accept children below the age of 6. In all States and Territories the opportunity for four year olds to attend pre-school is becoming more widely available.

The Education legislation in each State and Territory requires that all children between the prescribed ages must attend either a government school or some other recognised educational institution. In 1978 over 638,000 students attended non-government schools, of which about 80 per cent attended Catholic schools. The organisation of Catholic primary schools is largely diocesan; Catholic secondary schools are either diocesan or administered by religious orders. Most other non-government schools are under the auspices of, or are actually run by, other religious denominations. Non-government schools must meet certain standards determined by the States or Territories in which they are located. In most States and Territories they cannot be opened, or continue to operate, unless they are registered. Registration is normally dependent upon certification that the school has satisfactory premises and provides regular and efficient instruction.

Funding of schools

Education at all government primary and secondary schools in Australia is free. Each State provides the major portion of funds for its own school system from its general revenue funds. The other source of funds is the Commonwealth Government's Schools Commission. The non-government schools draw funds from private sources and also receive Government financial assistance (both State and Commonwealth). For further details, see page 244, expenditure on education.

School organisation and operation

Students in Australia generally proceed from a primary school to a secondary school within their own locality. Primary schools and secondary schools are usually separate institutions. Pre-schools are also normally separate institutions, although some are attached to or near the local primary school. In small towns and communities there are sometimes area or central schools which provide both primary and some secondary schooling, though not necessarily to Year 12 level. In Tasmania and the Australian Capital Territory, the final two years of secondary schooling in the Government system are provided at separate colleges.

The majority of government schools in Australia are comprehensive and co-educational. All schools with both primary and secondary enrolments (mainly area or district schools in rural areas), all but a few primary schools, and over four-fifths of secondary schools are co-educational. Under the present policies of school authorities, it is unlikely that any new government single-sex schools will be established.

The situation in non-government schools is different. Approximately three-quarters of non-government secondary schools, and about one half of those with primary schools attached to them, are single-sex.

Australian schools generally operate between approximately 9 a.m. and 3 p.m. for three terms between early February and mid-December. Most schools are constructed around the traditional classroom, although there is a trend towards the provision of some open plan or flexible learning spaces. Schools usually also provide library and sporting facilities.

Generally, schools in Australia now have a considerable degree of autonomy. In recent years most State education departments have established regional administrations which are responsible for matters such as planning school buildings and deploying staff, and a central curriculum unit which provides general guidelines on course planning. In some systems these guidelines are more prescriptive than in others. In general, individual schools offer options and determine teaching and learning approaches within the guidelines and within the limitations of available resources and the aptitudes and interests of their students. Usually parent associations are attached to each school, and there has been encouragement of greater community participation in general decision-making at school level through representation on school councils and boards which are being established in some systems to take some responsibility for school planning and policy formulation.

Schools usually provide educational or vocational counselling through an attached or visiting teacher. Many schools also provide special facilities or teachers to assist migrant children, especially where the schools are located in areas of high migrant density. In all States and the Northern Territory there are special Commonwealth funded education projects designed to assist Aboriginal school children. Notable among these is the widespread use of Aboriginal teacher aides, and bilingual programs in a number of Aboriginal communities where the children's first language is an Aboriginal language.

Pre-school education

Pre-schools were first established by voluntary organisations and a large number are still operated by them with State and Commonwealth financial assistance. Departments of Education in four States and the two Territories are responsible for the administration of pre-school centres. In New South Wales the Department of Education shares the responsibility with welfare authorities, and in Victoria the Department of Health has the complete responsibility for pre-school services.

In recent years most States have announced a commitment to provide pre-school education for all children and therefore Government pre-schools have been increasing more rapidly than those provided by voluntary organisations. In addition, special Commonwealth Government funding has helped to promote a considerable expansion of pre-school facilities for Aboriginal children throughout Australia.

There is no prescribed pre-school curriculum but some States have developed guidelines where the pre-school centre is an integral part of the primary school system. Most teachers working in pre-school centres provide a play-based program with some emphasis on the development of concepts associated with language, science and music. In most States pre-schools operate on a half-day sessional basis and thus accommodate two and sometimes three different groups of children each week.

In 1978 the Australian Education Council (AEC) set up a working party to report on present policies and arrangements for pre-school education in Australia. The working party is to make a preliminary report to the AEC early in 1979.

Primary and Secondary Education

A generalised description of the basic subjects and teaching methods at each level follows.

Primary schools

In the lower primary years the main emphasis is on the development of basic language and literacy skills, simple arithmetic, moral and social education, health training and some creative activities.

In the upper primary years there is development of the skills learned in the earlier years. English, mathematics, social studies, science, music, art and craft, physical education and health are studied. There are also optional subjects such as religious instruction and, in some schools, foreign languages and instrumental music.

Students in Australian primary schools usually have the one class teacher for all subjects, though in schools where open plan learning styles have been adopted, the method of team teaching is often practised. Promotion is generally annual, with peers being promoted on age not achievement, though there has been increasing interest in multi-age grouping.

Secondary schools

In some systems the first one or two years of secondary school consist of a general program which is followed by all students, although there may be some electives. In later years a basic core of subjects is retained with students being able to select additional optional subjects. In other systems students select options from the beginning of secondary school.

The core subjects in all systems are English, mathematics, science and, usually, a humanities or social science subject. Optional subjects may include a foreign language, a further humanities or social science subject, commerce, art, music, home arts and craft, a manual arts subject, or agriculture. Some schools offer optional courses in subjects such as consumer education, conversational foreign languages, shorthand, typewriting, road safety, drama and leisure-time activities.

In senior secondary years a wider range of options is available in the larger schools and there is an increasing trend towards encouraging individual schools to develop courses suited to the needs and interests of their students, subject to accreditation and moderation procedures.

Victoria is the only State which retains a system of secondary technical education. These schools offer a wide range of elective technical subjects. In the Northern Territory three Aboriginal residential colleges assist Aboriginals to participate in secondary education.

Students in Australian secondary schools generally have different teachers for each separate subject area, though, like primary schools, variations may occur where open planned or more flexible methods have been adopted. Promotion is, again, generally chronological, but students may be grouped according to ability after an initial period in unstreamed classes.

Examinations and assessment at each level are carried out by individual schools except in Year 12 in the systems which have retained external examinations at Year 12 level. Students attaining the minimum school leaving age may leave school and seek employment, or enrol in a vocationally oriented course in a technical and further education (TAFE) institution or a private business college. For many TAFE courses, completion of Year 10 of secondary school is a minimum entry requirement. For those continuing to the end of secondary school (Year 12), opportunities for further study are available in TAFE institutions, universities, colleges of advanced education and other post-school institutions. The latter include non-government teachers colleges and a few single purpose institutions such as the Australian Film and Television School, the Australian Maritime College and the National Institute of Dramatic Art.

The entrance requirements of universities and colleges of advanced education are based on Year 12 academic achievement. Standardised scholastic aptitude tests are used by some institutions to assist in the selection of students. Requirements are determined by the individual institutions. In recent years there has been an increasing tendency towards more flexible entry arrangements for mature age and disadvantaged students. Applications are usually required in October or November of the year preceding proposed entry.

Other schooling arrangements

Children may be exempted from the requirement of compulsory attendance if they live too far from a school or suffer a physical disability. These children usually receive correspondence tuition. Special schools are available in larger centres for socially, physically and mentally handicapped children in cases where they are not catered for in special or regular classes in ordinary schools.

In addition to correspondence tuition there are other provisions for children in isolated areas. Schools of the Air operate in New South Wales, South Australia, Queensland, Western Australia and the Northern Territory. Schooling for the children of Aboriginal groups in remote areas of the Northern Territory is conducted by Aboriginal teaching assistants supported by visiting teachers from established schools. Increasing numbers of Aboriginals are now being trained as fully qualified teachers. Special education is provided by State Governments, although in all States and particularly in New South Wales, Queensland and Victoria, parents have formed voluntary organisations to establish additional schools catering for their children's special needs. The Commonwealth Government, through its Schools Commission, provides funds to State authorities to assist in the upgrading of special education facilities.

Boarding facilities are available at some non-government schools in the larger towns and cities. Some government schools, in particular those catering for special groups such as Aboriginals, have residential hostels close by.

Post-secondary Education

Technical and further education (TAFE)

Like primary and secondary schools, TAFE institutions operate from early February to mid-December, in either three terms or two semesters depending on the institution.

The major part of technical and further education in Australia is provided in government administered institutions variously known as colleges, schools, or centres of technical or further education. There is also some TAFE provision in some colleges of advanced education, agricultural colleges and adult education authorities. These institutions are spread widely throughout Australia in both metropolitan and rural areas. They vary greatly in size and in the scope of their educational provisions, though the largest tend to be located in metropolitan regions.

Each of the States provides the bulk of the finance for its own institutions. The Commonwealth Government provides supplementary funds to the States on the basis of recommendations from the Tertiary Education Commission.

Government TAFE institutions offer an extremely wide range of vocational and non-vocational courses. The majority of students are part-time and employed. About 5 per cent of students are enrolled in full-time courses and a further 7.5 per cent of students are external. Apprenticeship and related trade courses constitute about one-fifth of TAFE enrolments. There are also large numbers of other vocational courses for persons not indentured in a trade. These include many certificate courses for prospective technicians and persons engaged in para-professional occupations, particularly in the manufacturing and service industries, and wide range of courses designed to supplement previous training or to provide specialised instruction in particular aspects of job skills. Other courses offered are those providing pre-vocational training to persons prior to their entry into employment, and preparatory or bridging instruction to persons whose educational experience is not sufficient to permit direct entry to a chosen vocational course.

Government TAFE institutions are also major providers of adult education courses of the personal interest, leisure or general enrichment kind. More than one-quarter of TAFE students are enrolled in courses of this kind.

There are some non-government bodies which offer technical and further education of a non-apprenticeship nature. Business colleges offer courses in secretarial studies, while agencies such as the Workers Educational Association and a range of voluntary groups help meet adult education needs in the community.

Colleges of advanced education

Colleges of advanced education normally operate over three terms or two semesters, beginning in early to late February and running to mid-December. Students commencing courses will have completed a full secondary education, or will have demonstrated that they have a high probability of successfully completing a course. There are quotas on new enrolments at many of the larger colleges. Although there are usually provisions for mature-age entry, the majority of students proceed straight from school. Approximately 56 per cent of students attend full-time.

In 1978 there were seventy three colleges of advanced education. Some are large diversified or multi-vocational institutes, others are small single-purpose colleges. Some colleges specialise in agriculture, art or teacher education. About one third of colleges have enrolments below 1,000 students. All colleges are funded by the Commonwealth Government. Advanced education level courses are also provided by some TAFE institutions.

The principal purpose of the colleges is to provide tertiary education oriented towards practical training and industrial and social needs. The colleges aim to equip students so that immediately after graduation they may play an effective role in commerce, industry, the Public Service and the Arts. The colleges emphasise undergraduate teaching more than research, although some colleges also offer postgraduate level courses, either at the diploma or masters level. Most colleges have a commitment to part-time study, and many offer 'sandwich' courses, which provide a period of full-time study with associated periods of full-time employment. Some colleges also offer external courses.

The duration of a basic undergraduate course in a college of advanced education is two to three full-time years, at the conclusion of which an Associate Diploma, a Diploma or a Bachelor Degree is awarded. A great variety of courses is offered by colleges of advanced education, embracing such areas as applied science, teacher education, liberal arts, business and secretarial studies and paramedical studies.

Although teaching in colleges of advanced education is more vocationally-oriented and less theoretical or academic than in universities, the system of tuition is similar. Lectures, tutorials and seminars are organised by the institution in the subjects offered. Normally, assessment of a student's progress is made by examination and/or completion of prescribed coursework.

Halls of residence are provided at some colleges of advanced education, principally those located in rural areas. These can accommodate some, but not usually all, students enrolled at those institutions.

Universities

The university year in Australia normally runs from late February or early March to mid-December over three terms or two semesters depending on the institution. Students commencing courses will have completed a full secondary education, though most universities have some provisions for admitting other persons who can demonstrate that they have a high probability of successfully completing a course. There are quotas on new enrolments in most faculties in Australian universities. Although there are usually provisions for mature-age entry, the majority of students proceed straight from school. Sixty three per cent of students attend full-time.

There are nineteen universities in Australia, most of which are located in the capital cities. Universities are autonomous institutions established under Acts of the appropriate parliament and financed by the Commonwealth Government. The basic undergraduate course in most disciplines is three or four full-time years in duration, at the conclusion of which a Bachelor Degree is awarded. A further one to two years of full-time study is required for a masters degree, and three to five years for a doctoral degree. Universities also offer postgraduate diploma courses in some disciplines. All universities offer full-time and part-time courses, and some offer external studies. As well as providing undergraduate courses, Australian universities are centres of postgraduate study and research. Some universities have institutes or units involved exclusively in research and/or postgraduate teaching. In 1978, 12 per cent of university students were proceeding to higher degrees.

Courses at Australian universities are normally organised in faculties or schools, and students generally elect to study in a number of subject areas, or departments, within a faculty or school. Universities will generally offer some, but not all, of the following courses of study: agriculture, architecture, arts, dentistry, economics, education, engineering, law, medicine, music, science, and veterinary science.

The system of tuition in universities is normally by means of lectures, tutorials and seminars organised by the institution in the subjects offered. Normally, assessment of a student's progress is made by examination and/or completion of prescribed coursework. Theses are required for many postgraduate degrees.

Most universities have halls of residence on the campus which accommodate some, but not all, of the students currently enrolled. Student organisations on campus provide a wide range of sporting and social facilities for students.

Teacher education

The majority of teachers are educated in colleges of advanced education, but a substantial number of secondary teachers and a few primary teachers receive their pre-service education in a university. A few non-government teachers colleges, mostly operated by religious denominations, educate some of the teachers for non-government schools. The majority of pre-school and primary trainee-teachers undertake courses of three years' duration before commencing teaching. Most secondary trainee-teachers undertake a four year course.

The normal entry requirement for teacher education is determined by the matriculation requirements of individual universities and colleges of advanced education.

A number of teacher education scholarships or bursaries are offered by some State education authorities and, in the Australian Capital Territory and the Northern Territory, by the Commonwealth Teaching Service on a competitive basis. The proportion of students in receipt of such scholarships is declining, while the proportion relying on private finance or means-tested allowances provided by the Commonwealth Government is increasing.

The content of pre-service teacher education is determined by individual universities and colleges of advanced education. Options are available to students but, generally, the three year course for a pre-school or primary trainee-teacher includes history and principles of education, general and special methods of teaching, early childhood development and general educational psychology, as well as the subjects they will be teaching. Practice teaching is required.

Secondary trainee-teachers are generally expected to specialise in two or three subjects. These may be studied as part of an education degree in either a university or a college of advanced education, or as part of another degree to be followed by a postgraduate diploma in education. As part of their pre-service education, secondary trainee-teachers generally take courses in history and principles of education, comparative education, educational psychology and teaching methods. Practice teaching comprises part of the courses.

All education systems provide opportunities for in-service training. Generally, there are two types of in-service training: assistance to teachers to upgrade their formal qualifications by providing various forms of study leave or study assistance; and 'less formal' in-service education through the organisation of a large number of short-term workshops, seminars and conferences. In each State many of these 'less formal' activities are co-ordinated by a joint committee of representatives of teachers and of government and non-government schools. Also with the assistance of funds from the State Government and the Schools Commission, teachers directly organise many of their own in-service education activities through a number of teachers' centres in each State.

Migrant Education

The Commonwealth Government has responsibility for migrant education. Opportunities are provided for school-age and adult migrants from non-English speaking backgrounds to learn the English language and to assist in their integration into the Australian community.

Child migrant education

In most States migrant children are taught English as a second language in 'withdrawal' classes, where migrant children are brought together for certain periods a week for the teaching of basic communication skills in English. Some States offer language assistance to migrant children which is integrated into the total school program. Generally, there has been recognition of the need to provide multicultural education, which acknowledges migrant identity and self-esteem in the general framework of Australian life.

Migrant and multicultural education at the primary and secondary levels is funded by the Schools Commission, which also provides supplementary financial assistance for schools of high migrant density and in-service training of teachers of migrant children. Payments are made to government and non-government education authorities in each State who are responsible for determining priorities and allocating funds.

Adult migrant education

The *Adult Migrant Education Program* is a national program, funded and co-ordinated by the Commonwealth Department of Immigration and Ethnic Affairs. It aims to help adult migrants and refugees from non-English speaking backgrounds learn English and obtain essential information about Australia and Australian society.

The program consists of a variety of full and part-time courses and classes including special arrangements such as English classes at the work place, the Home Tutor Scheme and English by radio and television. Enrolments in the program have increased in recent years and reached just over 105,000 in 1977-78.

For the most part the courses and classes are conducted by State Governments through their Adult Migrant Education Services or Branches. A number of tertiary institutions and some community organisations also participate in the program through activities funded by the Commonwealth. These courses are available at a number of locations including migrant education centres leased by the Commonwealth in each mainland capital city, education centres in migrant hostels and other community and education facilities in suburban and some country areas.

The report of *The Review of Post-Arrival Programs and Services to Migrants* (the Galbally Report), published in May 1978, provided for new emphases at the initial settlement stage for adult migrants and refugees. It also provided for an increase and reshaping of on-going services for recent and earlier arrivals, including those who have completed an initial settlement course.

Financial Assistance

Primary and secondary education is free in government schools in all States and Territories although, particularly in high schools, nominal fees may be charged for the hire of textbooks and other school equipment. Most State governments provide financial assistance to parents for educational expenses such as these as well as for transport to and from school, and various forms of scholarship, bursary, boarding and clothing allowances. Many of these forms of assistance are specifically intended to assist low income families.

Post-secondary education (in institutions of technical and further education, colleges of advanced education and universities) has been free since the beginning of 1974.

At the national level, the Commonwealth Government, through its Department of Education, provides a number of schemes of assistance for Australian students to facilitate access to education, particularly at the upper secondary and post-secondary level. A brief description of these schemes follows:

The Secondary Allowances Scheme aims to help parents with a limited income to keep their children at school for the final two years of secondary education.

The Adult Secondary Education Assistance Scheme provides assistance for mature-age students undertaking full-time and final year of matriculation studies.

The Assistance for Isolated Children Scheme provides special support to families in isolated areas for the education of their children. This scheme also provides funds to assist parents of handicapped children who need to live away from home to attend a special school.

The Aboriginal Secondary Grants Scheme is intended to encourage Aboriginal and Torres Strait Islander students to remain at secondary school to extend their education.

The Aboriginal Study Grants Scheme provides Aboriginals and Torres Strait Islanders with opportunities to undertake study after leaving school.

The Tertiary Education Assistance Scheme is a means-tested scheme to assist students enrolled for full-time study in approved courses at institutions of technical and further education, colleges of advanced education, universities and other tertiary institutions in Australia.

Postgraduate Awards are competitive awards for full-time postgraduate research and coursework at universities and colleges of advanced education.

Awards for Overseas Study provide opportunities for Australians to study overseas. Some of the major awards are the *Commonwealth Scholarship and Fellowship Plan*, the *ANZAC Fellowships*, the *Australian-American Educational Foundations Awards*, the *Confederation of British Industry Awards*, and scholarships from the Chinese, French, German and Japanese governments. Most of these awards are at the postgraduate level. There are also overseas study awards offered exclusively to Aboriginals and Torres Strait Islanders.

In addition, the States offer various schemes of assistance at the primary and secondary level; some are paid directly to the schools, others to the student or the student's parents. Many of these awards are intended to offset the cost of books, to enable students to attend special schools, or to assist students in remote areas who need to live away from home or to travel long distances to attend school.

Some universities have a small number of scholarships or other forms of assistance to enable students to undertake tertiary study. Some of these awards are at the postgraduate level, and some are for study overseas. Some non-government schools also offer scholarships and bursaries to assist students.

Administrative Structure of Education at the National Level

As previously stated, the Commonwealth Government has direct responsibility for education only in the Territories. (See relevant State Year Books for a description of State administrative structures.) The Commonwealth Government, however, has special responsibilities for the Aboriginal people and for migration, as well as the power to provide assistance for students. Moreover, the Commonwealth Government is responsible for international relations in education. Accordingly, the Commonwealth Department of Education deals with the administration of schemes of student assistance, international education, some aspects of migrant education, language teaching and Aboriginal Education. The Department also liaises with the media and community groups, and produces a range of publications relating to education in Australia, e.g. the *Directory of Higher Education Courses*, *Education News* and *Hemisphere*, an Asian-Australian monthly.

The Department provides a secretariat for the Organisation for Economic Co-operation and Development (OECD) Advisory Committee on Education and co-ordinates Australia's involvement in the OECD education research activities under the Centre for Educational Research and Innovation (CERI). As well, the Department provides a secretariat for the Australian National Commission for the United Nations Educational, Scientific and Cultural Organisation (UNESCO) which has a specialist Education Committee. The Department also provides a service for other government departments, educational institutions and employing authorities in the assessment of educational qualifications obtained overseas, and is responsible for the supervision of private overseas students studying in Australia.

The Australian Constitution empowers the Commonwealth Government to make grants to the States and to place conditions upon such grants. This power has been used to provide financial assistance to the States specifically for educational purposes. There are two national education commissions which advise the Commonwealth Government on the needs of educational institutions throughout Australia for the purposes of financial assistance: the Schools Commission, which was established in 1973; and the Tertiary Education Commission, which was established in 1977 to replace three former commissions—the Universities Commission, the Commission on Advanced Education and the Technical and Further Education Commission. The Tertiary Education Commission comprises a Commission, which is concerned with co-ordination and intersectoral matters, and three Councils on universities, advanced education and technical and further education.

Generally, the Commissions are required to consult with State authorities (and, in the case of the Schools Commission, with the authorities conducting non-government schools) and such other persons, bodies and authorities as they think necessary before making recommendations to the Commonwealth Government on the amount of financial assistance required, both in general and for specific purposes, to meet the needs of each sector.

The needs for financial assistance for pre-school and child care facilities are considered at the national level by the Office of Child Care within the Commonwealth Department of Social Security.

Commonwealth Government education authorities also function as co-ordinating agencies for joint activity by the States and Territories in a number of fields.

The Australian Council on Awards in Advanced Education seeks, in consultation with State co-ordinating bodies, to establish consistency in awards in advanced education by establishing, maintaining and publishing a register of such awards.

A national *Curriculum Development Centre* was established in 1973 by the Commonwealth Government with the co-operation of the States to produce, promote research into, and disseminate information about school curricula and school educational matters. The Curriculum Development Centre has responsibility for the National Committee on Social Science Teaching, the National Committee on English Teaching, and the Asian Studies Co-ordinating Committee, and has funded a number of projects such as the Social Education Materials Project (SEMP).

A number of other bodies at the national level have an important co-ordinating, planning or funding role.

The Australian Education Council, comprising the Commonwealth and State Ministers for Education, meets at least once each year as a consultative body to consider matters of mutual interest, such as the material and personnel needs of schools and co-operation in educational developments generally. It is assisted by a Standing Committee consisting of senior officials including the Directors-General of Education in each State and the Secretary of the Commonwealth Department of Education.

The Conference of the Directors-General of Education also meets annually. Matters discussed and decisions reached at the Conference have a direct influence in each State and Territory on such matters as pre-service and in-service education of teachers, school staffing, curricula, special education, building programs, administrative procedures and the extent of uniformity and diversity between education systems. Under the auspices of the Directors-General Conference, regular meetings of senior specialist personnel are held.

The Commonwealth Government also has an important role in the encouragement and financing of educational research, which is principally carried out in universities, colleges of advanced education and in State and Commonwealth Departments of Education.

The Education Research and Development Committee (ERDC), established in 1970 as the Australian Advisory Committee on Research and Development in Education (AACRDE), is an advisory committee to the Commonwealth Minister for Education. It co-ordinates educational research funded within the Minister's portfolio, provides advice on priorities in educational research and disseminates information on completed research and research in progress which it has funded. The Committee also administers a scheme for providing training for educational researchers.

The Australian Council for Educational Research (ACER) is an independent national research organisation. The Council is funded by annual grants from each of the State governments and the Commonwealth Government, as well as from its own activities. The Council is involved in subsidised and contract research and plays a central role in the development, production and distribution of tests and other measuring instruments, and on research into teaching and learning, and into the broad foundations of education. ACER acts as the Australian national centre for the program of international surveys of student achievement conducted by the International Association for Evaluation of Education Achievement (IEA).

There are also a number of non-government organisations which have a co-ordinating role in education at the national level. These include the *National Catholic Education Commission*, the *National Council for Independent Schools*, the *Australian Vice-Chancellors' Committee*, the *Australian Conference of Principals of Colleges of Advanced Education* and the *Australian High School Principals' Association*. Teachers at various levels have national organisations, as do some community and parental groups. The Australian Union of Students is a national organisation for tertiary students. (For further details see the *Commonwealth Education Directory*, published by the Commonwealth Department of Education).

Major Current Issues in Education

Some of the major initiatives taken in education at the national level are discussed below. (See relevant State Year Books for a description of State issues).

The Committee of Inquiry into Education and Training

In the decade since the Martin Report on Tertiary Education in Australia, which strongly influenced the present form of Australia's tertiary education system, there has been growing recognition of the importance of technical and further education and interest in concepts of open education, recurrent education and retraining. There is now concern about the overall pattern of post-secondary education. There is also concern about problems of the relationship between secondary or post-secondary education on the one hand and subsequent employment and careers on the other.

To assist in developing constructive policies in these areas, the Commonwealth Government has established a Committee of Inquiry into Education and Training, under the Chairmanship of Professor B. R. Williams, to make recommendations to the Commonwealth Government on the desirable overall pattern of post-secondary education which should be developed in Australia during the next twenty to twenty-five years.

Issues of major concern, clearly reflected in a number of recent and current inquiries, are the coordination and rationalisation of existing types of post-secondary institutions, the relevance of new kinds of institutions and the capabilities of both existing and possible new structures for meeting the educational needs and preferences of the individual, the community and the requirements of the labour market.

In considering the relationship between the labour market and the education system, the committee was asked to extend its review into secondary education, having regard to the fact that a significant number of children do not proceed beyond Year 10 in secondary schools.

Supply of and demand for teachers

The effects of financial constraints, reduced rates of teacher wastage and the projections of a national population inquiry combined in 1975 and 1976 to reverse a long established shortage of teachers. In 1975, several education systems were still actively recruiting a substantial number of teacher from other English-speaking countries, but in 1976 recruitment was largely confined to particular categories such as a mathematics, physical education and music teachers. These remained in short supply despite a general excess of teachers in most States.

In 1975, a joint study group comprising representatives of the national education commissions and the Commonwealth Department of Education was established to assess the expected supply of and demand for primary and secondary teachers over the next ten years. In 1976, the Commonwealth Minister for Education informed the two tertiary education commissions operating at that stage that, in view of the likely supply and demand situation in the school teaching force, the Government believed there should be no increase in 1977 over the number of enrolments in teacher education courses in 1976. The Australian Education Council, after considering a preliminary report by the study group, established a working party in 1976 to consider the study with a view to improving the estimates on both the demand and supply sides at the State level and for Australia as a whole.

The working party released its first report in February, 1978. In its report, the working party confirmed that substantial surpluses of primary and secondary teachers were in prospect in the years ahead (up to at least 1985). As a result, the Commonwealth Government is currently negotiating with the State Governments to further reduce intakes into pre-service courses. Substantial reductions have been made in recent years, leading to the present position where, in 1978, the intake was about 25 per cent lower than the (peak) 1975 level. Further reductions are anticipated in 1979.

At the same time, however, there has been an increase in postgraduate enrolments at universities, and in enrolments at colleges, by teachers who wish to upgrade their qualifications.

The transition from secondary education to employment

Following the recommendations of the 1976 Report on the Transition from Secondary Education to Employment and of a 1976 review of Australian education policy by the Educational Committee of the Organisation for Economic Co-operation and Development (OECD), the Australian Education Council and the Conference of Ministers for Labour established in 1977 Commonwealth/State Working Party on the Transition from School to Work or Further Study. The Working Party, comprising representatives of both Education and Labour Departments, was asked to develop practical proposals to assist young people in their transition from school to work, with an initial emphasis on early school leavers.

The Working Party first met in July 1977 and its first report was produced in October 1977. During 1978 submissions have been invited from interested organisations and individuals and consultations have been held in the States. A second report, on the evaluation of career education programs and transition services provided in the States and Territories, should be available in early 1979.

It is expected that the Working Party will make its final report to the Australian Education Council in late 1979.

Schemes introduced to assist young Australians seeking employment

The *Education Program for Unemployed Youth* (EPUY), which was introduced in July 1977, is funded by the Commonwealth Department of Education. Under this program, funds are provided to State and Territorial education authorities to develop and conduct courses for young people for whom low or inadequate levels of educational achievement form a primary barrier to their obtaining stable employment. Courses are designed to provide instruction in literacy and numeracy, to promote self confidence and to give students some basic vocational skills and a knowledge of job seeking techniques. Courses are from six weeks to six months duration.

Persons less than 24 years of age are eligible provided that they have been registered for employment or can show other evidence of having been unemployed for not less than four of the previous twelve months, and have been away from full-time education for the same length of time and are currently registered for employment. \$1.969 million was made available for expenditure on the program in 1977-78 and \$3.2 million is included in the budget for 1978-79. A total of 2,500 students undertook the EPUY course in 1977-78 and 3,800 students are expected in 1978-79.

Other schemes, administered by the Department of Employment and Youth Affairs which may assist young people in the transition from school to work are the *National Employment and Training Scheme* (NEAT), the *Special Youth Employment Training Program* (SYETP), the *Commonwealth Rebate for Apprentice Full-Time Training* (CRAFT), the *Relocation Assistance Scheme* (RAS) and the *Community Youth Support Scheme* (CYSS). (See also Chapter 8, Manpower.)

National Inquiry into Teacher Education

In July 1978, the Commonwealth Minister for Education announced the setting up of a National Inquiry into Teacher Education. The Inquiry is to be conducted by a committee comprising a full-time Chairman and a number of part-time members drawn from the States and Territories and will examine the qualitative aspects of teacher education. The Committee will act in co-operation with Working Parties set up by State Ministers for Education, and will cover a wide range of issues relevant to teacher education, including current institutional arrangements, the structure of teacher education courses, the role of the teacher and the interactions and interrelationships of teachers, pupils, the family and the community, the provision within current teacher education courses for the needs of children from a range of social and cultural backgrounds, the selection, in-service education and professional development of staff engaged in teacher education and the professional development of teachers.

The Committee, which will draw upon the findings of the Committee of Inquiry into Education and Training, is not expected to report before the end of 1979.

Study leave in universities and colleges of advanced education

In July 1977, the Commonwealth Government asked the Tertiary Education Commission to complete the enquiries into study leave then being undertaken by the former Universities Commission and Commission on Advanced Education.

The Commission released its report on study leave in draft form in May 1978 in order to obtain comment from institutions, organisations and individuals before reporting finally to the Government. The Commission received approximately five hundred comments on the draft report, and, in addition, held a number of consultative meetings with major academic bodies and the chairman of State co-ordinating authorities.

These representations were taken into account by the Commission in the preparation of its final report which was released in October 1978, following acceptance of its recommendations by the Government.

Major recommendations of the Commission put the granting of study leave on a selective rather than automatic basis, increased the accountability of individual staff members and institutions regarding the use of study leave, restricted eligibility to members of academic staff, and placed limits on the time spent on leave, overseas travel and the use of study leave to upgrade academic qualifications.

The Committee on Nurse Education and Training

Over recent years there has been increasing interest, particularly within the nursing profession and colleges of advanced education, about the possibility of professional nurse training being conducted by tertiary education institutions.

In September 1977, the Commonwealth Minister for Education, after consultation with the Commonwealth Minister for Health, established a Committee on Nurse Education and Training to inquire into and make recommendations to the Tertiary Education Commission on possible developments and changes in nurse education and training, including whether such education should take place in hospitals or educational institutions or both.

The Committee submitted its report to the Commission in August, 1978. The Government's future policy on the selection and training of nurses will be developed following advice from the Commission and other agencies.

Australian Maritime College

Following the passing of the Maritime College Act in 1976, the Commonwealth Government is establishing the Australian Maritime College at Launceston, Tasmania, to train deck, engineer and radio officers as well as other maritime and fishing industry personnel.

National Aboriginal Education Committee

In the decade since the 1967 Referendum widened the Commonwealth Government's responsibility for Aboriginal and Torres Strait Islander people, there has been more interest and activity in Aboriginal education than ever before. Commonwealth funds have been made available to develop programs and to help education authorities throughout the country to make special efforts for Aboriginal people at all levels of education (*see* Chapter 27—The Territories of Australia). In all these activities there has been some consultation with and involvement of Aboriginal people, but a major step forward in this direction was the establishment in March 1977 of a National Aboriginal Education Committee (NAEC).

Comprised entirely of Aboriginal and Torres Strait Islander people, the NAEC advises the Minister and Department of Education on the educational needs of Aboriginal and Torres Strait Islander people, and on appropriate methods of meeting these needs. Its advice is available to the Minister, the Department of Aboriginal Affairs and to other appropriate authorities. Its establishment marks a significant development in obtaining an effective voice for Aboriginals in policy formation at the national level. In some States Aboriginal Education Consultative Groups have been set up to advise Governments on educational policies and programs for Aboriginals.

Educational Training in the Defence Force

Information on educational training in the Defence Force is contained in Chapter 4, pp. 58–61 inclusive.

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* (4202.0), *Colleges of Advanced Education* (4206.0) and *University Statistics* Parts 1 and 2 (4208.0, 4209.0). Financial aspects are dealt with in the annual bulletins *Public Authority Finance—Federal Authorities* (5502.0), *Public Authority Finance—State and Local Authorities* (5504.0) and *Expenditure on Education* (5510.0). The annual reports of the respective State education departments provide detailed statistical and other information about particular States. The Commonwealth 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 1977 and earlier years are shown in the following tables. For details of technical and further education institutions and associated enrolments, *see* pages 235–238.

EDUCATION

NUMBER OF EDUCATIONAL INSTITUTIONS, 1977

| | <i>Schools</i> | | | <i>Uni- versities</i> | <i>Colleges of advanced education (a)</i> | <i>Teachers colleges (a)</i> |
|--|-------------------------|---------------------------|--|---------------------------|---|--------------------------------------|
| | <i>Govern- ment</i> | <i>Roman Catholic</i> | <i>Other non- govern- ment</i> | | | |
| New South Wales | 2,223 | 612 | 165 | 6 | 24 | 3 |
| Victoria | 2,162 | 470 | 114 | 4 | 23 | 2 |
| Queensland | 1,223 | 284 | 47 | 3 | 10 | 2 |
| South Australia | 626 | 102 | 43 | 2 | 8 | — |
| Western Australia | 648 | 146 | 42 | 2 | 6 | — |
| Tasmania | 251 | 39 | 23 | 1 | 1 | — |
| Northern Territory | 110 | 9 | 2 | — | — | — |
| Australian Capital Territory | 82 | 23 | 4 | 1 | 1 | 1 |
| Australia—1977 | 7,325 | 1,685 | 440 | 19 | 73 | 8 |
| 1976 | 7,306 | 1,698 | 440 | 18 | 83 | 9 |
| 1975 | 7,266 | 1,711 | 429 | 18 | 78 | 16 |
| 1974 | 7,295 | 1,731 | 426 | 17 | 78 | 17 |
| 1973 | 7,311 | 1,754 | 422 | 15 | 43 | 57 |
| 1972 | 7,362 | 1,768 | 422 | 15 | 45 | 59 |

(a) All government teachers colleges and all kindergarten teachers colleges were colleges of advanced education by 1 July 1973 with the majority of them being reported for the first time in the college of advanced education statistical collection in 1974.

NUMBER OF STUDENTS ENROLLED AT EDUCATIONAL INSTITUTIONS, 1977

| | <i>Schools</i> | | | <i>Uni- versities</i> | <i>Colleges of advanced education (a)</i> | <i>Teachers colleges (a)</i> |
|--|-------------------------|---------------------------|--|---------------------------|---|--------------------------------------|
| | <i>Govern- ment</i> | <i>Roman Catholic</i> | <i>Other non- govern- ment</i> | | | |
| New South Wales | 809,976 | 185,364 | 33,501 | 61,640 | 32,702 | 601 |
| Victoria | 626,317 | 153,170 | 50,148 | 40,677 | 49,705 | 347 |
| Queensland | 341,301 | 77,341 | 15,511 | 21,513 | 17,553 | 197 |
| South Australia | 233,210 | 27,535 | 11,911 | 13,390 | 15,168 | — |
| Western Australia | 211,988 | 34,265 | 10,634 | 11,773 | 17,893 | — |
| Tasmania | 79,474 | 9,884 | 4,167 | 3,525 | 2,586 | — |
| Northern Territory | 23,126 | 3,047 | 187 | — | — | — |
| Australian Capital Territory | 38,924 | 11,438 | 2,373 | 5,893 | 4,705 | 162 |
| Australia—1977 | 2,364,316 | 502,044 | 128,432 | 158,411 | 140,312 | 1,307 |
| 1976 | 2,335,431 | 498,761 | 126,058 | 153,960 | 134,614 | 1,127 |
| 1975 | 2,297,979 | 496,199 | 125,102 | 148,338 | 122,557 | 3,843 |
| 1974 | 2,257,854 | 494,055 | 124,426 | 142,859 | 107,202 | (b)2,911 |
| 1973 | 2,240,642 | 491,775 | 120,994 | 133,126 | 61,575 | (b)27,625 |
| 1972 | 2,228,941 | 492,914 | 119,096 | 128,668 | 52,034 | (b)25,754 |

(a) All government teachers colleges and all kindergarten teachers colleges were colleges of advanced education by 1 July 1973 with the majority of them being reported for the first time in the college of advanced education statistical collection in 1974. (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 (as at the August schools census dates) in 1977 and earlier years are shown in the following tables. 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. For more detailed statistical information, see the annual bulletin *Schools* (4202.0).

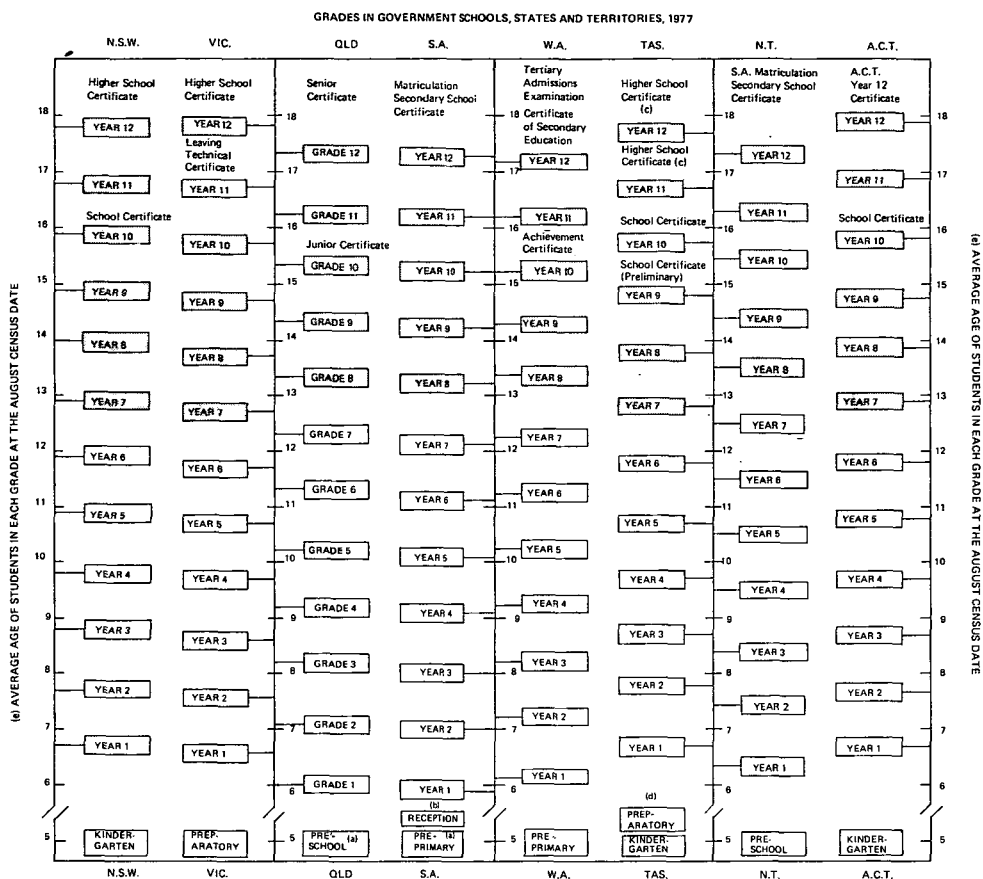
NUMBERS OF SCHOOLS, TEACHERS AND STUDENTS, BY CATEGORY OF SCHOOL, STATES AND TERRITORIES, 1977

| | Non-government schools | | | | | All schools |
|------------------------------|------------------------|-------------------|----------------|----------|---------|-------------|
| | Government schools | Church of England | Roman Catholic | Other(a) | Total | |
| SCHOOLS | | | | | | |
| New South Wales | 2,223 | 32 | 612 | 133 | 777 | 3,000 |
| Victoria | 2,162 | 30 | 470 | 84 | 584 | 2,746 |
| Queensland | 1,223 | 13 | 284 | 34 | 331 | 1,554 |
| South Australia | 626 | 8 | 102 | 35 | 145 | 771 |
| Western Australia | 648 | 10 | 146 | 32 | 188 | 836 |
| Tasmania | 251 | 4 | 39 | 19 | 62 | 313 |
| Northern Territory | 110 | — | 9 | 2 | 11 | 121 |
| Australian Capital Territory | 82 | 2 | 23 | 2 | 27 | 109 |
| Australia—1977 | 7,325 | 99 | 1,685 | 341 | 2,125 | 9,450 |
| 1976 | 7,306 | 100 | 1,698 | 340 | 2,138 | 9,444 |
| TEACHERS(b) | | | | | | |
| New South Wales | 44,518 | 926 | 8,216 | 1,375 | 10,517 | 55,035 |
| Victoria | 39,273 | 1,366 | 6,789 | 2,052 | 10,207 | 49,480 |
| Queensland | 18,910 | 356 | 3,315 | 571 | 4,242 | 23,152 |
| South Australia | 14,125 | 235 | 1,290 | 545 | 2,070 | 16,195 |
| Western Australia | 10,777 | 295 | 1,632 | 399 | 2,326 | 13,103 |
| Tasmania | 4,511 | 113 | 455 | 161 | 729 | 5,240 |
| Northern Territory | 1,376 | — | 127 | 10 | 137 | 1,512 |
| Australian Capital Territory | 2,441 | 131 | 530 | 17 | 678 | 3,119 |
| Australia—1977 | 135,931 | 3,421 | 22,353 | 5,131 | 30,905 | 166,836 |
| 1976 | 129,668 | 3,334 | 21,399 | 4,967 | 29,700 | 159,368 |
| STUDENTS | | | | | | |
| New South Wales | 809,976 | 13,997 | 185,364 | 19,504 | 218,865 | 1,028,841 |
| Victoria | 626,317 | 19,857 | 153,170 | 30,291 | 203,318 | 829,635 |
| Queensland | 341,301 | 5,799 | 77,341 | 9,712 | 92,852 | 434,153 |
| South Australia | 233,210 | 3,604 | 27,535 | 8,307 | 39,446 | 272,656 |
| Western Australia | 211,988 | 4,273 | 34,265 | 6,361 | 44,899 | 256,887 |
| Tasmania | 79,474 | 1,713 | 9,884 | 2,454 | 14,051 | 93,525 |
| Northern Territory | 23,126 | — | 3,047 | 187 | 3,234 | 26,360 |
| Australian Capital Territory | 38,924 | 2,113 | 11,438 | 260 | 13,811 | 52,735 |
| Australia—1977 | 2,364,316 | 51,356 | 502,044 | 77,076 | 630,476 | 2,994,792 |
| 1976 | 2,335,431 | 50,833 | 498,761 | 75,225 | 624,819 | 2,960,250 |

(a) Includes non-denominational and denominational schools other than Church of England and Roman Catholic.

(b) Full-time teachers plus full-time equivalent units of part-time teaching, rounded to whole numbers. Trainee teachers are excluded.

SCHOOLS



The above diagram shows the usual grades in government primary and secondary schools in each State and Territory. Approximate average ages for each grade (at the August schools census) 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 the 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:

- In Queensland and South Australia all pre-school children were excluded from the School Census.
- Reception refers to children who commenced school for the first time between March and August.
- In Tasmania most students study for the Higher School Certificate over a two year period.
- In Tasmania, many children attend two years kindergarten grade.
- For age distribution within grades refer to age-grade tables which are available on request from the ABS.

Primary Grades ☐

Secondary Grades ☐

**GOVERNMENT AND NON-GOVERNMENT SCHOOLS: STUDENTS, BY AGE AND SEX, AUSTRALIA,
1977**
(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 | 98,582 | 94,219 | 192,801 | 20,851 | 21,290 | 42,141 | 119,433 | 115,509 | 234,942 |
| 6 | 116,113 | 110,535 | 226,648 | 24,662 | 25,234 | 49,896 | 140,775 | 135,769 | 276,544 |
| 7 | 108,784 | 102,874 | 211,658 | 24,303 | 24,212 | 48,515 | 133,087 | 127,086 | 260,173 |
| 8 | 107,618 | 101,624 | 209,242 | 24,175 | 24,656 | 48,831 | 131,793 | 126,280 | 258,073 |
| 9 | 102,465 | 96,614 | 199,079 | 24,322 | 24,378 | 48,700 | 126,787 | 120,992 | 247,779 |
| 10 | 100,038 | 94,234 | 194,272 | 24,916 | 24,575 | 49,491 | 124,954 | 118,809 | 243,763 |
| 11 | 98,314 | 92,520 | 190,834 | 25,597 | 25,396 | 50,993 | 123,911 | 117,916 | 241,827 |
| 12 | 98,098 | 91,062 | 189,160 | 27,334 | 28,056 | 55,390 | 125,432 | 119,118 | 244,550 |
| 13 | 102,168 | 94,420 | 196,588 | 27,844 | 28,753 | 56,597 | 130,012 | 123,173 | 253,185 |
| 14 | 102,973 | 95,428 | 198,401 | 27,464 | 28,684 | 56,148 | 130,437 | 124,112 | 254,549 |
| 15 | 89,673 | 83,015 | 172,688 | 25,653 | 26,785 | 52,438 | 115,326 | 109,800 | 225,126 |
| 16 | 57,606 | 54,328 | 111,934 | 20,011 | 20,524 | 40,535 | 77,617 | 74,852 | 152,469 |
| 17 | 27,702 | 27,674 | 55,376 | 13,087 | 12,610 | 25,697 | 40,789 | 40,284 | 81,073 |
| 18 | 7,079 | 5,713 | 12,792 | 2,535 | 1,956 | 4,491 | 9,614 | 7,669 | 17,283 |
| 19 and over | 1,528 | 1,315 | 2,843 | 343 | 270 | 613 | 1,871 | 1,585 | 3,456 |
| Australia—1977 | 1,218,741 | 1,145,575 | 2,364,316 | 313,097 | 317,379 | 630,476 | 1,531,838 | 1,462,954 | 2,994,792 |
| 1976 | 1,207,676 | 1,127,755 | 2,335,431 | 310,818 | 314,001 | 624,819 | 1,518,494 | 1,441,756 | 2,960,250 |

SCHOOLS: STUDENTS, BY AGE, 1977

(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 | 89,486 | 64,855 | 22,261 | 22,083 | 17,691 | 8,766 | 4,924 | 4,876 | 234,942 |
| 6 | 93,860 | 75,484 | 42,303 | 23,987 | 24,916 | 8,156 | 2,717 | 5,121 | 276,544 |
| 7 | 86,483 | 71,413 | 40,560 | 23,189 | 23,373 | 7,957 | 2,496 | 4,702 | 260,173 |
| 8 | 85,384 | 71,899 | 39,260 | 23,250 | 23,434 | 8,095 | 2,330 | 4,421 | 258,073 |
| 9 | 81,499 | 68,661 | 38,387 | 22,573 | 22,419 | 7,797 | 2,157 | 4,286 | 247,779 |
| 10 | 81,739 | 66,831 | 37,538 | 22,125 | 21,942 | 7,426 | 2,188 | 3,974 | 243,763 |
| 11 | 81,435 | 65,822 | 36,929 | 22,624 | 21,723 | 7,313 | 2,064 | 3,917 | 241,827 |
| 12 | 82,112 | 66,135 | 37,936 | 23,023 | 21,867 | 7,701 | 1,810 | 3,966 | 244,550 |
| 13 | 85,780 | 68,170 | 39,237 | 23,863 | 22,374 | 8,035 | 1,751 | 3,975 | 253,185 |
| 14 | 86,528 | 68,354 | 39,534 | 23,893 | 22,452 | 8,157 | 1,613 | 4,018 | 254,549 |
| 15 | 80,096 | 62,476 | 31,118 | 20,607 | 18,293 | 7,697 | 1,156 | 3,683 | 225,126 |
| 16 | 53,496 | 47,746 | 18,623 | 14,285 | 10,796 | 3,907 | 796 | 2,820 | 152,469 |
| 17 | 31,518 | 25,313 | 8,877 | 5,887 | 5,193 | 1,792 | 296 | 2,197 | 81,073 |
| 18 | 8,499 | 4,964 | 1,327 | 1,022 | 359 | 417 | 40 | 655 | 17,283 |
| 19 and over | 926 | 1,512 | 263 | 245 | 55 | 309 | 22 | 124 | 3,456 |
| Australia—1977 | 1,028,841 | 829,635 | 434,153 | 272,656 | 256,887 | 93,525 | 26,360 | 52,735 | 2,994,792 |
| 1976 | 1,018,172 | 825,790 | 426,026 | 272,913 | 248,291 | 93,704 | 24,839 | 50,515 | 2,960,250 |

Technical and further education

The major part of technical and further education (TAFE) in Australia is provided in a network of government-administered institutions variously known as colleges, schools or centres of technical or further education. In addition, TAFE vocational courses are conducted by certain colleges of advanced education and by agricultural colleges in New South Wales and Victoria, and a large number of bodies, both statutory and voluntary, participate in the provision of adult education programs. The following statistics relate to technical and further education activities of the major government departments/divisions of TAFE, agricultural authorities and advanced education authorities; they do not include activities of bodies such as the Board of Adult Education in New South Wales, the Council of Adult Education in Victoria and the Australian Capital Territory evening colleges. For further information on the organisation of TAFE and associated statistical details, see the report, *Tertiary Education Commission—Recommendations For 1978*, August 1977, the *First Report of the Technical and Further Education Commission*, July 1976 and previous reports of the Australian Committee on Technical and Further Education.

**TECHNICAL AND FURTHER EDUCATION: TYPE OF INSTITUTION AND ENROLMENTS BY
STREAM OF STUDY, 1977**

| | <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> |
|-----------------------------------|----------------|----------------|---------------|----------------|----------------|---------------|--------------|---------------|------------------|
| Type of institution— | | | | | | | | | |
| Major TAFE Authorities— | | | | | | | | | |
| Major institutions(a) | 69 | 32 | 24 | 32 | 26 | 6 | 1 | 4 | 194 |
| Annexes(b) | 147 | 7 | 4 | 413 | — | — | 5 | 5 | 581 |
| Other institutions(c) | — | 191 | 1 | — | 89 | 4 | — | — | 285 |
| Annexes | — | 8 | — | — | — | — | — | — | 8 |
| Agricultural colleges(d) | 2 | 6 | — | — | — | — | — | — | 8 |
| Colleges of advanced education(d) | 1 | 2 | 5 | 2 | 1 | — | — | — | 11 |
| Total(e) | 219 | 246 | 34 | 447 | 116 | 10 | 6 | 9 | 1,087 |
| Enrolments(f)— | | | | | | | | | |
| Full-time— | | | | | | | | | |
| Stream of study— | | | | | | | | | |
| Professional | 60 | 369 | 399 | — | — | — | 57 | 18 | 903 |
| Para-professional | 5,810 | 3,511 | 827 | 916 | 2,752 | 581 | 39 | 398 | 14,834 |
| Trades | 1,810 | 1,475 | 371 | — | 394 | 114 | — | 13 | 4,177 |
| Other skilled | 7,014 | 508 | 2,078 | 33 | 116 | 504 | 112 | 295 | 10,660 |
| Preparatory | 4,532 | 4,982 | 176 | 618 | 667 | 6 | 16 | 227 | 11,224 |
| Total | 19,226 | 10,845 | 3,851 | 1,567 | 3,929 | 1,205 | 224 | 951 | 41,798 |
| Part-time(g)— | | | | | | | | | |
| Stream of study— | | | | | | | | | |
| Professional | 1,373 | 196 | 284 | 2,471 | 276 | — | 176 | 44 | 4,820 |
| Para-professional | 52,546 | 19,451 | 8,549 | 30,704 | 35,285 | 2,522 | 488 | 4,589 | 154,134 |
| Trades | 47,557 | 39,886 | 16,590 | 11,207 | 17,658 | 4,511 | 784 | 2,468 | 140,661 |
| Other skilled | 80,486 | 19,708 | 7,264 | 28,655 | 4,354 | 3,102 | 860 | 3,770 | 148,199 |
| Preparatory | 19,349 | 33,883 | 9,446 | 23,435 | 7,966 | 2,075 | 1,421 | 1,036 | 98,611 |
| Adult education | 17,771 | 34,966 | 36,553 | 51,313 | 66,867 | 15,626 | 6,022 | 1,472 | 230,590 |
| Total | 219,082 | 148,090 | 78,686 | 147,785 | 132,406 | 27,836 | 9,751 | 13,379 | 777,015 |
| Total— | | | | | | | | | |
| Stream of study— | | | | | | | | | |
| Professional | 1,433 | 565 | 683 | 2,471 | 276 | — | 233 | 62 | 5,723 |
| Para-professional | 58,356 | 22,962 | 9,376 | 31,620 | 38,037 | 3,103 | 527 | 4,987 | 168,968 |
| Trades | 49,367 | 41,361 | 16,961 | 11,207 | 18,052 | 4,625 | 784 | 2,481 | 144,838 |
| Other skilled | 87,500 | 20,216 | 9,342 | 28,688 | 4,470 | 3,606 | 972 | 4,065 | 158,859 |
| Preparatory | 23,881 | 38,865 | 9,622 | 24,053 | 8,633 | 2,081 | 1,437 | 1,263 | 109,835 |
| Adult education | 17,771 | 34,966 | 36,553 | 51,313 | 66,867 | 15,626 | 6,022 | 1,472 | 230,590 |
| Total—1977 | 238,308 | 158,935 | 82,537 | 149,352 | 136,335 | 29,041 | 9,975 | 14,330 | 818,813 |

(a) Institutions whose functions are primarily TAFE. (b) Subsidiaries of parent institutions. (c) Institutions whose primary function is other than TAFE. (d) Colleges offering TAFE activities. (e) Includes parent institutions and subsidiaries of parent institutions as separate institutions. (f) Total enrolments registered during the year up to 31 October. (g) Including *External* enrolments.

TECHNICAL AND FURTHER EDUCATION: ENROLMENTS (a) BY TYPE OF ENROLMENT AND FIELD OF STUDY, 1977

| <i>Field of study</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> |
|-----------------------------------|----------------|----------------|---------------|----------------|----------------|---------------|--------------|---------------|------------------|
| FULL-TIME | | | | | | | | | |
| Applied science | 272 | 771 | 160 | — | 231 | 15 | 6 | 80 | 1,535 |
| Art and design | 1,076 | 1,219 | 700 | 343 | 493 | 33 | — | 67 | 3,931 |
| Building industry | 617 | 644 | 279 | 43 | 213 | 113 | 17 | — | 1,926 |
| Business studies | 8,174 | 2,341 | 1,633 | 289 | 1,267 | 565 | 101 | 295 | 14,665 |
| Engineering | 2,246 | 2,676 | 297 | 67 | 485 | 334 | 7 | 121 | 6,233 |
| Rural and horticultural | 353 | 495 | 441 | 81 | 107 | — | — | — | 1,477 |
| Music | 61 | — | 20 | 33 | — | — | — | — | 114 |
| Para-medical services | 191 | — | — | 10 | 52 | — | — | — | 253 |
| Service industries | 1,431 | 489 | 25 | — | 335 | 118 | — | 161 | 2,559 |
| General studies | 4,805 | 2,210 | 296 | 701 | 746 | 27 | 93 | 227 | 9,105 |
| <i>Total</i> | <i>19,226</i> | <i>10,845</i> | <i>3,851</i> | <i>1,567</i> | <i>3,929</i> | <i>1,205</i> | <i>224</i> | <i>951</i> | <i>41,798</i> |
| PART-TIME | | | | | | | | | |
| Applied science | 2,172 | 6,878 | 633 | 782 | 1,295 | 121 | 164 | 237 | 12,282 |
| Art and design | 11,859 | 9,554 | 15,861 | 18,266 | 4,597 | 5,592 | 1,850 | 817 | 68,396 |
| Building industry | 14,736 | 18,348 | 7,544 | 12,391 | 5,576 | 2,867 | 650 | 1,266 | 63,378 |
| Business studies | 50,619 | 17,462 | 5,890 | 21,142 | 12,855 | 2,377 | 857 | 3,346 | 114,548 |
| Engineering | 52,391 | 35,937 | 14,753 | 23,389 | 15,855 | 3,896 | 919 | 2,415 | 149,555 |
| Rural and horticultural | 6,167 | 9,049 | 902 | 3,656 | 890 | 365 | 54 | 560 | 21,643 |
| Music | 29 | 860 | 728 | 3,674 | — | 395 | 882 | 268 | 6,836 |
| Para-medical services | 2,593 | 507 | 313 | 371 | 445 | 168 | 25 | 15 | 4,437 |
| Service industries | 44,770 | 17,256 | 11,912 | 28,642 | 3,220 | 8,026 | 1,753 | 3,354 | 118,933 |
| General studies | 19,539 | 25,843 | 9,523 | 22,539 | 73,767 | 3,605 | 2,539 | 1,101 | 158,456 |
| <i>Total</i> | <i>204,875</i> | <i>141,694</i> | <i>68,059</i> | <i>134,852</i> | <i>118,500</i> | <i>27,412</i> | <i>9,693</i> | <i>13,379</i> | <i>718,464</i> |
| EXTERNAL | | | | | | | | | |
| Applied science | — | 129 | 24 | — | 308 | 26 | — | — | 487 |
| Art and design | 570 | — | — | 525 | 221 | 1 | — | — | 1,317 |
| Building industry | 428 | 328 | 615 | 294 | 643 | — | — | — | 2,308 |
| Business studies | 4,404 | 2,896 | 1,434 | 5,597 | 3,917 | 195 | — | — | 18,443 |
| Engineering | 2,129 | 967 | 1,956 | 739 | 3,919 | — | — | — | 9,710 |
| Rural and horticultural | 1,285 | 130 | 507 | 1,088 | 483 | — | — | — | 3,493 |
| Music | — | — | — | 26 | — | — | — | — | 26 |
| Para-medical services | 325 | — | 122 | — | 188 | — | — | — | 635 |
| Service industries | 1,585 | 162 | 402 | 75 | 727 | — | — | — | 2,951 |
| General studies | 3,481 | 1,784 | 5,567 | 4,589 | 3,500 | 202 | 58 | — | 19,181 |
| <i>Total</i> | <i>14,207</i> | <i>6,396</i> | <i>10,627</i> | <i>12,933</i> | <i>13,906</i> | <i>424</i> | <i>58</i> | <i>—</i> | <i>58,551</i> |
| ALL ENROLMENTS | | | | | | | | | |
| Applied science | 2,444 | 7,778 | 817 | 782 | 1,834 | 162 | 170 | 317 | 14,304 |
| Art and design | 13,505 | 10,773 | 16,561 | 19,134 | 5,311 | 5,626 | 1,850 | 884 | 73,644 |
| Building industry | 15,781 | 19,320 | 8,438 | 12,728 | 6,432 | 2,980 | 667 | 1,266 | 67,612 |
| Business studies | 63,197 | 22,699 | 8,957 | 27,028 | 18,039 | 3,137 | 958 | 3,641 | 147,656 |
| Engineering | 56,766 | 39,580 | 17,006 | 24,195 | 20,259 | 4,230 | 926 | 2,536 | 165,498 |
| Rural and horticultural | 7,805 | 9,674 | 1,850 | 4,825 | 1,480 | 365 | 54 | 560 | 26,613 |
| Music | 90 | 860 | 748 | 3,733 | — | 395 | 882 | 268 | 6,976 |
| Para-medical services | 3,109 | 507 | 435 | 381 | 685 | 168 | 25 | 15 | 5,325 |
| Service industries | 47,786 | 17,907 | 12,339 | 28,717 | 4,282 | 8,144 | 1,753 | 3,515 | 124,443 |
| General studies | 27,825 | 29,837 | 15,386 | 27,829 | 78,013 | 3,834 | 2,690 | 1,328 | 186,742 |
| <i>Total—1977</i> | <i>238,308</i> | <i>158,935</i> | <i>82,537</i> | <i>149,352</i> | <i>136,335</i> | <i>29,041</i> | <i>9,975</i> | <i>14,330</i> | <i>818,813</i> |
| 1976 | 227,836 | 150,273 | 93,474 | 128,703 | 120,828 | 26,508 | 7,195 | 13,627 | 768,444 |

(a) Statistics shown refer to gross enrolments, no allowance having been made for students enrolled in more than one course. Details reported in this table represent the cumulative total of all enrolments registered during a year up to 31 October.

TECHNICAL AND FURTHER EDUCATION: TEACHING EFFORT (a) BY ACADEMIC STREAM, 1977
(⁰⁰⁰ hours)

| <i>Academic stream</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> |
|-----------------------------|----------------|----------------|--------------|----------------|--------------|--------------|-------------|---------------|------------------|
| FULL-TIME STAFF(b) | | | | | | | | | |
| Professional | 6.7 | 32.8 | 22.2 | 9.1 | 7.2 | — | 3.7 | 2.7 | 84.4 |
| Para-professional | 514.0 | 318.4 | 85.4 | 224.0 | 301.6 | 35.7 | 11.5 | 29.9 | 1,520.5 |
| Trades | 787.5 | 930.0 | 379.1 | 320.3 | 240.1 | 125.0 | 14.8 | 38.3 | 2,835.1 |
| Other skilled | 435.8 | 99.4 | 127.5 | 51.7 | 15.7 | 32.4 | 5.7 | 20.6 | 788.8 |
| Preparatory | 159.1 | 308.4 | 60.9 | 72.5 | 40.4 | 5.3 | 3.4 | 5.5 | 655.5 |
| Adult education | 30.9 | 58.0 | 4.4 | 29.5 | 14.7 | — | 3.7 | 0.6 | 141.7 |
| <i>Total</i> | <i>1,934.0</i> | <i>1,747.0</i> | <i>679.5</i> | <i>707.0</i> | <i>619.7</i> | <i>198.4</i> | <i>42.8</i> | <i>97.5</i> | <i>6,026.0</i> |
| PART-TIME STAFF(c) | | | | | | | | | |
| Professional | 7.1 | 0.9 | 2.3 | 0.9 | 1.0 | — | 1.2 | 1.7 | 15.1 |
| Para-professional | 378.9 | 77.5 | 62.4 | 58.2 | 112.3 | 31.3 | 1.4 | 26.1 | 748.1 |
| Trades | 281.6 | 43.4 | 7.8 | 2.0 | 60.0 | 27.6 | 2.4 | 14.8 | 439.6 |
| Other skilled | 388.4 | 34.3 | 39.3 | 46.6 | 12.7 | 15.6 | 1.8 | 15.6 | 554.3 |
| Preparatory | 158.7 | 121.8 | 27.5 | 69.6 | 29.7 | 11.6 | 8.1 | 22.1 | 449.1 |
| Adult education | 64.5 | 68.7 | 34.0 | 148.9 | 101.2 | 28.6 | 11.3 | 4.5 | 461.7 |
| <i>Total</i> | <i>1,279.2</i> | <i>346.6</i> | <i>173.3</i> | <i>326.2</i> | <i>316.9</i> | <i>114.7</i> | <i>26.2</i> | <i>84.8</i> | <i>2,667.9</i> |
| ALL TEACHING STAFF | | | | | | | | | |
| Professional | 13.9 | 33.7 | 24.5 | 10.0 | 8.2 | — | 4.9 | 4.4 | 99.7 |
| Para-professional | 892.9 | 395.9 | 147.8 | 282.2 | 414.0 | 67.1 | 12.9 | 56.0 | 2,268.7 |
| Trades | 1,069.1 | 973.4 | 386.9 | 322.4 | 300.1 | 152.6 | 17.2 | 53.2 | 3,274.9 |
| Other skilled | 824.2 | 133.7 | 166.8 | 98.3 | 28.4 | 47.9 | 7.5 | 36.2 | 1,343.0 |
| Preparatory | 317.7 | 430.2 | 88.4 | 142.0 | 70.1 | 16.9 | 11.5 | 27.6 | 1,104.4 |
| Adult education | 95.4 | 126.7 | 38.4 | 178.4 | 115.8 | 28.6 | 15.0 | 5.0 | 603.3 |
| <i>Total—1977</i> | <i>3,213.2</i> | <i>2,093.6</i> | <i>852.8</i> | <i>1,033.2</i> | <i>936.6</i> | <i>313.1</i> | <i>69.0</i> | <i>182.3</i> | <i>8,694.0</i> |
| 1976 | 2,871.1 | 2,041.8 | (d)786.1 | 938.1 | 884.1 | 249.3 | 38.9 | 190.0 | (d)8,000.0 |

(a) Hours of classroom duty performed by teachers during the teaching year (excluding all non-teaching duty). (b) All teaching staff employed full-time by the relevant authority or institution, including 'multi-sector' staff whose duties extend to teaching areas other than TAFE. Teaching hours reported in this table relate only to teaching undertaken in TAFE. (c) Statistics of part-time teaching effort relate to all teaching duty performed by staff employed part-time by the authority or institution and teaching hours worked on an overtime basis by full-time staff. (d) Excluded in 1976 is the teaching effort in TAFE courses at Queensland colleges of advanced education. The components affected are the *Para-professional* and *Preparatory* streams.

Colleges of Advanced Education

The following statistics refer to operative institutions listed in the appropriate States Grants (Tertiary Education Assistance) 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 1977 and the number of students who completed advanced level courses in 1976. The reference date for these statistics is 30 April except for students who completed advanced level courses for whom the reference period is the twelve months ended 31 December 1976. For more detailed statistics, see the annual bulletin *Colleges of Advanced Education* (4206.0).

COLLEGES OF ADVANCED EDUCATION: STUDENTS COMMENCING BY COURSE LEVEL AND FIELD OF STUDY, 1977(a)

| <i>Field of study</i> | <i>Master degree</i> | <i>Graduate diploma</i> | <i>Bachelor degree</i> | <i>Diploma</i> | <i>Associate diploma</i> | <i>Total</i> | | |
|--|----------------------|-------------------------|------------------------|----------------|--------------------------|---------------|----------------|----------------|
| | | | | | | <i>Males</i> | <i>Females</i> | <i>Persons</i> |
| Agriculture | — | 58 | 86 | 230 | 275 | 517 | 132 | 649 |
| Applied sciences | 65 | 606 | 2,984 | 115 | 500 | 3,236 | 1,034 | 4,270 |
| Art and design | — | 63 | 576 | 1,583 | 280 | 1,011 | 1,491 | 2,502 |
| Building, surveying and architecture | 1 | 151 | 709 | 488 | 194 | 1,339 | 204 | 1,543 |
| Commercial and business studies | 63 | 1,319 | 7,539 | 1,052 | 1,260 | 8,763 | 2,470 | 11,233 |
| Engineering and technology | 35 | 429 | 2,293 | 292 | 364 | 3,364 | 49 | 3,413 |
| Liberal studies | 2 | 899 | 3,737 | 754 | 646 | 2,341 | 3,697 | 6,038 |
| Music | — | 42 | 216 | 160 | 25 | 204 | 239 | 443 |
| Para-medical | 26 | 186 | 1,577 | 1,083 | 617 | 939 | 2,550 | 3,489 |
| Teacher education | 13 | 4,496 | 4,131 | 13,954 | 445 | 7,451 | 15,588 | 23,039 |
| <i>Total—1977</i> | <i>205</i> | <i>8,249</i> | <i>23,848</i> | <i>19,711</i> | <i>4,606</i> | <i>29,165</i> | <i>27,454</i> | <i>56,619</i> |
| 1976 | 135 | 6,558 | 18,309 | 22,629 | 4,491 | 27,349 | 24,773 | 52,122 |

(a) Excludes students commencing in second semester.

**COLLEGES OF ADVANCED EDUCATION: STUDENTS WHO COMPLETED
COURSES BY FIELD OF STUDY AND COURSE LEVEL, 1976**

| Field of study | Master degree | Graduate diploma | Bachelor degree | Diploma | Associate diploma | Total | | |
|--|---------------|------------------|-----------------|---------------|-------------------|---------------|---------------|---------------|
| | | | | | | Males | Females | Persons |
| Agriculture | — | 34 | 36 | 161 | 189 | 363 | 57 | 420 |
| Applied sciences | 7 | 161 | 738 | 273 | 83 | 1,004 | 258 | 1,262 |
| Art and design | — | 40 | 15 | 881 | 12 | 459 | 489 | 948 |
| Building, surveying and architecture | — | 20 | 250 | 192 | 45 | 468 | 39 | 507 |
| Commercial and business studies | 4 | 347 | 1,164 | 1,056 | 253 | 2,320 | 504 | 2,824 |
| Engineering and technology | 1 | 47 | 846 | 735 | 51 | 1,672 | 8 | 1,680 |
| Liberal studies | — | 374 | 791 | 255 | 119 | 642 | 897 | 1,539 |
| Music | — | 11 | 41 | 179 | — | 71 | 160 | 231 |
| Para-medical | 8 | 84 | 547 | 458 | 437 | 334 | 1,200 | 1,534 |
| Teacher education | 16 | 3,294 | 385 | 13,724 | 490 | 5,662 | 12,247 | 17,909 |
| Total—1976 | 36 | 4,412 | 4,813 | 17,914 | 1,679 | 12,995 | 15,859 | 28,854 |
| 1975 | 17 | 3,814 | 3,566 | 15,242 | 2,030 | 11,446 | 13,223 | 24,669 |

**COLLEGES OF ADVANCED EDUCATION: STUDENTS BY TYPE OF ENROLMENT
COURSE LEVEL AND FIELD OF STUDY, 1977**

| Field of study | Master degree | Graduate diploma | Bachelor degree | Diploma | Associate diploma | Total | | |
|--|---------------|------------------|-----------------|---------|-------------------|--------|---------|---------|
| | | | | | | Males | Females | Persons |
| FULL-TIME | | | | | | | | |
| Agriculture | - | 35 | 257 | 708 | 495 | 1,249 | 246 | 1,495 |
| Applied sciences | 33 | 164 | 3,909 | 329 | 324 | 3,490 | 1,269 | 4,759 |
| Art and design | - | 70 | 780 | 4,015 | 44 | 2,086 | 2,823 | 4,909 |
| Building, surveying and architecture | - | - | 1,314 | 493 | 143 | 1,622 | 328 | 1,950 |
| Commercial and business studies | 22 | 320 | 6,273 | 1,501 | 612 | 6,338 | 2,390 | 8,728 |
| Engineering and technology | 14 | 3 | 4,920 | 742 | 175 | 5,768 | 86 | 5,854 |
| Liberal studies | - | 386 | 4,142 | 851 | 656 | 2,434 | 3,601 | 6,035 |
| Music | - | 32 | 339 | 510 | 18 | 367 | 532 | 899 |
| Para-medical | 27 | 101 | 3,237 | 1,455 | 628 | 1,377 | 4,071 | 5,448 |
| Teacher education | 2 | 3,626 | 5,530 | 34,903 | 756 | 13,215 | 31,602 | 44,817 |
| Total—1977 | 98 | 4,737 | 30,701 | 45,507 | 3,851 | 37,946 | 46,948 | 84,894 |
| 1976 | 77 | 4,104 | 24,459 | 50,226 | 3,745 | 37,014 | 45,597 | 82,611 |

PART-TIME—INTERNAL

| | | | | | | | | |
|--|------------|--------------|---------------|---------------|--------------|---------------|---------------|---------------|
| Agriculture | — | 2 | 1 | 18 | 16 | 29 | 8 | 37 |
| Applied sciences | 112 | 753 | 2,602 | 371 | 274 | 3,405 | 707 | 4,112 |
| Art and design | — | 55 | 105 | 500 | 404 | 474 | 590 | 1,064 |
| Building, surveying and architecture | 3 | 358 | 898 | 1,294 | 147 | 2,485 | 215 | 2,700 |
| Commercial and business studies | 152 | 1,758 | 9,568 | 2,687 | 1,396 | 13,397 | 2,164 | 15,561 |
| Engineering and technology | 66 | 468 | 2,447 | 704 | 253 | 3,901 | 37 | 3,938 |
| Liberal studies | 4 | 773 | 3,314 | 627 | 549 | 2,251 | 3,016 | 5,267 |
| Music | — | 21 | 109 | 215 | 15 | 113 | 247 | 360 |
| Para-medical | 38 | 110 | 838 | 510 | 315 | 623 | 1,188 | 1,811 |
| Teacher education | 41 | 1,522 | 2,578 | 5,599 | 76 | 3,624 | 6,192 | 9,816 |
| Total—1977 | 416 | 5,820 | 22,460 | 12,525 | 3,445 | 30,302 | 14,364 | 44,666 |
| 1976 | 364 | 5,138 | 19,127 | 14,256 | 3,927 | 30,768 | 12,044 | 42,812 |

PART-TIME—EXTERNAL

| | | | | | | | | |
|--|-----------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| Agriculture | — | 23 | — | — | 27 | 43 | 7 | 50 |
| Applied sciences | 19 | 1 | 678 | 2 | 154 | 657 | 197 | 854 |
| Art and design | — | — | — | 33 | 2 | 11 | 24 | 35 |
| Building, surveying and architecture | — | — | 18 | 40 | — | 55 | 3 | 58 |
| Commercial and business studies | — | 318 | 1,466 | 729 | 630 | 2,636 | 507 | 3,143 |
| Engineering and technology | 1 | 102 | 29 | 30 | 2 | 160 | 4 | 164 |
| Liberal studies | — | 67 | 1,056 | 257 | 169 | 565 | 984 | 1,549 |
| Music | — | — | — | 3 | — | 2 | 1 | 3 |
| Para-medical | — | — | 3 | 337 | 221 | 193 | 368 | 561 |
| Teacher education | — | 634 | 675 | 3,026 | — | 1,247 | 3,088 | 4,335 |
| Total—1977 | 20 | 1,145 | 3,925 | 4,457 | 1,205 | 5,569 | 5,183 | 10,752 |
| 1976 | — | 629 | 2,611 | 4,883 | 1,068 | 4,667 | 4,524 | 9,191 |

**COLLEGES OF ADVANCED EDUCATION: STUDENTS BY TYPE OF ENROLMENT
COURSE LEVEL AND FIELD OF STUDY, 1977—continued**

| Field of study | Master degree | Graduate diploma | Bachelor degree | Diploma | Associate diploma | Total | | |
|--|---------------|------------------|-----------------|---------|-------------------|--------|---------|---------|
| | | | | | | Males | Females | Persons |
| ALL STUDENTS | | | | | | | | |
| Agriculture | - | 60 | 258 | 726 | 538 | 1,321 | 261 | 1,582 |
| Applied sciences | 164 | 918 | 7,189 | 702 | 752 | 7,552 | 2,173 | 9,725 |
| Art and design | - | 125 | 885 | 4,548 | 450 | 2,571 | 3,437 | 6,008 |
| Building, surveying and architecture | 3 | 358 | 2,230 | 1,827 | 290 | 4,162 | 546 | 4,708 |
| Commercial and business studies | 174 | 2,396 | 17,307 | 4,917 | 2,638 | 22,371 | 5,061 | 27,432 |
| Engineering and technology | 81 | 573 | 7,396 | 1,476 | 430 | 9,829 | 127 | 9,956 |
| Liberal studies | 4 | 1,226 | 8,512 | 1,735 | 1,374 | 5,250 | 7,601 | 12,851 |
| Music | - | 53 | 448 | 728 | 33 | 482 | 780 | 1,262 |
| Para-medical | 65 | 211 | 4,078 | 2,302 | 1,164 | 2,193 | 5,627 | 7,820 |
| Teacher education | 43 | 5,782 | 8,783 | 43,528 | 832 | 18,086 | 40,882 | 58,968 |
| Total—1977 | 534 | 11,702 | 57,086 | 62,489 | 8,501 | 73,817 | 66,495 | 140,312 |
| 1976 | 441 | 9,871 | 46,197 | 69,365 | 8,740 | 72,449 | 62,165 | 134,614 |

**COLLEGES OF ADVANCED EDUCATION: TEACHING STAFF BY FIELD OF TEACHING
STATES AND A.C.T., 1977**

Teaching effort in approved courses of full-time and part-time staff, expressed in equivalent full-time units and rounded to whole numbers.

| Field of teaching | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | A.C.T. | Australia |
|--|--------------|--------------|--------------|--------------|--------------|------------|------------|--------------|
| FULL-TIME STAFF | | | | | | | | |
| Agriculture | 73 | 4 | 30 | 47 | 12 | — | — | 166 |
| Applied sciences | 202 | 401 | 192 | 44 | 94 | 18 | 73 | 1,024 |
| Art and design | 109 | 206 | — | 66 | 29 | 20 | — | 430 |
| Building, surveying and architecture | 25 | 60 | 27 | 31 | 31 | 9 | 17 | 200 |
| Commercial and business studies | 170 | 418 | 124 | 50 | 85 | 19 | 44 | 909 |
| Engineering and technology | 56 | 398 | 106 | 78 | 67 | 16 | — | 721 |
| Liberal studies | 90 | 300 | 123 | 61 | 114 | 8 | 49 | 745 |
| Music | 40 | 7 | 15 | 2 | — | 17 | — | 81 |
| Para-medical | 95 | 166 | 28 | 76 | 82 | 10 | — | 457 |
| Teacher education | 1,074 | 1,227 | 455 | 474 | 401 | 82 | 48 | 3,760 |
| Not classifiable | 86 | 9 | 5 | 23 | 6 | 3 | — | 132 |
| Total—1977 | 2,020 | 3,197 | 1,104 | 951 | 922 | 201 | 231 | 8,625 |
| 1976 | 1,858 | 3,134 | 957 | 871 | 914 | 205 | 226 | 8,165 |
| PART-TIME STAFF | | | | | | | | |
| Agriculture | 2 | 2 | — | 1 | 2 | — | — | 6 |
| Applied sciences | 24 | 60 | 7 | 4 | 25 | 1 | 18 | 140 |
| Art and design | 22 | 40 | — | 6 | 5 | 2 | — | 74 |
| Building, surveying and architecture | 8 | 17 | 22 | 5 | 5 | — | 1 | 58 |
| Commercial and business studies | 20 | 40 | 23 | 4 | 16 | 2 | 9 | 114 |
| Engineering and technology | 17 | 19 | 9 | 2 | 6 | 1 | — | 54 |
| Liberal studies | 18 | 39 | 11 | 15 | 21 | 1 | 16 | 120 |
| Music | 30 | 6 | 14 | — | — | 4 | — | 55 |
| Para-medical | 15 | 26 | 5 | 21 | 21 | 1 | — | 89 |
| Teacher education | 46 | 75 | 25 | 34 | 27 | 5 | 7 | 218 |
| Not classifiable | 2 | 17 | — | — | 2 | — | — | 21 |
| Total—1977 | 204 | 341 | 116 | 92 | 129 | 18 | 50 | 949 |
| 1976 | 241 | 512 | 104 | 104 | 156 | 17 | 47 | 1,181 |
| ALL STAFF | | | | | | | | |
| Agriculture | 75 | 6 | 30 | 47 | 14 | — | — | 172 |
| Applied sciences | 226 | 461 | 199 | 48 | 120 | 19 | 91 | 1,164 |
| Art and design | 131 | 246 | — | 72 | 34 | 22 | — | 505 |
| Building, surveying and architecture | 33 | 77 | 49 | 36 | 35 | 9 | 18 | 258 |
| Commercial and business studies | 190 | 459 | 147 | 53 | 101 | 20 | 53 | 1,023 |
| Engineering and technology | 73 | 418 | 114 | 80 | 73 | 17 | — | 774 |
| Liberal studies | 108 | 339 | 135 | 76 | 135 | 9 | 65 | 866 |
| Music | 71 | 13 | 29 | 2 | — | 21 | — | 136 |
| Para-medical | 110 | 193 | 33 | 97 | 102 | 11 | — | 546 |
| Teacher education | 1,120 | 1,302 | 479 | 508 | 428 | 87 | 55 | 3,979 |
| Not classifiable | 88 | 26 | 5 | 23 | 7 | 3 | — | 152 |
| Total—1977 | 2,224 | 3,538 | 1,220 | 1,043 | 1,051 | 218 | 281 | 9,574 |
| 1976 | 2,099 | 3,646 | 1,061 | 975 | 1,070 | 222 | 273 | 9,346 |

Universities

The following university statistics provide details of the total number of students enrolled in university courses, the teaching staff engaged, and the number of students commencing and completing courses. The reference date for the statistics is 30 April except for students completing courses for whom the reference date is the year ended 30 June. For more detailed statistics, see the annual publications *University Statistics*, Parts 1 and 2 (4208.0 and 4209.0).

UNIVERSITIES: STUDENTS COMMENCING DEGREE COURSES, 1977

| | Doctorate (other than Ph.D.) courses | Ph.D. degree courses | Master degree courses | Bachelor degree courses | Total | | |
|--|--|----------------------------|-----------------------------|-------------------------------|--------|---------|---------|
| | | | | | Males | Females | Persons |
| New South Wales | 4 | 377 | 2,081 | 16,001 | 11,206 | 7,257 | 18,463 |
| Victoria | 21 | 232 | 1,124 | 9,702 | 6,535 | 4,544 | 11,079 |
| Queensland | 6 | 99 | 417 | 5,564 | 3,430 | 2,656 | 6,086 |
| South Australia | 2 | 71 | 274 | 3,095 | 2,076 | 1,366 | 3,442 |
| Western Australia | 1 | 73 | 326 | 3,598 | 2,441 | 1,557 | 3,998 |
| Tasmania | — | 25 | 35 | 990 | 651 | 399 | 1,050 |
| Australian Capital Territory | — | 160 | 208 | 1,408 | 1,047 | 729 | 1,776 |
| Australia—1977 | 34 | 1,037 | 4,465 | 40,358 | 27,386 | 18,508 | 45,894 |
| 1976 | 34 | 1,085 | 4,315 | 41,074 | 28,182 | 18,326 | 46,508 |

UNIVERSITIES: FULL-TIME AND PART-TIME STUDENTS BY SEX AND COURSE LEVEL, 1975 TO 1977

| Level of course | Males | | | Females | | |
|--|--------|--------|--------|---------|--------|--------|
| | 1975 | 1976 | 1977 | 1975 | 1976 | 1977 |
| FULL-TIME | | | | | | |
| Higher degree | 4,756 | 5,033 | 5,002 | 1,458 | 1,614 | 1,775 |
| Other post-graduate(a) | 1,926 | 1,847 | 1,797 | 2,278 | 1,980 | 2,020 |
| Bachelor degree | 54,029 | 55,139 | 55,592 | 32,371 | 34,694 | 35,761 |
| Sub-graduate diploma, certificate and other(c) | 157 | 171 | 413 | 135 | 127 | 541 |
| Total | 60,868 | 62,190 | 62,804 | 36,242 | 38,415 | 40,097 |
| PART-TIME(b) | | | | | | |
| Higher degree | 8,288 | 8,471 | 8,937 | 2,174 | 2,471 | 2,716 |
| Other post-graduate(a) | 2,497 | 2,699 | 2,625 | 1,279 | 1,332 | 1,389 |
| Bachelor degree | 20,764 | 20,621 | 20,623 | 12,955 | 14,121 | 15,382 |
| Sub-graduate diploma, certificate and other(c) | 1,661 | 1,918 | 1,954 | 1,610 | 1,722 | 1,884 |
| Total | 33,210 | 33,709 | 34,139 | 18,018 | 19,646 | 21,371 |
| ALL STUDENTS | | | | | | |
| Higher degree | 13,044 | 13,504 | 13,939 | 3,632 | 4,085 | 4,491 |
| Other post-graduate(a) | 4,423 | 4,546 | 4,422 | 3,557 | 3,312 | 3,409 |
| Bachelor degree | 74,793 | 75,760 | 76,215 | 45,326 | 48,815 | 51,143 |
| Sub-graduate diploma, certificate and other(c) | 1,818 | 2,089 | 2,367 | 1,745 | 1,849 | 2,425 |
| Total | 94,078 | 95,899 | 96,943 | 54,260 | 58,061 | 61,468 |

(a) Includes post-graduate diploma courses and preliminary or qualifying courses for masters degrees. (b) Includes all external students. (c) Other refers to single and miscellaneous subjects of university standard.

**UNIVERSITIES: STUDENTS COMPLETING DEGREE AND POST-GRADUATE DIPLOMA
COURSES BY FIELD OF STUDY, YEAR ENDED 30 JUNE 1977**

| Field of study | Degrees | | | | | Total |
|---|---------------------------------------|------------|--------------|---------------|------------------------------|---------------|
| | Doctorate (other than Ph.D.) | Ph.D. | Master | Bachelor | Post graduate diplomas | |
| Humanities | 1 | 65 | 204 | 7,745 | 17 | 8,032 |
| Fine arts | 1 | 2 | 10 | 132 | 7 | 152 |
| Social and behavioural sciences | — | 53 | 168 | 1,045 | 188 | 1,454 |
| Law | — | 2 | 84 | 1,331 | 73 | 1,490 |
| Education | — | 21 | 294 | 1,083 | 3,375 | 4,773 |
| Economics, commerce, government | — | 35 | 381 | 3,125 | 63 | 3,604 |
| Medicine | 36 | 67 | 65 | 1,652 | 101 | 1,921 |
| Dentistry | 2 | 2 | 13 | 263 | 6 | 286 |
| Natural sciences | 11 | 331 | 260 | 4,740 | 90 | 5,432 |
| Engineering, technology | — | 108 | 241 | 1,696 | 24 | 2,069 |
| Architecture | — | 5 | 70 | 480 | 82 | 637 |
| Agriculture, forestry | 1 | 47 | 103 | 332 | 35 | 518 |
| Veterinary Science | — | 9 | 42 | 188 | 5 | 244 |
| Not stated | 1 | — | — | — | — | 1 |
| Total—1977 | 53 | 747 | 1,935 | 23,812 | 4,066 | 30,613 |
| 1976 | 48 | 803 | 1,765 | 23,025 | 4,172 | 29,813 |

UNIVERSITIES: TEACHING STAFF(a), BY FIELD OF TEACHING, 1977

| Field of teaching | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | A.C.T. | Aust. |
|---|--------------|--------------|--------------|------------|------------|------------|------------|---------------|
| FULL-TIME STAFF | | | | | | | | |
| Humanities | 635 | 461 | 236 | 152 | 119 | 46 | 138 | 1,786 |
| Fine arts | 49 | 57 | 13 | 41 | 8 | — | — | 167 |
| Social and behavioural sciences | 450 | 211 | 138 | 87 | 95 | 31 | 43 | 1,053 |
| Law | 119 | 126 | 33 | 26 | 19 | 13 | 33 | 369 |
| Education | 244 | 207 | 72 | 52 | 63 | 15 | 1 | 655 |
| Economics, commerce, government | 489 | 292 | 127 | 95 | 72 | 33 | 61 | 1,168 |
| Medicine | 284 | 248 | 173 | 116 | 90 | 39 | — | 950 |
| Dentistry | 39 | 29 | 32 | 23 | 15 | — | — | 137 |
| Natural sciences | 984 | 620 | 402 | 281 | 187 | 89 | 108 | 2,670 |
| Engineering, technology | 503 | 203 | 113 | 52 | 56 | 22 | — | 948 |
| Architecture | 113 | 48 | 26 | 16 | 8 | — | — | 210 |
| Agriculture, forestry | 102 | 50 | 42 | 40 | 22 | 9 | 21 | 285 |
| Veterinary science | 48 | 37 | 48 | — | 22 | — | — | 155 |
| Other(b) | 27 | 3 | 37 | — | — | 2 | — | 69 |
| Total—1977 | 4,084 | 2,590 | 1,491 | 979 | 775 | 298 | 405 | 10,622 |
| 1976 | 4,079 | 2,381 | 1,430 | 987 | 723 | 293 | 405 | 10,299 |

PART-TIME STAFF (full-time equivalent units) (c)

| | | | | | | | | |
|---|------------|------------|-----------|------------|------------|-----------|-----------|--------------|
| Humanities | 34 | 22 | 7 | 5 | 6 | 1 | 8 | 84 |
| Fine arts | 5 | 7 | 1 | 5 | 3 | — | — | 21 |
| Social and behavioural sciences | 38 | 14 | 8 | 5 | 8 | — | 4 | 78 |
| Law | 8 | 11 | 1 | 2 | 2 | — | 6 | 29 |
| Education | 53 | 29 | 3 | 2 | 11 | 1 | — | 100 |
| Economics, commerce, government | 33 | 20 | 2 | 4 | 2 | 1 | 2 | 64 |
| Medicine | 98 | 82 | 32 | 11 | 18 | 1 | — | 242 |
| Dentistry | 13 | 10 | 4 | 22 | 10 | — | — | 60 |
| Natural sciences | 106 | 113 | 14 | 51 | 35 | 6 | 12 | 336 |
| Engineering, technology | 41 | 25 | 8 | 7 | 5 | 1 | — | 88 |
| Architecture | 23 | 9 | 3 | 2 | 4 | — | — | 40 |
| Agriculture, forestry | 7 | 4 | — | — | 1 | — | 2 | 15 |
| Veterinary science | 2 | 2 | 1 | — | — | — | — | 5 |
| Other(b) | 7 | — | 6 | — | — | — | — | 13 |
| Total—1977 | 469 | 349 | 90 | 117 | 105 | 11 | 33 | 1,175 |
| 1976 | 504 | 348 | 87 | 111 | 109 | 16 | 27 | 1,203 |

UNIVERSITIES: TEACHING STAFF(a), BY FIELD OF TEACHING, 1977—continued

| Field of teaching | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | A.C.T. | Aust. |
|--|--------|-------|-------|-------|------|------|--------|--------|
| ALL STAFF (full-time equivalent units) | | | | | | | | |
| Humanities | 669 | 483 | 243 | 157 | 125 | 47 | 146 | 1,870 |
| Fine arts | 54 | 64 | 14 | 46 | 11 | — | — | 188 |
| Social and behavioural sciences | 488 | 225 | 146 | 92 | 103 | 31 | 47 | 1,131 |
| Law | 127 | 137 | 34 | 28 | 21 | 13 | 39 | 398 |
| Education | 297 | 236 | 75 | 54 | 74 | 16 | 1 | 755 |
| Economics, commerce, government | 522 | 312 | 129 | 99 | 74 | 34 | 63 | 1,233 |
| Medicine | 382 | 330 | 205 | 127 | 108 | 40 | — | 1,192 |
| Dentistry | 52 | 39 | 36 | 45 | 25 | — | — | 197 |
| Natural sciences | 1,090 | 733 | 416 | 332 | 222 | 95 | 120 | 3,006 |
| Engineering, technology | 544 | 228 | 121 | 59 | 61 | 23 | — | 1,036 |
| Architecture | 136 | 57 | 29 | 18 | 12 | — | — | 250 |
| Agriculture, forestry | 109 | 54 | 42 | 40 | 23 | 9 | 23 | 300 |
| Veterinary science | 50 | 39 | 49 | — | 22 | — | — | 160 |
| Other(b) | 34 | 3 | 43 | — | — | 2 | — | 82 |
| Total—1977 | 4,553 | 2,940 | 1,582 | 1,096 | 879 | 309 | 438 | 11,797 |
| 1976 | 4,584 | 2,729 | 1,517 | 1,098 | 833 | 309 | 432 | 11,501 |

(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. (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.

STUDENT ASSISTANCE SCHEMES FUNDED BY THE DEPARTMENT OF EDUCATION

| Scheme | Number of students 1977 | Expenditure (\$'000) 1976–77 |
|---|----------------------------|------------------------------------|
| Postgraduate Awards(a) | 2,214 | 8,600 |
| Tertiary Education Assistance(a) | 87,673 | 135,775 |
| Technical Scholarships(a) | 13 | 9 |
| Pre-school Teacher Education(a) | 1,560 | 3,219 |
| Postgraduate Awards—Social Work (a) | 15 | 293 |
| Senior Secondary Scholarships(a) | 3 | 20 |
| Secondary Allowances(b) | 15,766 | 6,865 |
| Adult Secondary Education Assistance(a) | 2,115 | 4,596 |
| Aboriginal Secondary Grants(a) | 12,862 | 10,002 |
| Aboriginal Study Grants(b) | 2,451 | 2,277 |
| Aboriginal Study Grants—Overseas(b) | 10 | 61 |
| Assistance for Isolated Children(b) | 18,606 | 11,689 |
| Non-State Tertiary Institutions | n.a. | 3,128 |
| Overseas Study Fellowships in Recreation(b) | 10 | 180 |
| Overseas Management Fellowships(b) | 17 | 148 |
| Commonwealth Teaching Service Scholarships(a) | 615 | 1,305 |
| Other(a) | 12 | 8 |

(a) For this scheme, the 'number of students' represents students receiving benefits at 30 June each year. (b) For this scheme the 'number of students' represents students receiving benefits at some time during the year.

Overseas students

The following table shows the number of private students and sponsored overseas students and trainees in Australia at 30 June 1978. The Department of Immigration and Ethnic Affairs and the Department of Education prepare statistics of overseas students admitted under the *Private Overseas Student Program*. The statistics in the following table exclude practical experience and specialised trainees, exchange students and students not currently undertaking study. Further details on sponsored overseas students and trainees in Australia are available from publications issued by the Australian Development Assistance Bureau within the Department of Foreign Affairs.

OVERSEAS STUDENTS: NUMBER OF PRIVATE STUDENTS AND SPONSORED STUDENTS AND TRAINEES BY LAST PLACE OF RESIDENCE, AS AT 30 JUNE 1978

| Last place of residence | Private students (a) | Sponsored students and trainees | | | | Total |
|-------------------------------------|----------------------|---------------------------------|--|-----------------|-------|-------|
| | | Colombo Plan | Commonwealth Co-operation in Education | Home government | Other | |
| Africa | 114 | — | 54 | 24 | 167 | 245 |
| America | 158 | — | 25 | 3 | 6 | 34 |
| Asia— | | | | | | |
| Burma | 2 | 16 | — | — | — | 16 |
| Brunei | 13 | — | — | — | — | — |
| China— | | | | | | |
| Excluding Taiwan Province | — | — | — | — | — | — |
| Taiwan Province only | 22 | — | — | — | — | — |
| Hong Kong | 849 | — | 3 | 11 | — | 14 |
| India | 138 | 10 | 8 | — | 9 | 27 |
| Indonesia | 572 | 217 | — | 9 | 35 | 261 |
| Japan | 156 | — | — | — | — | — |
| Laos | 3 | 57 | — | — | — | 57 |
| Malaysia | 3,997 | 219 | 5 | 137 | 13 | 374 |
| Pakistan | 31 | 32 | — | — | 1 | 33 |
| Philippines | 109 | 45 | — | — | 8 | 53 |
| Singapore | 368 | 140 | 2 | 1 | 6 | 149 |
| Sri Lanka | 85 | 71 | 4 | — | 6 | 81 |
| Thailand | 377 | 172 | — | 1 | 7 | 180 |
| Vietnam | 4 | 65 | — | — | 50 | 115 |
| Other Asia | 79 | 174 | 8 | 2 | 9 | 193 |
| Total Asia | 6,805 | 1,218 | 30 | 161 | 144 | 1,553 |
| Europe | 237 | — | 5 | — | 3 | 8 |
| Oceania— | | | | | | |
| Fiji | 239 | — | 25 | 7 | 30 | 62 |
| Nauru | 71 | — | — | — | — | — |
| New Caledonia | 41 | — | — | — | — | — |
| Papua New Guinea | 98 | — | — | — | 156 | 156 |
| Solomon Islands | 29 | — | — | — | 6 | 6 |
| Tonga | 43 | — | 14 | 1 | 32 | 47 |
| Other Oceania | 37 | — | 20 | — | 24 | 44 |
| Total Oceania | 558 | — | 59 | 8 | 248 | 315 |
| Not stated | 13 | — | — | — | — | — |
| Total Overseas Students | 7,885 | 1,218 | 173 | 196 | 568 | 2,155 |

(a) Excludes practical experience and specialised trainees, exchange students and students not currently undertaking study.

Expenditure on education

The aim of this section is to provide information on the extent and direction of both government and private expenditure on education in recent years. The figures have been compiled in accordance with national accounting concepts. For explanation of these concepts, reference should be made to *Australian National Accounts: National Income and Expenditure 1976-77* (5204.0), and also to *Public Authority Finance: Federal Authorities, 1977-78* (5502.0), and *Public Authority Finance: States and Local Authorities, 1976-77* (5504.0), from which figures included in this section have also been taken.

The emphasis given in this section to the outlays of the public sector reflects in part the relative importance of that sector in the provision of education services, but it is also a reflection of the lack of detailed information relating to educational activities in the private sector. Information is given, however, to show the order of magnitude of private sector spending, and also to show aggregate supply of education services and facilities.

Total expenditure on education

Total expenditure on education can be measured by adding together the final expenditures of the public and private sectors.

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 gross domestic product. These relationships are shown in the following table.

AUSTRALIA: EXPENDITURE ON EDUCATION

| | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|--|---------------|---------------|---------------|---------------|---------------|---------------|
| | \$m | \$m | \$m | \$m | \$m | \$m |
| Public sector— | | | | | | |
| Final consumption expenditure | 1,212 | 1,446 | 1,890 | 2,740 | 3,387 | 4,070 |
| Expenditure on new fixed assets | 285 | 328 | 382 | 656 | 695 | 654 |
| Final expenditure(1) | 1,498 | 1,774 | 2,272 | 3,397 | 4,082 | 4,723 |
| Transfers to the private sector and expenditure on existing fixed assets (net) | 170 | 215 | 257 | 330 | 408 | 445 |
| Outlay | 1,668 | 1,990 | 2,528 | 3,727 | 4,490 | 5,169 |
| Private sector— | | | | | | |
| Final consumption expenditure | 196 | 214 | 208 | 200 | 218 | 243 |
| Expenditure on new fixed assets | 41 | 38 | 43 | 74 | 87 | 68 |
| Final expenditure(2) | 237 | 252 | 251 | 274 | 305 | 311 |
| Total expenditure on education (1) + (2) | 1,735 | 2,026 | 2,523 | 3,671 | 4,387 | 5,034 |
| Gross domestic product | 36,723 | 41,924 | 50,709 | 60,682 | 71,364 | 82,471 |
| | per cent | per cent | per cent | per cent | per cent | per cent |
| Expenditure on education as percentage of gross domestic product— | | | | | | |
| Final consumption expenditure— | | | | | | |
| Public | 3.3 | 3.4 | 3.7 | 4.5 | 4.7 | 4.9 |
| Private | 0.5 | 0.5 | 0.4 | 0.3 | 0.3 | 0.3 |
| Expenditure on new fixed assets— | | | | | | |
| Public | 0.8 | 0.8 | 0.8 | 1.1 | 1.0 | 0.8 |
| Private | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Total expenditure | 4.7 | 4.8 | 5.0 | 6.0 | 6.2 | 6.1 |

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 grants from public authorities for private capital purposes. 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. Expenditure on such items as school books, uniforms, etc., and expenditure by parents associations on school equipment is not included, being treated in the Australian National Accounts as private final consumption expenditure on other goods and services (such as clothing, books, household durables, etc.). 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 presented here for the public sector 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. Expenditure 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.

The outlays of the public authorities engaged in providing education services or financing their provision by other bodies, public or private, have also been classified according to their economic type: 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 purposes) which become a source of finance for that sector's own final expenditures; and transfers between public authorities (Commonwealth 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 the public authorities and persons, i.e. 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 purposes 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 Commonwealth 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)

| | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Federal Authorities— | | | | | | |
| Final consumption expenditure | 63.9 | 79.2 | 109.4 | 167.4 | 198.9 | 240.8 |
| Cash benefits to persons | 54.3 | 74.0 | 93.8 | 124.3 | 162.5 | 193.7 |
| Grants for private capital purposes | 1.3 | 1.3 | 2.4 | 7.7 | 10.5 | 6.4 |
| Expenditure on new fixed assets | 25.0 | 30.1 | 32.1 | 45.1 | 73.4 | 62.2 |
| Expenditure on existing fixed assets (net) | -0.4 | -0.5 | 0.8 | 0.3 | 0.1 | -0.5 |
| Grants to States— | | | | | | |
| Current | 118.9 | 153.9 | 433.5 | 910.8 | 1,135.5 | 1,393.9 |
| Capital | 86.0 | 105.6 | 189.1 | 415.5 | 319.2 | 327.8 |
| Grants to local government authorities | .. | .. | 0.4 | 2.5 | 6.4 | 6.1 |
| <i>Total Federal</i> | <i>348.9</i> | <i>443.5</i> | <i>861.5</i> | <i>1,673.6</i> | <i>1,906.6</i> | <i>2,230.3</i> |
| State authorities— | | | | | | |
| Final consumption expenditure | 1,146.6 | 1,365.1 | 1,777.6 | 2,568.3 | 3,180.8 | 3,820.1 |
| Cash benefits to persons | 96.9 | 115.6 | 127.0 | 147.1 | 175.2 | 191.1 |
| Grants for private capital purposes | 7.7 | 8.5 | 13.7 | 31.7 | 33.0 | 24.2 |
| Expenditure on new fixed assets | 260.0 | 297.6 | 349.0 | 609.3 | 617.9 | 587.8 |
| Expenditure on existing fixed assets (net) | 11.2 | 16.6 | 18.9 | 19.1 | 26.9 | 30.3 |
| <i>Total State</i> | <i>1,522.3</i> | <i>1,803.4</i> | <i>2,286.3</i> | <i>3,375.5</i> | <i>4,033.8</i> | <i>4,653.5</i> |
| <i>Less Grants from the Commonwealth Government for educational purposes</i> | <i>204.9</i> | <i>259.4</i> | <i>622.5</i> | <i>1,326.3</i> | <i>1,454.8</i> | <i>1,721.6</i> |
| <i>Outlay financed from States' own resources and from non-specific Commonwealth Government grants</i> | <i>1,317.4</i> | <i>1,543.9</i> | <i>1,663.8</i> | <i>2,049.2</i> | <i>2,579.0</i> | <i>2,931.8</i> |
| Local authorities— | | | | | | |
| Final consumption expenditure | 1.6 | 2.0 | 2.9 | 4.6 | 7.1 | 9.0 |
| Expenditure on new fixed assets | 0.4 | 0.3 | 0.7 | 1.9 | 4.0 | 3.6 |
| <i>Total local</i> | <i>2.1</i> | <i>2.3</i> | <i>3.6</i> | <i>6.5</i> | <i>11.1</i> | <i>12.6</i> |
| <i>Less Grants from Commonwealth Government for education purposes</i> | <i>..</i> | <i>..</i> | <i>0.4</i> | <i>2.5</i> | <i>6.4</i> | <i>6.1</i> |
| <i>Outlay financed from local authorities own resources</i> | <i>2.1</i> | <i>2.3</i> | <i>3.1</i> | <i>4.1</i> | <i>4.7</i> | <i>6.5</i> |
| Total outlay on education | 1,668.4 | 1,989.8 | 2,528.4 | 3,726.8 | 4,490.3 | 5,168.7 |
| Total outlay on all purposes | 12,026.2 | 13,403.3 | 16,220.7 | 22,879.5 | 27,583.5 | 31,785.6 |
| | per cent | per cent | per cent | per cent | per cent | per cent |
| Outlay on education as percentage of total outlay | 13.9 | 14.8 | 15.6 | 16.3 | 16.3 | 16.3 |

Federal Authorities

Details of outlay on education by authorities of the Commonwealth Government are given in the following table.

FEDERAL AUTHORITIES: OUTLAY ON EDUCATION

(\$ million)

| | 1974-75 | 1975-76 | 1976-77 |
|---|---------|---------|---------|
| General administration, regulation and research— | | | |
| Department of Education— | | | |
| Salaries, etc., n.e.c. | 14.0 | 17.4 | 18.8 |
| Administration expenses, n.e.c. | 5.6 | 7.0 | 7.8 |
| Building and works, office equipment, etc. | 0.2 | 0.2 | - |
| Grants to the States— | | | |
| Research and development | 0.8 | 1.1 | 1.0 |
| Other | - | 0.1 | 0.7 |
| <i>Total general administration, etc</i> | 20.6 | 25.8 | 28.3 |
| Transportation of students— | | | |
| School bus service— | | | |
| Australian Capital Territory | 0.9 | 1.4 | 1.8 |
| Northern Territory | 0.6 | 0.9 | 1.0 |
| <i>Total transportation</i> | 1.5 | 2.3 | 2.7 |
| Primary and secondary education— | | | |
| Schools Commission | 2.1 | 2.8 | 2.8 |
| Education services— | | | |
| Australian Capital Territory | 43.0 | 61.0 | 64.8 |
| Northern Territory | 20.0 | 33.6 | 38.0 |
| School broadcasts | 1.9 | 2.0 | 1.9 |
| Student assistance | 8.6 | 6.8 | 7.0 |
| Child migrant education program | 3.7 | 3.9 | 1.0 |
| Assistance to isolated children | 9.5 | 10.4 | 11.7 |
| Grants to non-government schools— | | | |
| Australian Capital Territory | 7.8 | 8.9 | 9.9 |
| Northern Territory | 1.1 | 1.3 | 1.4 |
| Grants to the States— | | | |
| Non-government schools—Recurrent grants | 101.7 | 123.6 | 171.7 |
| Non-government schools—Capital grants | 28.4 | 28.7 | 19.9 |
| Government schools—Recurrent grants | 117.9 | 186.7 | 225.8 |
| Government schools—Capital grants | 170.0 | 113.8 | 127.2 |
| Child migrant education | 11.3 | 9.0 | 0.2 |
| Schools—joint programs | 16.0 | 22.7 | 24.9 |
| Other | 0.4 | 0.4 | 0.4 |
| <i>Total primary and secondary</i> | 543.5 | 615.7 | 708.7 |
| Vocational Training— | | | |
| Tertiary Education Commission | - | 0.6 | 0.6 |
| Canberra School of Music | 0.6 | 0.7 | - |
| Technical and Further Education in the A.C.T. | 5.7 | 9.4 | 13.6 |
| Darwin Community College | 3.4 | 5.6 | 6.7 |
| Student assistance | 15.4 | 20.2 | 23.7 |
| Grants to the States—T.A.F.E.— | | | |
| Apprentice training | 0.5 | 0.6 | - |
| Recurrent grants | 24.6 | 40.1 | 44.2 |
| Other Capital grants | 19.9 | 24.0 | 33.7 |
| Other | - | 0.4 | 0.6 |
| <i>Total vocational training</i> | 70.1 | 101.5 | 123.2 |
| University education— | | | |
| Tertiary Education Commission | 0.6 | 0.7 | 0.7 |
| Australian National University— | | | |
| Student assistance | 1.4 | 1.9 | 0.8 |
| Other | 57.6 | 57.0 | 71.1 |
| Student assistance— | | | |
| Undergraduate | 39.3 | 53.4 | 66.7 |
| Postgraduate | 8.1 | 7.8 | 8.8 |
| Grants to Australian National University residential colleges | 0.1 | 0.1 | 0.2 |
| School of Public Health and Tropical Medicine (Sydney University) | 1.7 | 1.9 | 2.1 |
| Grants to the States—Universities | 444.0 | 475.2 | 568.5 |
| Other | 0.1 | 0.3 | - |
| <i>Total university</i> | 553.0 | 598.4 | 719.1 |

FEDERAL AUTHORITIES: OUTLAY ON EDUCATION—*continued*
(\$ million)

| | 1974-75 | 1975-76 | 1976-77 |
|---|-----------------|-----------------|-----------------|
| Other higher education— | | | |
| Tertiary Education Commission | 0.8 | 0.7 | 0.7 |
| Canberra College of Advanced Education | 11.5 | 13.0 | 14.5 |
| Canberra School of Music | 1.2 | 2.3 | 1.1 |
| Australian Film and Television School | 3.2 | 3.6 | 3.6 |
| Student assistance | 26.5 | 41.8 | 51.7 |
| Commonwealth Teaching Service scholarships | 1.1 | 1.1 | 1.3 |
| Grants to the States— | | | |
| Colleges of Advanced Education and Teacher training colleges | 349.2 | 373.5 | 446.4 |
| Other | — | — | 0.1 |
| <i>Total other higher education</i> | <i>393.4</i> | <i>436.0</i> | <i>519.5</i> |
| Other education programs— | | | |
| Aboriginal education— | | | |
| Study grants | 1.4 | 1.8 | 2.3 |
| Secondary grants | 7.2 | 8.6 | 10.0 |
| Grants to private non-profit organisations | 3.7 | 3.9 | 3.9 |
| Grants to the States | 4.6 | 6.9 | 5.9 |
| Other | 14.4 | 22.3 | 17.5 |
| Soldiers' children education scheme | 3.7 | 3.6 | 3.5 |
| Migrant education programs | 6.0 | 8.2 | 9.0 |
| Pre-school and child care programs— | | | |
| Grants to States and local authorities | 40.0 | 55.1 | 58.2 |
| Other | 9.1 | 12.6 | 11.7 |
| Adult education programs | 1.0 | 3.2 | 4.6 |
| Queen's Silver Jubilee Appeal | — | — | 2.0 |
| Other | 0.5 | 0.6 | 0.1 |
| <i>Total other programs</i> | <i>91.6</i> | <i>126.8</i> | <i>128.8</i> |
| Total outlay on education | 1,673.6 | 1,906.6 | 2,230.3 |
| <i>of which—</i> | | | |
| Current outlay | 1,202.8 | 1,497.7 | 1,830.0 |
| Capital outlay | 470.8 | 408.9 | 400.3 |
| Total outlay on all purposes | 17,359.9 | 21,441.2 | 24,078.7 |
| | per cent | per cent | per cent |
| Outlay on education as a percentage of total outlay | 9.6 | 8.9 | 9.3 |

As may be seen from the table, Commonwealth Government outlays are directed largely towards financing outlays on education by the States and the private sector. Direct expenditure by the Commonwealth 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.

FEDERAL AUTHORITIES: CASH BENEFITS TO PERSONS FOR EDUCATION
(S'000)

| | 1974-75 | 1975-76 | 1976-77 |
|---|----------------|----------------|----------------|
| Primary and secondary education— | | | |
| Student assistance | 8,599 | 6,721 | 6,885 |
| Australian Capital Territory and Northern Territory scholarships and allowances | 46 | 92 | 116 |
| Assistance to isolated children | 9,539 | 10,398 | 11,689 |
| United world colleges scholarships | - | - | 5 |
| <i>Total</i> | <i>18,184</i> | <i>17,211</i> | <i>18,695</i> |
| Vocational training— | | | |
| Student assistance | 15,371 | 20,191 | 23,756 |
| University education— | | | |
| Australian National University scholarships | 1,412 | 1,871 | 830 |
| Student assistance— | | | |
| Post-graduate | 8,041 | 7,685 | 8,600 |
| Under-graduate | 38,861 | 52,948 | 66,367 |
| Australian Agricultural Council scholarships | 71 | 96 | - |
| Wool research studentships | 234 | 268 | 202 |
| Forestry scholarships | 89 | 94 | 80 |
| Other | 101 | 170 | 182 |
| <i>Total</i> | <i>48,809</i> | <i>63,132</i> | <i>76,261</i> |
| Other higher education— | | | |
| Student assistance | 22,237 | 35,642 | 44,507 |
| Commonwealth Teaching Service scholarships | 1,079 | 1,123 | 1,305 |
| Pre-school teaching scholarships | 2,648 | 3,461 | 3,219 |
| Non government institutions-fees | 1,615 | 2,655 | 3,980 |
| Other | 12 | 18 | 20 |
| <i>Total</i> | <i>27,591</i> | <i>42,899</i> | <i>53,031</i> |
| Other education programs— | | | |
| Aboriginal study grants | 1,403 | 1,772 | 2,338 |
| Aboriginal secondary grants | 7,197 | 8,621 | 10,002 |
| Soldiers' children education scheme | 3,682 | 3,553 | 3,468 |
| Adult secondary education assistance | 759 | 3,228 | 4,596 |
| Assistance to Vietnamese and Cambodian students | 53 | 213 | 73 |
| Migrant education services | 1,176 | 1,612 | 1,503 |
| Other | 48 | 23 | 9 |
| <i>Total</i> | <i>14,318</i> | <i>19,022</i> | <i>21,989</i> |
| Total education | 124,273 | 162,455 | 193,732 |

Outlay on education in the internal territories

As mentioned previously, the Commonwealth Government is responsible for the provision of education services in the Australian Capital Territory and until 1 July 1979 in the Northern Territory. Details of Commonwealth Government outlay on education in the Territories are given below; further information may be found in Chapter 27, The Territories of Australia.

FEDERAL AUTHORITIES: OUTLAY ON EDUCATION IN THE INTERNAL TERRITORIES, 1976-77
(S'000)

| <i>Australian Capital Territory</i> | | <i>Northern Territory</i> | |
|--|---------|---|--------|
| Current Outlay— | | Current Outlay— | |
| Government schools and pre-schools(a)— | | Government schools and pre-schools— | |
| Salaries and wages | 43,462 | Salaries and wages | 28,690 |
| Transportation of students | 1,760 | Transportation of students | 1,166 |
| Contract school cleaning | 2,779 | Contract school cleaning | 968 |
| Repairs and maintenance | 794 | Repairs and maintenance | 1,199 |
| Other | 4,173 | Other | 6,355 |
| Non-government schools assistance— | | Less Aboriginal education included in above items | 10,490 |
| Per capita grants | 6,032 | <i>Total</i> | 27,888 |
| Interest subsidy | 801 | | |
| Other grants and allowances | 231 | Non-government schools assistance— | |
| Technical and further education— | | Per capital grants | 935 |
| Canberra School of Music | 735 | Interest subsidy | 78 |
| Canberra School of Art | 493 | Other grants and allowances | 33 |
| Other TAFE Colleges | 5,863 | Aboriginal education— | |
| Canberra College of Advanced Education | 12,083 | Assistance to mission schools | 1,218 |
| Other current outlay on education | 197 | Government school system | 10,490 |
| <i>Total</i> | 79,401 | Darwin Community College— | |
| Less Fees | 304 | Salaries and wages | 3,629 |
| <i>Total current outlay</i> | 79,097 | Other | 1,172 |
| | | <i>Total</i> | 45,441 |
| | | Less Fees | 142 |
| | | <i>Total current outlay</i> | 45,299 |
| Capital outlay— | | Capital outlay— | |
| Government schools and colleges— | | Buildings and works— | |
| By National Capital Development Commission— | | Darwin Reconstruction Commission— | |
| Primary and Pre-schools | 6,717 | Aboriginal education | 3,115 |
| Secondary schools | 11,947 | Government schools and pre-schools | 9,682 |
| Technical Colleges | 6,616 | Darwin Community College | 346 |
| Other educational buildings | 1,090 | Department of Construction— | |
| By Department of Construction— | | Aboriginal education | 3,305 |
| Buildings and works | .. | Government schools and pre-schools | 3,704 |
| Furniture and fittings | 582 | Furniture and fittings, plant and equipment— | |
| Plant and equipment | 1,835 | Aboriginal education | 552 |
| Canberra College of Advanced Education | 2,395 | Other | 2,429 |
| Non-government schools assistance— | | Non-government schools assistance— | |
| approved capital programs(b) | 2,781 | Approved capital programs(b) | 345 |
| <i>Total capital outlay</i> | 33,963 | Assistance to aboriginal missions | 96 |
| <i>Total outlay(c)</i> | 113,060 | <i>Total capital outlay</i> | 23,574 |
| | | <i>Total outlay</i> | 68,873 |

(a) Includes pre-school running expenses \$1,482,000. (b) Grants for private capital purposes. (c) Excludes the Australian National University. Commonwealth Government payments to the University in 1976-77 amounted to \$71,653,000 for current purposes and \$242,000 for capital purposes.

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 Commonwealth Government) and from Commonwealth Government grants for educational purposes.

STATE AND LOCAL AUTHORITIES: OUTLAY ON EDUCATION

(\$ million)

| | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|--|----------------|----------------|----------------|----------------|----------------|----------------|
| Final consumption expenditure— | | | | | | |
| New South Wales | 408.5 | 472.7 | 609.9 | 882.1 | 1,069.6 | 1,273.6 |
| Victoria | 339.7 | 422.6 | 540.6 | 770.5 | 952.4 | 1,144.7 |
| Queensland | 132.0 | 165.9 | 221.6 | 323.5 | 416.4 | 504.3 |
| South Australia | 121.7 | 140.3 | 189.3 | 271.0 | 341.7 | 413.6 |
| Western Australia | 106.9 | 119.3 | 158.7 | 233.9 | 299.3 | 363.8 |
| Tasmania | 39.5 | 46.4 | 60.4 | 91.9 | 108.5 | 129.1 |
| <i>Total</i> | <i>1,148.2</i> | <i>1,367.1</i> | <i>1,780.5</i> | <i>2,573.0</i> | <i>3,187.9</i> | <i>3,829.1</i> |
| Expenditure on new fixed assets— | | | | | | |
| New South Wales | 87.0 | 92.8 | 111.5 | 208.8 | 229.1 | 189.3 |
| Victoria | 75.3 | 86.9 | 100.5 | 170.9 | 170.1 | 158.0 |
| Queensland | 34.9 | 37.8 | 48.0 | 85.8 | 74.1 | 99.9 |
| South Australia | 27.8 | 37.9 | 41.1 | 69.2 | 62.1 | 66.4 |
| Western Australia | 22.8 | 25.9 | 32.3 | 53.3 | 54.1 | 49.0 |
| Tasmania | 12.7 | 16.6 | 16.4 | 23.2 | 32.4 | 28.8 |
| <i>Total</i> | <i>260.4</i> | <i>297.9</i> | <i>349.7</i> | <i>611.2</i> | <i>621.9</i> | <i>591.4</i> |
| Expenditure on existing fixed assets (net) | 11.2 | 16.6 | 18.9 | 19.1 | 26.9 | 30.3 |
| Cash benefits to persons | 96.9 | 115.6 | 127.0 | 147.1 | 175.2 | 191.1 |
| Grants for private capital purposes | 7.7 | 8.5 | 13.7 | 31.7 | 33.0 | 24.2 |
| Total outlay on education | 1,524.4 | 1,805.7 | 2,289.9 | 3,382.0 | 4,044.8 | 4,666.1 |
| <i>of which—</i> | | | | | | |
| New South Wales | 541.1 | 619.9 | 784.0 | 1,167.1 | 1,393.6 | 1,566.0 |
| Victoria | 446.6 | 551.0 | 688.7 | 999.0 | 1,189.6 | 1,374.2 |
| Queensland | 186.1 | 225.9 | 296.3 | 444.6 | 534.7 | 650.0 |
| South Australia | 158.6 | 188.2 | 241.7 | 354.0 | 416.5 | 488.7 |
| Western Australia | 136.1 | 153.9 | 198.4 | 297.5 | 363.2 | 421.6 |
| Tasmania | 55.8 | 66.7 | 80.6 | 119.7 | 147.2 | 165.6 |

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 Commonwealth 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)

| | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|---|----------------|----------------|----------------|------------------|------------------|------------------|
| GRANTS FOR CURRENT PURPOSES | | | | | | |
| Schools | 29,594 | 40,979 | 85,662 | 234,579 | 331,884 | 421,758 |
| Technical and further education | - | - | 10,268 | 24,622 | 40,127 | 44,194 |
| Colleges of Advanced Education | 18,372 | 26,655 | 124,808 | 239,249 | 286,766 | 368,894 |
| Universities | 67,596 | 80,826 | 200,042 | 377,990 | 426,389 | 511,556 |
| Aboriginal education | 347 | 1,167 | 2,174 | 3,367 | 4,978 | 5,561 |
| Child migrant education(a) | 2,778 | 3,956 | 6,014 | 9,845 | 7,370 | 140 |
| Child care and pre-school education | - | - | 4,096 | 20,377 | 36,973 | 40,761 |
| Educational research | 236 | 275 | 406 | 786 | 1,062 | 1,012 |
| Total | 118,923 | 153,858 | 433,470 | 910,815 | 1,135,548 | 1,393,876 |
| GRANTS FOR CAPITAL PURPOSES | | | | | | |
| Schools | 27,264 | 33,019 | 75,976 | 199,368 | 143,631 | 147,766 |
| Technical and further education | 7,411 | 12,976 | 18,381 | 20,375 | 24,600 | 33,709 |
| Colleges of Advanced Education | 27,425 | 31,390 | 40,112 | 109,916 | 86,753 | 77,555 |
| Universities | 23,002 | 26,464 | 48,966 | 65,990 | 48,827 | 56,958 |
| Aboriginal education | 867 | 1,720 | 2,218 | 1,224 | 1,966 | 361 |
| Child migrant education(a) | - | - | 995 | 1,478 | 1,670 | 39 |
| Child care and pre-school education | - | - | 2,416 | 17,123 | 11,797 | 11,375 |
| Total | 85,969 | 105,569 | 189,064 | 415,474 | 319,244 | 327,763 |
| TOTAL GRANTS | | | | | | |
| Schools | 56,858 | 73,998 | 161,638 | 433,947 | 475,515 | 569,524 |
| Technical and further education | 7,411 | 12,976 | 28,649 | 44,997 | 64,727 | 77,903 |
| Colleges of Advanced Education | 45,797 | 58,045 | 164,920 | 349,165 | 373,519 | 446,449 |
| Universities | 90,598 | 107,290 | 249,008 | 443,980 | 475,216 | 568,514 |
| Aboriginal education | 1,214 | 2,887 | 4,392 | 4,591 | 6,944 | 5,922 |
| Child migrant education(a) | 2,778 | 3,956 | 7,009 | 11,323 | 9,040 | 179 |
| Child care and pre-school education | - | - | 6,512 | 37,500 | 48,770 | 52,136 |
| Educational research | 236 | 275 | 406 | 786 | 1,062 | 1,012 |
| Total | 204,892 | 259,427 | 622,534 | 1,326,289 | 1,454,792 | 1,721,639 |

(a) Grants for child migrant education under the Schools Commission program, commencing January 1976, are included under 'schools'.

TOTAL GRANTS TO STATES FOR SCHOOLS

(\$'000)

| | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|-----------------------------|---------------|---------------|----------------|----------------|----------------|----------------|
| Current grants— | | | | | | |
| New South Wales | 10,854 | 15,046 | 28,147 | 84,749 | 125,395 | 151,153 |
| Victoria | 9,655 | 13,337 | 29,125 | 72,112 | 100,354 | 134,939 |
| Queensland | 4,472 | 6,250 | 13,578 | 35,604 | 46,162 | 56,058 |
| South Australia | 1,889 | 2,529 | 6,464 | 19,017 | 27,452 | 35,038 |
| Western Australia | 2,064 | 2,903 | 6,389 | 17,184 | 23,194 | 33,521 |
| Tasmania | 660 | 914 | 1,958 | 5,912 | 9,327 | 11,049 |
| Total | 29,594 | 40,979 | 85,662 | 234,579 | 331,884 | 421,758 |
| Capital grants— | | | | | | |
| New South Wales | 10,018 | 10,637 | 30,208 | 71,708 | 45,886 | 48,683 |
| Victoria | 7,587 | 9,486 | 18,011 | 58,651 | 49,285 | 45,056 |
| Queensland | 3,483 | 4,366 | 8,990 | 27,968 | 22,363 | 28,090 |
| South Australia | 2,629 | 3,805 | 9,430 | 19,160 | 11,056 | 14,672 |
| Western Australia | 2,296 | 3,017 | 6,810 | 15,789 | 10,564 | 6,999 |
| Tasmania | 1,251 | 1,708 | 2,527 | 6,092 | 4,477 | 4,266 |
| Total | 27,264 | 33,019 | 75,976 | 199,368 | 143,631 | 147,766 |
| Total grants— | | | | | | |
| New South Wales | 20,872 | 25,683 | 58,355 | 156,457 | 171,281 | 199,836 |
| Victoria | 17,242 | 22,823 | 47,136 | 130,763 | 149,639 | 179,995 |
| Queensland | 7,955 | 10,616 | 22,568 | 63,572 | 68,525 | 84,148 |
| South Australia | 4,518 | 6,334 | 15,894 | 38,177 | 38,508 | 49,710 |
| Western Australia | 4,360 | 5,920 | 13,199 | 32,973 | 33,758 | 40,520 |
| Tasmania | 1,911 | 2,622 | 4,485 | 12,004 | 13,804 | 15,315 |
| Total | 56,858 | 73,998 | 161,638 | 433,947 | 475,515 | 569,524 |

TOTAL GRANTS TO STATES FOR TECHNICAL AND FURTHER EDUCATION
(S'000)

| | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|-----------------------------|---------|---------|---------|---------|---------|---------|
| Current grants— | | | | | | |
| New South Wales | .. | .. | 5,801 | 10,333 | 17,652 | 16,714 |
| Victoria | .. | .. | 1,772 | 6,794 | 9,653 | 13,866 |
| Queensland | .. | .. | 715 | 2,262 | 4,643 | 4,537 |
| South Australia | .. | .. | 889 | 2,639 | 3,770 | 4,502 |
| Western Australia | .. | .. | 974 | 2,168 | 3,322 | 3,606 |
| Tasmania | .. | .. | 117 | 426 | 1,087 | 969 |
| <i>Total</i> | .. | .. | 10,268 | 24,622 | 40,127 | 44,194 |
| Capital grants— | | | | | | |
| New South Wales | 2,416 | 5,040 | 6,873 | 5,859 | 8,919 | 12,262 |
| Victoria | 1,500 | 3,350 | 5,500 | 6,585 | 7,376 | 9,333 |
| Queensland | 1,238 | 1,910 | 1,945 | 4,073 | 3,334 | 4,439 |
| South Australia | 1,130 | 1,130 | 2,063 | 2,800 | 1,208 | 2,320 |
| Western Australia | 747 | 1,166 | 1,311 | 587 | 2,876 | 3,690 |
| Tasmania | 380 | 380 | 689 | 471 | 887 | 1,665 |
| <i>Total</i> | 7,411 | 12,976 | 18,381 | 20,375 | 24,600 | 33,709 |
| Total grants— | | | | | | |
| New South Wales | 2,416 | 5,040 | 12,674 | 16,192 | 26,571 | 28,976 |
| Victoria | 1,500 | 3,350 | 7,272 | 13,379 | 17,029 | 23,199 |
| Queensland | 1,238 | 1,910 | 2,660 | 6,335 | 7,977 | 8,976 |
| South Australia | 1,130 | 1,130 | 2,952 | 5,439 | 4,978 | 6,822 |
| Western Australia | 747 | 1,166 | 2,285 | 2,755 | 6,198 | 7,296 |
| Tasmania | 380 | 380 | 806 | 897 | 1,974 | 2,634 |
| <i>Total</i> | 7,411 | 12,976 | 28,649 | 44,997 | 64,727 | 77,903 |

TOTAL GRANTS TO STATES FOR COLLEGES OF ADVANCED EDUCATION AND TEACHERS
COLLEGES
(S'000)

| | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|-----------------------------|---------|---------|---------|---------|---------|---------|
| Current grants— | | | | | | |
| New South Wales | 3,713 | 5,525 | 28,935 | 62,122 | 69,089 | 90,831 |
| Victoria | 7,341 | 10,443 | 46,711 | 86,119 | 111,307 | 135,960 |
| Queensland | 1,860 | 2,906 | 14,438 | 27,230 | 33,999 | 48,962 |
| South Australia | 1,651 | 2,638 | 13,518 | 24,531 | 28,838 | 38,221 |
| Western Australia | 2,920 | 4,015 | 17,247 | 32,359 | 36,522 | 46,242 |
| Tasmania | 887 | 1,128 | 3,959 | 6,888 | 7,011 | 8,678 |
| <i>Total</i> | 18,372 | 26,655 | 124,808 | 239,249 | 286,766 | 368,894 |
| Capital grants— | | | | | | |
| New South Wales | 7,381 | 9,691 | 7,644 | 41,197 | 23,716 | 27,200 |
| Victoria | 8,330 | 9,275 | 13,680 | 32,452 | 34,313 | 25,971 |
| Queensland | 3,776 | 3,806 | 5,078 | 13,438 | 9,181 | 14,630 |
| South Australia | 2,872 | 3,639 | 6,196 | 12,579 | 6,886 | 4,276 |
| Western Australia | 3,031 | 3,554 | 7,222 | 7,281 | 7,344 | 5,074 |
| Tasmania | 2,035 | 1,425 | 292 | 2,969 | 5,313 | 404 |
| <i>Total</i> | 27,425 | 31,390 | 40,112 | 109,916 | 86,753 | 77,555 |
| Total grants— | | | | | | |
| New South Wales | 11,094 | 15,216 | 36,579 | 103,319 | 92,805 | 118,031 |
| Victoria | 15,671 | 19,718 | 60,391 | 118,571 | 145,620 | 161,931 |
| Queensland | 5,636 | 6,712 | 19,516 | 40,668 | 43,180 | 63,592 |
| South Australia | 4,523 | 6,277 | 19,714 | 37,110 | 35,724 | 42,497 |
| Western Australia | 5,951 | 7,569 | 24,469 | 39,640 | 43,866 | 51,316 |
| Tasmania | 2,922 | 2,553 | 4,251 | 9,857 | 12,324 | 9,082 |
| <i>Total</i> | 45,797 | 58,045 | 164,920 | 349,165 | 373,519 | 446,449 |

TOTAL GRANTS TO STATES FOR UNIVERSITIES
(S'000)

| | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|-----------------------------|---------------|----------------|----------------|----------------|----------------|----------------|
| Current grants— | | | | | | |
| New South Wales | 27,223 | 32,155 | 79,572 | 149,997 | 168,831 | 199,633 |
| Victoria | 18,586 | 21,896 | 53,468 | 99,798 | 110,717 | 134,763 |
| Queensland | 8,412 | 10,664 | 26,169 | 49,876 | 57,185 | 69,427 |
| South Australia | 6,676 | 7,898 | 19,808 | 38,067 | 43,107 | 51,000 |
| Western Australia | 4,594 | 5,683 | 14,610 | 27,978 | 32,891 | 40,795 |
| Tasmania | 2,105 | 2,530 | 6,415 | 12,274 | 13,658 | 15,938 |
| Total | 67,596 | 80,826 | 200,042 | 377,990 | 426,389 | 511,556 |
| Capital grants— | | | | | | |
| New South Wales | 9,682 | 10,522 | 16,889 | 22,526 | 21,754 | 17,553 |
| Victoria | 6,669 | 7,327 | 14,128 | 17,330 | 9,516 | 10,460 |
| Queensland | 2,597 | 2,545 | 5,624 | 9,821 | 6,453 | 11,638 |
| South Australia | 1,818 | 2,697 | 7,050 | 7,320 | 3,421 | 6,426 |
| Western Australia | 1,571 | 2,531 | 4,581 | 7,714 | 5,094 | 9,822 |
| Tasmania | 665 | 842 | 694 | 1,279 | 2,589 | 1,061 |
| Total | 23,002 | 26,464 | 48,966 | 65,990 | 48,827 | 56,958 |
| Total grants— | | | | | | |
| New South Wales | 36,905 | 42,677 | 96,461 | 172,523 | 190,585 | 217,186 |
| Victoria | 25,255 | 29,223 | 67,596 | 117,128 | 120,233 | 145,223 |
| Queensland | 11,009 | 13,209 | 31,793 | 59,697 | 63,638 | 81,065 |
| South Australia | 8,494 | 10,595 | 26,858 | 45,387 | 46,528 | 57,426 |
| Western Australia | 6,165 | 8,214 | 19,191 | 35,692 | 37,985 | 50,617 |
| Tasmania | 2,770 | 3,372 | 7,109 | 13,553 | 16,247 | 16,999 |
| Total | 90,598 | 107,290 | 249,008 | 443,980 | 475,216 | 568,514 |

TOTAL GRANTS TO STATES FOR ABORIGINAL EDUCATION
(S'000)

| | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|-----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Current payments— | | | | | | |
| New South Wales | 184 | 229 | 482 | 546 | 904 | 931 |
| Victoria | 83 | 167 | 275 | 262 | 212 | 576 |
| Queensland | — | 293 | 193 | 361 | 866 | 836 |
| South Australia | 49 | 279 | 489 | 614 | 990 | 1,151 |
| Western Australia | 26 | 193 | 732 | 1,582 | 1,979 | 2,035 |
| Tasmania | 5 | 6 | 4 | 3 | 27 | 32 |
| Total | 347 | 1,167 | 2,174 | 3,367 | 4,978 | 5,561 |
| Capital payments— | | | | | | |
| New South Wales | 20 | 98 | 101 | — | 505 | 1 |
| Victoria | — | 60 | — | 67 | 87 | — |
| Queensland | 441 | 981 | 988 | 249 | 971 | 8 |
| South Australia | 116 | 156 | 625 | 108 | 377 | 233 |
| Western Australia | 290 | 425 | 505 | 799 | 25 | 119 |
| Tasmania | — | — | — | — | 1 | — |
| Total | 867 | 1,720 | 2,218 | 1,224 | 1,966 | 361 |
| Total grants— | | | | | | |
| New South Wales | 204 | 327 | 583 | 546 | 1,409 | 932 |
| Victoria | 83 | 227 | 275 | 329 | 299 | 576 |
| Queensland | 441 | 1,274 | 1,181 | 610 | 1,837 | 844 |
| South Australia | 165 | 435 | 1,114 | 722 | 1,367 | 1,384 |
| Western Australia | 316 | 618 | 1,237 | 2,381 | 2,004 | 2,154 |
| Tasmania | 5 | 6 | 4 | 3 | 28 | 32 |
| Total | 1,214 | 2,887 | 4,392 | 4,591 | 6,944 | 5,922 |

GRANTS TO STATES FOR CHILD MIGRANT EDUCATION
 (Excluding grants under the Schools Commission program, commencing January 1976)
 (\$'000)

| | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|-----------------------------|--------------|--------------|--------------|---------------|--------------|------------|
| Current grants— | | | | | | |
| New South Wales | 1,191 | 1,521 | 2,238 | 3,890 | 2,720 | 67 |
| Victoria | 1,158 | 1,819 | 2,732 | 4,482 | 3,559 | 46 |
| Queensland | 81 | 98 | 165 | 255 | 195 | 2 |
| South Australia | 169 | 326 | 587 | 810 | 514 | 22 |
| Western Australia | 150 | 138 | 157 | 229 | 233 | 2 |
| Tasmania | 28 | 53 | 135 | 179 | 149 | 2 |
| Total | 2,778 | 3,956 | 6,014 | 9,845 | 7,370 | 140 |
| Capital grants— | | | | | | |
| New South Wales | .. | .. | 90 | 475 | 405 | 2 |
| Victoria | .. | .. | 550 | 709 | 943 | 5 |
| Queensland | .. | .. | 50 | 106 | 11 | - |
| South Australia | .. | .. | 165 | 92 | 275 | 31 |
| Western Australia | .. | .. | 100 | 89 | -9 | - |
| Tasmania | .. | .. | 40 | 6 | 45 | - |
| Total | .. | .. | 995 | 1,478 | 1,670 | 39 |
| Total grants— | | | | | | |
| New South Wales | 1,191 | 1,521 | 2,328 | 4,365 | 3,125 | 69 |
| Victoria | 1,158 | 1,819 | 3,282 | 5,191 | 4,502 | 51 |
| Queensland | 81 | 98 | 215 | 361 | 206 | 2 |
| South Australia | 169 | 326 | 752 | 902 | 789 | 53 |
| Western Australia | 150 | 138 | 257 | 318 | 224 | 2 |
| Tasmania | 28 | 53 | 175 | 185 | 194 | 2 |
| Total | 2,778 | 3,956 | 7,009 | 11,323 | 9,040 | 179 |

TOTAL GRANTS TO STATES FOR RECURRENT EXPENDITURE ON EDUCATIONAL RESEARCH
 (\$'000)

| | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|-----------------------------|------------|------------|------------|------------|--------------|--------------|
| Current grants— | | | | | | |
| New South Wales | 81 | 91 | 97 | 151 | 253 | 259 |
| Victoria | 81 | 87 | 142 | 227 | 431 | 314 |
| Queensland | 59 | 60 | 109 | 296 | 190 | 216 |
| South Australia | 8 | 13 | 18 | 58 | 116 | 139 |
| Western Australia | 7 | 17 | 26 | 33 | 59 | 70 |
| Tasmania | - | 7 | 14 | 21 | 14 | 14 |
| Total | 236 | 275 | 406 | 786 | 1,062 | 1,012 |

EDUCATION

**TOTAL GRANTS TO STATES^(a) FOR CHILD CARE AND PRE-SCHOOL
EDUCATION
(\$'000)**

| | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|-----------------------------|--------------|---------------|---------------|---------------|
| Current grants— | | | | |
| New South Wales | 1,281 | 5,417 | 9,030 | 8,532 |
| Victoria | 1,226 | 6,660 | 11,452 | 12,722 |
| Queensland | 436 | 1,734 | 5,356 | 6,970 |
| South Australia | 690 | 3,233 | 5,025 | 5,601 |
| Western Australia | 385 | 2,316 | 4,390 | 4,930 |
| Tasmania | 78 | 1,017 | 1,720 | 2,006 |
| <i>Total</i> | <i>4,096</i> | <i>20,377</i> | <i>36,973</i> | <i>40,761</i> |
| Capital grants— | | | | |
| New South Wales | 160 | 4,819 | 3,165 | 6,592 |
| Victoria | 288 | 2,637 | 1,345 | 4,160 |
| Queensland | 1,003 | 3,806 | 2,584 | 314 |
| South Australia | 514 | 2,773 | 1,498 | 160 |
| Western Australia | 166 | 1,911 | 1,441 | 144 |
| Tasmania | 285 | 1,177 | 1,764 | 5 |
| <i>Total</i> | <i>2,416</i> | <i>17,123</i> | <i>11,797</i> | <i>11,375</i> |
| Total grants— | | | | |
| New South Wales | 1,441 | 10,236 | 12,195 | 15,124 |
| Victoria | 1,514 | 9,297 | 12,797 | 16,882 |
| Queensland | 1,439 | 5,540 | 7,940 | 7,284 |
| South Australia | 1,204 | 6,006 | 6,523 | 5,761 |
| Western Australia | 551 | 4,227 | 5,831 | 5,074 |
| Tasmania | 363 | 2,194 | 3,484 | 2,011 |
| <i>Total</i> | <i>6,512</i> | <i>37,500</i> | <i>48,770</i> | <i>52,136</i> |

(a) There were no grants to the States for this purpose prior to 1973-74.

CHAPTER 13

RURAL INDUSTRY

This chapter is divided into the following major parts:—Introduction; Sources of statistics and definitions of units; Structural statistics (provides data on the legal arrangements, size and industry class of the business organisations operating within the agricultural sector); Financial statistics (provides estimates of the financial performance of business organisations engaged in agricultural activities); Value of agricultural commodities produced and indexes of quantum and average unit gross values; Apparent consumption of foodstuffs and nutrients; Land tenure and land utilisation; Crop statistics; Livestock statistics; Livestock products; Rural improvements and employment.

Introduction

The development of Australian rural industries has been determined by interacting factors such as profitable markets, the opening up of new land (including the development of transport facilities) and technical and scientific achievements. Subsistence farming, recurring gluts, low prices and losses to farmers were gradually overcome by the development of an export trade. Profitable overseas markets for merino wool and wheat, and the introduction of storage and refrigerated shipping for the dairying and meat industry combined to make the agricultural sector Australia's main export earner. Until the late 1950's, agricultural products comprised more than 80 per cent of the value of Australia's exports. Since then, the proportion of Australia's exports coming from the agricultural sector has declined markedly; the value of agricultural products exported was only 45 per cent of the total value of exports in 1977–78.

However, this decline in importance has been due not to a decline in agricultural activity but rather to an increase in the quantity and values of the exports of the mining and manufacturing sectors. In fact, the agricultural sector experienced an increase in total output over that period. The index of quantum of agricultural production and output (see page 264) illustrates this by displaying a steady increase from approximately 70 in 1959–60 to 116 in 1976–77.

One interesting aspect of this increase in output is that it was accompanied by a large reduction in the size of the agricultural labour force. The number of males working permanently on rural holdings, for example, decreased from 356,000 in 1955 to 244,000 in 1975, implying a large growth in productivity within the sector.

Sources of statistics and definitions of units

Agricultural Census

The major source of the statistics in this chapter is the Agricultural Census conducted at 31 March each year. This collects a wide range of information from agricultural establishments with agricultural activity (previously called 'holdings') covering the physical aspects of agriculture such as area and production of crops, fertilisers used, number of livestock disposed of, etc. In conjunction with the census, certain supplementary collections are conducted in some States where this has proved expedient, e.g. where the harvesting of certain crops has not been completed by 31 March (apples, potatoes, etc.), special returns covering the crops concerned are collected after the completion of the harvest.

In the past three years the ABS has been gradually excluding from the statistics establishments whose contribution to agricultural production is small. While this has reduced the number of establishments appearing in publications, the effect on statistics of production of major commodities is minimal. Statistics of minor commodities normally associated with the smaller scale operations may be affected to a greater extent.

From 1976–77, establishments have been included in the statistics where the legal entities operating these establishments had Estimated Values of Operations (EVAO) from agricultural activity of \$1,500 or more. Details of the method used in the calculation of EVAO are contained in the publication *Structure of Operating Units* (7102.0).

For 1975-76 the EVAO criterion was the same as for 1976-77, but establishments with areas of 10 hectares or more were also included, even if EVAO was less than \$1,500. Prior to 1975-76, all agricultural establishments with areas of one hectare or more were included. In addition, establishments of less than one hectare tended to be included where significant agricultural activity was undertaken, e.g. poultry farms, commercial market gardens and nurseries.

Integrated Agricultural Register

The Agricultural Census is one of the sources of information used to update the Integrated Agricultural Register (IAR). The IAR contains information about the area, type, legal status, level of activity and location of units engaged in agriculture, and is used for the despatch of most of the agricultural statistical collections. The IAR was originally compiled by adding data in a special census of economic units conducted in 1974 to existing data relating to physical characteristics of agricultural establishments. Details of the structure of economic units engaged in agriculture are compiled from the IAR. These economic units, in hierarchical order, are:

Enterprise (the second level of economic unit). The enterprise is that unit comprising all operations in Australia of a single operating legal entity. (The term 'single legal entity' means a sole trader, partnership, company, trust, co-operative or estate in the private sector, or a department, local government authority or statutory authority in the government sector).

Establishment (the smallest economic unit). The establishment covers all operations carried out by one enterprise at a single physical location.

Agricultural Finance Survey (AFS)

The AFS collects detailed financial statistics from a sample of agricultural enterprises. The main purpose of the survey is to enable financial statistics related to the economic performance of the agricultural sector and its components to be made available on the same basis as statistics for other sectors of the economy.

Other Statistical Collections

The ABS conducts a number of other collections to obtain agricultural statistics. These include collections from wool brokers and dealers, livestock slaughterers and other organisations involved in the marketing and selling of agricultural commodities.

Structural statistics

The following tables provide information relating to the structure of operating units during 1976-77. Although the definitions of the operating units have been provided above, the following terminology is also used:

Industry. As set out in the *Australian Standard Industrial Classification 1969* (ASIC) (1201.0). This publication provides details of the methodology used in determining the industry class of an economic unit.

Estimated Value of Operations (EVAO). This is determined by valuing the physical crop and livestock information collected in the Agricultural Census.

A further explanation of this terminology and more detailed statistics are given in the bulletin *Agricultural Sector: Part I. Structure of Operating Units, 1976-77* (7102.0).

NUMBER OF UNITS BY TYPE OF UNIT, 1976-77

| Unit | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | Australia |
|-----------------------------------|--------|--------|--------|--------|--------|-------|-----------|
| Agricultural establishments . . . | 50,890 | 47,822 | 33,073 | 19,498 | 16,042 | 5,912 | 173,625 |
| Agricultural enterprises | 49,586 | 46,788 | 32,297 | 18,921 | 15,691 | 5,768 | 169,754 |

AGRICULTURAL ENTERPRISES BY INDUSTRY AND ESTIMATED VALUE OF OPERATIONS: 1976-77

| Industry of enterprise | Estimated value of operations (\$'000) | | | | | | | | | | | Total |
|--|--|---------------|---------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|
| | 2-9 | 10-19 | 20-29 | 30-39 | 40-49 | 50-59 | 60-74 | 75-99 | 100-149 | 150-199 | 200+ | |
| Cereal grains | 1,756 | 2,469 | 2,773 | 2,568 | 2,266 | 1,752 | 1,791 | 1,626 | 1,336 | 484 | 364 | 19,185 |
| Oilseeds (n.e.c.) | 131 | 152 | 89 | 50 | 30 | 19 | 23 | 12 | 10 | 6 | 11 | 533 |
| Sheep-cereal grains | 1,091 | 3,189 | 3,691 | 3,461 | 2,600 | 2,021 | 2,173 | 2,127 | 1,605 | 539 | 421 | 22,918 |
| Meat cattle-cereal grains | 1,246 | 1,101 | 736 | 505 | 312 | 214 | 184 | 164 | 112 | 28 | 37 | 4,639 |
| Sheep-meat cattle | 3,722 | 3,390 | 2,101 | 1,236 | 755 | 462 | 475 | 369 | 253 | 84 | 86 | 12,933 |
| Sheep | 5,391 | 4,468 | 2,988 | 1,886 | 1,218 | 828 | 794 | 588 | 449 | 140 | 129 | 18,879 |
| Meat cattle | 19,134 | 4,478 | 1,579 | 718 | 431 | 237 | 208 | 155 | 122 | 42 | 92 | 27,196 |
| Milk cattle | 3,903 | 9,630 | 6,655 | 2,607 | 1,098 | 505 | 359 | 190 | 84 | 26 | 22 | 25,079 |
| Pigs | 1,229 | 775 | 509 | 318 | 236 | 150 | 146 | 140 | 92 | 46 | 57 | 3,698 |
| Poultry | 205 | 216 | 229 | 179 | 121 | 104 | 157 | 169 | 164 | 96 | 191 | 1,831 |
| Fruit | 3,679 | 3,840 | 2,514 | 1,370 | 711 | 432 | 327 | 263 | 213 | 57 | 76 | 13,482 |
| Vegetables | 2,048 | 1,781 | 1,068 | 704 | 475 | 334 | 322 | 316 | 217 | 85 | 129 | 7,479 |
| Multi-purpose | 124 | 86 | 91 | 50 | 22 | 23 | 23 | 18 | 14 | 2 | 5 | 458 |
| Sugar cane | 88 | 233 | 405 | 711 | 985 | 837 | 929 | 1,023 | 853 | 294 | 226 | 6,584 |
| Peanuts | 28 | 75 | 85 | 83 | 46 | 46 | 28 | 21 | 6 | 6 | 2 | 426 |
| Tobacco | 2 | 28 | 147 | 284 | 171 | 134 | 104 | 79 | 42 | 13 | 12 | 1,016 |
| Cotton | 1 | 2 | 2 | 2 | 1 | 2 | 9 | 6 | 16 | 13 | 54 | 108 |
| Nurseries and specialised horticultural activities (except forest nurseries) | 336 | 277 | 132 | 137 | 64 | 41 | 52 | 36 | 45 | 25 | 39 | 1,184 |
| Agriculture (n.e.c.) | 1,316 | 399 | 165 | 63 | 37 | 35 | 32 | 29 | 23 | 6 | 21 | 2,126 |
| Total | 45,430 | 36,589 | 25,959 | 16,932 | 11,579 | 8,176 | 8,136 | 7,331 | 5,656 | 1,992 | 1,974 | 169,754 |

AGRICULTURAL ENTERPRISES BY INDUSTRY, LEGAL STATUS AND ESTIMATED VALUE OF OPERATIONS: 1976-77

| | Legal status | | | | | | | |
|--|---------------|--------------------|-------------------|------------------------------|-----------------------------|----------|-------------------|--|
| | Sole operator | Family partnership | Other partnership | Private incorporated company | Public incorporated company | Other(a) | Total enterprises | |
| Industry of enterprise— | | | | | | | | |
| Cereal grains | 5,495 | 12,186 | 424 | 635 | 7 | 438 | 19,185 | |
| Oilseeds (n.e.c.) | 179 | 318 | 12 | 18 | — | 6 | 533 | |
| Sheep-cereal grains | 5,110 | 16,016 | 438 | 867 | 14 | 473 | 22,918 | |
| Meat cattle-cereal grains | 1,468 | 2,637 | 128 | 296 | 3 | 107 | 4,639 | |
| Sheep-meat cattle | 4,766 | 6,789 | 325 | 675 | 16 | 362 | 12,933 | |
| Sheep | 7,148 | 9,953 | 464 | 718 | 16 | 580 | 18,879 | |
| Meat cattle | 12,227 | 12,169 | 699 | 1,341 | 35 | 725 | 27,196 | |
| Milk cattle | 9,305 | 14,466 | 355 | 453 | 13 | 487 | 25,079 | |
| Pigs | 1,360 | 2,119 | 74 | 93 | 2 | 50 | 3,698 | |
| Poultry | 572 | 1,089 | 41 | 112 | 3 | 14 | 1,831 | |
| Fruit | 4,987 | 7,848 | 230 | 304 | 7 | 106 | 13,482 | |
| Vegetables | 2,724 | 4,405 | 146 | 152 | 6 | 46 | 7,479 | |
| Multi-purpose | 148 | 284 | 7 | 11 | — | 8 | 458 | |
| Sugar cane | 1,565 | 4,689 | 115 | 93 | — | 122 | 6,584 | |
| Peanuts | 113 | 293 | 8 | 4 | — | 8 | 426 | |
| Tobacco | 282 | 671 | 32 | 11 | 2 | 18 | 1,016 | |
| Cotton | 18 | 57 | 9 | 22 | — | 2 | 108 | |
| Nurseries and specialised horticultural activities (except forest nurseries) | 415 | 602 | 52 | 101 | 2 | 12 | 1,184 | |
| Agriculture (n.e.c.) | 1,093 | 879 | 55 | 76 | 2 | 21 | 2,126 | |
| Total | 58,975 | 97,470 | 3,614 | 5,982 | 128 | 3,585 | 169,754 | |
| Estimated value of operations (\$'000)— | | | | | | | | |
| 2-9 | 23,830 | 18,799 | 822 | 900 | 9 | 1,070 | 45,430 | |
| 10-19 | 14,840 | 19,646 | 621 | 704 | 24 | 754 | 36,589 | |
| 20-29 | 8,533 | 15,759 | 493 | 624 | 14 | 536 | 25,959 | |
| 30-39 | 4,397 | 11,190 | 390 | 569 | 14 | 372 | 16,932 | |
| 40-49 | 2,656 | 7,967 | 273 | 460 | 7 | 216 | 11,579 | |
| 50-59 | 1,528 | 5,887 | 198 | 399 | 8 | 156 | 8,176 | |
| 60-74 | 1,290 | 5,963 | 216 | 515 | 11 | 141 | 8,136 | |
| 75-99 | 965 | 5,481 | 207 | 537 | 3 | 138 | 7,331 | |
| 100-149 | 580 | 4,223 | 185 | 562 | 4 | 102 | 5,656 | |
| 150-199 | 172 | 1,414 | 92 | 271 | 7 | 36 | 1,992 | |
| 200 + | 184 | 1,141 | 117 | 441 | 27 | 64 | 1,974 | |
| Total, all size groups | 58,975 | 97,470 | 3,614 | 5,982 | 128 | 3,585 | 169,754 | |

(a) Includes co-operative societies, trusts and estates.

**AGRICULTURAL ESTABLISHMENTS OPERATED BY AGRICULTURAL
AND NON-AGRICULTURAL ENTERPRISES BY INDUSTRY OF
ESTABLISHMENT: 1976-77**

| <i>Industry of establishment</i> | <i>Operated by agricultural enterprises</i> | <i>Operated by non- agricultural enterprises</i> |
|---|---|--|
| Cereal grains | 19,273 | 201 |
| Oilseeds (n.e.c.) | 537 | 9 |
| Sheep-cereal grains | 23,012 | 150 |
| Meat cattle-cereal grains | 4,676 | 94 |
| Sheep-meat cattle | 13,063 | 204 |
| Sheep | 19,050 | 186 |
| Meat cattle | 27,650 | 1,033 |
| Milk cattle | 25,148 | 160 |
| Pigs | 3,712 | 86 |
| Poultry | 1,835 | 51 |
| Fruit | 13,515 | 310 |
| Vegetables | 7,489 | 72 |
| Multi-purpose | 464 | 7 |
| Sugar cane | 6,598 | 48 |
| Peanuts | 426 | 5 |
| Tobacco | 1,021 | 6 |
| Cotton | 110 | 1 |
| Nurseries and specialised horticultural activities (except forest nurseries) | 1,191 | 37 |
| Agriculture (n.e.c.) | 2,136 | 59 |
| Total | 170,906 | 2,719 |

**AGRICULTURAL ESTABLISHMENTS OPERATED BY AGRICULTURAL ENTERPRISES BY INDUSTRY OF
ENTERPRISE AND INDUSTRY OF ESTABLISHMENT: 1976-77**

| <i>Industry of enterprise</i> | <i>Industry of establishment</i> | | | | | | | | | | | | | | <i>Total estab- lish- ments</i> |
|--|----------------------------------|----------------------------------|-------------------------------------|---|-----------------------------------|---------------|------------------------|------------------------|--------------|----------------|---------------|-------------------------|---------------------------------|-------------------------------------|---|
| | <i>Cereal grains</i> | <i>Oil- seeds n.e.c.</i> | <i>Sheep- cereal grains</i> | <i>Meat cattle- cereal grains</i> | <i>Sheep- meat cattle</i> | <i>Sheep</i> | <i>Meat cattle</i> | <i>Milk cattle</i> | <i>Pigs</i> | <i>Poultry</i> | <i>Fruit</i> | <i>Vege- tables</i> | <i>Multi- pur- pose</i> | <i>Agri- culture n.e.c.</i> | |
| Cereal grains | 19,224 | 1 | 22 | 6 | 18 | 22 | 43 | 1 | 4 | - | 2 | 3 | - | 1 | 19,347 |
| Oilseeds (n.e.c.) | - | 533 | - | - | 1 | 1 | 1 | - | - | - | - | - | - | 1 | 537 |
| Sheep-cereal grains | 11 | - | 22,960 | 4 | 11 | 34 | 15 | 2 | 1 | - | 3 | - | - | 1 | 23,042 |
| Meat cattle-cereal grains | 1 | - | 2 | 4,645 | 3 | 5 | 39 | - | 1 | - | - | 1 | 3 | 1 | 4,701 |
| Sheep-meat cattle | 4 | - | 8 | 6 | 12,979 | 32 | 47 | 3 | - | - | 1 | - | - | 1 | 13,081 |
| Sheep | 8 | - | 16 | 3 | 37 | 18,939 | 31 | 2 | 1 | - | 1 | - | - | 1 | 19,039 |
| Meat cattle | 7 | - | 3 | 7 | 8 | 9 | 27,387 | 7 | 3 | 1 | 2 | - | 2 | 3 | 27,439 |
| Milk cattle | 2 | 1 | - | 2 | 4 | 4 | 37 | 25,126 | - | - | - | - | 1 | 1 | 25,178 |
| Pigs | 1 | - | 1 | - | - | - | - | 3,700 | - | - | - | - | 1 | - | 3,703 |
| Poultry | 3 | - | - | - | - | - | 7 | 1 | 1 | 1,834 | 1 | - | - | - | 1,847 |
| Fruit | 2 | 1 | - | - | 1 | 3 | 9 | 2 | - | - | 13,503 | 1 | - | - | 13,522 |
| Vegetables | 5 | - | - | 1 | - | 1 | 7 | 2 | - | - | - | 7,483 | - | - | 7,499 |
| Multi-purpose | 1 | - | - | - | - | - | - | - | 1 | - | - | 1 | 456 | 1 | 460 |
| Agriculture (n.e.c.) (a) | 4 | 1 | - | 2 | 1 | - | 27 | 2 | - | - | 2 | - | 1 | 11,471 | 11,511 |
| Total | 19,273 | 537 | 23,012 | 4,676 | 13,063 | 19,050 | 27,650 | 25,148 | 3,712 | 1,835 | 13,515 | 7,489 | 464 | 11,482 | 170,906 |

(a) Includes sugar cane, peanuts, tobacco, cotton, nurseries and specialised horticultural activities and agriculture, n.e.c.

Financial statistics

The following tables show the main aggregates describing the economic performance of agricultural enterprises. The initials 'S.E.—' appearing in some of the tables stand for 'standard error %' which is a measure of the sampling error resulting from the use of sampling techniques as opposed to the results which would have been obtained from a comparable complete collection. A more detailed explanation of standard errors and other terms used in the tables, as well as more detailed statistics, are given in *Agricultural Sector: Part IV, Financial Statistics (7507.0)*.

**FINANCIAL STATISTICS, AGRICULTURAL ENTERPRISES,
1972-73 TO 1976-77**

| Item | 1972-73(a) | | 1973-74(a) | | 1974-75 | | 1975-76 | | 1976-77 | |
|---------------------------------|------------|-----------|------------|-----------|---------|-----------|---------|-----------|---------|-----------|
| | \$m | S.E. % | \$m | S.E. % | \$m | S.E. % | \$m | S.E. % | \$m | S.E. % |
| Sales from crops | 1,169.1 | 4 | 1,599.6 | 3 | 2,345.5 | 2 | 2,545.2 | 3 | 2,900.4 | 2 |
| Sales from livestock | 1,870.1 | 3 | 2,079.8 | 3 | 1,099.7 | 5 | 1,103.5 | 3 | 1,404.3 | 2 |
| Sales from livestock products | 1,598.2 | 3 | 1,661.5 | 3 | 1,382.7 | 2 | 1,461.4 | 3 | 1,632.4 | 2 |
| Turnover | 4,653.1 | 2 | 5,319.3 | 2 | 4,985.8 | 2 | 5,237.1 | 2 | 6,133.6 | 1 |
| Purchases and selected expenses | 2,094.3 | 2 | 2,550.4 | 2 | 2,278.1 | 2 | 2,514.4 | 3 | 2,690.4 | 1 |
| Value added | 2,551.5 | n.a. | 3,114.5 | n.a. | 2,897.3 | 3 | 2,783.1 | 5 | 3,310.0 | 1 |
| Adjusted value added | 2,280.4 | n.a. | 2,785.4 | n.a. | 2,576.0 | 4 | 2,449.1 | 2 | 2,924.6 | 2 |
| Gross operating surplus | 1,936.6 | n.a. | 2,356.9 | n.a. | 2,083.8 | 4 | 1,907.4 | 5 | 2,401.7 | 2 |
| Cash operating surplus | 1,731.2 | n.a. | 1,783.7 | n.a. | 1,658.7 | 3 | 1,594.1 | 3 | 2,291.8 | 2 |
| Total net capital expenditure | 596.7 | 4 | 643.8 | 4 | 620.0 | 4 | 801.7 | 4 | 820.9 | 3 |
| Gross indebtedness | 2,714.5 | 4 | 2,921.6 | 4 | 2,972.5 | 4 | 3,422.2 | 4 | 3,397.0 | 3 |

(a) Not strictly comparable with later years—see Explanatory Notes for bulletin *Agricultural Sector: Part IV, Financial Statistics, 1974-75* (7507.0).

**FINANCIAL STATISTICS, AGRICULTURAL ENTERPRISES, 1976-77
(\$ million)**

| Item | N.S.W. | Vic. | Qld. | S.A. | W.A. | Tas. | Aust.(a) |
|---------------------------------|---------|---------|---------|-------|-------|-------|----------|
| Sales from crops | 788.2 | 426.7 | 843.1 | 258.8 | 525.8 | 35.1 | 2,900.4 |
| Sales from livestock | 452.2 | 284.3 | 268.4 | 150.9 | 158.1 | 43.8 | 1,404.3 |
| Sales from livestock products | 507.9 | 392.1 | 189.9 | 175.6 | 282.7 | 57.7 | 1,632.4 |
| Turnover | 1,799.0 | 1,146.3 | 1,340.2 | 607.9 | 995.9 | 144.1 | 6,133.6 |
| Purchases and selected expenses | 818.0 | 526.0 | 554.2 | 259.7 | 418.5 | 67.8 | 2,690.4 |
| Value added | 948.6 | 562.8 | 797.5 | 327.8 | 537.5 | 77.9 | 3,310.0 |
| Adjusted value added | 818.7 | 479.1 | 723.7 | 293.6 | 492.3 | 69.2 | 2,924.6 |
| Gross operating surplus | 671.3 | 395.6 | 581.8 | 245.5 | 431.9 | 52.0 | 2,401.7 |
| Cash operating surplus | 630.8 | 396.7 | 519.3 | 246.2 | 443.1 | 41.7 | 2,291.8 |
| Total net capital expenditure | 244.4 | 123.0 | 187.8 | 80.2 | 157.6 | 18.2 | 820.9 |
| Gross indebtedness | 974.5 | 759.5 | 745.2 | 306.0 | 461.3 | 100.8 | 3,397.0 |

(a) Includes Northern Territory and Australian Capital Territory.

**FINANCIAL STATISTICS, AGRICULTURAL ENTERPRISES, BY INDUSTRY (ASIC)(a): 1976-77
(\$ million)**

| Item | Cereal grains, oilseeds (n.e.c.) 0111-0112 | Sheep— cereal grains 0113 | Meat cattle— cereal grains 0114 | Sheep— meat cattle 0115 | Sheep 0116 | Meat cattle 0117 | Milk cattle 0118 |
|---------------------------------|--|------------------------------------|---|----------------------------------|---------------|------------------------|------------------------|
| Sales from crops | 806.9 | 747.8 | 67.1 | 28.6 | 51.7 | 22.8 | 25.0 |
| Sales from livestock | 128.9 | 214.3 | 57.8 | 229.4 | 174.3 | 320.3 | 87.8 |
| Sales from livestock products | 74.2 | 350.5 | 6.7 | 195.9 | 393.0 | 10.7 | 446.6 |
| Turnover | 1,040.2 | 1,346.7 | 137.9 | 474.4 | 634.6 | 378.2 | 574.1 |
| Purchases and selected expenses | 403.0 | 528.2 | 68.2 | 221.2 | 304.6 | 202.0 | 259.3 |
| Value added | 614.2 | 765.3 | 66.6 | 231.0 | 313.6 | 174.6 | 302.5 |
| Adjusted value added | 551.4 | 696.0 | 53.6 | 187.8 | 269.1 | 132.7 | 265.3 |
| Gross operating surplus | 497.1 | 621.9 | 40.4 | 125.3 | 211.5 | 86.3 | 232.6 |
| Cash operating surplus | 480.6 | 633.7 | 32.7 | 124.0 | 212.7 | 54.5 | 205.5 |
| Total net capital expenditure | 214.1 | 201.6 | 19.2 | 39.2 | 61.4 | 30.4 | 51.7 |
| Gross indebtedness | 493.0 | 560.2 | 171.5 | 293.4 | 359.0 | 544.0 | 427.0 |

| Item | Pigs 0119 | Poultry 0121-0122 | Fruit 0131-0133 | Vegetables 0141-0142 | Multi- purpose farming 0150 | Other agriculture 0161-0166 | All industries 01 |
|---------------------------------|--------------|----------------------|--------------------|-------------------------|--------------------------------------|-----------------------------------|-------------------------|
| Sales from crops | 11.6 | 1.9 | 311.3 | 193.9 | 9.2 | 622.5 | 2,900.4 |
| Sales from livestock | 101.6 | 42.0 | 7.7 | 23.1 | 3.9 | 13.2 | 1,404.3 |
| Sales from livestock products | 6.5 | 120.2 | 1.1 | 9.5 | 0.9 | 16.5 | 1,632.4 |
| Turnover | 125.0 | 173.0 | 329.4 | 234.0 | 14.4 | 671.7 | 6,133.6 |
| Purchases and selected expenses | 80.1 | 114.4 | 144.3 | 104.8 | 7.2 | 253.1 | 2,690.4 |
| Value added | 47.9 | 58.3 | 183.5 | 125.5 | 7.2 | 419.8 | 3,310.0 |
| Adjusted value added | 43.1 | 52.5 | 166.2 | 113.1 | 6.2 | 387.6 | 2,924.6 |
| Gross operating surplus | 34.6 | 36.4 | 107.8 | 85.6 | 4.9 | 317.4 | 2,401.7 |
| Cash operating surplus | 27.7 | 33.4 | 102.4 | 86.0 | 4.1 | 294.6 | 2,291.8 |
| Total net capital expenditure | 15.8 | 12.2 | 40.7 | 36.4 | 2.1 | 95.9 | 820.9 |
| Gross indebtedness | 49.5 | 35.2 | 121.7 | 79.6 | 12.0 | 251.1 | 3,397.0 |

(a) Australian Standard Industrial Classification (1201.0).

Gross value of agricultural commodities produced and indexes of quantum and average unit gross values

Definitions

Gross value of commodities produced is the value placed on recorded production at the wholesale prices realised in the principal market.

Marketing costs include freight, cost of containers, commission and other charges incurred in marketing.

Local value of commodities produced (i.e. gross value of commodities produced valued at place of production) is ascertained by deducting marketing costs from the gross value.

Average unit gross values are calculated by dividing the gross value of each commodity produced by the total production of each corresponding commodity.

Indexes of quantum are the indexes of the gross value of commodities produced at constant prices, i.e. they are measures of change in value after the direct effects of price changes have been eliminated.

VALUES OF AGRICULTURAL COMMODITIES: 1976-77

| | Gross production valued at principal markets | Marketing costs | Local value of production | Indexes of Agricultural Commodities produced and output (Base year: 1968-69 = 100) | |
|--|--|--------------------|------------------------------|--|-----------------------------|
| | | | | Quantum | Average unit gross value |
| | \$m | \$m | \$m | | |
| Crops | 3,204.1 | 421.6 | 2,782.5 | 98.6 | 195.9 |
| Livestock slaughterings and other disposals | 1,684.7 | 167.8 | 1,516.9 | 176.4 | 124.9 |
| Livestock products | 1,884.8 | 135.6 | 1,749.2 | 83.1 | 170.3 |
| Total agriculture | 6,773.6 | 725.0 | 6,048.6 | (a)115.6 | (a)167.1 |

(a) Excludes seed, feed and fodder consumed or retained on farms.

Publications

Two preliminary estimates of value of commodities produced are published: *Gross Value of Agricultural Commodities Produced*, First Estimates (7501.0) and *Value of Agricultural Commodities Produced*, Second Estimates (7502.0). A final publication, *Value of Agricultural Commodities Produced* (7503.0), contains Indexes of Quantum and Average Unit Gross Value.

Indexes of Agricultural Commodities Produced

In issues of the Year Book prior to No. 60, these indexes were referred to as 'indexes of farm production'. In issue No. 60, they were referred to as 'indexes of agricultural production'. In these tables data show indexes of quantum of agricultural commodities produced, and unit value of agricultural commodities produced, by industrial group.

For further details on how these and earlier series were calculated see Year Book No. 61, pages 1063-65 and *Value of Agricultural Commodities Produced* (7503.0).

GROSS VALUES OF AGRICULTURAL COMMODITIES

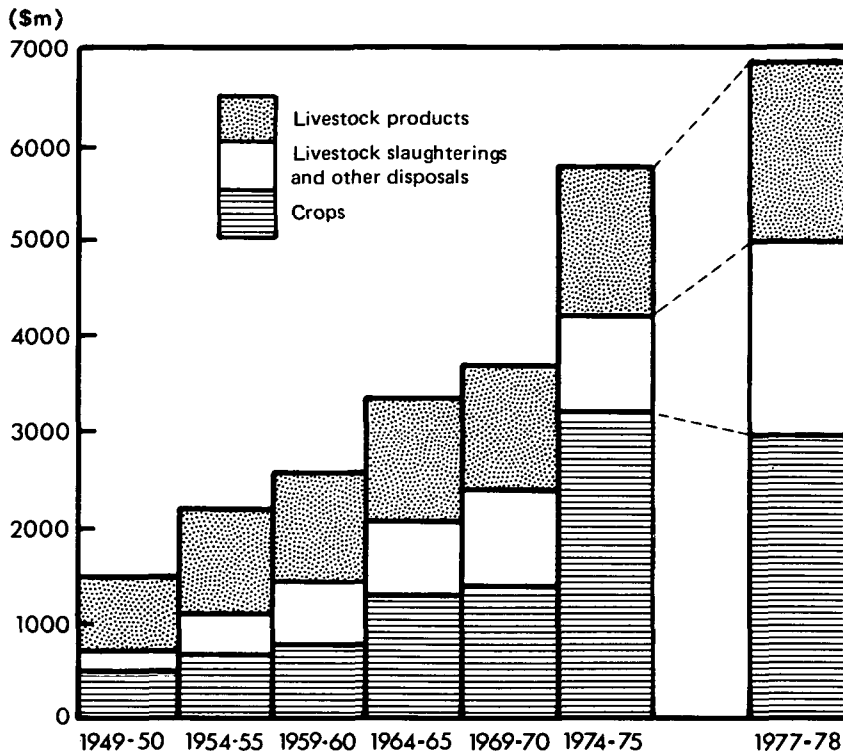


PLATE 27

RURAL INDUSTRY
GROSS VALUE OF AGRICULTURAL COMMODITIES
(\$ million)

| | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 ^p |
|--|--------------|--------------|--------------|--------------|----------------------|
| Crops— | | | | | |
| Wheat for grain | 1,312 | 1,256 | 1,249 | 1,051 | 913 |
| Barley for grain | 191 | 257 | 314 | 295 | 212 |
| Sugar cane cut for crushing | 219 | 491 | 436 | 472 | 410 |
| Fruit | 217 | 267 | 269 | 291 | 313 |
| Grapevines | 83 | 101 | 102 | 129 | 128 |
| Vegetables | 240 | 258 | 275 | 309 | 314 |
| Pasture and grasses | 178 | 150 | 129 | 148 | 663 |
| Other crops | 419 | 426 | 476 | 510 | |
| <i>Total crops</i> | <i>2,859</i> | <i>3,206</i> | <i>3,250</i> | <i>3,204</i> | <i>2,953</i> |
| Livestock slaughterings and other disposals(a)— | | | | | |
| Cattle and calves | 1,069 | 523 | 706 | 1,011 | 1,205 |
| Sheep and lambs | 321 | 178 | 204 | 298 | 351 |
| Pigs | 173 | 178 | 183 | 197 | 210 |
| Poultry | 133 | 140 | 153 | 178 | 215 |
| <i>Total</i> | <i>1,696</i> | <i>1,019</i> | <i>1,246</i> | <i>1,685</i> | <i>1,981</i> |
| Livestock products— | | | | | |
| Wool | 1,229 | 953 | 1,000 | 1,173 | 1,149 |
| Dairy products | 468 | 519 | 490 | 521 | 550 |
| Eggs | 148 | 172 | 179 | 182 | 195 |
| Honey and beeswax | 12 | 10 | 11 | 9 | 10 |
| <i>Total</i> | <i>1,857</i> | <i>1,653</i> | <i>1,680</i> | <i>1,885</i> | <i>1,904</i> |
| Total agriculture | 6,412 | 5,878 | 6,175 | 6,774 | 6,838 |

(a) Includes adjustment for net live exports of live animals.

INDEXES OF QUANTUM OF AGRICULTURAL COMMODITIES PRODUCED AND OUTPUT(a)
(Base of each index: Year 1968-69 = 100)

| | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|---|--------------|--------------|--------------|--------------|--------------|--------------|
| Crops— | | | | | | |
| Barley for grain | 186.3 | 104.9 | 145.6 | 152.8 | 193.1 | 173.0 |
| Oats for grain | 74.6 | 43.0 | 64.7 | 51.1 | 66.7 | 62.7 |
| Wheat for grain | 58.0 | 43.2 | 80.3 | 76.6 | 80.9 | 79.7 |
| Other grain cereals | 220.7 | 192.0 | 209.1 | 187.1 | 223.6 | 222.8 |
| Sugar cane(b) | 103.6 | 101.2 | 102.9 | 108.8 | 117.3 | 124.5 |
| Fruit and nuts | 107.5 | 111.7 | 97.7 | 100.9 | 93.3 | 88.4 |
| Grapevines | 142.5 | 105.5 | 94.9 | 123.6 | 122.0 | 142.7 |
| Vegetables | 110.0 | 100.0 | 88.8 | 105.4 | 99.1 | 108.3 |
| All other crops(c) | 117.6 | 90.8 | 106.8 | 97.5 | 85.8 | 98.4 |
| <i>Total</i> | <i>92.9</i> | <i>75.7</i> | <i>94.6</i> | <i>94.0</i> | <i>96.6</i> | <i>98.6</i> |
| Livestock slaughterings and other disposals— | | | | | | |
| Cattle and calves(d) | 124.4 | 154.7 | 140.7 | 164.8 | 196.9 | 212.9 |
| Sheep and lambs | 135.5 | 103.5 | 70.4 | 79.6 | 86.1 | 80.5 |
| Pigs | 119.9 | 145.6 | 130.1 | 108.0 | 107.2 | 114.1 |
| Poultry | 149.5 | 147.3 | 177.2 | 173.5 | 187.0 | 199.7 |
| <i>Total(e)</i> | <i>127.9</i> | <i>143.4</i> | <i>128.5</i> | <i>143.2</i> | <i>165.7</i> | <i>176.4</i> |
| Livestock products— | | | | | | |
| Wool | 99.6 | 83.2 | 79.3 | 89.8 | 85.4 | 78.9 |
| Milk | 101.9 | 101.1 | 97.2 | 91.7 | 89.5 | 86.7 |
| Eggs | 113.7 | 110.5 | 105.0 | 106.7 | 105.5 | 95.8 |
| <i>Total(f)</i> | <i>101.8</i> | <i>91.7</i> | <i>87.7</i> | <i>92.1</i> | <i>88.7</i> | <i>83.1</i> |
| Agricultural output(g) | 105.0 | 97.6 | 100.6 | 107.0 | 113.4 | 115.6 |

(a) Indexes at value of constant price (i.e. at average unit gross value of the 3 years ended 1970-71). (b) Cut for crushing and planting. (c) Includes pastures and grasses; excludes crops for green feed and silage. (d) Includes dairy cattle slaughtered. (e) Component series based on carcass weight. (f) Includes honey and beeswax. (g) Excludes seed, feed and fodder consumed or retained on farms.

**INDEXES OF AVERAGE UNIT GROSS VALUE OF AGRICULTURAL COMMODITIES
PRODUCED AND OUTPUT(a)
(Base of each index: Year 1968-69 = 100)**

| | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|--|--------------|--------------|--------------|--------------|--------------|--------------|
| Crops— | | | | | | |
| Barley for grain | 94.5 | 122.8 | 185.5 | 238.4 | 230.4 | 241.7 |
| Oats for grain | 85.3 | 124.7 | 175.6 | 198.5 | 198.4 | 202.0 |
| Wheat for grain | 109.1 | 112.8 | 224.0 | 225.3 | 210.8 | 180.1 |
| Other grain cereals | 85.7 | 124.1 | 169.7 | 169.5 | 175.0 | 181.8 |
| Sugar cane(b) | 128.3 | 145.8 | 136.1 | 288.2 | 237.9 | 242.6 |
| Fruit and nuts | 104.7 | 123.2 | 136.6 | 163.8 | 184.8 | 206.4 |
| Grapevines | 105.7 | 138.9 | 203.4 | 180.4 | 186.2 | 201.1 |
| Vegetables | 102.3 | 130.1 | 198.5 | 178.0 | 202.1 | 209.0 |
| All other crops(c) | 85.9 | 129.5 | 133.0 | 144.7 | 156.7 | 175.9 |
| <i>Total</i> | <i>103.6</i> | <i>123.8</i> | <i>182.6</i> | <i>204.4</i> | <i>199.7</i> | <i>195.9</i> |
| Livestock slaughtering and other disposals— | | | | | | |
| Cattle and calves(d) | 102.8 | 117.9 | 135.5 | 56.6 | 64.3 | 85.3 |
| Sheep and lambs | 84.5 | 157.3 | 257.5 | 126.7 | 129.9 | 203.3 |
| Pigs | 106.8 | 97.8 | 153.1 | 189.6 | 197.0 | 199.2 |
| Poultry | 92.6 | 94.9 | 115.3 | 124.2 | 126.0 | 137.7 |
| <i>Total(e)</i> | <i>98.6</i> | <i>122.5</i> | <i>161.1</i> | <i>89.2</i> | <i>95.5</i> | <i>124.9</i> |
| Livestock products— | | | | | | |
| Wool | 79.0 | 178.1 | 184.8 | 126.5 | 139.6 | 177.2 |
| Milk | 117.7 | 118.5 | 123.7 | 144.8 | 139.9 | 154.2 |
| Eggs | 87.6 | 95.4 | 126.5 | 144.6 | 152.1 | 171.0 |
| <i>Total(f)</i> | <i>91.1</i> | <i>153.7</i> | <i>162.2</i> | <i>133.6</i> | <i>141.0</i> | <i>170.3</i> |
| Agricultural output(g) | 99.1 | 135.1 | 171.7 | 147.7 | 149.9 | 167.1 |

For footnotes see previous table.

Apparent consumption of foodstuffs and nutrients

APPARENT CONSUMPTION OF FOODSTUFFS PER HEAD OF POPULATION

(Kg—unless otherwise indicated)

| Commodity | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77p |
|--|--------------|--------------|--------------|--------------|--------------|
| Grain products— | | | | | |
| Flour (including flour for bread making) | 73.8 | 76.8 | 74.2 | 73.9 | 72.7 |
| Rice, table | 2.2 | 2.0 | 2.4 | 2.4 | 2.4 |
| Breakfast foods | 6.7 | 6.6 | 6.6 | 7.1 | 8.0 |
| <i>Total grain products</i> | <i>82.9</i> | <i>85.7</i> | <i>83.2</i> | <i>83.6</i> | <i>83.0</i> |
| Sugar(a) | n.a. | 54.4 | 53.7 | 55.6 | 53.5 |
| Pulse and nuts— | | | | | |
| Peanuts (kernel equivalent) | 1.2 | 0.9 | 0.8 | 1.3 | n.y.a. |
| Tree nuts (kernel equivalent) | 1.0 | 1.1 | 1.1 | 1.2 | 1.2 |
| Vegetables— | | | | | |
| Potatoes, white | 47.9 | 45.5 | 51.7 | 46.6 | 48.9 |
| Other root and bulb vegetables | 16.7 | 17.5 | 17.7 | 15.9 | 16.0 |
| Tomatoes | 16.9 | 14.9 | 10.1 | 14.3 | 14.6 |
| Leafy and green vegetables | 20.0 | 21.0 | 21.6 | 23.0 | 22.4 |
| Other vegetables | 14.9 | 15.0 | 15.1 | 14.4 | 14.9 |
| <i>Total (fresh equivalent weight)</i> | <i>116.9</i> | <i>114.2</i> | <i>116.7</i> | <i>114.3</i> | <i>116.7</i> |
| Fruit and fruit products— | | | | | |
| Citrus fruit(b) | 30.1 | 31.3 | 36.7 | 39.6 | 33.4 |
| Other fresh fruit | 35.7 | 33.5 | 32.7 | 33.3 | 33.1 |
| Jams, preserves, etc. | 2.5 | 2.2 | 2.5 | 1.9 | 2.0 |
| Dried fruits | 2.3 | 2.4 | 1.8 | 2.2 | 2.0 |
| Canned and bottled fruit | 10.3 | 10.2 | 10.1 | 9.7 | 10.1 |
| <i>Total (fresh fruit equivalent)</i> | <i>90.1</i> | <i>89.4</i> | <i>91.2</i> | <i>95.7</i> | <i>88.9</i> |

APPARENT CONSUMPTION OF FOODSTUFFS PER HEAD OF
POPULATION—*continued*

(Kg—unless otherwise indicated)

| <i>Commodity</i> | <i>1972-73</i> | <i>1973-74</i> | <i>1974-75</i> | <i>1975-76</i> | <i>1976-77p</i> |
|---|----------------|----------------|----------------|----------------|-----------------|
| Meat— | | | | | |
| Carcass meat (total) | 82.1 | 71.9 | 96.2 | 97.3 | 93.5 |
| Beef and veal | 40.1 | 41.1 | 64.3 | 68.6 | 70.3 |
| Mutton | 15.7 | 8.6 | 9.0 | 7.5 | 4.3 |
| Lamb | 18.5 | 15.4 | 17.7 | 16.7 | 13.4 |
| Pigmeat | 7.7 | 6.7 | 5.1 | 4.4 | 5.4 |
| Offal | 5.7 | 4.4 | 5.2 | 5.9 | 6.1 |
| Canned meat (canned weight) . . | 2.5 | 2.4 | 2.3 | 1.7 | 1.7 |
| Bacon and ham (cured carcass weight) | 5.4 | 5.4 | 4.9 | 5.2 | 4.8 |
| <i>Total (carcass equivalent weight)</i> | <i>98.6</i> | <i>86.7</i> | <i>111.1</i> | <i>112.4</i> | <i>108.1</i> |
| Poultry (dressed weight) | 13.1 | 13.6 | 13.6 | 14.5 | 15.8 |
| Eggs and egg products | 12.4 | 12.4 | 12.4 | 12.5 | 12.4 |
| Equivalent number of eggs . . . | 218 | 219 | 219 | 220 | 219 |
| Fish, fresh and frozen (edible weight) | 3.4 | 3.8 | 2.9 | 3.1 | 3.1 |
| Milk and milk products— | | | | | |
| Fluid whole milk (in litres) . . | 120.6 | 114.5 | 106.6 | 101.1 | 104.8 |
| Condensed, concentrated and evaporated milk | 4.4 | 4.1 | 4.1 | 4.8 | 4.9 |
| Powdered milk | 6.0 | 4.9 | 5.4 | 5.2 | 3.6 |
| Infants and invalids' food . . . | 1.4 | 1.5 | 2.1 | 1.4 | 1.1 |
| Cheese (natural equivalent weight) | 5.1 | 5.3 | 5.2 | 5.7 | 5.3 |
| Oils and fats— | | | | | |
| Butter | 8.2 | 7.7 | 7.2 | 6.8 | 5.8 |
| Margarine—Table | 1.6 | 1.7 | 2.2 | 3.1 | 4.7 |
| Other | 4.0 | 4.0 | 3.8 | 3.9 | 3.5 |
| Beverages— | | | | | |
| Tea | 2.0 | 1.9 | 2.0 | 1.9 | 2.0 |
| Coffee(c) | 1.2 | 1.4 | 1.1 | 1.5 | 1.8 |
| Aerated and carbonated waters (in litres) | 64.7 | 63.4 | 59.6 | 65.0 | 68.1 |
| Beer (in litres) | 129.5 | 139.0 | 140.3 | 137.4 | 136.2 |
| Wine (in litres) | 9.8 | 11.0 | 12.3 | 13.1 | 13.6 |
| Spirits (in litres alcohol) . . . | 1.2 | 1.2 | 1.2 | 1.1 | 1.3 |

(a) In terms of refined sugar; includes the sugar content of syrups, honey, glucose and manufactured foods.

(b) Includes fresh equivalent of manufactured foods. (c) Coffee and coffee products in terms of roasted coffee.

Apparent consumption

Estimates of consumption in Australia are compiled by deducting net exports from the sum of production and imports and allowing for recorded movement in stocks of the respective commodities. Consumption of foodstuffs is measured in general at 'producer' level and, as a result, no allowance is made for wastage before they are consumed. It is believed that more efficient distribution and storage methods in recent years have cut down wastage. Furthermore, it is likely that many of the foodstuffs are being supplemented by householders' self-supplies over and above the broad estimate already made.

The estimates of consumption per head of population 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 is contained in the bulletins *Apparent Consumption of Foodstuffs and Nutrients* (4306.0) and *Apparent Consumption of Tea and Coffee* (4307.0).

Nutrients

The nutrients table has been compiled by the Nutrition Section of the Commonwealth Department of Health and is based on the estimates of the quantity of foodstuffs available for consumption per head of population.

ESTIMATED SUPPLY OF NUTRIENTS AVAILABLE FOR CONSUMPTION^(a) (Per head per year)

| <i>Nutrient</i> | <i>Unit</i> | <i>1973-74</i> | <i>1974-75</i> | <i>1975-76</i> | <i>1976-77</i> |
|--|-------------|----------------|----------------|----------------|----------------|
| Protein— | | | | | |
| Animal | g | 60.5 | 69.6 | 70.8 | 71.3 |
| Vegetable | g | 33.0 | 32.2 | 27.6 | 26.4 |
| <i>Total</i> | g | 93.5 | 101.8 | 98.5 | 97.7 |
| Fat (from all sources) | g | 113.0 | 120.2 | 120.9 | 119.8 |
| Carbohydrate | g | 423.4 | 419.4 | 416.2 | 415.9 |
| Calcium | mg | 962.7 | 972.2 | 923.0 | 912.6 |
| Iron | mg | 13.4 | 15.2 | 15.7 | 15.8 |
| Vitamin A (Retinol Activity) | µg | 1,205.6 | 1,541.0 | 1,551.7 | 1,588.3 |
| Vitamin C (Ascorbic Acid) | mg | 89.4 | 103.3 | 98.7 | 99.4 |
| Thiamin | mg | 1.6 | 1.6 | 1.5 | 1.5 |
| Riboflavin | mg | 2.9 | 3.2 | 3.1 | 3.1 |
| Niacin | mg | 19.0 | 21.7 | 22.0 | 22.7 |
| Energy value | kcal | 3,223 | 3,313 | 3,309 | 3,301 |
| Energy value | kJ | 13,494 | 13,877 | 13,854 | 13,823 |

(a) Figures are based on conversion factors calculated from the revised and enlarged edition of 'Tables of Composition of Australian Foods' (Suey Thomas and Margaret Corden, Canberra, 1970).

Land tenure

Descriptions of the land tenure systems of the States and the Territories, and conspectuses of land legislation in force were provided in Year Book No. 48 and previous issues (*see also* Year Book No. 50, page 85 and the List of Special Articles preceding the General Index in this Year Book).

Disposal of crown lands

For a description of the provisions that exist in all mainland States for the disposal of crown lands for public purposes, for unconditional purchase and occupation under lease or licence, *see* Year Book No. 61, page 742.

Closer settlement and war service settlement

Particulars of these are given in issues of the Year Book up to No. 22, and in Year Book Nos 48, 55 and 61.

Alienation and occupation of crown lands

LAND TENURES, 1977^(a) (Million hectares)

| <i>State or Territory</i> | <i>Private lands</i> | | <i>Crown lands</i> | | <i>Total area</i> |
|---|----------------------|---------------------------------|---------------------------|----------------------------|-------------------|
| | <i>Alienated</i> | <i>In process of alienation</i> | <i>Leased or licensed</i> | <i>Other^(b)</i> | |
| New South Wales | 26.9 | 1.5 | 42.9 | 8.8 | 80.1 |
| Victoria | 13.7 | 0.1 | 2.4 | 6.5 | 22.8 |
| Queensland | 12.7 | 18.3 | 129.8 | 12.0 | 172.8 |
| South Australia | 6.7 | 0.1 | 59.9 | 31.8 | 98.4 |
| Western Australia | 15.5 | 3.2 | 100.1 | 133.8 | 252.6 |
| Tasmania | 2.8 | 0.2 | 2.2 | 1.7 | 6.8 |
| Northern Territory | 0.1 | — | 82.9 | 51.6 | 134.6 |
| Australian Capital Territory ^(c) | — | — | 0.1 | 0.2 | 0.2 |
| Australia | 78.3 | 23.3 | 420.3 | 246.4 | 768.4 |

(a) New South Wales and Northern Territory data are at 30 June 1977; Victoria, Tasmania and the Australian Capital Territory at 30 June 1976; Queensland, South Australia and Western Australia at 31 December 1976. (b) Occupied by Crown; reserved; unoccupied; unreserved. (c) Includes Jervis Bay.

Land utilisation in Australia

The table on Land Tenures in Australia, page 267, shows the proportions of Australia and of the States and Territories which are held under freehold tenure ('alienated or in process of alienation') or leasehold tenure ('leased or licensed'). The total area under tenure differs from the total area of rural establishments (shown below) by amounts which represent unused land or land held for non-agricultural purposes. In general, land in the more fertile regions tends to be mostly freehold, while the less productive land is held under Crown lease or licence.

AREA OF RURAL ESTABLISHMENTS: STATES

(Million hectares)

| | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | Aust. (incl. A.C.T.) |
|-------------|--------|------|-------|------|-------|------|------|----------------------------|
| 1973 . . . | 68.8 | 15.8 | 155.1 | 65.4 | 114.0 | 2.6 | 78.0 | 499.8 |
| 1974 . . . | 68.9 | 15.5 | 154.5 | 64.8 | 114.7 | 2.6 | 79.5 | 500.5 |
| 1975 . . . | 68.9 | 15.2 | 154.2 | 63.8 | 115.6 | 2.5 | 79.3 | 499.6 |
| 1976 . . . | 68.8 | 15.1 | 155.6 | 63.6 | 116.3 | 2.5 | 78.8 | 500.7 |
| 1977 . . . | 66.0 | 14.5 | 155.0 | 63.1 | 115.2 | 2.3 | 75.4 | 491.5 |
| 1978p . . . | 65.8 | 15.0 | 155.2 | 63.8 | 117.1 | 2.3 | 76.2 | 495.4 |

LAND UTILISATION: AUSTRALIA

(Million hectares)

| At 31 March | Area used for crops(a) | Area under sown pastures and grasses | Balance (b) | Total | |
|-----------------|---------------------------|---|----------------|---------------------------|---|
| | | | | Area of establishments | Percentage of Australian land area (768,400,000 hectares) |
| 1973 | 14.3 | 26.1 | 459.4 | 499.8 | 65.0 |
| 1974 | 15.1 | 27.2 | 458.2 | 500.5 | 65.1 |
| 1975 | 13.8 | 28.6 | 457.2 | 499.6 | 65.0 |
| 1976 | 14.5 | 27.7 | 458.4 | 500.7 | 65.2 |
| 1977 | 15.0 | 26.2 | 450.3 | 491.5 | 64.0 |
| 1978p | 16.8 | 25.2 | 453.4 | 495.4 | 64.5 |

(a) Excludes duplication on account of area double cropped.

(b) Used for grazing, lying idle, fallow, etc.

The total area of rural establishments in 1977-78 constituted 64.5 per cent of the Australian land area, the remainder being urban areas, State forests and mining leases, with an overwhelming proportion of unoccupied land (mainly desert). The balance data included large areas of arid or rugged land held under grazing licences but not always used for grazing. Balance data also includes variable amounts of fallow land.

The crop area data represents up to 3.4 per cent of the area of rural establishments and emphasises the relative importance of the livestock industry in Australia—sheep in the warm, temperate, semi-arid lands and beef cattle in the tropics. The diminishing rural labour force (see page 313) is used on large areas of land with low carrying capacity.

Crops

For this section, statistics relating to crop areas and production have been obtained from the annual Agricultural Census. The census returns are collected in all States and the two Territories 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. Additional statistics relating to value of agricultural commodities produced, manufactured production and overseas trade are also included. Agricultural Census data published in this section refer to the 'agricultural' year ended 31 March, while other data refer to the year ended 30 June; but for most purposes there will be little error involved in considering 'agricultural year' data as applying to the financial year.

The following table shows the area of crops in each of the States and Territories of Australia since 1860-61.

AREA OF CROPS(a): 1860-61 TO 1977-78
(^{'000 hectares})

| <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> |
|----------------|---------------|-------------|------------|-------------|-------------|-------------|-------------|---------------|--------------|
| 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 |
| 1949-50 . . . | 2,295 | 1,881 | 832 | 1,518 | 1,780 | 114 | - | 4 | 8,424 |
| 1954-55 . . . | 2,183 | 1,904 | 1,049 | 1,711 | 2,069 | 122 | - | 2 | 9,040 |
| 1959-60 . . . | 2,888 | 1,949 | 1,184 | 1,780 | 2,628 | 130 | 1 | 3 | 10,564 |
| 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 | 1,863 | 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 | 3,839 | 110 | 6 | 3 | 16,665 |
| 1969-70 . . . | 4,999 | 2,212 | 2,208 | 2,290 | 3,912 | 98 | 6 | 2 | 15,728 |
| 1970-71 . . . | 3,967 | 1,732 | 1,791 | 1,998 | 3,826 | 80 | 2 | 1 | 13,397 |
| 1971-72 . . . | 4,186 | 1,968 | 1,985 | 2,312 | 3,714 | 67 | 7 | 1 | 14,240 |
| 1972-73 . . . | 4,328 | 1,935 | 1,959 | 2,084 | 3,855 | 80 | 12 | 1 | 14,255 |
| 1973-74 . . . | 4,628 | 1,980 | 1,786 | 2,451 | 4,133 | 74 | 5 | 1 | 15,059 |
| 1974-75 . . . | 4,090 | 1,772 | 1,898 | 2,257 | 3,754 | 67 | 8 | 1 | 13,846 |
| 1975-76 . . . | 4,285 | 1,852 | 2,010 | 2,116 | 4,208 | 60 | 8 | 1 | 14,540 |
| 1976-77 . . . | 4,520 | 1,943 | 2,026 | 2,036 | 4,417 | 65 | 2 | 1 | 15,010 |
| 1977-78p . . . | 4,990 | 2,204 | 2,110 | 2,569 | 4,902 | 69 | 1 | 1 | 16,846 |

(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.

NOTE: From 1970-71 data exclude duplication on account of area double cropped.

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. However, scanty or erratic rainfall, limited potential for irrigation and unsuitable soils or topography have restricted intensive agriculture. Despite this, agricultural production has increased over time to meet increased demands both in Australia and overseas.

The following table provides an Australian summary of the area, production and gross value of the principal crops.

CROPS: AREA, PRODUCTION AND GROSS VALUE

| Crop | Area ('000 hectares) | | | Production ('000 tonnes) | | | Gross value (\$m) | | |
|---|----------------------|---------|----------|--------------------------|---------|----------|-------------------|---------|----------|
| | 1975-76 | 1976-77 | 1977-78p | 1975-76 | 1976-77 | 1977-78p | 1975-76 | 1976-77 | 1977-78p |
| Cereals for grain— | | | | | | | | | |
| Barley | 2,329 | 2,321 | 2,811 | 3,179 | 2,847 | 2,392 | 314 | 295 | 212 |
| Grain sorghum | 504 | 532 | 413 | 1,124 | 956 | n.y.a. | 96 | 80 | n.y.a. |
| Maize | 47 | 53 | 49 | 131 | 144 | n.y.a. | 12 | 13 | n.y.a. |
| Oats | 988 | 995 | 1,080 | 1,141 | 1,072 | 996 | 78 | 74 | 62 |
| Rice | 75 | 92 | 91 | 417 | 530 | 432 | 41 | 59 | n.y.a. |
| Wheat | 8,555 | 8,956 | 9,974 | 11,982 | 11,667 | 9,323 | 12,249 | 1,051 | 913 |
| Legumes for grain | 192 | 180 | 190 | 69 | 76 | n.y.a. | 23 | 25 | n.y.a. |
| Crops for hay— | | | | | | | | | |
| Barley | 13 | 17 | 18 | 31 | 36 | 31 | 1 | 1 | n.y.a. |
| Oats | 167 | 208 | 226 | 557 | 684 | 615 | 20 | 23 | n.y.a. |
| Wheat | 47 | 59 | 69 | 138 | 159 | 147 | 4 | 6 | n.y.a. |
| Crops for green feed, silage— | | | | | | | | | |
| Barley | 57 | 57 | 78 | 21,959 | | | | | |
| Forage sorghum | 85 | 68 | 67 | | | | | | |
| Oats | 500 | 464 | 576 | | | n.a. | | | |
| Wheat | 32 | 39 | 59 | | | | | | |
| Sugar cane cut for crushing | 257 | 288 | 295 | | | 23,493 | 436 | 472 | 410 |
| Tobacco | 9 | 9 | 9 | 15 | 16 | n.y.a. | 51 | 56 | n.y.a. |
| Cotton | 30 | 35 | 41 | 80 | 83 | n.y.a. | 38 | 40 | n.y.a. |
| Peanuts | 27 | 31 | 28 | 35 | 32 | n.y.a. | 16 | 14 | n.y.a. |
| Linseed | 16 | 15 | 44 | 12 | 16 | 28 | 2 | 3 | n.y.a. |
| Rapeseed | 16 | | 19 | 12 | 9 | 15 | 2 | 2 | n.y.a. |
| Safflower | 40 | 13 | 39 | 18 | 6 | 26 | 3 | 1 | n.y.a. |
| Sunflower | 137 | 135 | 207 | 80 | 75 | n.y.a. | 16 | 22 | n.y.a. |
| Fruit | 100 | 96 | 95 | — | — | — | 269 | 291 | 313 |
| Orchard fruit | 85 | 81 | 80 | — | — | — | 206 | 227 | n.y.a. |
| Oranges | } | n.a. | } | 362 | 322 | 347 | 46 | 52 | n.y.a. |
| Apples | | | | 275 | 302 | n.y.a. | 74 | 83 | n.y.a. |
| Pears | | | | 140 | 105 | n.y.a. | 20 | 22 | n.y.a. |
| Peaches | | | | 79 | 66 | 61 | 18 | 16 | n.y.a. |
| Berry and other | 15 | 15 | 15 | — | — | — | 63 | 64 | n.y.a. |
| Bananas | 8 | 8 | 8 | 97 | 115 | 99 | 40 | 38 | n.y.a. |
| Pineapples | 6 | 6 | 6 | 103 | 112 | 117 | 14 | 16 | n.y.a. |
| Grapevines | 70 | 71 | 73 | 709 | 728 | n.y.a. | 102 | 129 | 128 |
| Vegetables | 106 | 108 | 107 | — | — | — | 275 | 309 | 314 |
| Potatoes | 34 | 34 | 34 | 696 | 728 | n.y.a. | 91 | 89 | n.y.a. |
| Total, all crops (excluding pastures) | 14,540 | 15,010 | 16,846 | — | — | — | 3,121 | 3,057 | 2,861 |

In the tables that follow, crop statistics are shown in these groupings: wheat, coarse grains, rice, oilseeds, sugar, vegetables, fruit, grapevines and other crops such as tobacco, mushrooms, nurseries and fodder crops. A further grouping shows farm consumption of cereals, etc., artificial fertilisers, aerial agriculture and irrigation from page 290.

Cereal grains

In Australia, cereals are conveniently divided into autumn-winter-spring growing ('winter' cereals) and spring-summer-autumn growing ('summer' cereals). Winter cereals such as wheat, oats, barley and rye are usually grown in rotation with some form of pasture such as subterranean clover, medics and clover. In recent years, alternative winter crops such as rapeseed, field peas and lupins have been introduced into cereal rotation in areas where they had not previously been grown. Rice, maize, sorghum and the millets are summer cereals and, except for rice, are also used for stock feed. In Northern Queensland there are two rice growing seasons—a dry season winter crop and a wet season summer crop.

Cereals for grain form a significant percentage of both the value of Australia's agricultural commodities and of the country's export earnings. The following table shows the significance of cereal grains in the last 5 years.

CEREAL GRAINS IN AUSTRALIA: A PERSPECTIVE

| Year | Cereal grains(a) | | Total agriculture gross value | Total Australian exports— all produce value f.o.b. | Gross value of cereal grains as a percentage of gross value of agriculture | Export value of cereal grains as a percentage of total Australian exports |
|--------------------|------------------|---------------------------|--|--|--|---|
| | Gross value | Export value f.o.b. | | | | |
| | \$m | \$m | \$m | \$m | per cent | per cent |
| 1973-74 | 1,715.0 | 747.4 | 6,412 | 6,707 | 26.7 | 11.1 |
| 1974-75 | 1,701.3 | 1,466.4 | 5,878 | 8,457 | 28.9 | 17.3 |
| 1975-76 | 1,798.2 | 1,376.4 | 6,175 | 9,340 | 29.1 | 14.7 |
| 1976-77 | 1,583.3 | 1,264.9 | 6,774 | 11,376 | 23.4 | 11.1 |
| 1977-78p | 1,329.0 | 1,265.8 | 6,876 | 12,248 | 19.3 | 10.3 |

(a) Principally wheat, barley, oats, grain sorghum, rice and maize, with panicum/millet, canary seed and rye being minor cereals.

For more up-to-date and detailed information on cereals for grain see the following publications:

Agricultural Sector—Part I, Structure of Operating Units (7102.0), *Rural Land Use: Improvements and Agricultural Machinery* (7103.0), *Agricultural Statistics of the A.C.T.* (7104.0), *Agricultural Statistics of the N.T.* (7105.0), *Principal Agricultural Statistics: First Estimates* (7201.0), *Principal Agricultural Statistics: Second Estimates* (7202.0), *Crop and Fruit Statistics (Preliminary)* (7301.0), *Crop Statistics* (7302.0), *Cereal Grains: Estimates of Intended Sowings* (7304.0), *Cereal Grains: Estimates of Area Sown* (7305.0), *Cereal Grains: Estimates of Production* (7306.0), *Wheat Statistics* (7307.0), *Gross Value of Agricultural Commodities Produced: First Estimates* (7501.0), *Value of Agricultural Commodities Produced: Second Estimates* (7502.0), *Value of Agricultural Commodities Produced* (7503.0).

Wheat

Wheat is grown extensively in all States except Tasmania, and is the most important crop in Australia in terms of area, production and value of exports.

The present limits of the wheat belt have been established after considerable fluctuations over the last half century. Prominent factors in the early development of the 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.

Two further factors which have contributed to the development of the industry are the organisation of overseas marketing and of research. As a large proportion of the wheat crop is exported, wheat marketing plays an important role. 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 or 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. The *Wheat Industry Stabilization Act* 1948 reconstituted the Australian Wheat Board to administer the first stabilisation plan, and the Board maintained the *Wheat Industry Stabilization Acts* 1954, 1958, 1963-66, 1968-73 and 1974-75 for the purpose of administering the second, third, fourth, fifth and sixth Five Year Stabilisation Plans. Details of the more recent plans were published in Year Book numbers 40, 44, 48, 54, 55 and 61.

World wheat

Under the influence of high prices and expansionary production policies, world producers have in recent years attempted to expand production to cope with a critically low level of wheat stocks and increasing wheat consumption. Forecasts of longer term prospects in the world wheat economy are extremely hazardous in view of the critical influence and unpredictability of the weather but, because of the need for longer term planning, wheat producers must consider the more important factors

likely to influence future development. The international wheat market is partly residual and sensitive to changes in the overall world supply/demand situation, and producers in Australia and the other main exporting countries need to react rapidly if they are to avoid surplus production, the building of excess stock and, hence, depressed prices.

Wheat delivery quota plan

In March 1969, the Australian Wheat Growers Federation put forward proposals for the allotment of quotas on wheat deliveries designed to bring marketable supplies of wheat more into line with available outlets. The proposals became effective following the record 1968-69 harvest of 14.8 million tonnes. Quotas were subject to annual review and, while wheat in excess of a quota was received if storage space was available, 'quota wheat' received preference. Only deliveries made within the established quotas received a first advanced payment. In an effort to stimulate output during the 1975-76 season (and so take advantage of the favourable international market situation), wheat delivery quotas were suspended and the first advanced payment to growers was announced well before planting. Producers reacted to the overall market conditions by increasing their plantings. A summary of quota allocation is given in Year Book No. 61, pages 842-3.

Wheat varieties and standards of wheat

The breeding of wheat suitable to local conditions has long been established in Australia. William 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. A detailed table of wheat varieties sown appears in the annual bulletin *Wheat Statistics* (7307.0). The continuation of wheat breeding activities has led to expansions in the areas sown to wheat as well as in yields per hectare, but it is difficult to distinguish progress due to improved wheat varieties from that due to wider rotations, increased mechanisation and superphosphate-increased pastures.

The quality of wheat (its flour yielding capacity, protein content, hardness and physical dough properties) is governed by a combination of the wheat variety and the climatic and growing characteristics of its region of origin. Since 1966-67, Australian wheat has been marketed under distinct classification. This practice of segregation has been widely employed to enhance the marketability of Australian wheat, and in recent years up to twenty-two separate grades have been made available for export. Within the Australian wheatbelt there exist wide ranges of soil fertility, rainfall, day length and ambient temperature, and, by developing varieties which complement the growing conditions, it has been possible to produce varieties with qualities suitable for virtually every commercial application. Particulars of Australian standard weights for the different grades of wheat may be found in the annual bulletin *Wheat Statistics* (7307.0).

Central Grain Research Laboratory

In 1976, the Australian Wheat Board established this laboratory in Sydney as an addition to the facilities of the Bread Research Institute of Australia. The main functions of the laboratory are to test and report on the Australian crop, to analyse and compare competitor wheats from other countries and to develop research programs to aid the marketing of wheat.

Wheat Stabilisation—I.A.C. Inquiry

The Industries Assistance Commission was asked to report on whether assistance should be given to the wheat industry to stabilise its returns after the expiry of the Sixth Wheat Industry Stabilisation Plan on 30.9.79. It found that the Plan in its present form was of little value because it had a negligible impact on stability of prices or income received by growers. It recommended that after the 1978-79 season, Commonwealth Government assistance should be provided to growers for a limited period only when market realisations fell to levels which were low in relation to prices of the recent past without any grower contributions. It also recommended that the Australian Wheat Board retain complete control of the marketing of export wheat but that private traders be allowed to buy and sell on the domestic market.

High Court Action

In an action brought before the full High Court of Australia, four stock-feed traders contested the validity of State and Commonwealth Wheat Stabilisation legislation which gave the Board the right to demand all wheat be delivered to it rather than be sold interstate by the traders themselves. It was argued that this contravened Section 92 of the Commonwealth of Australia Constitution Act which guarantees freedom of trade between the States. The High Court ruled (September 1978) that the Wheat Industry Stabilisation scheme as provided in the various Acts was constitutionally valid, notwithstanding Section 92. It was held that the proper regulation of trade among the States does not necessarily contravene Section 92 even if the regulation has within it an element of prohibition.

WHEAT: AREA, PRODUCTION AND RECEIVALS

| Season | Area | | Production | | Australian Wheat Board receipts(a) |
|--------------------|-----------|--------------|-------------|-------------|------------------------------------|
| | For grain | All purposes | Grain | Gross value | |
| | '000 ha | '000 ha | '000 tonnes | \$m | '000 tonnes |
| 1973-74 | 8,948 | 9,066 | 11,987 | 1,311.9 | 11,200 |
| 1974-75 | 8,308 | 8,406 | 11,357 | 1,256.4 | 10,704 |
| 1975-76 | 8,555 | 8,633 | 11,982 | 1,249.2 | 11,266 |
| 1976-77 | 8,956 | 9,054 | 11,667 | 1,050.8 | 10,932 |
| 1977-78p | 9,974 | 10,102 | 9,323 | 913.0 | (b)8,535 |

(a) Australian Wheat Board receipts are for the season commencing 1 December; production data is for the year ending 31 March. (b) Receipts to 4 October 1978.

WHEAT FOR GRAIN: AREA AND PRODUCTION, BY STATE

| | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | Australia |
|---------------------------|--------|-------|-----|-------|-------|------|-----------|
| AREA ('000 hectares) | | | | | | | |
| 1972-73 | 2,618 | 1,087 | 471 | 986 | 2,437 | 4 | 7,604 |
| 1973-74 | 2,883 | 1,258 | 395 | 1,432 | 2,978 | 3 | 8,948 |
| 1974-75 | 2,646 | 1,141 | 489 | 1,220 | 2,810 | 2 | 8,308 |
| 1975-76 | 2,774 | 1,073 | 576 | 958 | 3,171 | 2 | 8,555 |
| 1976-77 | 3,116 | 1,103 | 582 | 839 | 3,314 | 2 | 8,956 |
| 1977-78p | 3,379 | 1,291 | 607 | 1,091 | 3,604 | 1 | 9,974 |
| PRODUCTION ('000 tonnes) | | | | | | | |
| 1972-73 | 1,954 | 1,405 | 405 | 815 | 2,003 | 8 | 6,590 |
| 1973-74 | 3,962 | 1,490 | 526 | 1,795 | 4,211 | 4 | 11,987 |
| 1974-75 | 3,809 | 2,091 | 692 | 1,486 | 3,277 | 2 | 11,357 |
| 1975-76 | 4,310 | 1,578 | 830 | 1,139 | 4,122 | 2 | 11,982 |
| 1976-77 | 5,141 | 1,647 | 794 | 832 | 3,249 | 4 | 11,667 |
| 1977-78p | 3,846 | 1,445 | 574 | 511 | 2,945 | 2 | 9,323 |

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. A graph showing production of wheat from 1940-41 appeared in Year Book No. 61, page 756.

PRODUCTION AND DISPOSAL OF WHEAT FOR GRAIN
('000 tonnes)

| Year ended 30 November | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77p |
|---------------------------------------|---------|---------|---------|---------|----------|
| Production | 6,590 | 11,987 | 11,357 | 11,982 | 11,667 |
| Less balance held on farms for— | | | | | |
| Seed usage | 547 | 505 | 511 | 539 | 604 |
| Feed and other uses | 604 | 282 | 143 | 177 | 131 |
| Gross receipts | 5,439 | 11,200 | 10,704 | 11,266 | 10,932 |
| Opening stocks(a) | 1,448 | 478 | 1,882 | 1,658 | 2,665 |
| Total availability for sale | 6,887 | 11,678 | 12,586 | 12,924 | 13,597 |
| Export shipments— | | | | | |
| Wheat | 3,855 | 7,124 | 8,254 | 7,962 | 9,502 |
| Flour and wheat products(b) | 282 | 294 | 296 | 271 | 261 |
| Domestic sales— | | | | | |
| Flour | 1,272 | 1,362 | 1,334 | 1,304 | 1,261 |
| Stockfeed | 923 | 911 | 1,006 | 620 | 380 |
| Breakfast feeds | 47 | 46 | 54 | 68 | 55 |
| Total disposal | 6,379 | 9,737 | 10,944 | 10,225 | 11,459 |
| Availability (—) Disposals | 508 | 1,941 | 1,642 | 2,699 | 2,138 |
| Closing stocks | 478 | 1,882 | 1,658 | 2,665 | 2,137 |
| Apparent wastage | 30 | 59 | -16 | 34 | 1 |

(a) Includes the wheat equivalent of flour. (b) In terms of wheat.

NOTE: The Australian Wheat Board is the source of receipts, export shipments, domestic sales data, and opening and closing stocks; the ABS records other data.

Other wheat statistics

Prices. The *home consumption price* is the price of Australian Standard White (ASW) bulk wheat f.o.r. (ports) sold by the Australian Wheat Board on the home market. It includes a loading of a variable amount to meet freight charges on wheat shipped to Tasmania. Prior to 1973-74 the home consumption price varied according to the end usage, viz. human consumption, manufacture of flour for industrial use, basic stockfeed or stockfeed where the purchaser undertook to buy the entire season's requirements from the Wheat Board.

The *monthly export price* is the Wheat Board's basic export selling price for ASW bulk wheat f.o.b. Much of the wheat exported is sold under contract for delivery over lengthy periods and these prices do not necessarily reflect the prices received for all wheat shipped during those months.

For details of these price series see earlier issues of the Year Book and the latest issue of *Wheat Statistics* (7307.0).

Wheat pools. Details of wheat receipts by State of origin for the several Pools together with Pool payments and times of payment will be found in the latest issue of *Wheat Statistics* (7307.0).

Wheat exports

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, 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 Nos.—43, page 836; 48, page 906; and 55, page 836, respectively.

Details of the third International Wheat Agreement, which came into force on 1 July 1971 and which was extended four times by protocol to expire on 30 June 1979 or earlier if the Wheat Trade Convention reaches a new agreement before then, will be found in the latest issue of *Wheat Statistics* (7307.0).

WHEAT EXPORTS: A COMPARISON WITH OTHER EXPORT COMMODITIES(a)

| Year | Wheat for grain: Exports | | Total Australian exports— all produce: Value f.o.b. | Export value of wheat for grain as a percentage of total Australian exports |
|--------------------|--------------------------|--------------|--|---|
| | Quantity | Value f.o.b. | | |
| | '000 tonnes | \$m | \$m | per cent |
| 1973-74 | 5,128 | 517.1 | 6,707.0 | 7.7 |
| 1974-75 | 7,860 | 1,034.4 | 8,456.9 | 12.2 |
| 1975-76 | 7,567 | 922.5 | 9,339.6 | 9.9 |
| 1976-77 | 7,945 | 863.5 | 11,376.4 | 7.6 |
| 1977-78p | 10,966 | 1,013.2 | 12,248.4 | 8.3 |

(a) These statistics exclude re-exports.

EXPORTS OF WHEAT AND FLOUR

| Country of consignment | Quantity ('000 tonnes) | | | Value f.o.b. (\$m) | | |
|-----------------------------|------------------------|----------------|-----------------|--------------------|--------------|----------------|
| | 1975-76 | 1976-77 | 1977-78p | 1975-76 | 1976-77 | 1977-78p |
| WHEAT | | | | | | |
| Bangladesh | 98.0 | 109.5 | 146.5 | 11.5 | 10.2 | 14.3 |
| China—excl. Taiwan Province | 1,082.9 | 745.2 | 4,603.1 | 120.2 | 74.1 | 376.4 |
| Taiwan Province only | 65.2 | 54.5 | 82.7 | 7.9 | 6.2 | 8.1 |
| Cuba | — | — | 122.5 | — | — | 13.8 |
| Egypt, Arab Republic of | 1,015.6 | 1,002.5 | 1,246.5 | 143.2 | 101.9 | 115.7 |
| Indonesia | 294.2 | 528.9 | 568.4 | 34.1 | 55.0 | 57.9 |
| Iraq | 302.7 | 524.2 | 537.3 | 53.4 | 61.3 | 56.8 |
| Japan | 1,065.4 | 1,075.9 | 1,158.0 | 124.3 | 114.9 | 116.0 |
| Kuwait | 135.7 | 143.2 | 178.8 | 15.7 | 16.0 | 18.1 |
| Malaysia | 316.8 | 339.7 | 376.9 | 36.6 | 35.4 | 37.8 |
| Pakistan | 120.8 | 15.8 | 229.9 | 14.7 | 1.5 | 21.4 |
| Saudi Arabia | 37.1 | 91.3 | 125.8 | 4.4 | 10.4 | 15.4 |
| Singapore | 127.6 | 208.8 | 219.6 | 13.4 | 20.7 | 21.1 |
| Sri Lanka | 100.1 | 114.3 | 102.7 | 12.9 | 12.4 | 9.7 |
| USSR | 1,309.6 | 363.1 | 225.1 | 166.0 | 48.5 | 27.2 |
| Yemen Arab Republic | 178.5 | 272.7 | 250.1 | 23.0 | 30.8 | 27.2 |
| Other countries | 1,316.9 | 2,355.5 | 792.3 | 141.2 | 264.2 | 76.3 |
| Total | 7,567.1 | 7,945.1 | 10,966.2 | 922.5 | 863.5 | 1,013.2 |
| FLOUR(a) | | | | | | |
| Burma, Socialist Rep. | — | 3.9 | — | — | 0.7 | — |
| Mauritius | 16.0 | 22.2 | 18.3 | 2.9 | 4.0 | 3.1 |
| New Caledonia | 1.1 | 1.5 | 2.7 | 0.2 | 0.3 | 0.5 |
| Papua New Guinea | 19.8 | 22.1 | 16.5 | 3.7 | 3.9 | 3.0 |
| Philippines | 3.9 | 4.4 | 6.2 | 0.7 | 0.7 | 1.1 |
| Samoa (Western) | 2.8 | 3.5 | 3.9 | 0.5 | 0.6 | 0.6 |
| Saudi Arabia | 6.3 | 4.1 | 2.8 | 1.0 | 0.6 | 0.4 |
| Solomon Islands | 1.2 | 1.6 | 2.0 | 0.2 | 0.3 | 0.3 |
| Sri Lanka | 94.0 | 9.9 | 9.5 | 15.9 | 1.7 | 1.7 |
| Tonga | 2.3 | 3.3 | 5.1 | 0.4 | 0.6 | 0.8 |
| United Arab Emirates | 40.0 | 42.0 | 17.3 | 7.6 | 7.0 | 2.8 |
| Vietnam | 25.7 | 32.2 | 32.3 | 4.3 | 5.1 | 5.2 |
| Other countries | 14.4 | 19.2 | 16.6 | 2.7 | 3.1 | 2.8 |
| Total | 227.5 | 169.9 | 133.2 | 40.1 | 28.6 | 22.3 |

(a) Plain, white and self-raising flour, sharps and wheatmeal for baking.

WORLD WHEAT: AREA AND PRODUCTION

Source: International Wheat Council, *World Wheat Statistics* (various issues)

Unit: Area in million hectares; production in million tonnes

| | 1972-73 | | 1973-74 | | 1974-75 | | 1975-76 | | 1976-77 | |
|-----------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | Area | Prod. | Area | Prod. | Area | Prod. | Area | Prod. | Area | Prod. |
| Europe | 27.7 | 82.0 | 26.5 | 82.2 | 27.3 | 90.7 | 25.3 | 76.8 | 26.8 | 85.3 |
| E.E.C. (9) | 11.1 | 41.4 | 10.8 | 41.4 | 11.2 | 45.4 | 10.5 | 38.0 | 11.2 | 39.2 |
| U.S.S.R. | 58.5 | 85.8 | 63.2 | 109.7 | 59.7 | 83.9 | 62.0 | 66.2 | 59.5 | 96.9 |
| North & Central America | 28.5 | 58.4 | 32.0 | 65.2 | 36.2 | 64.6 | 38.4 | 77.5 | 40.8 | 85.3 |
| Canada | 8.6 | 14.5 | 9.4 | 16.5 | 8.9 | 13.3 | 9.5 | 17.1 | 11.3 | 23.6 |
| U.S.A. | 19.1 | 42.1 | 21.9 | 46.6 | 26.5 | 48.5 | 28.6 | 57.8 | 28.6 | 58.3 |
| South America | 8.6 | 9.9 | 6.2 | 10.0 | 7.6 | 10.7 | 9.6 | 11.8 | 11.4 | 16.2 |
| Asia | 75.9 | 94.2 | 76.6 | 89.2 | 75.7 | 89.7 | 76.5 | 100.3 | 79.9 | 110.9 |
| China(a) | 29.1 | 35.0 | 28.7 | 36.0 | 29.0 | 37.0 | 30.0 | 41.0 | 31.0 | 43.0 |
| India | 19.1 | 26.4 | 19.5 | 24.7 | 18.6 | 21.8 | 18.0 | 24.2 | 20.5 | 28.8 |
| Iran | 5.5 | 4.5 | 5.9 | 4.6 | 5.9 | 4.7 | 6.0 | 5.5 | 5.6 | 6.0 |
| Pakistan | 5.8 | 6.6 | 6.0 | 7.4 | 6.1 | 7.6 | 5.8 | 7.7 | 6.1 | 8.7 |
| Turkey | 8.7 | 12.2 | 8.9 | 10.0 | 8.8 | 11.0 | 9.3 | 14.8 | 9.3 | 16.5 |
| Africa | 9.6 | 9.9 | 9.3 | 8.4 | 8.8 | 8.3 | 8.0 | 9.1 | 9.0 | 10.6 |
| Oceania | 7.7 | 7.0 | 9.0 | 12.2 | 8.4 | 11.5 | 8.7 | 12.3 | 9.1 | 12.1 |
| Australia | 7.6 | 6.6 | 8.9 | 12.0 | 8.3 | 11.4 | 8.6 | 12.0 | 9.0 | 11.7 |
| Total world | 216.7 | 347.1 | 222.9 | 376.8 | 223.7 | 359.4 | 228.5 | 354.1 | 236.5 | 417.3 |

(a) Excludes Taiwan Province; FAO estimates.

NOTE 1. Crop years shown cover northern hemisphere harvests combined with those of the southern hemisphere which immediately follow.

2. The 9 members of the E.E.C. are: Belgium, Denmark, France, Federal Republic of Germany, Ireland, Italy, Luxembourg, Netherlands and the United Kingdom.

Coarse grains

In the late sixties and early seventies, restrictions on wheat deliveries and low prices for output from sheep enterprises resulted in a resurgence of interest in coarse grain crops and the newer oilseed crops. Expanded plantings and productions resulted, but this expansion tended to fall off with improvements in the market prospects for wheat, wool and meat.

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 and responds well to superphosphate and nitrogen. Oats has a variety of uses—as a pasture plant when rough sown into heavy 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 New South Wales, a State Statutory Marketing Board was set up in 1971.

Oats is usually next in importance to wheat and barley among the grain crops. About three-quarters of the crop is used domestically as stockfeed or for human consumption.

OATS FOR GRAIN: AREA, PRODUCTION AND EXPORTS

| Year | Production | | | Exports | |
|--------------------|------------|-------------|-------------|-------------|--------------|
| | Area | Quantity | | Quantity | Value f.o.b. |
| | | '000 tonnes | Gross value | | |
| | '000 ha | '000 tonnes | \$m | '000 tonnes | \$m |
| 1973-74 | 1,182 | 1,107 | 66.8 | 184 | 13.6 |
| 1974-75 | 897 | 874 | 59.6 | 236 | 19.8 |
| 1975-76 | 988 | 1,141 | 77.8 | 359 | 32.9 |
| 1976-77 | 995 | 1,072 | 74.4 | 364 | 33.4 |
| 1977-78p | 1,080 | 996 | 62.0 | 218 | 19.6 |

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.

Barley Boards

There are State statutory marketing boards operating in New South Wales, Victoria, Queensland and South Australia. The Western Australian Barley Marketing Board was abolished at the end of 1975 and the marketing of barley in Western Australia is now the responsibility of the Grain Pool of Western Australia. 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 New South Wales Boards and the Grain Pool of Western Australia handle the crops of their respective States.

BARLEY FOR GRAIN: AREA, PRODUCTION AND EXPORTS

| Year | Area | Production | | | | Exports | |
|----------------|---------|------------|-------|----------------|-------------|-------------|--------------|
| | | 2-row | 6-row | Total | | Quantity | Value f.o.b. |
| | | | | Quantity | Gross value | | |
| | '000 ha | | | — '000 tonnes— | \$m | '000 tonnes | \$m |
| 1972-73 . . . | 2,140 | 1,441 | 286 | 1,727 | 90.9 | 804 | 38.5 |
| 1973-74 . . . | 1,894 | 2,076 | 322 | 2,397 | 190.5 | 808 | 68.5 |
| 1974-75 . . . | 1,826 | 2,272 | 243 | 2,515 | 256.9 | 1,760 | 186.7 |
| 1975-76 . . . | 2,329 | 2,872 | 307 | 3,179 | 313.9 | 1,954 | 199.8 |
| 1976-77 . . . | 2,321 | 2,627 | 220 | 2,847 | 294.8 | 2,100 | 222.5 |
| 1977-78p . . . | 2,811 | 2,268 | 124 | 2,392 | 212.0 | 1,341 | 123.6 |

Grain 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 broom 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 and Dawson-Callide areas and in the Central Highlands. In New South Wales, the north-western slopes and plains are the main areas.

In Central Queensland, orderly marketing of the crop is arranged through the Central Queensland Grain Sorghum Marketing Board and in Southern Queensland 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 EXPORTS

| Year | Area | Production | | Exports | |
|--------------------|---------|-------------|-------------|-------------|--------------|
| | | Quantity | Gross value | Quantity | Value f.o.b. |
| | '000 ha | '000 tonnes | \$m | '000 tonnes | \$m |
| 1973-74 | 539.7 | 1,060.6 | 80.4 | 747.9 | 54.3 |
| 1974-75 | 511.1 | 900.8 | 76.2 | 855.8 | 73.3 |
| 1975-76 | 504.0 | 1,123.7 | 96.1 | 815.0 | 71.8 |
| 1976-77 | 532.1 | 956.0 | 80.3 | 829.2 | 76.3 |
| 1977-78p | 412.8 | n.y.a. | n.y.a. | 384.5 | 35.5 |

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. In New South Wales in 1975 growers voted for the formation of a marketing board.

MAIZE: AREA, PRODUCTION AND EXPORTS

| Year | Area | Production | | Exports | |
|--------------------|---------|-------------|-------------|-------------|--------------|
| | | Quantity | Gross value | Quantity | Value f.o.b. |
| | '000 ha | '000 tonnes | \$m | '000 tonnes | \$m |
| 1973-74 | 45.6 | 105.8 | 9.0 | 2.7 | 0.2 |
| 1974-75 | 51.4 | 133.3 | 11.7 | 1.2 | 0.2 |
| 1975-76 | 46.8 | 131.5 | 12.2 | 10.8 | 1.0 |
| 1976-77 | 53.0 | 144.2 | 13.1 | 33.0 | 2.8 |
| 1977-78p | 48.5 | n.y.a. | n.y.a. | 11.1 | 1.6 |

Rice

Rice is cultivated generally between latitudes 49° N and 35° S wherever sufficient water is available and where low temperatures do not limit growth and development. The principal rice-growing areas are confined almost entirely to Asia. In Australia, rice was first grown commercially in the Murrumbidgee Irrigation Area in 1924-25, and it was not long before a surplus became available for export. In the late 1960s, irrigation in the Burdekin area of northern Queensland enabled significant plantings to be made with two rice-growing seasons—a dry winter crop and a wet summer crop. In both the M.I.A. and the Burdekin Delta, limited irrigation water controls rice plantings.

RICE: AREA, PRODUCTION AND EXPORTS

| Year | Area | Production | | Exports | |
|--------------------|---------|-------------|-------------|-------------|--------------|
| | | Quantity | Gross value | Quantity | Value f.o.b. |
| | '000 ha | '000 tonnes | \$m | '000 tonnes | \$m |
| 1973-74 | 67.5 | 408.8 | 50.5 | 136.6 | 28.6 |
| 1974-75 | 75.6 | 388.3 | 35.9 | 164.3 | 43.0 |
| 1975-76 | 74.8 | 417.0 | 41.2 | 218.0 | 51.4 |
| 1976-77 | 92.0 | 529.8 | 59.4 | 256.5 | 57.1 |
| 1977-78p | 90.9 | 481.6 | n.y.a. | 277.5 | 66.6 |

Oilseeds

The restrictions on wheat deliveries and low wool and meat prices in the late 1960s and early 1970s increased interest in the newer oilseed crops such as rapeseed. This was aided by a buoyant world market for oilseeds.

In Australia, sunflower, soybeans, rapeseed, linseed and safflower are grown specifically for crushing. These crops are located in the grain areas of several States and have shown spectacular increases in recent years. Peanuts, cottonseed and, to a lesser extent, maize are grown for other purposes, but oil is a by-product.

Linseed. Varieties of the summer-growing annual flax plant have been developed for the production of linseed which, when crushed, yields an industrial oil used in the manufacture of paint and linoleum. The introduction of synthetics into these fields has reduced the demand for linseed oils.

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, the Darling Downs in Queensland and the south-eastern district of South Australia.

Rapeseed. This is obtained from several varieties of brassica which are cultivated in temperate and warm temperate zones for their oil-producing seed. 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. Rapeseed is winter growing and is produced mainly in the higher rainfall areas of southern New South Wales, Victoria, South Australia and Western Australia. From virtually nil production in 1967-68 it rose to a peak of 55,000 tonnes in 1971-72 but declined rapidly due partly to blackleg disease in Western Australian crops.

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.

Sunflower. 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 the major oilseed crop.

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.

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 (excluding Taiwan Province) 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 China (excluding Taiwan Province).

The greater part of Australian production takes place in the Darling Downs, Burnett and Lockyer districts of Queensland and in the Moree and Gunnedah districts of New South Wales.

Trends in the production of these specialised oilseed crops are closely tied to development in markets and prices not only for oilseeds but also for wheat, wool and meat. In 1975-76, due to lower world and domestic market prices and an increase in oil imports, the industry requested greater import protection. The Industries Assistance Commission is reviewing the assistance requirements of the fats and oils production sector as well as the seed producing industry. While any recommendations will have significant influence on the development of the oilseed industry, increased attention is being paid to alternative marketing arrangements and to research to improve technical and economic efficiency.

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.

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.

RURAL INDUSTRY
SELECTED OILSEED CROPS: AREA, PRODUCTION AND GROSS VALUE

| Year | <i>Specialised</i> | | | | <i>Other</i> | | | |
|---------------------------|--------------------|-----------------|------------------|------------------|-----------------|----------------|------------------|---------------|
| | <i>Linseed</i> | <i>Rapeseed</i> | <i>Safflower</i> | <i>Sunflower</i> | <i>Soybeans</i> | <i>Peanuts</i> | <i>Cotton(a)</i> | <i>Lupins</i> |
| AREA ('000 hectares) | | | | | | | | |
| 1973-74 . . | 17.8 | 16.8 | 12.3 | 150.6 | 40.8 | 25.9 | 41.7 | 66.6 |
| 1974-75 . . | 35.6 | 11.8 | 36.2 | 209.5 | 45.9 | 24.1 | 38.5 | 124.6 |
| 1975-76 . . | 15.7 | 15.9 | 39.8 | 136.9 | 26.3 | 27.3 | 29.8 | 139.3 |
| 1976-77 . . | 15.3 | 7.7 | 12.9 | 134.6 | 34.6 | 31.0 | 35.3 | 113.2 |
| 1977-78p . . | 44.2 | 19.1 | 38.9 | 207.0 | 48.3 | 28.1 | 40.7 | 80.6 |
| PRODUCTION ('000 tonnes) | | | | | | | | |
| 1973-74 . . | 14.3 | 10.6 | 6.9 | 84.3 | 62.5 | 29.2 | 86.4 | 51.2 |
| 1974-75 . . | 33.0 | 8.5 | 30.5 | 113.4 | 73.7 | 32.0 | 103.3 | 87.8 |
| 1975-76 . . | 12.2 | 11.9 | 18.2 | 80.4 | 44.6 | 35.5 | 80.1 | 103.9 |
| 1976-77 . . | 16.4 | 8.5 | 6.3 | 74.9 | 55.2 | 31.9 | 82.8 | 32.9 |
| 1977-78p . . | 27.9 | 14.7 | 25.9 | n.y.a. | n.y.a. | n.y.a. | n.y.a. | 32.9 |
| GROSS VALUE (\$ million) | | | | | | | | |
| 1972-73 . . | 1.0 | 2.9 | 0.5 | 15.4 | 5.4 | 10.5 | 32.6 | |
| 1973-74 . . | 3.1 | 1.5 | 1.0 | 19.4 | 11.2 | 10.9 | 26.6 | |
| 1974-75 . . | 7.5 | 1.9 | 7.5 | 24.0 | 13.2 | 12.0 | 29.3 | n.a. |
| 1975-76 . . | 2.1 | 1.9 | 2.7 | 15.7 | 7.2 | 15.8 | 37.5 | |
| 1976-77 . . | 3.4 | 1.5 | 1.4 | 21.5 | 14.7 | 14.4 | 39.8 | |

(a) Additional data is shown below.

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 food and for industrial purposes. The residual meal is a useful high protein stockfeed; the hulls may be used as fuel.

Apart from a few thousand hectares in Queensland, Australia's cotton crop is grown under irrigation. Most of the country's cotton is grown in the Namoi and Macquarie valleys in New South Wales with water provided from the Keepit and Burrendong dams. Cotton introduced into the Ord River area of Western Australia in 1963 had failed by 1975 due to rising production costs and insect infestation. 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: AREA, PRODUCTION AND EXPORTS

| Year | <i>Seed cotton (a)</i> | | | <i>Cotton seed</i> | |
|--------------------|------------------------|-----------------|--------------------|--------------------|------------------------|
| | <i>Area</i> | <i>Quantity</i> | <i>Gross value</i> | <i>Quantity</i> | <i>Export quantity</i> |
| | '000 ha | '000 tonnes | \$m | '000 tonnes | '000 tonnes |
| 1972-73 | 43.6 | 96.6 | 32.6 | 51.3 | 6.3 |
| 1973-74 | 41.7 | 86.4 | 26.6 | 49.9 | 4.0 |
| 1974-75 | 38.5 | 103.3 | 29.3 | 53.8 | 3.3 |
| 1975-76 | 29.8 | 80.1 | 37.5 | 40.7 | - |
| 1976-77 | 35.3 | 82.8 | 39.8 | 46.6 | - |
| 1977-78p | 40.7 | n.y.a. | n.y.a. | (b) 59.7 | n.y.a. |

(a) Before ginning.

(b) Estimated by the Bureau of Agricultural Economics.

Sugar

The growing of sugar cane is restricted to the east coast (from Mossman in northern Queensland south to the Clarence River in northern New South Wales) which has suitable soil and where the average rainfall is over 1000 mm per year, or where irrigation water is available. Queensland accounts for 95 per cent of Australia's cane crop, most of which grows in the tropical zone where sugar is a major industry and source of employment. Cane farms average about 45 hectares.

Australia is the world's third largest exporter of raw sugar. It has a reputation as a reliable supplier and has always fulfilled its quota obligations under the system of quotas, which can be adjusted according to the availability of markets and the commitments under the various international marketing arrangements to which Australia has been a party. Each of the thirty-four mills is assigned a quota of sugar which is translated into cane quotas for growers.

The organisation of the industry is complex: the industry is subject to a degree of supervision by the Federal and Queensland governments, but is largely self-governing. The price of refined sugar for sale is fixed by agreements between the two regulating governments, with the Queensland government controlling raw sugar production and contracts for refining of home consumption needs, and arranging for export marketing of raw sugar.

The Australian sugar industry was the first in the world to introduce mechanical cultivation and harvesting techniques. By 1964 the entire industry was converted to bulk handling. Continuing improvements in bulk handling equipment have substantially increased the efficiency in bulk handling installations. The total storage capacity of the six Australian bulk sugar terminals is nearly one and a half million tonnes—the largest storage facilities in the world.

Production. Climatic conditions in some areas in New South Wales are such that the crop matures in from 20–24 months, whereas in Queensland a period from 12–16 months is sufficient. Allowance should be made in interpreting the figures below for the disparity in the maturing periods in the respective States.

SUGAR CANE: AREA, PRODUCTION AND YIELD

| Year | New South Wales | | | | | Queensland | | | | |
|----------|-----------------|-------------|-------|-------------|--------|----------------|-------------|-------|-------------|--------|
| | Sugar cane | | | Raw sugar | | Sugar cane | | | Raw sugar | |
| | Area harvested | Production | Yield | Quantity | Yield | Area harvested | Production | Yield | Quantity | Yield |
| | '000 ha | '000 tonnes | t/ha | '000 tonnes | t/ha | '000 ha | '000 tonnes | t/ha | '000 tonnes | t/ha |
| 1973–74 | 9.9 | 999.5 | 100.8 | 121.1 | 12.2 | 215.9 | 18,278.5 | 84.7 | 2,405.0 | 11.1 |
| 1974–75 | 9.9 | 996.7 | 100.6 | 121.0 | 12.2 | 243.2 | 19,421.1 | 79.9 | 2,727.5 | 11.2 |
| 1975–76 | 11.0 | 889.7 | 80.8 | 104.1 | 9.5 | 245.8 | 21,068.9 | 85.7 | 2,751.4 | 11.2 |
| 1976–77 | 11.6 | 1,074.2 | 92.6 | 132.3 | 11.4 | 276.6 | 22,269.4 | 80.5 | 2,973.4 | 10.8 |
| 1977–78p | 14.7 | 1,162.4 | 79.0 | n.y.a. | n.y.a. | 280.4 | 22,330.8 | 79.6 | n.y.a. | n.y.a. |

The average yields of sugar per hectare has increased to 11 tonnes owing to the development of new varieties and improved practices.

For many years Australia sold its sugar in each of three distinct market categories—the domestic market, sales under formal agreement (Commonwealth Sugar Agreement and the U.S. Sugar Act), and the residual world free market. Following international failure to regulate and stabilise world sugar market prices, the loss of the United Kingdom to the EEC and the expiry of the U.S. Sugar Act, the industry developed long-term export contracts with the Near East. These long-term contracts and the domestic market provide secure outlets for about 65 per cent of the industry's capacity, the balance of the export sugar going on the free market.

SUGAR: AREA, PRODUCTION, EXPORTS AND CONSUMPTION

| Year | Area harvested | Production | | | Exports | | Apparent consumption in Australia(a) | |
|----------|----------------|-------------|-------------|-------------|-----------------------|--------------|--------------------------------------|----------|
| | | Sugar cane | | Raw sugar | Raw and refined sugar | | Total | Per head |
| | | Quantity | Gross value | | Quantity | Value f.o.b. | | |
| | '000 ha | mil. tonnes | \$m | mil. tonnes | mil. tonnes | \$m | '000 tonnes | kg |
| 1973–74 | 225.9 | 19.3 | 218.9 | 2.5 | 1.8 | 222.3 | 664.5 | 49.3 |
| 1974–75 | 253.1 | 20.4 | 490.7 | 2.8 | 2.0 | 644.5 | 672.5 | 49.1 |
| 1975–76 | 256.8 | 22.0 | 435.6 | 2.9 | 2.0 | 569.7 | 708.2 | 51.1 |
| 1976–77 | 288.2 | 23.3 | 472.2 | 3.1 | 2.6 | 637.5 | 690.8 | 49.4 |
| 1977–78p | 295.2 | 23.5 | 410.0 | n.y.a. | 2.5 | 536.6 | n.y.a. | n.y.a. |

(a) Total quantity of sugar available for consumption in Australia comprises refined sugar and refined sugar contained in manufactured foods.

A brief outline of the development of the industry was included in earlier issues of the Year Book (see No. 38, page 985). In its latest *Situation and Outlook* paper, the Bureau of Agricultural Economics drew attention to the 1977 negotiation of a new International Sugar Agreement (ISA). To

apply for five years from 1 January 1978, the Agreement was negotiated against a background of large world stocks and the prospect of continuing depressed market prices. Consumption of sugar is relatively unresponsive to price changes but changes in the availability of sugar can lead to large price fluctuations. World sugar production currently exceeds consumption and world prices are consequently at depressed levels. There is little incentive for individual countries to reduce production to realise higher prices.

The ISA provides for an export supply control mechanism with special stock holding arrangements which come into operation at pre-determined price levels. The extent of the supply controls stipulated for member countries and the provisions for quantities to be stockpiled should help to reduce the current heavy supplies. Details of other sugar Agreements and marketing arrangements will be found in Year Book No. 61, page 843.

Vegetables

Vegetables for human consumption

The wide range of climate in Australia enables most vegetable varieties to be grown in some part of the country. The area sown to vegetables reached a peak of over 200,000 hectares during the last year of the Second World War, but has remained static at around 108,000 hectares since 1970. However yields from most vegetable crops have increased, due in part to irrigation and in part to the control of diseases and insect pests.

Because of the wide climatic range, supplies for main city markets are drawn from widely different areas, depending on the times of maturity of the various crops. Historically, market gardens were located near urban centres and, while many small scale growers still produce crops close to city markets, urban expansion, rising urban land values, improvements in transport and irrigation and developments in freezing, canning and drying have extended the industry far from the cities. Transport costs are reduced by the location of processing establishments in producing areas, although city markets still absorb the bulk of fresh and processed produce.

Potatoes. Potatoes require 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. While potatoes require only moderate temperatures for growth, the greatest proportion of Australia's potatoes are grown as a summer crop because potato plants are killed by heavy frosts. In recent years an increasing proportion of potatoes has been grown under irrigation and potato growing has become increasingly mechanised, with individual growers having larger areas and becoming more specialised.

Seed certification schemes or approvals which operate in most States provide supplies of seed. In Australia, potatoes are used almost entirely for human consumption or seed. Approximately 25 per cent of Australian potato consumption is in a processed form and this proportion is rising. The main processed potato products are crisps, frozen chips, dehydrated granule and flake, soup, baby foods, salads and canned potatoes.

Potato marketing. The majority of table potatoes are marketed through potato merchants and agents. In some instances they are marketed through a primary merchant and then a secondary merchant (wholesale). In South Australia and Western Australia, potato marketing is controlled by potato marketing boards.

Overall, probably more than half of the potatoes used for processing are purchased by forward contract made directly by the processor with the grower. The remainder of the processors' requirements are usually purchased from merchants and, in some instances, merchants' contracts with growers as agents for processors. Seed potatoes are purchased either through a merchant or directly from a seed grower.

APPARENT CONSUMPTION OF VEGETABLES

(Kilograms per head per year)

| Year | Potatoes | Other root and bulb vegetables | Tomatoes | Leafy and green vegetables | Other vegetables | Total, fresh equivalent weight |
|--------------------|----------|--------------------------------------|----------|----------------------------------|---------------------|--------------------------------------|
| 1972-73 | 47.9 | 16.7 | 16.9 | 20.0 | 14.9 | 116.9 |
| 1973-74 | 45.5 | 17.5 | 14.9 | 21.0 | 15.0 | 114.2 |
| 1974-75 | 51.7 | 17.7 | 10.1 | 21.6 | 15.1 | 116.7 |
| 1975-76 | 46.6 | 15.9 | 14.3 | 23.0 | 14.4 | 114.3 |
| 1976-77p | 48.9 | 16.0 | 14.6 | 22.4 | 14.9 | 116.7 |

VEGETABLES FOR HUMAN CONSUMPTION: AREA AND PRODUCTION

| | <i>French and runner beans</i> | <i>Cabbages and brussel sprouts</i> | <i>Carrots</i> | <i>Cauli- flowers</i> | <i>Onions</i> | <i>Green peas</i> | <i>Potatoes</i> | <i>Tomatoes</i> | <i>Total vege- tables</i> |
|----------------------|--|---|----------------|---------------------------|---------------|-----------------------|-----------------|-----------------|-----------------------------------|
| AREA ('000 hectares) | | | | | | | | | |
| 1973-74 . . . | 8.3 | 2.8 | 3.2 | 2.5 | 4.2 | 19.4 | 34.1 | 7.1 | 105.5 |
| 1974-75 . . . | 8.6 | 2.9 | 3.5 | 2.5 | 4.4 | 18.5 | 37.6 | 7.9 | 110.5 |
| 1975-76 . . . | 7.6 | 2.7 | 3.3 | 2.6 | 4.0 | 19.0 | 33.8 | 7.9 | 105.9 |
| 1976-77 . . . | 7.3 | 2.8 | 3.3 | 2.6 | 4.3 | 19.0 | 33.9 | 8.6 | 107.7 |
| 1977-78p . . | n.y.a. | n.y.a. | n.y.a. | n.y.a. | 4.0 | n.y.a. | 33.9 | 8.3 | 107.1 |

| | <i>French and runner beans</i> | <i>Cabbages and brussel sprouts</i> | <i>Carrots</i> | <i>Cauli- flowers</i> | <i>Onions</i> | <i>Green peas</i> | <i>Potatoes</i> | <i>Tomatoes</i> |
|--------------------------|--|---|----------------|---------------------------|---------------|--|---|-----------------|
| | | | | | | <i>Process- ing (shelled weight)</i> | <i>Sold in pod (pod weight)</i> | |
| PRODUCTION ('000 tonnes) | | | | | | | | |
| 1973-74 . . . | 40.2 | 72.9 | 86.5 | 72.8 | 93.7 | 44.4 | 4.1 | 649.2 |
| 1974-75 . . . | 40.9 | 84.6 | 97.6 | 71.9 | 108.1 | 52.1 | 4.6 | 741.9 |
| 1975-76 . . . | 40.2 | 73.5 | 81.4 | 70.5 | 94.6 | 44.1 | 2.5 | 696.5 |
| 1976-77 . . . | 36.4 | 73.8 | 85.6 | 70.8 | 105.3 | 60.8 | 2.5 | 728.5 |
| 1977-78p . . | n.y.a. | n.y.a. | n.y.a. | n.y.a. | 107.1 | n.y.a. | n.y.a. | 167.3 |

VEGETABLES FOR HUMAN CONSUMPTION: VALUE OF PRODUCTION AND VALUE OF EXPORTS

| <i>Year</i> | <i>Gross value</i> | <i>Export value f.o.b.(a)</i> |
|--------------------|--------------------|-----------------------------------|
| | \$m | \$m |
| 1973-74 | 239.7 | 7.2 |
| 1974-75 | 257.6 | 7.9 |
| 1975-76 | 275.4 | 7.9 |
| 1976-77 | 309.0 | 11.5 |
| 1977-78p | 314.0 | 10.7 |

(a) Fresh, frozen, simply or otherwise preserved or prepared vegetables.

PROCESSED VEGETABLES: AUSTRALIAN PRODUCTION
(^{'000 tonnes—unless otherwise stated})

| Item | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|---|---------|---------|---------|---------|---------|
| Quick frozen vegetables— | | | | | |
| Beans | 25.5 | 26.8 | 23.5 | 20.9 | 17.3 |
| Peas | 39.0 | 43.6 | 35.5 | 53.1 | 34.5 |
| Potatoes | 20.9 | 15.5 | 36.0 | 45.4 | 43.6 |
| Other | 12.3 | 19.6 | 20.8 | 15.9 | 17.3 |
| Vegetables preserved, canned or bottled (excluding pickles, etc.) (a)— | | | | | |
| Asparagus | 4.7 | 3.6 | 3.4 | n.p. | n.p. |
| Beans—Green | 7.7 | 6.8 | 6.7 | 6.4 | 4.6 |
| Baked (including pork and beans) | 22.7 | 23.9 | 22.1 | 24.1 | 21.4 |
| Beetroot | 25.3 | 28.1 | 26.1 | 25.4 | 26.6 |
| Cabbage (including sauerkraut) | 1.6 | 1.4 | 1.3 | 1.2 | 1.7 |
| Carrots | 3.7 | 5.7 | 5.0 | 5.0 | 4.4 |
| Cucumber (including pickled) | 3.1 | 2.7 | 1.9 | 2.8 | 2.4 |
| Gherkins—pickled | 1.8 | 1.8 | 1.8 | 1.7 | 2.1 |
| Olives—pickled | 1.3 | 0.9 | 0.7 | 0.7 | 0.5 |
| Onions (including pickled) | 2.3 | 2.6 | 2.4 | 2.5 | 3.3 |
| Peas—Green | 14.8 | 10.6 | 10.5 | 12.9 | 9.3 |
| Sweetcorn | 9.8 | 10.8 | 6.8 | n.p. | n.p. |
| Tomatoes (excluding canned pulp) | 6.6 | 9.1 | 12.0 | 10.7 | 12.2 |
| Tomato juice (million litres) | 8.4 | 13.9 | 5.9 | 7.5 | 8.8 |

(a) Canned in tinplate or aluminium cans; bottled in glass bottles.

For further information on vegetables see the following publications: *Crop Statistics* (7302.0), *Production Bulletin No. 3—Food, Drink and Tobacco* (8359.0), *Apparent Consumption of Foodstuffs and Nutrients* (4306.0) and *Value of Agricultural Commodities Produced* (7503.0).

Fruit (excluding grapevines)

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 fruits 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 fruits. In Tasmania, apples are by far the most important type of fruit grown, but small fruits, such as currants, raspberries and gooseberries, are also grown extensively, the balance of the area being occupied mainly with pears and apricots.

Although fruit occupies less than 1 per cent of the total area planted to crops, the value of fruit production is currently about 10 per cent of the total value of crop production. Fruit exports in recent years peaked at \$90 million in 1972-73, although this has fluctuated due to price and quantity changes. With the loss of the U.K.'s market after its entry into the EEC and other factors such as rising shipping costs and improved storage techniques in the northern hemisphere, export markets have been reduced.

RURAL INDUSTRY
SELECTED FRUIT STATISTICS

285

| Year | Orchard fruit: number of trees ('000) | | | | Berry and other fruits: area (ha) | | | Total area of fruit (ha) |
|----------------|---------------------------------------|---------|-------|---------|-----------------------------------|------------|------------------------|--------------------------|
| | Apples | Oranges | Pears | Peaches | Bananas | Pineapples | Small, and berry fruit | |
| 1973-74 . . . | 7,701 | 5,193 | 2,248 | 2,092 | 8,880 | 6,224 | 1,158 | 108,803 |
| 1974-75 . . . | 7,004 | 5,076 | 2,246 | 1,940 | 7,982 | 5,851 | 1,084 | 102,770 |
| 1975-76 . . . | 6,520 | 5,059 | 1,853 | 1,844 | 7,694 | 5,873 | 984 | 99,822 |
| 1976-77 . . . | 6,229 | 5,126 | 1,679 | 1,634 | 7,555 | 5,874 | 995 | 96,249 |
| 1977-78p . . . | 5,928 | 5,329 | 1,715 | 1,560 | 7,541 | 5,984 | 994 | 94,642 |

| Year | Apples | Apricots | Bananas | Cherries | Oranges | Peaches | Pears | Pine-apples | Plums and Prunes |
|------|--------|----------|---------|----------|---------|---------|-------|-------------|------------------|
|------|--------|----------|---------|----------|---------|---------|-------|-------------|------------------|

PRODUCTION ('000 tonnes)

| | | | | | | | | | |
|----------------|--------|------|-------|-----|-------|------|--------|-------|------|
| 1973-74 . . . | 334.7 | 37.2 | 124.7 | 8.7 | 309.9 | 81.1 | 162.2 | 114.8 | 23.1 |
| 1974-75 . . . | 368.0 | 27.3 | 118.3 | 9.8 | 340.8 | 90.5 | 158.0 | 110.5 | 23.2 |
| 1975-76 . . . | 274.8 | 26.2 | 97.1 | 9.7 | 361.5 | 79.1 | 140.1 | 102.9 | 26.5 |
| 1976-77 . . . | 301.6 | 26.8 | 115.1 | 6.7 | 321.7 | 66.3 | 105.3 | 111.5 | 22.2 |
| 1977-78p . . . | n.y.a. | 24.5 | 99.1 | 7.2 | 346.6 | 61.3 | n.y.a. | 116.8 | 15.2 |

GROSS VALUE OF PRODUCTION (\$ million)

| | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|-----|
| 1972-73 . . . | 63.5 | 9.2 | 28.2 | 5.7 | 33.6 | 17.7 | 23.9 | 12.2 | 6.0 |
| 1973-74 . . . | 63.7 | 9.1 | 21.9 | 7.5 | 33.7 | 14.5 | 24.9 | 11.0 | 7.0 |
| 1974-75 . . . | 73.6 | 9.0 | 31.3 | 10.3 | 43.3 | 24.2 | 26.2 | 11.9 | 8.5 |
| 1975-76 . . . | 73.7 | 9.2 | 39.8 | 8.6 | 46.0 | 18.3 | 19.6 | 14.2 | 9.4 |
| 1976-77 . . . | 83.3 | 10.0 | 38.1 | 7.9 | 52.4 | 16.3 | 22.0 | 16.5 | 9.4 |

Processed fruit and fruit products

After rapid expansion in the 1960s, output of canned fruit levelled off and then declined following reduced plantings of peaches and pears. Production of natural fruit juices has doubled in the last seven years and this has reflected improvements in marketing methods, effective promotion and public awareness of the nutritious value of natural juices. Rapidly rising packing and marketing costs for fresh citrus has also influenced the swing to processing.

PRODUCTION

Derived from the Annual Manufacturing Census and the recorded monthly production

| | Unit | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78p |
|---|-------------|---------|---------|---------|---------|----------|
| Fruit juice based cordials and syrups(a) | mil litres | 70.0 | 60.1 | 72.9 | 68.4 | 73.1 |
| Natural fruit juice(b)- | | | | | | |
| Single strength | mil litres | 166.3 | 179.8 | 187.8 | n.y.a. | n.y.a. |
| Concentrated(c) | " | 10.5 | 13.8 | 17.5 | n.y.a. | n.y.a. |
| Cider and perry | " | 11.1 | 10.5 | 10.5 | n.y.a. | n.y.a. |
| Canned or bottled fruit (excl. canned pulp) | '000 tonnes | 204.2 | 240.1 | 186.7 | 179.7 | 179.0 |
| Jams | '000 tonnes | 33.1 | 30.2 | 31.0 | 27.0 | 28.4 |

(a) Containing at least 25 per cent by volume of pure fruit juices. without artificial flavourings.

(b) Excludes fruit drinks consisting of diluted fruit juices with or

(c) Excludes grape must, and comprises actual quantity of concentrated juices.

APPARENT CONSUMPTION OF FRUIT

(Fresh fruit equivalent: kg per head per year)

| Year | Fresh | | | Jams, conserves, etc. | Dried tree fruit | Canned and bottled fruit | Total, fresh equivalent weight |
|---------------|---------|--------------|-------------------|-----------------------|------------------|--------------------------|--------------------------------|
| | Oranges | Other citrus | Other fresh fruit | | | | |
| 1972-73 . . . | 24.8 | 5.3 | 35.7 | 2.5 | 0.6 | 10.3 | 90.1 |
| 1973-74 . . . | 24.9 | 6.4 | 33.5 | 2.2 | 0.7 | 10.2 | 89.4 |
| 1974-75 . . . | 30.8 | 6.0 | 32.7 | 2.5 | 0.5 | 10.1 | 91.2 |
| 1975-76 . . . | 33.5 | 6.2 | 33.3 | 1.9 | 0.5 | 9.7 | 95.7 |
| 1976-77 . . . | 26.7 | 6.6 | 33.1 | 2.0 | 0.4 | 10.1 | 88.9 |

Fruit exports

About a third of Australia's fruit export returns are from fresh and/or chilled apples, pears and oranges, while canned or bottled deciduous fruit—peaches, pears, etc.—are increasing in importance.

FRUIT EXPORTS: VALUE F.O.B.
(*\$ million*)

| Year | <i>Fresh and chilled</i> | | | <i>Canned or bottled</i> | | | | | |
|----------------|--------------------------|--------------|----------------|--------------------------|----------------|--------------|--------------------------|--------------------|--------------------|
| | <i>Apples</i> | <i>Pears</i> | <i>Oranges</i> | <i>Apricots</i> | <i>Peaches</i> | <i>Pears</i> | <i>Peaches and pears</i> | <i>Pine-apples</i> | <i>Fruit salad</i> |
| 1973-74 . . . | 20.1 | 7.7 | 3.2 | 1.8 | 16.8 | 15.4 | 3.0 | 1.1 | 6.0 |
| 1974-75 . . . | 16.1 | 8.2 | 2.1 | 1.5 | 9.7 | 11.9 | 3.1 | 1.3 | 5.7 |
| 1975-76 . . . | 12.8 | 10.1 | 2.9 | 1.1 | 13.3 | 10.5 | 2.0 | 1.6 | 4.1 |
| 1976-77 . . . | 9.4 | 8.1 | 1.0 | 0.9 | 14.5 | 16.1 | 2.1 | 1.7 | 4.5 |
| 1977-78p . . . | 13.8 | 9.5 | 1.0 | 0.8 | 13.4 | 13.6 | 2.3 | 1.5 | 3.8 |

FRUIT: VALUE OF PRODUCTION AND EXPORTS
(*\$ million*)

| Year | <i>Gross value</i> | | <i>Exports(a) value f.o.b.</i> |
|----------------|--------------------------|--------------------------------|--|
| | <i>Orchard fruit</i> | <i>Berry and other</i> | |
| 1973-74 . . . | 178 | 39 | 217 |
| 1974-75 . . . | 215 | 51 | 267 |
| 1975-76 . . . | 206 | 63 | 269 |
| 1976-77 . . . | 227 | 64 | 291 |
| 1977-78p . . . | n.y.a. | n.y.a. | 313 |

(a) Fruit and nuts, excluding grapes (fresh and dried); includes fresh, dried and preserved and fruit preparations.

Fruit imports

Imports of fresh fruit are negligible, while most dried fruit imports consist of dates from Iran, the United States of America and China (excluding Taiwan Province).

Marketing and regulation of the fruit industry

Apples and pears. The Australian Apple and Pear Corporation replaced the Australian Apple and Pear Board in September 1974, absorbing that Board's export control and regulation functions. The Corporation has a wider role than the former Board, e.g. powers to trade under certain circumstances, to charter shipping for such trade, to borrow funds, subject to Government approval, for trading operations, and to promote and research both fresh and processed apple and pear products.

A Government-approved stabilisation scheme was introduced with the 1971 season. This plan establishes average seasonal returns for each variety, which are then compared with the agreed support price for each variety to determine the extent of the deficiency or surplus.

Fruitgrowing Reconstruction Scheme. For details see Year Book No. 61, pages 846-7.

Canned Fruit. For details on the operations of the Australian Canned Fruits Board and the Australian Canned Fruit Sales Promotion Committee see Year Book No. 61, page 847.

For further data on fruits and fruit products see the bulletins *Fruit Statistics* (7303.0), *Production Bulletin No. 3 Food, Drink and Tobacco* (8359.0), *Apparent Consumption of Foodstuffs and Nutrients* (4306.0) and *Value of Agricultural Commodities Produced* (7503.0).

Grapevines

Grapes require a warm hot climate and 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 (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.

VITICULTURAL STATISTICS: AREA, PRODUCTION AND VALUE

| Year | Production: grapes used for— | | | | | |
|------------------|------------------------------|---------|-----------------------------|-----------------------------|-----------------------------|-------------|
| | Area | | Total(a) | | | |
| | Bearing | Total | Winemaking | Drying | Quantity | Gross value |
| | '000 ha | '000 ha | '000 tonnes fresh weight | '000 tonnes fresh weight | '000 tonnes fresh weight | \$m |
| 1973-74 | 62.5 | 70.0 | 327.9 | 206.8 | 552.2 | 83.2 |
| 1974-75 | 64.0 | 71.3 | 424.6 | 280.5 | 727.8 | 101.4 |
| 1975-76 | 62.9 | 70.3 | 418.5 | 269.7 | 710.2 | 102.3 |
| 1976-77 | 64.4 | 71.1 | 457.4 | 250.0 | 728.4 | 128.5 |
| 1977-78p | n.y.a. | 72.5 | n.y.a. | n.y.a. | n.y.a. | 128.0 |

(a) Includes grapes used for table and other purposes.

The bearing area of grapes has risen by about 24 per cent since 1969-70 due mainly to substantial new plantings of specialised winegrapes. Grape production has increased markedly in winegrapes (34 per cent since 1969-70). However, with grapes dried, the quantity is the residual between multi-purpose grape production and winery requirements—weather permitting—and an increased diversion of grapes to winemaking has resulted in a decline in grapes dried. The production of multi-purpose grapes has not shown much change. Since the domestic consumption of dried vine fruit is stable at about 1.5 kg per head per year, reductions in grapes dried will result in lower exports. Legislation, presently before the Parliament will, when enacted, introduce a new stabilisation scheme for the dried vine fruits industry to cover the seasons 1978-80. The scheme is based on many of the principles of the 1971-76 scheme with significant modifications to particular elements of the former scheme. The new scheme covers sultanas only and will be reviewed at the end of the 1979 season.

Varietal Statistics: 1977 Season

Varietal information relating to vines, grape production by end use and yield per hectare, is obtained in a special collection conducted at 30 June in New South Wales, Victoria, South Australia and Western Australia of all growers who reported vines in the Agricultural Census. No varietal information is collected in the other States and Territories. There is continuing research into correct identification of varieties to find out which are most suitable for different wine styles and different regions and several varieties have recently been re-named. The varieties used in the table below are those recommended by the Commonwealth Grape Advisory Subcommittee but have not as yet been corrected by recent research. These varieties have been classified by the Bureau of Agricultural Economics (October 1978) according to four categories—red wine grapes, white wine grapes, multipurpose grapes and other grapes. The data are aggregated from the states of New South Wales, Victoria, South Australia and Western Australia only.

VITICULTURE: AREA AND PRODUCTION BY VARIETY, 1977 SEASON

| Variety | Area (hectares) | | Production: grapes used for— (tonnes, freshweight) | | |
|-----------------------------------|-----------------|---------------|--|----------------|----------------|
| | Bearing | Total | Winemaking | Drying | Total(a) |
| Red Wine Grapes— | | | | | |
| Cabernet Sauvignon | 3,284 | 4,253 | 22,636 | — | 22,659 |
| Grenache | 5,820 | 6,114 | 57,343 | — | 57,560 |
| Malbec | 390 | 440 | 3,850 | — | 3,850 |
| Mataro | 1,737 | 1,921 | 17,156 | — | 17,253 |
| Shiraz | 9,488 | 10,420 | 75,370 | — | 75,768 |
| Other red wine grapes | 448 | 525 | 3,373 | — | 3,373 |
| Total | 21,167 | 23,673 | 179,728 | — | 180,463 |
| White Wine Grapes— | | | | | |
| Doradillo | 2,144 | 2,285 | 36,913 | — | 36,950 |
| Palomino | 1,094 | 1,115 | 15,197 | — | 15,202 |
| Pedro Ximenez | 1,495 | 1,517 | 13,099 | — | 13,100 |
| Rhine Reisling | 2,295 | 3,289 | 14,039 | — | 14,039 |
| Clare Reisling | 1,071 | 1,124 | 11,157 | — | 11,160 |
| Semillon | 2,354 | 2,656 | 26,688 | — | 26,688 |
| Trebbiano | 1,287 | 1,658 | 17,023 | — | 17,023 |
| Other white wine grapes | 1,867 | 2,263 | 13,316 | — | 13,414 |
| Total | 13,607 | 15,907 | 147,432 | — | 147,576 |
| Multipurpose Grapes— | | | | | |
| Currant | 2,122 | 2,217 | 601 | 20,526 | 21,142 |
| Muscat Gordo Blanco | 3,681 | 4,200 | 52,151 | 11,006 | 64,483 |
| Sultana | 18,502 | 18,967 | 62,310 | 62,310 | 277,108 |
| Waltham Cross | 1,504 | 1,609 | 4,021 | 7,043 | 15,516 |
| Total | 25,809 | 26,993 | 119,083 | 249,825 | 378,249 |
| Other Grapes(b)— | | | | | |
| Frontignan | 411 | 442 | 3,277 | — | 3,279 |
| Muscat Hamburg | 542 | 591 | 1,709 | — | 2,987 |
| Ohanez | 281 | 295 | 378 | 90 | 1,969 |
| Purple Cornichon | 282 | 296 | 691 | — | 2,156 |
| Other | 997 | 1,342 | 4,882 | 106 | 6,379 |
| Total | 2,513 | 2,966 | 10,937 | 196 | 16,770 |
| Total Grapevines | 63,093 | 69,543 | 457,182 | 250,021 | 723,061 |

(a) Includes grapes used for table and other purposes. (b) With the exception of Frontignan (used predominantly in dessert wines) these grapes are specialist table grapes.

DRIED VINE FRUIT: PRODUCTION, EXPORTS AND CONSUMPTION

(Dried weight)

| Year | Production | | | | Exports | | | Consumption of dried vine fruit |
|--------------------|-------------|-------------|-------------|-------------|------------------|-------------|-------------|---------------------------------|
| | Raisins | Sultanas | Currants | Total | Raisins/sultanas | Currants | Total | |
| | | | | | | | Quantity | Value f.o.b. |
| | '000 tonnes | '000 tonnes | '000 tonnes | '000 tonnes | '000 tonnes | '000 tonnes | '000 tonnes | \$m kg |
| 1973-74 | 3.4 | 40.6 | 3.6 | 47.5 | 25.6 | 1.2 | 26.9 | 17.7 1.7 |
| 1974-75 | 5.2 | 53.4 | 6.3 | 64.9 | 31.4 | 0.2 | 31.6 | 20.0 1.3 |
| 1975-76 | 5.6 | 55.3 | 4.3 | 65.2 | 51.3 | 2.4 | 53.7 | 27.1 1.6 |
| 1976-77 | 4.9 | 49.6 | 6.1 | 60.6 | 43.4 | 0.9 | 44.4 | 26.7 1.5 |
| 1977-78p | n.y.a. | n.y.a. | n.y.a. | n.y.a. | 33.9 | 2.0 | 36.1 | 35.8 n.y.a. |

Wine industry

Australia produces brandy and wine of every type. 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 1970, however, table wines had exceeded the volume of fortified wines.

PRODUCTION, CONSUMPTION AND EXPORT OF WINES

| Year | Pro- duction | Exports | | Consump- tion in Australia per head |
|--------------------|-----------------|----------------|-----------------|--|
| | | Quantity | Value f.o.b. | |
| | mil. litres | mil. litres | \$m | litres |
| 1973-74 | 294.7 | 8.2 | 5.6 | 11.0 |
| 1974-75 | 361.2 | 6.5 | 5.3 | 12.3 |
| 1975-76 | 356.2 | 6.2 | 5.5 | 13.1 |
| 1976-77 | 383.1 | 5.0 | 5.4 | 13.7 |
| 1977-78p | n.y.a. | 4.7 | 5.4 | n.y.a. |

For further details on viticulture, dried vine fruit, wine, etc. see the following publications: *Fruit Statistics* (7303.0), *Sales of Australian Wine and Brandy* (8504.0) and an unpublished limited circulation issue *Viticulture Statistics* which contains varietal data collected as an additional collection to the annual Agricultural Census.

Miscellaneous crops

The principal crops not covered above include fodder crops, tobacco, hops and nursery crops which, in 1976-77, had gross values as follows:

| Crops | Gross value | Percent of total crop gross value |
|------------------------------|-------------|---|
| | | |
| | \$m | % |
| Fodder crops (hay) | 31.4 | 1.0 |
| Tobacco | 56.4 | 1.8 |
| Hops | 4.4 | 0.1 |
| Mushrooms | 9.9 | 0.3 |
| Nurseries | 57.7 | 1.9 |

Fodder crops

As well as crops 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.

FODDER CROPS: AREA AND PRODUCTION

| Year | Hay(a) | | | Green feed or silage(b) | |
|--------------------|---------|-------------|-------------|-------------------------|-------------|
| | Area | Production | | Area | Silage made |
| | | Quantity | Gross value | | |
| | '000 ha | '000 tonnes | \$m | '000 ha | '000 tonnes |
| 1973-74 | 325 | 1,034 | 29.9 | 1,097 | 888 |
| 1974-75 | 216 | 669 | 20.4 | 853 | 529 |
| 1975-76 | 230 | 738 | 25.5 | 752 | 392 |
| 1976-77 | 287 | 891 | 31.4 | 709 | 308 |
| 1977-78p | 321 | n.y.a. | n.y.a. | 913 | n.y.a. |

(a) Principally oats and wheaten hay.

(b) Principally from oats, barley, wheat and forage sorghum.

FARMSTOCKS OF CEREAL GRAINS, HAY AND SILAGE

('000 tonnes)

| At 31 March | Cereal grains | | | | |
|----------------|---------------|-------|-------|-------|--------|
| | Barley | Oats | Wheat | Hay | Silage |
| 1973 | 570 | 798 | 839 | 5,309 | 1,040 |
| 1974 | 609 | 1,043 | 849 | 7,157 | 1,399 |
| 1975 | 442 | 861 | 731 | 6,582 | 1,250 |
| 1976 | 494 | 918 | 769 | 5,684 | 1,096 |
| 1977 | 487 | 890 | 803 | 5,014 | 841 |

ON FARM CONSUMPTION OF MAJOR GRAINS AND HAY: CONSUMED BY LIVESTOCK(a)

('000 tonnes)

| Year | Cereal grains | | | Hay | | |
|-------------------|---------------|------|-------|------------|-------------|-----------|
| | Barley | Oats | Wheat | Cereal hay | Lucerne hay | Other hay |
| 1971-72 | 415 | 537 | 436 | 1,130 | 1,026 | 3,261 |
| 1972-73 | 540 | 791 | 634 | 1,167 | 1,045 | 3,030 |
| 1973-74 | 474 | 591 | 458 | 762 | 664 | 2,539 |
| 1974-75 | 351 | 329 | 388 | 601 | 578 | 2,628 |
| 1975-76 | 337 | 406 | 317 | 684 | 571 | 2,845 |

(a) Not collected in 1976-77

Tobacco

Tobacco is a summer-growing annual which requires a temperate to tropical climate, adequate soil moisture and 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, PRODUCTION AND OVERSEAS TRADE

| Year | Area | Production (dried leaf) | Exports (value f.o.b.) | | Imports (value) | |
|--------------------|---------|----------------------------|------------------------|-------------------|---------------------|-------------------|
| | | | Unmanu- factured | Manu- factures | Unmanu- factured | Manu- factures |
| | '000 ha | '000 tonnes | \$'000 | \$'000 | \$'000 | \$'000 |
| 1972-73 | 9.6 | 15.4 | 78 | 2,742 | 16,725 | 10,841 |
| 1973-74 | 9.3 | 14.9 | 79 | 3,044 | 20,701 | 12,161 |
| 1974-75 | 9.2 | 15.5 | 34 | 3,100 | 26,076 | 15,474 |
| 1975-76 | 9.2 | 14.9 | 27 | 3,824 | 30,315 | 18,994 |
| 1976-77 | 9.4 | 16.1 | 522 | 4,981 | 26,440 | 20,569 |
| 1977-78p | 9.1 | n.y.a. | 823 | 7,601 | 38,640 | 24,072 |

Marketing. In 1965 the Commonwealth and State Governments agreed to a stabilisation plan and an overall marketing quota was decided upon. The plan is administered by the Australian Tobacco Board. Further information on tobacco marketing, research and factories may be found in Year Book No. 61, pages 845-6.

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 dioxides 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 near Manjimup in Western Australia is under hops.

The area planted to hops is about 1,100 hectares, with over 60 per cent in Tasmania. Production is about 2,000 tonnes, most of which is used in breweries.

Mushrooms

Statistics of mushroom growing were collected for the first time in all States for the year ended 30 June 1975, with the exception of New South Wales where they have been collected since 1972-73.

MUSHROOMS: AREA, PRODUCTION, GROSS VALUE AND SPAWN USED

| Year | Total area of beds (a) used during year (counted each time cropped) | Production | | Total | | Total quantity of spawn used during year |
|---------------------------|---|----------------|------------------|----------|-------------|--|
| | | For processing | For fresh market | Quantity | Gross value | |
| | '000 sq m | tonnes | tonnes | tonnes | \$m | tonnes |
| 1972-73— | | | | | | |
| New South Wales | 336.7 | 2,344 | 1,531 | 3,875 | 3.9 | 94 |
| 1973-74— | | | | | | |
| New South Wales | 306.4 | 2,002 | 1,720 | 3,723 | 3.5 | 95 |
| 1974-75— | | | | | | |
| New South Wales | 338.1 | 2,329 | 1,789 | 4,118 | 4.8 | 141 |
| Australia | 501.3 | (b)2,460 | (b)3,463 | 6,007 | 7.1 | (b)209 |
| 1975-76— | | | | | | |
| New South Wales | 339.7 | 2,028 | 2,452 | 4,480 | 5.7 | 139 |
| Australia | 481.1 | 2,136 | 5,294 | 7,525 | 10.0 | (b)203 |
| 1976-77— | | | | | | |
| New South Wales | 361.0 | 2,353 | 2,503 | 4,857 | 7.0 | 150 |
| Australia | 555.9 | (b)2,353 | (b)2,503 | 7,130 | 9.9 | (b)229 |

(a) For 'bag-grown' mushrooms, the area has been expressed in terms of the equivalent area of 15 cm fill beds. (b) Incomplete; some individual States' data is either not available for publication or was not collected.

PRODUCTION AND IMPORTS OF CANNED, BOTTLED OR DRIED MUSHROOMS

| Year | Production (canned or bottled) | Imports | | | |
|-------------------|--------------------------------|---------|-------------------|-------------|--------------|
| | | Dried | Canned or bottled | Quantity | Value f.o.b. |
| | | | | | |
| | tonnes | tonnes | \$'000 | '000 litres | \$'000 |
| 1972-73 | 6,006 | 78 | 515 | 1,504 | 1,027 |
| 1973-74 | 5,712 | 119 | 928 | 2,494 | 1,563 |
| 1974-75 | 6,881 | 88 | 664 | 3,903 | 2,857 |
| 1975-76 | 5,416 | 50 | 438 | 3,159 | 2,466 |
| 1976-77 | 6,789 | 82 | 870 | 4,497 | 5,532 |
| 1977-78 | 6,611 | 97 | 998 | 5,030 | 6,855 |

For further details on mushrooms see *Mushroom Statistics* (7308.0).

Nurseries

AREA USED FOR NURSERY AND CUT FLOWER ACTIVITIES (Hectares)

| Year | Area |
|-------------------|-------|
| 1972-73 | 2,599 |
| 1973-74 | 2,910 |
| 1974-75 | 2,989 |
| 1975-76 | 3,290 |
| 1976-77 | 3,547 |

Additional information on nursery activities has been collected by some individual States and published by them but it was only for the year 1974-75 that the collection was extended to all States. All known private establishments which undertook the propagation, cultivation or growing-on of plants were included. Results of the 1977-78 Australia-wide collection are not yet available.

NURSERY STATISTICS: 1974-75

| 1974-75 | Nursery products (\$'000) | |
|---------------------------------------|---------------------------|---------------|
| | Purchases | Sales |
| New South Wales | 3,500 | 17,391 |
| Victoria | 2,996 | 17,659 |
| Queensland | 1,003 | 5,831 |
| South Australia | 899 | 5,176 |
| Western Australia | 925 | 4,682 |
| Tasmania | 276 | 1,160 |
| Australia | 9,599 | 51,899 |
| Seeds and bulbs | 1,658 | 2,892 |
| Seedlings | 1,121 | 8,492 |
| Cut flowers (incl. orchids) | 794 | 10,117 |
| Cultivated turf | 98 | 1,242 |
| Fruit trees and vines | 746 | 3,199 |
| Rose bushes | 462 | 2,745 |
| Other shrubs and trees | 4,719 | 23,214 |

For further details on nurseries see *Nursery and Flower Statistics* (7309.0).

Livestock

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 1971, and then from 1973 on in single years, are given in the following table.

LIVESTOCK: AUSTRALIA, 1861 TO 1978

('000)

| Year | Horses | Cattle | Sheep | Pigs | Year | Horses | Cattle | Sheep | Pigs |
|--------|--------|--------|---------|-------|--------|--------|--------|---------|-------|
| 1861 . | 432 | 3,958 | 20,135 | 351 | 1951 . | 999 | 15,229 | 115,596 | 1,134 |
| 1871 . | 717 | 4,276 | 41,594 | 543 | 1961 . | 598 | 17,332 | 152,679 | 1,615 |
| 1881 . | 1,069 | 7,527 | 62,184 | 816 | 1971 . | n.a. | 24,373 | 177,792 | 2,590 |
| 1891 . | 1,522 | 10,300 | 97,881 | 891 | 1973 . | n.a. | 29,101 | 140,029 | 3,259 |
| 1901 . | 1,610 | 8,640 | 70,603 | 950 | 1974 . | n.a. | 30,839 | 145,175 | 2,505 |
| 1911 . | 2,166 | 11,745 | 98,066 | 1,026 | 1975 . | n.a. | 32,793 | 151,653 | 2,197 |
| 1921 . | 2,416 | 13,500 | 81,796 | 674 | 1976 . | n.a. | 33,434 | 148,643 | 2,173 |
| 1931 . | 1,793 | 11,721 | 110,568 | 1,072 | 1977 . | n.a. | 31,533 | 135,360 | 2,229 |
| 1941 . | 1,666 | 13,256 | 122,694 | 1,797 | 1978 . | n.a. | 29,379 | 131,442 | 2,219 |

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, 1976 (33,434,000); sheep, 1970 (180,080,000); and pigs, 1973 (3,259,000).

Cattle

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. Although cattle numbers declined after 1957 because of drought conditions and heavy slaughtering, they began to increase 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 was a continuous increase in the total number of cattle in Australia until 1976 followed in the next two years by a decline to the 1973 level.

CATTLE NUMBERS
(^{'000})

| <i>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. (incl. A.C.T.)</i> |
|-----------------|---------------|-------------|------------|-------------|-------------|-------------|-------------|---------------------------------|
| 1974 . . . | 8,456 | 5,840 | 10,297 | 1,692 | 2,330 | 884 | 1,321 | 30,839 |
| 1975 . . . | 8,935 | 6,192 | 10,879 | 1,869 | 2,544 | 921 | 1,434 | 32,793 |
| 1976 . . . | 9,138 | 5,868 | 11,347 | 1,891 | 2,654 | 909 | 1,603 | 33,434 |
| 1977 . . . | 8,348 | 5,104 | 11,506 | 1,608 | 2,464 | 819 | 1,664 | 31,533 |
| 1978p . . . | 7,372 | 4,572 | 11,490 | 1,242 | 2,271 | 734 | 1,681 | 29,379 |

Classification of cattle

CATTLE NUMBERS, BY AGE, SEX, PURPOSE
(^{'000})

| <i>Classification</i> | <i>31 March</i> | | | | |
|--|-----------------|---------------|---------------|---------------|---------------|
| | <i>1974</i> | <i>1975</i> | <i>1976</i> | <i>1977</i> | <i>1978p</i> |
| Milk cattle— | | | | | |
| Bulls used or intended for service | 77 | 78 | 73 | 64 | 60 |
| Cows, heifers and heifer calves | 3,558 | 3,527 | 3,407 | 3,096 | 2,904 |
| House cows and heifers | 121 | 122 | 122 | 105 | 100 |
| <i>Total, milk cattle</i> | <i>3,757</i> | <i>3,727</i> | <i>3,602</i> | <i>3,265</i> | <i>3,064</i> |
| Meat cattle— | | | | | |
| Bulls used or intended for service | 651 | 702 | 687 | 628 | 572 |
| Cows and heifers (1 year and over) | 13,800 | 14,897 | 15,202 | 14,021 | 12,753 |
| Calves under 1 year | 7,079 | 7,751 | 8,055 | 7,385 | 6,526 |
| Other cattle (1 year and over) | 5,551 | 5,716 | 5,888 | 6,235 | 6,463 |
| <i>Total, meat cattle</i> | <i>27,082</i> | <i>29,066</i> | <i>29,833</i> | <i>28,269</i> | <i>26,314</i> |
| <i>Total, all cattle</i> | <i>30,839</i> | <i>32,793</i> | <i>33,434</i> | <i>31,533</i> | <i>29,379</i> |

Comparison with other countries**WORLD CATTLE NUMBERS(a)**

(Millions)

(Source: Australian Meat and Livestock Corporation)

| <i>Country</i> | <i>1977</i> | <i>1978p</i> | <i>Country</i> | <i>1977</i> | <i>1978p</i> |
|---------------------------------------|-------------|--------------|------------------------------------|-------------|--------------|
| Argentina | 58 | 57 | India | 242 | 243 |
| Australia | 32 | 29 | Mexico | 29 | 29 |
| Brazil | 97 | 100 | United States of America | 123 | 116 |
| Colombia | 24 | 24 | U.S.S.R. | 110 | 113 |
| European Economic Community | 77 | 78 | | | |

(a) Statistics are not shown for a number of Asian countries, including China.

Beef cattle production is often combined with cropping, dairying and sheep and has gained in importance, with good market prospects. In the north (north of the 26th parallel), cattle properties are very large, pastures are generally unimproved and fodder crops are rare. Beef is usually the only product and herd sizes are large. The industry is more intensive in the south because of the more favourable environment including more improved pasture.

For further details on cattle see *Livestock Statistics* (7203.0).

Sheep

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. By 1975 the numbers had increased to 151,653,000, but in March 1978 the numbers had fallen to 131,442,000, the lowest since 1955.

SHEEP NUMBERS (Millions)

| 31 March | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | Aust. (incl. N.T., A.C.T.) |
|----------|--------|------|------|------|------|------|----------------------------------|
| 1974 | 53.3 | 25.8 | 13.1 | 16.4 | 32.5 | 4.0 | 145.2 |
| 1975 | 55.0 | 26.4 | 13.9 | 17.6 | 34.5 | 4.1 | 151.7 |
| 1976 | 53.2 | 25.4 | 13.6 | 17.3 | 34.8 | 4.2 | 148.6 |
| 1977 | 49.7 | 21.9 | 13.3 | 15.1 | 31.2 | 4.0 | 135.4 |
| 1978p | 48.0 | 22.0 | 13.4 | 14.1 | 29.8 | 4.0 | 131.4 |

SHEEP, BY AGE AND SEX (Millions)

| 31 March | Sheep: 1 year and over | | | | Lambs and hoggets (under 1 year) | Total, sheep and lambs |
|----------|------------------------|------------------|---------------|---------|---|------------------------------|
| | Rams | Breeding ewes | Other ewes | Wethers | | |
| 1974 | 1.8 | 70.0 | 5.8 | 34.6 | 32.9 | 145.2 |
| 1975 | 1.9 | 70.6 | 7.0 | 37.1 | 35.0 | 151.7 |
| 1976 | 1.9 | 68.5 | 7.7 | 37.5 | 33.1 | 148.6 |
| 1977 | 1.7 | 64.7 | 6.3 | 34.8 | 27.8 | 135.4 |
| 1978p | 1.7 | 63.6 | 5.4 | 32.6 | 28.2 | 131.4 |

The sheep and wool industry is the most important rural industry in Australia; in 1977-78 provisional value of production data showed that the combined value of wool and sheep slaughtered accounted for over one-fifth the gross value of all agriculture. This proportion varies with wool and meat prices and seasonal conditions. In 1977 Australia had 15 per cent of the world's woolled sheep but produced 28 per cent of the world's greasy wool output. In addition, in 1977-78 the sheep industry produced half a million tonnes of mutton and lamb, a big decrease from the record production of 956,000 tonnes in 1971-72, which resulted from high slaughtering rates linked to very low wool prices prevailing at the time. The graph on page 295 shows the increasing importance of other rural industries such as wheat, sugar cane, beef and dairy products.

Comparisons with other countries

WORLD SHEEP NUMBERS AND WOOL PRODUCTION

(Compiled from the Commodities Division of the Commonwealth Secretariat)

| <i>World sheep numbers (millions)</i> | | | | | <i>Estimated raw wool production ('000 t, greasy)</i> | | | | |
|---|--|-------------|-------------|-------------|---|--------------------------|--|-------------|-------------|
| <i>Country</i> | | <i>1976</i> | <i>1977</i> | <i>1976</i> | <i>1977</i> | <i>Country</i> | | <i>1976</i> | <i>1977</i> |
| Argentina | | 38 | 37 | 188 | 176 | South Africa | | 24 | 24 |
| Australia | | 149 | 135 | 754 | 703 | Turkey | | 41 | 42 |
| Brazil | | 25 | 25 | 35 | 35 | United Kingdom | | 28 | 28 |
| China (excl. Taiwan Province) | | 74 | 74 | 82 | 82 | Uruguay | | 16 | 16 |
| India | | 40 | 40 | 35 | 35 | U.S.A. | | 13 | 13 |
| Iran | | 35 | 35 | 28 | 28 | U.S.S.R. | | 141 | 140 |
| New Zealand | | 56 | 59 | 312 | 303 | Total | | 928 | 917 |
| | | | | | | | | 2,616 | 2,508 |

SHEEP AND LAMBS: ANALYSIS OF MOVEMENT IN NUMBERS (Millions)

| Year ended 31 March | Number at beginning of season | Lambs marked | Live sheep exports | Sheep and lambs slaughtered(a) | Estimated deaths on farms(b) | Number at end of season |
|------------------------|-------------------------------------|-----------------|-----------------------|--------------------------------------|------------------------------------|-------------------------------|
| 1973 | 162.9 | 39.8 | 1.1 | 47.6 | 13.9 | 140.0 |
| 1974 | 140.0 | 43.0 | 1.1 | 27.1 | 9.7 | 145.2 |
| 1975 | 145.2 | 46.2 | 1.4 | 27.0 | 11.4 | 151.7 |
| 1976 | 151.7 | 44.1 | 1.8 | 31.4 | 13.9 | 148.6 |
| 1977 | 148.6 | 38.4 | 3.0 | 33.7 | 15.0 | 135.4 |
| 1978p | 135.4 | 39.5 | 4.2 | 29.8 | 9.3 | 131.4 |

(a) Comprises statistics from abattoirs and other major slaughtering establishments and includes estimates of animals slaughtered on farms and by country butchers; does not include animals condemned or those killed for boiling down. (b) Balance item.

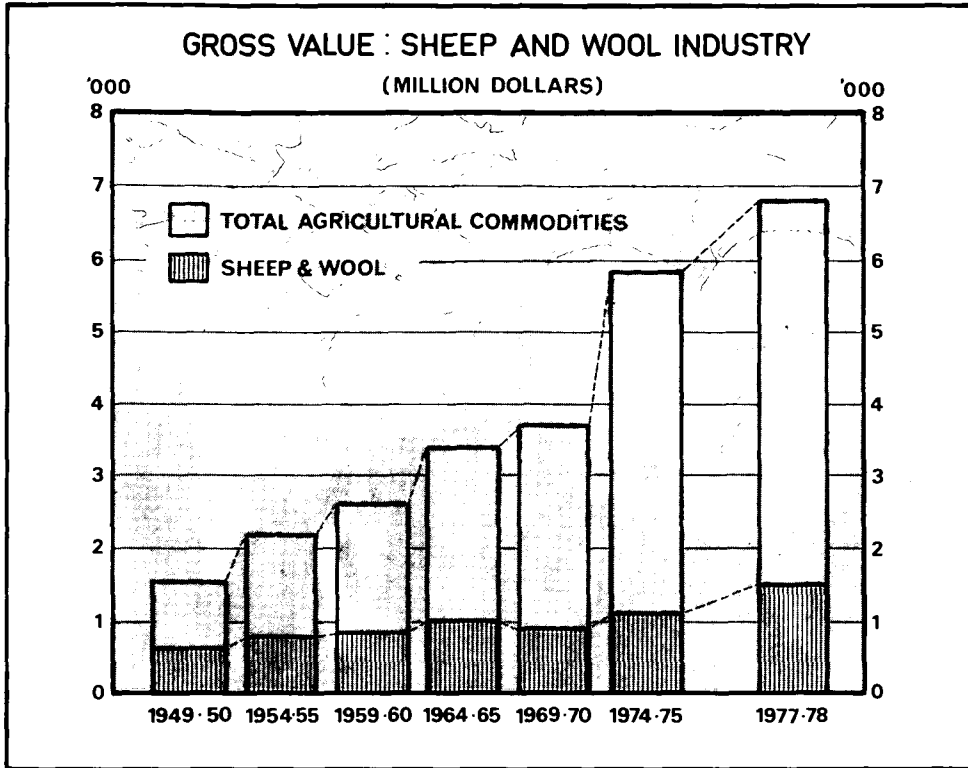


PLATE 28

LAMBING

| Year ended 31 March | Number of breeding ewes at beginning of season | Mating intentions at start of season | Actual matings | Ratio of actual matings to intended matings | Lambs marked | Ratio of lambs marked to actual matings | Ratio of lambs marked to breeding ewes |
|------------------------|--|---|-------------------|---|-----------------|---|--|
| | million | million | million | per cent | million | per cent | per cent |
| 1973 | 75.6 | 66.8 | 59.1 | 89 | 39.8 | 67 | 53 |
| 1974 | 68.7 | 62.8 | 58.7 | 93 | 43.0 | 73 | 63 |
| 1975 | 70.0 | 65.2 | 60.9 | 93 | 46.2 | 76 | 66 |
| 1976 | 70.6 | 65.1 | 60.5 | 93 | 44.1 | 73 | 63 |
| 1977 | 68.5 | 63.0 | 58.0 | 92 | 38.4 | 66 | 56 |
| 1978 | 64.7 | 59.8 | 56.6 | 95 | 39.5 | 70 | 61 |

For further details on sheep, see the bulletins *Livestock Statistics* (7203.0) and *Wool Statistics* (7212.0).

Pigs

In line with the general trend of increased specialisation common to most rural industries, pig farming has developed into a separate industry, being no longer associated with the dairy industry. During the period of wheat quotas and generally low grain prices, pig raising became a profitable outlet for non-quota wheat, but later, higher grain prices led to some contraction in the pig industry. Pig raising became increasingly associated with inland areas, though most are raised on farms, usually in association with dairy and cereal production. Grains form the basis of most pig rations and this has assisted with the movement to inland grain-growing districts. This is less marked in coastal regions where skim milk, the traditional source of pig feed, is being diverted to other uses.

PIG NUMBERS
(^{'000})

| <i>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>Aust. (incl. N.T., A.C.T.)</i> |
|-----------------|---------------|-------------|------------|-------------|-------------|-------------|---|
| 1973 | 1,065 | 585 | 542 | 499 | 476 | 85 | 3,259 |
| 1974 | 835 | 424 | 441 | 385 | 344 | 68 | 2,505 |
| 1975 | 729 | 383 | 400 | 349 | 264 | 64 | 2,197 |
| 1976 | 709 | 393 | 409 | 326 | 260 | 70 | 2,173 |
| 1977 | 760 | 397 | 441 | 317 | 242 | 65 | 2,229 |
| 1978p | 739 | 401 | 463 | 311 | 237 | 64 | 2,219 |

For further details on pigs see the bulletin *Livestock Statistics* (7203.0).

Poultry

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. Some supplies from this source are also marketed. Because the data from this latter sector is incomplete, total poultry numbers for Australia are not available. 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(a)
(^{'000})

| <i>31 March</i> | <i>Hens and pullets for egg production</i> | <i>Meat strain chickens (broilers)</i> | <i>Other fowls and other chickens</i> | <i>Sub- total</i> | <i>Ducks</i> | <i>Turkeys</i> | <i>Other poultry</i> | <i>Total all poultry</i> |
|-----------------|--|--|---|-----------------------|--------------|----------------|--------------------------|----------------------------------|
| 1973 | 15,580 | 23,497 | 2,661 | 41,738 | 310 | 645 | (b) | 42,693 |
| 1974 | 17,043 | 24,724 | 2,384 | 44,151 | 265 | 540 | (b) | 44,956 |
| 1975 | 16,409 | 22,592 | 1,758 | 40,759 | 164 | 413 | (b) | 41,336 |
| 1976 | 15,991 | 25,360 | 1,566 | 42,917 | 254 | 333 | (b) | 43,504 |
| 1977 | 16,118 | 27,256 | (b) | 43,374 | 187 | 347 | 397 | 44,305 |
| 1978 | 15,611 | 27,184 | (b) | 42,795 | 163 | 322 | 331 | 43,611 |

(a) Data are for numbers of poultry on rural establishments as reported in the annual Agricultural Census. (b) Not collected.

Hatchings. These details 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.

EGGS SET AND CHICKENS HATCHED IN COMMERCIAL HATCHERIES
(^{'000})

| <i>Year</i> | <i>Chickens hatched, intended for—</i> | | | |
|--------------------|--|------------------------|-----------------------|--------------------------|
| | <i>Chicken meat</i> | | | |
| | <i>Eggs set(a)</i> | <i>Meat strains(b)</i> | <i>Egg strains(c)</i> | <i>Egg production(d)</i> |
| 1972-73 | 217,557 | 125,822 | 1,853 | 16,078 |
| 1973-74 | 253,881 | 151,654 | 1,686 | 17,624 |
| 1974-75 | 225,610 | 140,139 | 856 | 15,634 |
| 1975-76 | 242,351 | 158,088 | 585 | 14,664 |
| 1976-77 | 260,697 | 168,724 | 515 | 15,578 |
| 1977-78p | 277,327 | 186,807 | 468 | 13,937 |

(a) Includes meat and egg strains and eggs which failed to hatch. (b) Unsexed. (c) Crossbred and other cockerels; unsexed egg strain chickens are evenly distributed to chicken meat chickens and egg production chickens. (d) Pullets.

For further details on poultry see the bulletins *Livestock Statistics* (7203.0) and *Chicken Hatchings and Poultry Slaughtering* (7207.0).

Meat production, slaughterings and other disposals

The ABS collects details of slaughterings and meat production from abattoirs, commercial poultry and other slaughtering establishments and includes estimates of animals slaughtered on farms and by country butchers. The data relates only to slaughterings for human consumption and does not include animals condemned or those killed for boiling down.

PRODUCTION OF MEAT BY TYPE(a)
(^{'000 tonnes})

| Year | Carcass weight | | | | | Dressed weight(b) | | |
|----------|----------------|------|--------|------|----------|-------------------|----------|----------------------|
| | Beef | Veal | Mutton | Lamb | Pig meat | Total meat | Chickens | Total all poultry(c) |
| 1972-73 | 1,385 | 53 | 435 | 278 | 236 | 2,388 | 138 | 161 |
| 1973-74 | 1,279 | 43 | 231 | 236 | 211 | 2,000 | 171 | 193 |
| 1974-75 | 1,494 | 53 | 258 | 269 | 175 | 2,249 | 166 | 189 |
| 1975-76 | 1,759 | 82 | 326 | 262 | 174 | 2,602 | 184 | 204 |
| 1976-77 | 1,893 | 95 | 304 | 246 | 185 | 2,722 | 196 | 218 |
| 1977-78p | 2,024 | 100 | 264 | 252 | 197 | 2,836 | 219 | 244 |

(a) Excludes offal.

(b) Dressed weight of whole birds, pieces and giblets.

(c) Includes other fowls, turkeys, ducks and drakes.

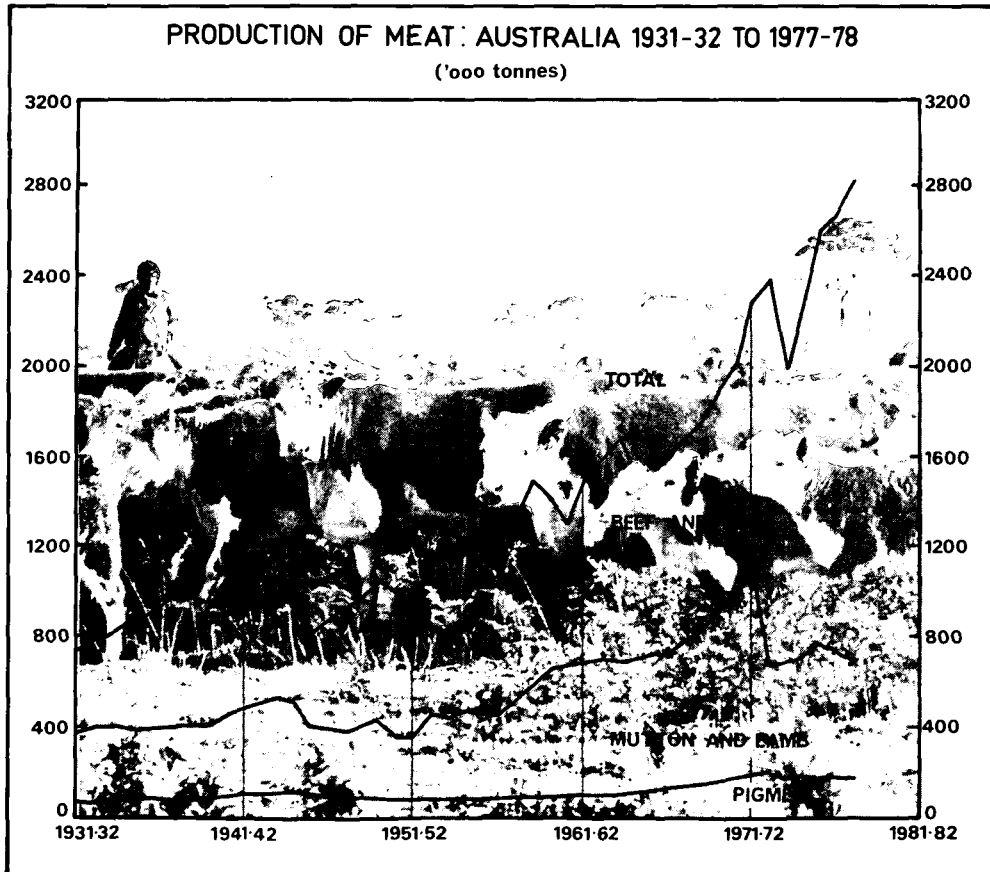


PLATE 29

NUMBERS OF LIVESTOCK AND POULTRY SLAUGHTERED FOR HUMAN CONSUMPTION
(Million head)

| <i>Year</i> | <i>Cattle</i> | <i>Calves</i> | <i>Sheep</i> | <i>Lambs</i> | <i>Pigs</i> | <i>Chickens (a)</i> | <i>Other fowls (b) and turkeys</i> | <i>Ducks and drakes</i> |
|--------------------|---------------|---------------|--------------|--------------|-------------|---------------------|------------------------------------|-------------------------|
| 1972-73 | 6.8 | 1.4 | 23.2 | 17.9 | 4.7 | 113.2 | 10.1 | 1.3 |
| 1973-74 | 6.1 | 1.2 | 11.3 | 13.9 | 4.2 | 139.8 | 10.1 | 1.2 |
| 1974-75 | 6.9 | 1.5 | 12.7 | 16.0 | 3.4 | 134.2 | 10.5 | 1.3 |
| 1975-76 | 8.5 | 2.1 | 16.8 | 16.1 | 3.3 | 144.2 | 9.2 | 1.2 |
| 1976-77 | 9.5 | 2.4 | 16.3 | 15.3 | 3.5 | 155.1 | 9.8 | 1.3 |
| 1977-78p | 10.1 | 2.5 | 13.9 | 15.2 | 3.7 | 174.0 | 10.6 | 1.7 |

(a) Comprises broilers, fryers and roasters.

(b) Comprises hens, roosters, etc.

Mutton and lamb

Wool production and meat production are closely related and movements in the prices of wool or sheepmeat can cause a shift from one to the other as relative profitability changes. The decline in wool prices after 1956-57, and after 1963-64 led to increases in prime lamb production as diversification occurred in wool-growing areas. These record slaughterings were followed by improved wool prices in 1972-73 which, together with a substantial fall in the total sheep flock, resulted in a sharp decline in sheepmeat production and sheep and lamb prices rose steeply. Exports of mutton peaked in the early seventies and there has been a noticeable increase in exports of boneless meats. Live sheep exports to the Middle East have increased from 800,000 in 1971-72 to over 4 million in 1977-78. Much of the expanded lamb production has been absorbed in the domestic market.

Beef and veal

The expansion in production of beef and veal has shown a steady annual increase in the last 20 years, although there have been wide fluctuations along the upward trend. The export market for beef increased dramatically after 1969-70, when exports exceeded Australian consumption, and a growing proportion of beef and veal output has been shipped to export markets.

Production is running at record levels, although 1977-78 cattle numbers decreased by about 7 per cent over the 1976-77 level. However, the depressed state of the beef industry in recent years is revealed by the steep fall in the indexes of average unit gross value from a peak of 135.5 in 1973-74 to 56.6 in 1974-75 and 64.3 in 1975-76. Statistics derived from the Agricultural Finance Survey also indicated the depressed state of the meat cattle industry by a negative cash operating surplus for the years 1974-75 and 1975-76. However, in 1976-77 the average unit gross value index has increased to 85.3 and the cash operating surplus has returned to positive (see pages 261, 265) indicating an improvement in the state of the industry.

Pigmeat

Over half the pigmeat produced is sold as pork, with the remainder as bacon, ham and small-goods. A relatively small amount of pigmeat is exported, with Japan taking significant amounts in some years.

Poultry

The poultry meat industry has developed rapidly since 1970 and both output and consumption have risen steeply. Genetic and technical improvements and the organisation of the industry into large-scale enterprises have raised efficiency and reduced production costs relative to other meats.

EXPORTS OF FRESH, CHILLED OR FROZEN MEAT

| Year | Beef | Veal | Mutton | Lamb | Pork | Poultry |
|----------------------------|---------|------|--------|------|------|---------|
| QUANTITY (a) ('000 tonnes) | | | | | | |
| 1972-73 | 826.5 | 26.6 | 156.8 | 31.7 | 20.1 | 4.0 |
| 1973-74 | 704.7 | 25.2 | 103.6 | 22.5 | 8.6 | 4.3 |
| 1974-75 | 601.2 | 10.2 | 120.7 | 24.6 | 1.1 | 5.1 |
| 1975-76 | 783.7 | 16.8 | 201.5 | 28.9 | 5.2 | 5.0 |
| 1976-77 | 919.7 | 17.1 | 241.5 | 59.8 | 3.1 | 4.7 |
| 1977-78p | 1,092.3 | 19.8 | 198.8 | 56.2 | 1.3 | 5.6 |
| VALUE f.o.b. (\$ million) | | | | | | |
| 1972-73 | 623.0 | 29.2 | 100.6 | 17.9 | 17.1 | 2.5 |
| 1973-74 | 610.6 | 25.1 | 62.5 | 16.7 | 8.1 | 3.3 |
| 1974-75 | 315.9 | 6.4 | 48.9 | 15.5 | 1.6 | 4.3 |
| 1975-76 | 475.3 | 11.5 | 81.2 | 20.3 | 7.6 | 4.3 |
| 1976-77 | 603.4 | 14.5 | 121.3 | 46.3 | 4.6 | 5.6 |
| 1977-78p | 805.1 | 18.1 | 123.7 | 56.5 | 2.2 | 6.6 |

(a) Quantity data on beef, veal, mutton and lamb exports are shown in carcass weight equivalents.

Exports of live animals

For details of the regulation governing the export (and import) of live animals see Year Book No. 61 page 848.

EXPORTS OF LIVE ANIMALS

| Year | Livestock | | | Poultry | | |
|----------|-----------------|----------|--------------|----------------|--------|--------------|
| | Sheep and Lambs | Total(a) | | Day old chicks | Total | |
| | | Number | Value f.o.b. | | Number | Value f.o.b. |
| | | —'000— | \$'000 | | —'000— | \$'000 |
| 1972-73 | 1,135 | 1,146 | 15,343 | 360 | 380 | 170 |
| 1973-74 | 1,061 | 1,086 | 26,528 | 347 | 436 | 250 |
| 1974-75 | 1,449 | 1,461 | 22,931 | 204 | 253 | 166 |
| 1975-76 | 1,845 | 1,869 | 23,231 | 256 | 284 | 242 |
| 1976-77 | 3,388 | 3,431 | 57,109 | 279 | 329 | 205 |
| 1977-78p | 4,124 | 4,188 | 98,069 | 503 | 584 | 387 |

(a) Also includes cattle, calves, buffaloes and pigs.

PRODUCTION AND EXPORT OF BACON, HAM AND CANNED MEAT

| Year | Production | | | Exports | | | |
|----------|------------------|----------|----------------|------------------|---------------|----------------|---------------|
| | Bacon and ham(a) | | | Bacon and ham(c) | | Canned meat(d) | |
| | Bone-in | Bone-out | Canned meat(b) | Quantity | Value | Quantity | Value |
| | tonnes | tonnes | tonnes | tonnes | \$'000 f.o.b. | tonnes | \$'000 f.o.b. |
| 1972-73 | 24,740 | 34,492 | 50,476 | 401 | 575 | 22,749 | 16,800 |
| 1973-74 | 23,143 | 37,802 | 55,760 | 492 | 813 | 22,517 | 25,289 |
| 1974-75 | 17,638 | 36,850 | 42,422 | 438 | 695 | 15,226 | 18,221 |
| 1975-76 | 16,042 | 38,218 | 45,193 | 386 | 761 | 20,605 | 24,541 |
| 1976-77 | 15,848 | 41,432 | 52,677 | 489 | 1,127 | 30,294 | 36,393 |
| 1977-78p | 15,746 | 50,878 | 49,097 | 539 | 1,479 | 24,643 | 36,269 |

(a) Production of bacon and ham 'on the bone' is shown in terms of 'bone-in' weight, while production of boneless bacon and ham is shown in terms of 'bone-out' weight. Production of canned bacon and ham, which is reported in terms of 'stated net weight of packs', is included in the 'bone-out' category. (b) Canned weight. Includes bacon, ham and meat and vegetables, but excludes rabbit, poultry and baby foods. (c) Cured carcass weight of smoked or cooked bacon and ham. Includes 'stated net weight of packs' of canned bacon and ham. (d) Canned weight; excludes canned bacon and ham.

RURAL INDUSTRY

GROSS VALUE OF LIVESTOCK SLAUGHTERINGS AND OTHER DISPOSALS(a) (\$ million)

| Year | Cattle and calves | Sheep and lambs | Pigs | Poultry | Total |
|----------|----------------------|--------------------|-------|---------|---------|
| 1972-73 | 1,021.7 | 306.1 | 123.7 | 90.6 | 1,542.2 |
| 1973-74 | 1,069.1 | 321.4 | 173.0 | 132.5 | 1,696.0 |
| 1974-75 | 523.4 | 178.3 | 177.7 | 139.8 | 1,019.2 |
| 1975-76 | 706.3 | 203.9 | 183.3 | 152.9 | 1,246.4 |
| 1976-77 | 1,010.8 | 298.1 | 197.4 | 178.3 | 1,684.7 |
| 1977-78p | 1,205.0 | 351.0 | 210.0 | 215.0 | 1,981.0 |

(a) Includes adjustment for net exports (overseas and interstate) of live animals.

Consumption

Owing to diverse cutting practices by butchers and because of the difficulty of clearly defining the term 'retail weight of meat', it is considered impractical to derive a satisfactory factor for the purpose of expressing estimated meat consumption in terms of retail weight. Depending on cutting practices employed and whether or not bones, etc. sold to customers are included in retail weight of meat, the following retail weights as a proportion of carcass weight are generally acceptable: beef, 60 per cent to 75 per cent; mutton and lamb, 80 per cent to 95 per cent; pork 90 per cent to 95 per cent.

APPARENT CONSUMPTION OF MEAT AND MEAT PRODUCTS AS HUMAN FOOD

| Year | Beef and veal | Mutton | Lamb | Pigmeat(a) | Bacon and ham | Canned meat | Poultry meat |
|------------------------|------------------|--------|------|------------|------------------|----------------|-----------------|
| TOTAL ('000 tonnes) | | | | | | | |
| 1973-74 | 555 | 116 | 208 | 90 | 73 | 33 | 184 |
| 1974-75 | 881 | 123 | 243 | 70 | 67 | 32 | 187 |
| 1975-76 | 950 | 104 | 231 | 61 | 72 | 23 | 201 |
| 1976-77p | 984 | 61 | 188 | 62 | 77 | 24 | 221 |
| 1977-78p | 976 | 55 | 195 | 61 | n.y.a. | n.y.a. | 238 |
| PER HEAD PER YEAR (kg) | | | | | | | |
| 1973-74 | 41.1 | 8.6 | 15.4 | 6.7 | 5.4 | 2.4 | 13.6 |
| 1974-75 | 64.3 | 9.0 | 17.7 | 5.1 | 4.9 | 2.3 | 13.6 |
| 1975-76 | 68.6 | 7.5 | 16.6 | 4.4 | 5.2 | 1.7 | 14.5 |
| 1976-77p | 70.3 | 4.3 | 13.4 | 4.4 | 5.5 | 1.7 | 15.8 |
| 1977-78p | 69.0 | 3.9 | 13.7 | 4.4 | n.y.a. | n.y.a. | 16.8 |

(a) Comprises pork and includes smallgoods and estimates for trimmings from baconer carcasses.

NOTE: Beef, veal, mutton, lamb and pigmeat are expressed in terms of carcass weight, bacon and ham in cured carcass weight, canned meat in canned weight and poultry meat in dressed weight.

For further details on meat production and slaughtering see the following bulletins: *Meat Statistics*, monthly (7204.0), quarterly (7205.0) and annual (7206.0), *Chicken Hatchings and Poultry Slaughtering* (7207.0), *Value of Agricultural Commodities Produced* (7503.0) and *Apparent Consumption of Foodstuffs and Nutrients* (4306.0).

The Australian Meat and Livestock Corporation

Legislation was enacted to establish the Australian Meat and Livestock Corporation from 1 October 1977. This Corporation, which regulates and promotes meat and livestock exports, replaced the Australian Meat Board. (See Year Book No. 61, page 851 for particulars of that Board's functions).

Two groups—The Meat and Livestock Exporters and Abattoir Operators Consultative Group and the Livestock Producers Consultative Group—are responsible for nominating corporation members and will:

- advise the Corporation on important matters such as trade and market matters; and
- disseminate information on Corporation decisions and policies to people engaged in the meat and livestock industries.

In addition to the Consultative Groups, an Australian Meat Industry Conference has been established. It is representative of all parties with an interest in matters for which the Corporation is responsible and includes representatives of producers, exporters, meatworks, packers, processors, livestock agents, unions and consumers. The Conference, meeting annually, provides a forum in which organisations representing the diverse interests of the meat and livestock industries debate issues of concern to them.

The Corporation's main functions are to encourage, assist, promote and control the export of meat and livestock from Australia, and to promote the sale of meat in Australia. It has the authority, also, to perform a range of other functions aimed at improving the production of meat and livestock and for the general benefit of the meat and livestock industries.

Finance

As with the Meat Board, one component of the Livestock Slaughter Levy will be used to finance the Corporation's activities. The other components will continue for research and disease eradication in cattle.

The Beef Industry (Incentive Payments) Scheme

This Act was promulgated on 31 October 1977. Its purpose was to enable payments to be made to beef producers, provided they met certain conditions related to cattle husbandry procedures, including carrying out recognised disease control. The legislation provided for producers owning fifty or more marked cattle kept for beef production to make claims for recognised procedures taken between 23 September 1977 and 22 September 1978. Recognised disease control processes included:

- dipping and similar treatment for external parasites,
- drenching for internal parasites,
- brucellosis and tuberculosis eradication, and
- vaccinations.

The subsidy was limited to \$2,000 per producer, with companies, partnerships and trusts being treated as individual producers.

For further details on topics such as the Livestock Slaughter Levy, various meat research schemes and international agreements, *see* Year Book No. 61, pages 851–853.

Wool

With about one-seventh of the world's woolled sheep, Australia produces about 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.

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 was 59.93 per cent in 1977–78.

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 1977–78 was about 10.8 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 following table shows details of total wool (i.e. shorn, dead, fellmongered, and exported on skins) as well as the numbers of animals shorn, the average fleece weight and the gross value of the wool. A graph showing the production of wool in relation to the number of sheep appears on plate 30, page 302.

RURAL INDUSTRY
SHEARING, WOOL PRODUCTION AND VALUE

| Year | Wool production | | | | | Gross value (b) |
|--------------------|--------------------------|--------------------------|-------------|------------------|-------------|--------------------|
| | Sheep and lambs shorn | Average fleece weight | Shorn wool | Other wool(a) | Total wool | |
| | | | | | Quantity | |
| | million | kg | '000 tonnes | '000 tonnes | '000 tonnes | \$m |
| 1973-74 | 150.6 | 4.28 | 644.3 | 56.6 | 700.9 | 1,229 |
| 1974-75 | 161.9 | 4.48 | 725.3 | 68.2 | 793.5 | 953 |
| 1975-76 | 159.6 | 4.27 | 681.4 | 72.8 | 754.3 | 1,000 |
| 1976-77 | 145.8 | 4.28 | 623.9 | 78.8 | 702.7 | 1,173 |
| 1977-78p | 143.0 | 4.22 | 603.0 | 70.7 | 673.7 | 1,149 |

(a) Comprises dead and fellmongered wool, and wool exported on skins. (b) 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.

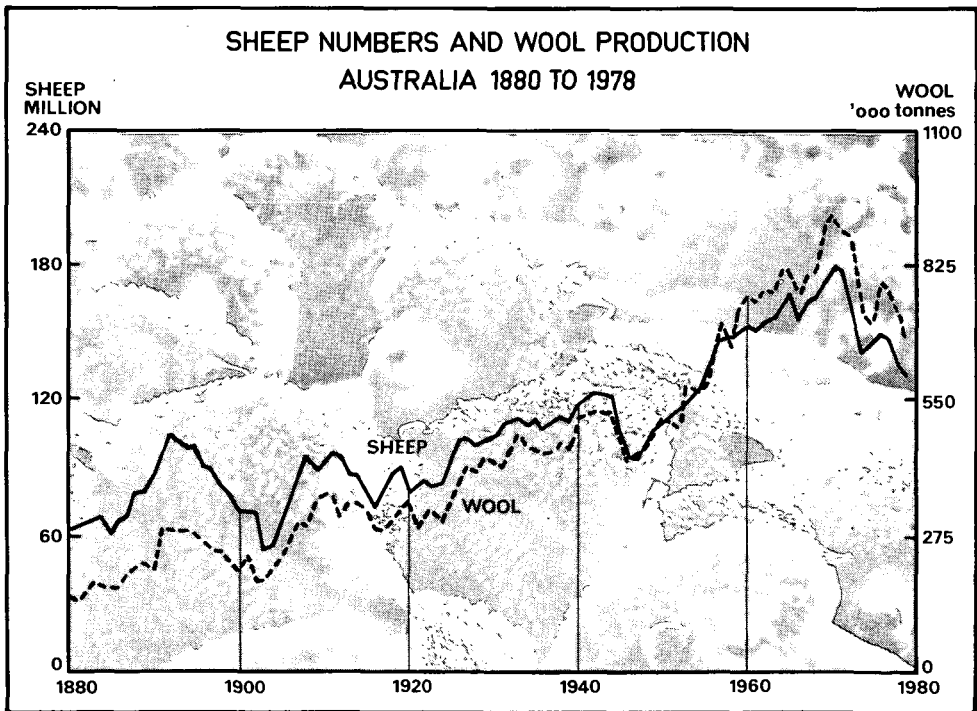


PLATE 30

Wool receipts

The ABS collects details of the amount of taxable wool received by brokers and dealers from wool producers; this excludes wool received by brokers on which tax has already been paid by other dealers (private buyers) or brokers.

TAXABLE WOOL RECEIVALS

| Year ended 30 June | Receivals | | | Dealers as per cent of total receivals | Shorn wool production(a) |
|-----------------------|--------------------|---------|------------------------|--|-----------------------------|
| | Brokers (NCWSB) | Dealers | Brokers and dealers | | |
| | —'000 tonnes— | | | per cent | '000 tonnes |
| 1973 | 513.7 | 129.8 | 643.6 | 20.2 | 643.6 |
| 1974 | 507.3 | 117.1 | 624.4 | 18.8 | 644.3 |
| 1975 | 593.9 | 135.3 | 729.2 | 18.5 | 725.3 |
| 1976 | 525.2 | 161.6 | 686.9 | 23.5 | 681.4 |
| 1977 | 476.5 | 151.5 | 628.0 | 24.1 | 623.9 |
| 1978p | 459.2 | 154.0 | 613.2 | 25.1 | 606.3 |

(a) Obtained from the annual Agricultural Census.

The large pastoral houses have been responsible for handling the bulk of Australian wool since the early years of the industry and they have done this through the auction system. Following the Second World War, private treaty trading has become a significant alternative method of disposal. In the 'seventies there has been a big increase in private trading reaching a quarter of the 1977-78 clip. The proportions vary between States, with Western Australian private buyers in 1972-73 taking 37 per cent of the total receivals in that State.

Prices

Fluctuations in Australian wool prices have a marked effect on rural and national income. In 1945-46 the gross value of wool was \$117.2 million, representing 17.4 per cent of the gross value of all agricultural commodities produced, while in 1950-51, when prices reached a peak during the Korean War, wool was valued at \$1303.8 million or 55.6 per cent of total agricultural industries.

| Year | Value of wool production as a per cent of total agriculture | Value of wool exports as a per cent of total Australian exports |
|----------|--|---|
| 1973-74 | 19.2 | 18.6 |
| 1974-75 | 16.2 | 9.3 |
| 1975-76 | 16.2 | 12.3 |
| 1976-77 | 17.3 | 14.0 |
| 1977-78p | 16.8 | 10.5 |

Stock

Stocks shown below of raw and semi-processed wool were held by wool processors, scourers, fellmongers, brokers, dealers and the Australian Wool Corporation. They exclude wool on skins since this wool is not recorded as production until fellmongered in Australia or exported on skins.

WOOL STOCKS
(^{'000 tonnes})

| At 30 June | Stocks of— | | | | | |
|------------|-------------|-------|---------------------|-------|------------|-------|
| | Raw wool(a) | | Semi-processed wool | | Total wool | |
| | Greasy | Clean | Greasy | Clean | Greasy | Clean |
| 1973 | 114.5 | 63.7 | 11.3 | 6.4 | 125.8 | 70.1 |
| 1974 | 181.9 | 104.4 | 10.5 | 5.9 | 192.4 | 110.3 |
| 1975 | 450.3 | 268.8 | 7.5 | 4.3 | 457.8 | 273.1 |
| 1976 | 387.5 | 232.1 | 9.3 | 5.5 | 396.9 | 237.6 |
| 1977 | 266.4 | 159.5 | 8.5 | 5.1 | 274.9 | 164.6 |

(a) Includes from about 1971 or 1972 varying amounts of stock held by the Australian Wool Corporation: 1974, 5,600 tonnes greasy; 1975, 34,300 tonnes greasy; 1976, 35,600 tonnes greasy; 1977, 46,900 tonnes greasy.

Wool consumption

Two series of calculations on Australian wool consumption are shown below. The first measures consumption in terms of scoured wool used by mills (on the woollen and worsted systems) and for the manufacture of felt (including hats); this series has been included for comparison purposes with other countries. The second is calculated from the usage of woollen and worsted yarn (including

wool and other fibre mixtures) and scoured wool for felt manufacture (including hats). This second series is considered to be a more satisfactory measure of Australian wool consumption, principally because allowance is made for significant quantities of wool tops exported. However, both series relate to consumption of wool by the wool textile industry, and should not be used as measures of consumption in terms of retail purposes. It has not been possible to estimate wool consumption at the retail level because of the impracticability of obtaining reliable data concerning the wool content of the multiplicity of woollen and worsted piece-goods and finished articles exported and imported and held as stock by manufacturers, wholesalers and retailers.

CONSUMPTION OF RAW AND PROCESSED WOOL
(^{'000 tonnes})

| Year | Consumption of raw wool | | Consumption of processed wool | | | | | |
|---------------|-------------------------|-------|-------------------------------|-------|-----------------------|-------|--------|-------|
| | | | Worsted yarn used (a) | | Woollen yarn used (b) | | Total | |
| | Greasy | Clean | Greasy | Clean | Greasy | Clean | Greasy | Clean |
| 1972-73 . . . | 56.2 | 32.2 | 18.9 | 10.7 | 17.5 | 10.4 | 37.5 | 21.6 |
| 1973-74 . . . | 45.6 | 26.0 | 15.0 | 8.4 | 17.1 | 10.0 | 33.3 | 18.9 |
| 1974-75 . . . | 31.2 | 17.8 | 10.4 | 6.3 | 14.6 | 8.6 | 26.0 | 15.4 |
| 1975-76 . . . | 47.0 | 26.2 | 16.3 | 8.9 | 16.4 | 9.5 | 33.9 | 18.9 |
| 1976-77 . . . | 48.9 | 27.3 | 13.1 | 7.1 | 14.3 | 8.3 | 28.6 | 15.9 |

(a) Wool content of yarns containing a mixture of wool and other fibres.

(b) Comprises pure and mixed woollen yarn.

Exports of wool

In 1977-78, of the 493,600 tonnes of greasy and slipe wool exported, 145 thousand (29 per cent) went to Japan. Other large shipments were 16 per cent to the USSR, 9 per cent to both Italy and the Federal Republic of Germany and 7 per cent to France.

EXPORTS OF WOOL

| Year | Selected exports (^{'000 tonnes: greasy basis}) | | | Total exports | |
|--------------------|---|------------------------|-------------------|------------------------|--------------|
| | Greasy and slipe | Scoured and carbonised | Exported on skins | Greasy basis (a) | Value f.o.b. |
| | | | | ^{'000 tonnes} | \$m |
| 1973-74 | 488.1 | 41.4 | 52.6 | 593.3 | 1,248 |
| 1974-75 | 456.9 | 58.0 | 66.2 | 590.6 | 786 |
| 1975-76 | 583.5 | 68.0 | 72.8 | 735.6 | 1,032 |
| 1976-77 | 675.6 | 81.5 | 78.8 | 856.3 | 1,587 |
| 1977-78p | 493.6 | 69.5 | 70.7 | 641.5 | 1,289 |

(a) Includes semi-processed wool.

Wool marketing

There is no Government control over the marketing of wool, but the Australian Wool Corporation, which is a statutory body, performs functions aimed at assisting the orderly and efficient disposal of wool as well as encouraging demand for wool. The Wool Corporation came into operation on 1 January 1973 through the amalgamation of the former Australian Wool Commission and Australian Wool Board.

The functions of the Corporation 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. 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 was that the Corporation acquire ownership of all wool for export. The proposal was submitted by the Corporation to the Commonwealth Government and is under study.

For the seasons 1974-75 to 1978-79, the Corporation was authorised by the Government to operate a minimum reserve (floor) price at wool auctions. Credit facilities for \$350 million were provided by the Government to the Corporation for this purpose. These are additional to credit available to the Corporation from commercial sources. Woolgrowers are required to pay a levy of 5 per cent on sales proceeds of shorn wool for a reserve against possible losses from the scheme.

Funds for other activities of the Corporation (notably wool promotion) are provided jointly by woolgrowers, through a levy on shorn wool proceeds (*see below*), and the Commonwealth Government. The Corporation has embarked on a limited offer to purchase scheme (LOPS) which is a trial of its commercial ability to purchase, handle and sell wool. Advantages of the scheme for

growers include an immediate reduction in standard handling charges, payment in full no later than 15 working days after receipt of the last bale of a clip or portion of a clip purchased, and a purchase price set on current market price. The scheme concentrates on efficiency in wool-store operations and the Corporation has not limited its total purchase for the scheme to particular clip sizes or lot sizes. If it wishes to receive part of a clip, the grower retains the right to require purchase of the whole clip.

A key part of the planning is the flexipack—a giant poly bag which can hold up to 450 kg of greasy wool in the shape of a giant 2.5 metres sausage. The flexipack is loaded in the woolshed, doing away with the need for either woolpress or conventional pack. It is then loaded onto a special truck by crane, and vacuum-shrunk by sucking the air out to bring it down to a more manageable size. Being an impervious plastic it needs no special storage and can be left in the open.

Objective measurement of wool. Sealed tender sales have been developed since the early 1970s and are based on an inspection sample which had been tested and certificated by the Australian Wool Testing Authority. These objective measurement certificates are also used in auction sales, replacing subjective testing by wool buyers.

Year Book No. 61 contains a description of some of the regulations, statutory bodies, levies, etc., operating in the wool industry. Topics covered include: the Australian Wool Industry Conference, the Randall Committee, Wool Levy, the Commonwealth Government's contribution to wool research and promotion, and the development of objective measurement of wool.

For further details on sheep shorn, wool production and overseas trade see the following bulletins: *Livestock Statistics* (7203.0), *Sheep numbers, shearing and wool production* (7211.0), *Wool production and shearing* (7210.0), *Wool Statistics* (7212.0), *Brokers and Dealers Receipts of Taxable Wool* (monthly) (7213.0), *Overseas Trade* (5409.0, 5410.0), *Production Bulletin No. 4* (8360.0) and *Value of Agricultural Commodities Production* (7503.0).

Dairying

Dairying in Australia occurs mainly in the south-eastern region of the mainland, and in Tasmania, where rainfall is ample and fairly reliable. It is predominantly coastal, but has also developed inland in small areas close to population centres and, on a larger scale, in some irrigated regions in the Riverina of New South Wales and northern Victoria.

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 Commonwealth Government encouraged this transformation by providing interest-free loans under the Australian Dairy Adjustment Program.

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.

MILK CATTLE NUMBERS (‘000)

| <i>Cows and heifers used or intended for production of milk or cream for sale</i> | | | | | |
|---|---|-------------------------------|------------------------|---------------------|----------------------------------|
| | <i>Bulls used or intended for service</i> | <i>Cows (in milk and dry)</i> | <i>Heifers</i> | | <i>House cows and heifers(a)</i> |
| | | | <i>1 year and over</i> | <i>Under 1 year</i> | |
| <i>31 March</i> | | | | | |
| 1974 | 77 | 2,371 | 633 | 554 | 121 |
| 1975 | 78 | 2,355 | 634 | 537 | 122 |
| 1976 | 73 | 2,345 | 595 | 467 | 122 |
| 1977 | 64 | 2,174 | 537 | 385 | 105 |
| 1978p | 60 | 2,057 | 480 | 367 | 100 |

(a) One year and over, kept for the rural establishment's own milk supply.

The late sixties and early seventies saw the elimination of many of the smaller, less productive herds, and the industry has increasingly concentrated in the environmentally more favoured regions. Typically, labour on dairy farms is provided by the owner operator and his family, but wide variations exist between regions and sectors.

In the past, fluctuations in milk production have been absorbed by the manufacturing sector, especially for butter production which, in 1949-50, accounted for 64 per cent of total milk output. Domestic consumption of butter has fallen from 11.4 kg per head per year in 1949-50 to 5.8 kg in 1976-77 and butter production now accounts for 39 per cent of total milk output. Cheese has now become the major growth product in dairying, with domestic consumption rising steadily from 2.9 kg per head per year in 1949-50 to 5.3 kg per head per year in 1976-77.

PRODUCTION, UTILISATION AND GROSS VALUE OF WHOLE MILK

| Year | Whole milk used for— | | | | Total whole milk |
|---------------------------|----------------------|-------------------------|-------------------------|----------------------|------------------|
| | Factory butter(a) | Non-processed cheese(a) | Processed milk products | Other purposes(a)(b) | |
| QUANTITY (million litres) | | | | | |
| 1973-74 | 3,624 | 889 | 535 | 1,670 | 6,718 |
| 1974-75 | 3,345 | 936 | 627 | 1,589 | 6,497 |
| 1975-76 | 3,026 | 1,057 | 631 | 1,534 | 6,248 |
| 1976-77 | 2,447 | 991 | 734 | 1,601 | 5,773 |
| 1977-78p | 2,008 | 917 | 701 | 1,558 | 5,185 |
| GROSS VALUE (\$ million) | | | | | |
| 1973-74 | 184.5 | 47.0 | 32.7 | 196.2 | (c) 467.6 |
| 1974-75 | 191.1 | 61.6 | 39.0 | 217.7 | (c) 518.5 |
| 1975-76 | 151.6 | 57.1 | 34.1 | 238.2 | (c) 490.3 |
| 1976-77 | (d)128.1 | (d)54.3 | (d)38.8 | 275.2 | 520.9 |
| 1977-78p | (d)139.6 | (d)56.5 | (d)44.0 | 291.5 | 550.0 |

(a) Prior to 1963-64 milk used to produce farm butter and cheese was included with factory production; subsequently milk used in farm production is included with human consumption and other purposes. (b) Principally fluid milk for domestic purposes. (c) Includes data not available for publication in the components. (d) Data are incomplete. Tasmanian data are shown in *Total Whole Milk*.

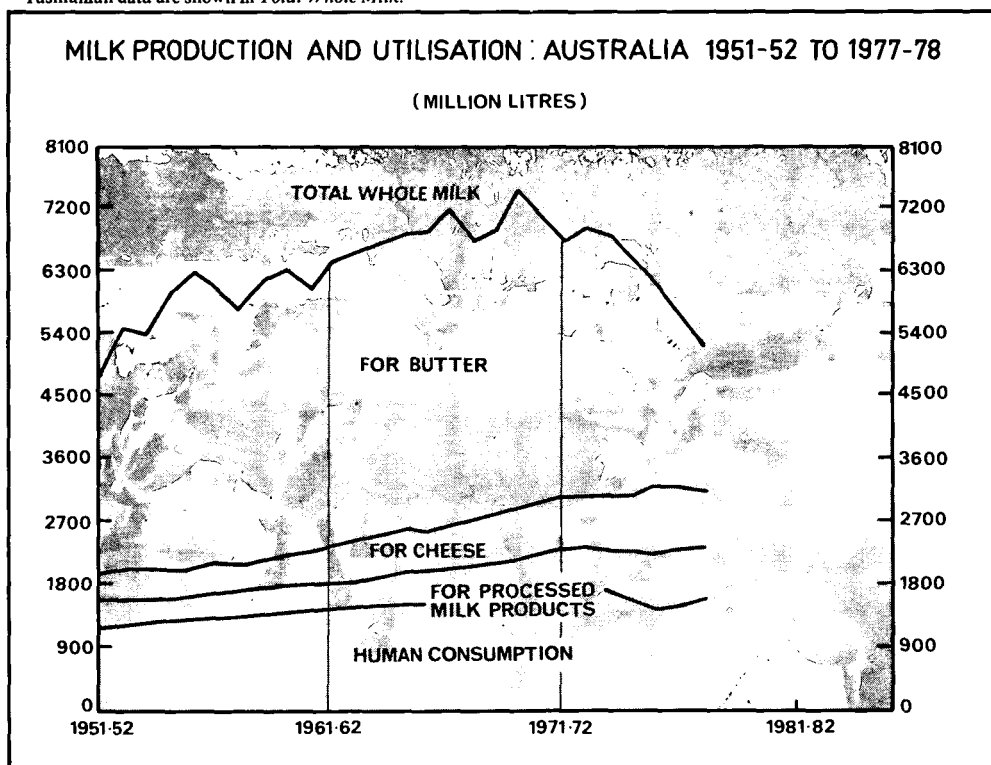


PLATE 31

Exports

The United Kingdom has, in the past, been Australia's main butter market, but this market was effectively closed with Britain's joining the European Economic Community. There has been some diversification in the form of butter oil exports to South East Asia, in line with the development of milk recombining plants there. Japan has replaced the United Kingdom as the major outlet for Australian cheese.

PRODUCTION AND TRADE OF BUTTER AND CHEESE

| Year | Butter | | | Cheese | | | Imports |
|----------|-----------------------|----------------|--------------|-------------------------------|----------------|--------------|----------------|
| | Factory production | Exports (a) | | Factory pro- duction(c) | Exports (b) | | |
| | | Quantity | Value f.o.b. | | Quantity | Value f.o.b. | |
| | | | | | | | |
| | '000 tonnes | '000 tonnes | \$m | '000 tonnes | '000 tonnes | \$m | '000 tonnes |
| 1972-73 | 184.9 | 57.8 | 48.0 | 93.4 | 29.6 | 21.7 | 7.5 |
| 1973-74 | 175.5 | 37.9 | 27.2 | 95.8 | 38.0 | 28.9 | 7.4 |
| 1974-75 | 161.3 | 18.9 | 19.5 | 98.6 | 34.2 | 34.6 | 8.0 |
| 1975-76 | 147.6 | 52.5 | 42.2 | 112.6 | 31.5 | 35.2 | 10.0 |
| 1976-77 | 118.2 | 22.6 | 26.0 | 103.5 | 52.5 | 56.2 | 10.6 |
| 1977-78p | 111.7 | 17.5 | 22.7 | 115.4 | 44.1 | 55.3 | 11.3 |

(a) Excludes ghee and butter concentrates.

(b) Includes processed cheese exports.

(c) Factory production is shown only for non-processed cheese.

Apparent consumption

CONSUMPTION OF MILK, BUTTER, CHEESE AND MARGARINE

| Year | Apparent consumption Total | | | Apparent consumption Per head per year | | | | |
|----------|-------------------------------|-------------|-------------|---|--------|-----------|-----------|--------|
| | Fluid whole milk | Butter | Cheese(a) | Fluid whole milk | Butter | Cheese(a) | Margarine | |
| | | | | | | | Table | Other |
| | mil. litres | '000 tonnes | '000 tonnes | litres | kg | kg | kg | kg |
| 1972-73 | 1,602 | 109 | 68 | 120.6 | 8.2 | 5.1 | 1.6 | 4.0 |
| 1973-74 | 1,544 | 104 | 71 | 114.5 | 7.7 | 5.3 | 1.7 | 4.0 |
| 1974-75 | 1,460 | 98 | 71 | 106.6 | 7.2 | 5.2 | 2.2 | 3.8 |
| 1975-76 | 1,401 | 93 | 79 | 101.1 | 6.8 | 5.7 | 3.1 | 3.9 |
| 1976-77p | 1,467 | 81 | 74 | 104.8 | 5.8 | 5.3 | 4.7 | 3.5 |
| 1977-78p | n.y.a. | 71 | n.y.a. | n.y.a. | 5.0 | n.y.a. | n.y.a. | n.y.a. |

(a) Prior to 1971-72 cheese data comprised combined product and natural equivalent weight. Data since 1971-72 are expressed in natural equivalent weight.

The problems facing the industry can be reduced to contracting milk production, a dwindling domestic market, a continuation of exports at a fairly constant percentage of production to uncertain depressed markets characterised by price instability. Cheese and whole milk powder have relatively better market returns and prospects.

Wholesale prices of butter and cheese in Australia

These prices, in the past, were set by the Australian Dairy Industry Council (ADIC) in association with manufacturers. Since the inception of the Prices Justification Tribunal, the ADIC on behalf of the manufacturers, makes applications for increases in the domestic bulk wholesale (ex-factory) prices.

For further details on the dairying industry see the bulletins, *Dairying and Dairy Products* (7209.0), *Milk Statistics*, monthly (7208.0), *Production Bulletin No. 3, Food, Drink and Tobacco* (8359.0), and *Production of Non-Processed Cheese* (8307.0). Year Book No. 61, pages 854-857 contains a detailed description of the various bounties, stabilisation funds, schemes and programs that regulate the industry.

Beekeeping

Although practised as a separate industry, beekeeping is also carried on in conjunction with other branches of farming. A feature of the industry is that it consists mainly of 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.

NOTE: Statistics in the following table relate, for the years since 1974-75, to apiarists with forty or more hives. Information to 1973-74 covered the operations of apiarists with five or more hives (six or more in New South Wales).

BEEKEEPING STATISTICS

| Year | Number of apiarists | Honey produced | | | | Beeswax produced | | |
|------------|------------------------|--------------------|-------|-------------|---|------------------|----------|----------------|
| | | Number of beehives | | Quantity | Average pro- duction per productive hive | Gross value | Quantity | Gross value |
| | | Productive | Total | | | | | |
| 1972-73 | 5,926 | '000 | '000 | '000 tonnes | kg | \$'000 | tonnes | \$'000 |
| 1973-74(a) | 5,779 | 395 | 528 | 18.1 | 45.7 | 8,130 | 261 | 294 |
| 1974-75 | 2,266 | 409 | 544 | 21.2 | 51.8 | 11,768 | 322 | 525 |
| 1975-76 | 2,266 | 381 | 491 | 20.6 | 54.2 | 9,292 | 326 | 515 |
| 1976-77 | 2,285 | 377 | 497 | 21.4 | 56.8 | 10,453 | 368 | 633 |
| 1976-77 | 2,274 | 374 | 493 | 14.9 | 39.9 | 8,405 | 352 | 777 |

(a) see Note above.

EXPORTS OF HONEY AND BEESWAX

| Year | Honey | | Beeswax | |
|---------|-------------|--------------|-------------|--------------|
| | Quantity | Value f.o.b. | Quantity | Value f.o.b. |
| | '000 tonnes | \$'000 | '000 tonnes | \$'000 |
| 1972-73 | 8.0 | 4,722 | 41 | 56 |
| 1973-74 | 4.7 | 3,505 | 234 | 356 |
| 1974-75 | 9.6 | 5,783 | 243 | 459 |
| 1975-76 | 11.5 | 6,325 | 217 | 399 |
| 1976-77 | 6.6 | 4,602 | 255 | 694 |

Honey levy

Under the *Honey Levy Act* 1962, a levy is imposed on domestic sales of honey for the purpose of financing the operations of the Australian Honey Board. The current rate of levy, which became 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.

For further information, see *Beekeeping, Australia* (72 14.0).

Eggs and egg products

EGGS AND EGG PRODUCTION: SUPPLY AND UTILISATION
(Eggs in shell weight)

| Year | Production(a) | | Exports | Processed food(b) | Apparent consumption in Australia as human food | |
|----------|---------------|-------------|-------------|----------------------|--|----------------------|
| | Quantity | Gross value | | | Total | Per head per year |
| | '000 tonnes | \$ million | '000 tonnes | '000 tonnes | '000 tonnes | kg |
| 1972-73 | 193.2 | 117.4 | 4.5 | 35.9 | 155.1 | 11.7 |
| 1973-74 | 189.0 | 147.8 | 2.1 | 31.5 | 157.5 | 11.7 |
| 1974-75 | 197.7 | 171.7 | 2.0 | 38.4 | 160.0 | 11.7 |
| 1975-76 | 196.3 | 178.5 | 1.8 | 32.5 | 161.7 | 11.7 |
| 1976-77p | 192.7 | 182.2 | 0.9 | 28.3 | 163.4 | 11.7 |
| 1977-78p | n.y.a. | 195.0 | 0.8 | n.y.a. | n.y.a. | n.y.a. |

(a) Includes estimates for uncontrolled commercial production and production by self-suppliers. (b) Includes egg products as pulp and powder; also includes wastage.

Commercial egg production rose steeply following the introduction in 1965 of the Council of Egg Marketing Authorities of Australia (CEMA) Stabilisation Plan. However, disposals of eggs-in-the-shell lagged, and exports and stocks of egg pulp packed for export rose substantially. Average net returns to producers fell in 1971-72 to the lowest level since 1950-51. By 1972-73 producer returns

rose significantly through improved domestic and export prices, and, as part of a scheme to control commercial egg production, a national hen quota was agreed to by the States in October 1972. It was believed that hen quotas encouraged changes in husbandry practices which boosted average productivity of laying hens.

Egg consumption

There is a large section of the industry, including eggs produced in areas outside the control of the Egg Board and by backyard poultry keepers, for which production and consumption data are not available. This has been variously estimated at about 40 per cent of *recorded* production.

Exports

Egg pulp is Australia's major egg export product, with Japan being the most important market. As Japan is aiming at self-sufficiency, the prospects for expanding Australia's exports to Japan are not encouraging. Increased transport costs are likely to affect the export of shell eggs, particularly to the Middle East.

EXPORTS OF EGGS AND EGG PRODUCTS

| Year | Eggs in shell | | Eggs not in shell | | | |
|-------------------|---------------|--------------|-------------------|--------------|----------|--------------|
| | | | Liquid form | | Dry | |
| | Quantity | Value f.o.b. | Quantity | Value f.o.b. | Quantity | Value f.o.b. |
| | '000 doz | \$'000 | tonnes | \$'000 | tonnes | \$'000 |
| 1973-74 | 2,203 | 872 | 12,974 | 5,521 | 401 | 654 |
| 1974-75 | 2,343 | 951 | 11,627 | 7,229 | 96 | 121 |
| 1975-76 | 2,684 | 1,033 | 15,858 | 9,412 | 58 | 96 |
| 1976-77 | 1,293 | 655 | 12,693 | 9,151 | 35 | 96 |
| 1977-78 | 1,248 | 654 | 9,739 | 10,272 | 56 | 158 |

For further details on eggs and egg products see the monthly bulletin *Chicken Hatchings* (7207.0) and *Apparent Consumption of Foodstuffs and Nutrients* (4306.0).

Rural improvements

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.

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 feed-stocks. Production of phosphatic fertilisers is dependent upon imported phosphate rock but, with the development of domestic rock deposits, rock from these sources will be phased out of local manufacture.

As a result of widespread phosphate deficiency in Australian soils, phosphatic fertilisers account for a large proportion of usage both on crops and pastures.

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.

ARTIFICIAL FERTILISERS: AREA AND USAGE

| Year | Area fertilised | Super-phosphate used | Nitrogenous fertilisers used | Other fertilisers used |
|-------------------|-----------------|----------------------|------------------------------|------------------------|
| | '000 ha | '000 tonnes | '000 tonnes | '000 tonnes |
| 1972-73 | 26,076 | 3,522 | 276 | 392 |
| 1973-74 | 29,529 | 4,110 | 367 | 360 |
| 1974-75 | 24,858 | 3,367 | 335 | 360 |
| 1975-76 | 18,976 | 2,222 | 353 | 298 |
| 1976-77 | 21,266 | 2,303 | 326 | 429 |

Since the Second World War there has been a great expansion of the area of sown pasture accompanied by an increased use of fertilisers. New pasture varieties (including tropical species) have been developed, and nutrient or trace element deficiencies in soils identified.

Up to 90 per cent of all artificial fertilisers used in Australia are made up of superphosphate, over half of which is used on pastures, mainly in areas with moderate to good rainfall. Large quantities are also used on cereal crops. The increased use of fertilisers, combined with improved grass and crop species, and more scientific methods of crop and pasture rotation, has probably succeeded in reversing the declining trend in the fertility of Australian soils, at least in the more developed regions.

SUPERPHOSPHATE USAGE

| <i>Selected crops and pastures</i> | | | | | | |
|------------------------------------|---------------------------------|----------------|--------------|----------------------|-------------------|--------------|
| <i>Year</i> | <i>Sown and native pastures</i> | <i>Lucerne</i> | <i>Wheat</i> | <i>Other cereals</i> | <i>Sugar cane</i> | <i>Total</i> |
| AREA FERTILISED ('000 hectares) | | | | | | |
| 1972-73 | 15,256 | 497 | 6,071 | 3,535 | 240 | 26,076 |
| 1973-74 | 17,994 | 495 | 7,147 | 3,258 | 236 | 29,529 |
| 1974-75 | 14,484 | 639 | 6,358 | 2,678 | 248 | 24,858 |
| 1975-76 | 8,568 | 346 | 6,276 | 3,092 | 267 | 18,976 |
| 1976-77 | 10,007 | 447 | 6,745 | 3,366 | 285 | 21,266 |
| SUPERPHOSPHATE USED ('000 tonnes) | | | | | | |
| 1972-73 | 2,233 | 80 | 688 | 411 | 20 | 3,522 |
| 1973-74 | 2,709 | 89 | 804 | 402 | 21 | 4,110 |
| 1974-75 | 2,077 | 113 | 728 | 326 | 21 | 3,367 |
| 1975-76 | 1,031 | 53 | 665 | 354 | 26 | 2,222 |
| 1976-77 | 1,166 | 63 | 615 | 351 | 27 | 2,303 |

Pasture improvement

An article on pasture improvement, which includes notes on indigenous and introduced species of grasses and traces the development of pasture research in Australia, appears on pages 1001-1002 of Year Book No. 49.

Soil conservation

Year Book No. 49 contains an article (pages 1003, 1004) 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.

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.

PRODUCTION AND IMPORTS OF FERTILISERS

| Item | | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|---|-------------|---------|---------|---------|---------|---------|
| PRODUCTION | | | | | | |
| Superphosphate (a) | '000 tonnes | 5,288 | 3,092 | 2,316 | n.y.a. | n.y.a. |
| Mixed chemical fertilisers (including complete manures) | '000 tonnes | 1,503 | 1,049 | 708 | n.y.a. | n.y.a. |
| Leaf and foliage type fertilisers (including dry and liquid form) | tonnes | 300 | 368 | 1,129 | n.y.a. | n.y.a. |
| Manures (without added chemical fertilisers) (b) | tonnes | 18,864 | 9,554 | 20,344 | n.y.a. | n.y.a. |
| IMPORTS | | | | | | |
| Crude fertilisers (mainly natural phosphate) | '000 tonnes | 3,113 | 2,651 | 1,464 | 1,330 | 1,612 |
| | Value \$m | 35.5 | 74.6 | 18.4 | 42.5 | 55.6 |
| Manufactured, mineral or chemical fertilisers— | | | | | | |
| Nitrogenous (c) | '000 tonnes | 7 | 12 | 6 | 22 | 23 |
| | Value \$m | 0.5 | 2.5 | 0.7 | 2.6 | 2.5 |
| Potassic (d) | '000 tonnes | 183 | 211 | 110 | 165 | 157 |
| | Value \$m | 5.2 | 9.5 | 7.3 | 9.6 | 9.1 |
| Other (e) | '000 tonnes | 7 | 5 | 18 | 71 | 35 |
| | Value \$m | 0.9 | 1.1 | 1.3 | 8.9 | 5.1 |

(a) Includes double and triple superphosphate and ammonium phosphate in terms of single superphosphate. (b) Blood, bone and/or offal, and other material. (c) Mainly ammonium nitrate, ammonium sulphate, calcium ammonium nitrate, sodium nitrate and urea containing in the dry state more than 45 per cent by weight of nitrogen. (d) Mainly potassium chloride and potassium sulphate. (e) Includes phosphatic fertilisers and N.P.K. complete fertilisers.

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.

AERIAL AGRICULTURE

| Year ended 31 March | Area ('000 hectares) | | | Materials used ('000 tonnes) | | Total flying time '000 hours |
|------------------------|------------------------|---------|----------|------------------------------|------|---------------------------------|
| | Top dressed and seeded | Sprayed | Total(a) | Super-phosphate | Seed | |
| 1973 | 3,359 | 1,355 | 4,788 | 446.2 | 1.6 | 89.4 |
| 1974 | 4,870 | 1,870 | 6,776 | 546.0 | 2.5 | 93.3 |
| 1975 | 3,378 | 1,544 | 5,080 | 473.8 | 4.8 | 89.2 |
| 1976 | 1,164 | 2,059 | 3,314 | 105.2 | 3.5 | 53.8 |
| 1977 | 1,381 | 1,624 | 3,064 | 151.5 | 2.5 | 49.6 |

(a) Includes other types of treatment (rabbit baiting, etc.).

Irrigation on rural holdings

Irrigation is one of the factors by which rural industry is further developed. The variability in stream flow and annual rainfall means that successful irrigation of crops and pastures is dependent on storage. Ground water supplies are also used in areas where the quantity is adequate and the quality is suitable. The area of land irrigated (nearly 1.5 million hectares in 1975-76) forms about 10 per cent of the total area under crops and only 0.3 per cent of the total area of rural holdings.

CROPS AND PASTURES: AREA IRRIGATED(a)

('000 hectares)

| Year | Sown and native pastures (including lucerne) | Cereals for all purposes | Sugar cane | Vegetables for human consumption | Fruit | Grapevines | All other | Total | Percent of total crops |
|---------|--|--------------------------|------------|----------------------------------|-------|------------|-----------|---------|------------------------|
| 1972-73 | 1,099.7 | 250.8 | 70.9 | 64.9 | 59.5 | 44.9 | 94.9 | 1,685.5 | 11.8 |
| 1973-74 | 983.5 | 177.4 | 66.2 | 59.2 | 54.6 | 44.3 | 85.4 | 1,470.6 | 9.7 |
| 1974-75 | 955.1 | 183.7 | 74.0 | 68.9 | 56.1 | 44.9 | 86.3 | 1,469.0 | 10.6 |
| 1975-76 | 920.4 | 252.7 | 73.3 | 63.4 | 52.9 | 45.6 | 66.6 | 1,474.9 | 10.1 |

(a) Irrigation statistics were not collected in 1976-77.

Sources of irrigation water

Most irrigation areas in Australia are supplied with water by a State authority, although there are also private schemes operating. The major reasons for expansion of the area irrigated have been public investment in the building of dams and major reservoirs and private investment by farmers in irrigation plant and earthworks. Sources of irrigation water are collected irregularly. The data may differ slightly from the previous table.

SOURCES OF IRRIGATION WATER: 1971-72 AND 1974-75

('000 hectares)

| <i>Surface water</i> | | | | | | |
|-----------------------|---|---|---------------------------|--|---|--------------|
| <i>State</i> | <i>State irrigation schemes</i> | <i>Other(a)</i> | | <i>Underground water supply(b)</i> | <i>Town or country reticulated water supply</i> | <i>Total</i> |
| | | <i>Direct from rivers creeks, lakes, etc.</i> | <i>From farm dams</i> | | | |
| | | | | | | |
| 1971-72 | | | | | | |
| New South Wales . . . | 436.3 | 239.9 | 12.4 | 58.0 | 1.2 | 747.8 |
| Victoria | 500.8 | 67.0 | 18.8 | 14.2 | 3.3 | 604.2 |
| Queensland | 21.7 | 43.6 | 12.5 | 105.4 | 0.3 | 183.6 |
| South Australia . . . | 21.7 | 18.7 | 2.4 | 32.7 | 0.6 | 76.1 |
| Western Australia . . | 18.0 | 3.7 | 5.1 | 4.3 | 0.1 | 31.3 |
| Tasmania | n.a. | 9.7 | 9.8 | 0.2 | 0.1 | 19.9 |
| Australia | 998.6 | 382.5 | 61.1 | 214.9 | 5.7 | 1,662.7 |
| 1974-75 | | | | | | |
| New South Wales . . . | 264.1 | 226.3 | 12.5 | 33.9 | 1.6 | 538.4 |
| Victoria | 421.9 | 68.1 | 54.1 | 30.6 | 18.5 | 593.1 |
| Queensland | 25.1 | 48.4 | 14.2 | 109.3 | 0.1 | 197.1 |
| South Australia . . . | 20.6 | 18.9 | 3.0 | 35.6 | 0.8 | 78.9 |
| Western Australia . . | 12.9 | 4.2 | 5.9 | 4.5 | 0.6 | 28.1 |
| Tasmania | 0.8 | 9.9 | 12.3 | 0.4 | 0.2 | 23.7 |
| Australia | 745.4 | 375.9 | 101.9 | 214.4 | 20.1 | 1,457.8 |

(a) Includes private group schemes.

(b) E.g. bore, well, spear.

Agricultural machinery on rural holdings

Statistics on the type of agricultural machinery on rural holdings were published in early issues of the Year Book. Additional information was published in the bulletin *Rural Land Use, Improvements, Agricultural Machinery and Labour*, 1974-75 (7103.0). Details of the sales of new tractors for agricultural purposes are given in the quarterly publication *Receipts, Sales and Stocks of New Tractors* (8507.0).

Rural employment

Employment on rural holdings

Prior to 1976 data on employment collected at the annual Agricultural Census differentiated between permanent full-time employees and temporary employees. Full-time workers excluded casual or seasonal workers and other persons working only part-time. Casual or seasonal workers were shown as temporary employees.

In the past it has been difficult to maintain comparability of employment on rural establishments from year to year because of the changing number of lessees and share farmers and because of the tendency of many farmers to include part-time family helpers as full-time workers in their returns. Since the second World War there has been a decline in the percentage of people living in rural areas due, in part, to a rising standard of living accompanying the introduction of new techniques and increasing use of capital equipment, fuel, fertilisers, and pesticides. As a result, a smaller rural labour force is now producing a larger output of farm products.

RURAL EMPLOYMENT(a)
(Source: annual Agricultural Census)

| <i>Males, permanent ('000)</i> | | | | | <i>Persons working more than 15 hours a week ('000)</i> | | |
|--------------------------------|---|------------------------|----------------------|--------------|---|----------------|----------------|
| <i>31 March</i> | <i>Owners, lessees or share farmers</i> | <i>Relatives, etc.</i> | <i>Employees (b)</i> | <i>Total</i> | <i>Males</i> | <i>Females</i> | <i>Persons</i> |
| 1972 | 194.9 | 8.8 | 65.3 | 269.0 | n.a. | n.a. | n.a. |
| 1973 | 189.3 | 7.8 | 62.6 | 259.6 | n.a. | n.a. | n.a. |
| 1974 | 185.9 | 7.3 | 62.2 | 255.4 | n.a. | n.a. | n.a. |
| 1975 | 181.6 | 7.0 | 55.0 | 243.6 | n.a. | n.a. | n.a. |
| 1976 | n.a. | n.a. | n.a. | n.a. | 256.0 | 80.3 | 336.3 |

(a) Employment statistics were not collected in 1976-77.

EMPLOYMENT IN AGRICULTURE

| <i>Month of May</i> | <i>Males</i> | <i>Married women</i> | <i>All females</i> | <i>Persons</i> |
|---------------------|--------------|----------------------|--------------------|----------------|
| 1973 | 305.1 | 54.7 | 65.3 | 370.4 |
| 1974 | 305.9 | 48.9 | 59.9 | 365.8 |
| 1975 | 297.6 | 52.1 | 62.4 | 360.0 |
| 1976 | 284.2 | 57.1 | 67.8 | 352.0 |
| 1977 | 290.2 | 63.4 | 75.2 | 365.4 |
| 1978(a) | 265.3 | 66.6 | 80.4 | 345.7 |

(a) Statistics are based on the 1976 Census of Population and Housing benchmarks and adjusted for a revised sample and questionnaire.

Source: Quarterly population survey conducted by the ABS throughout Australia. For further details see *The Labour Force* (6203.0, 6204.0).

Regulation of Australian agricultural industries

Year Book No. 61, pages 837-57, contains a summary of the means by which agricultural industries are assisted and regulated. It is not intended as a comprehensive statement of all the consultative and legislative assistance and control measures that exist, but rather as a description of the way in which these processes affect the crops, livestock and livestock products referred to earlier in this chapter.

Many of the processes are also referred to in this Year Book in the relevant section of the chapter. For details on the operations of the Australian Agricultural Council, the Rural Reconstruction Scheme and the agricultural extension services provided by the States' Departments of Agriculture see Year Book No. 61, pages 837-839.

CHAPTER 14

FORESTRY AND FISHERIES

FORESTRY

Source of statistics

Statistics relating to forested areas have been compiled by the Forestry Branch, Department of Primary Industry from data supplied by State and Territory Forest Services and by private forestry companies. 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 Australian Statistician as part of the statistics of overseas trade. The figures shown relate, in general, to years ended 30 June.

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 the principal objective is very small in comparison with the size of the continent. Productive or potentially productive forests cover 43 million hectares, and of these 99 per cent are natural forests. Thirty-five million hectares of the natural forests are dominated by eucalypts. For a description of the types of timber grown in Australia see Year Book No. 61, Chapter 24.

Extent of forested areas

The total area of forest, 43.0 million hectares, is based on a definition of forest which includes 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 following tables show classifications of total forest area in Australia by forest type and by ownership. Because areas at State level are subject to frequent change, totals have been rounded.

FOREST AREAS CLASSIFIED BY FOREST TYPE, 30 JUNE 1977

(Source: Forestry Branch, Department of Primary Industry)

('000 hectares)

| Forest type | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | A.C.T. | Aust. |
|---|---------------|--------------|---------------|-----------|--------------|--------------|--------------|-----------|---------------|
| Rainforest | 300 | — | 1,068 | — | 3 | 464 | 37 | — | 1,872 |
| Eucalypt— | | | | | | | | | |
| Productivity—Class I | 1,618 | 648 | 212 | — | 176 | 460 | — | — | 3,114 |
| Class II | 3,196 | 4,752 | 1,381 | — | 2,915 | 1,804 | — | 53 | 14,101 |
| Class III | 8,362 | 635 | 3,347 | — | 68 | — | — | — | 12,412 |
| Tropical eucalypt and paperbark | — | — | 4,078 | — | 7 | — | 2,450 | — | 6,535 |
| Cypress pine | 1,908 | 3 | 1,683 | — | 2 | — | 777 | — | 4,373 |
| Plantations | 166 | 154 | 134 | 90 | 59 | 40 | 4 | 13 | 660 |
| Total forest area | 15,550 | 6,192 | 11,903 | 90 | 3,230 | 2,768 | 3,268 | 66 | 43,067 |

FOREST AREAS CLASSIFIED BY OWNERSHIP, 30 JUNE 1977

(Source: Forestry Branch, Department of Primary Industry)

('000 hectares)

| Ownership | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | A.C.T. | Aust. |
|--------------------|----------------|--------------|---------------|-----------|--------------|--------------|--------------|-----------|---------------|
| State forestry (a) | 3,034 | 2,415 | 3,345 | 76 | 1,987 | 1,219 | 312 | 14 | 12,402 |
| Other public (b) | 6,409 | 3,039 | 6,607 | - | 494 | 363 | 2,640 | 51 | 19,603 |
| National parks | 775 | 138 | 521 | - | 124 | 181 | 316 | 1 | 2,056 |
| Private (c) | 5,332 | 600 | 1,430 | 14 | 625 | 1,005 | - | - | 9,006 |
| Total | 215,550 | 6,192 | 11,903 | 90 | 3,230 | 2,768 | 3,268 | 66 | 43,067 |

(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) 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. At 31 March 1977 the total area of coniferous plantations was about 618,000 hectares.

The total production of roundwood from Australia's coniferous plantations is now about 3.0 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* and *populus* spp) comprise about 42,000 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 populus plantations in the Eastern States 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.

PLANTATION AREAS CLASSIFIED BY SPECIES, 31 MARCH 1977

(Source: Forestry Branch, Department of Primary Industry)

(Hectares)

| | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | A.C.T. | Aust. |
|---------------------------|----------------|----------------|----------------|---------------|---------------|---------------|--------------|---------------|----------------|
| Coniferous— | | | | | | | | | |
| <i>Pinus radiata</i> | 131,568 | 134,788 | 2,487 | 82,912 | 29,072 | 38,828 | - | 12,121 | 431,776 |
| <i>Pinus pinaster</i> | - | - | - | 6,016 | 22,072 | - | - | - | 28,088 |
| <i>Pinus elliottii</i> | (a) 3,874 | - | 73,917 | - | - | - | - | - | 77,791 |
| <i>Pinus caribaea</i> | - | - | 9,013 | - | - | - | 1,200 | - | 10,213 |
| <i>Araucaria</i> species | 1,459 | - | 38,434 | - | - | - | - | - | 39,893 |
| Other coniferous species | 13,489 | 5,761 | 6,774 | 411 | - | - | (b) 2,650 | 1,048 | 30,133 |
| Total | 150,390 | 140,549 | 130,625 | 89,339 | 51,144 | 38,828 | 3,850 | 13,169 | 617,894 |
| Broadleaved— | | | | | | | | | |
| <i>Eucalyptus</i> species | 13,617 | 12,666 | 2,859 | 906 | 8,298 | 796 | - | - | 39,142 |
| <i>Populus</i> species | 1,882 | 445 | - | - | - | - | - | - | 2,327 |
| Other broadleaved species | - | 180 | 384 | - | - | - | 75 | - | 639 |
| Total | 15,499 | 13,291 | 3,243 | 906 | 8,298 | 796 | 75 | - | 42,108 |
| Grand total | 165,889 | 153,840 | 133,868 | 90,245 | 59,442 | 39,624 | 3,925 | 13,169 | 660,002 |

(a) Includes some *pinus caribaea*.(b) *Callitris intratropica*.

PLANTATION AREAS CLASSIFIED BY OWNERSHIP, 31 MARCH 1977

(Source: Forestry Branch, Department of Primary Industry)

(Hectares)

| Ownership | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | A.C.T. | Aust. |
|--------------------------|---------|---------|---------|--------|----------|--------|-------|--------|---------|
| Coniferous— | | | | | | | | | |
| State forestry | 119,929 | 71,935 | 104,625 | 74,665 | 41,722 | 30,037 | 3,850 | 13,169 | 459,932 |
| Other public | — | 3,535 | — | — | — | — | — | — | 3,535 |
| National park | 592 | — | — | — | — | — | — | — | 592 |
| Private | 29,869 | 65,079 | 26,000 | 14,674 | 9,422 | 8,791 | — | — | 153,835 |
| Total | 150,390 | 140,549 | 130,625 | 89,339 | 51,144 | 38,828 | 3,850 | 13,169 | 617,894 |
| Broadleaved— | | | | | | | | | |
| State forestry | 6,659 | 5,747 | 2,043 | 906 | (a)8,298 | — | 75 | — | 23,728 |
| Other public | 500 | 1,404 | — | — | — | — | — | — | 1,904 |
| National park | — | — | — | — | — | — | — | — | — |
| Private | 8,340 | 6,140 | 1,200 | — | — | 796 | — | — | 16,476 |
| Total | 15,499 | 13,291 | 3,243 | 906 | (a)8,298 | 796 | 75 | — | 42,108 |
| Grand total | 165,889 | 153,840 | 133,868 | 90,245 | 59,442 | 39,624 | 3,925 | 13,169 | 660,002 |

(a) Of minor economic significance

Australian Government assistance for State softwood forestry operations

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 annual rate of Government plantings by the various State Governments and Territorial Administrators up to a total of some 26,000 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 Commonwealth Government endorsed the Council's recommendation, and until 30 June 1977 there were three Acts authorising softwood planting agreements between the Commonwealth and each State. These were: the *Softwood Forestry Agreements Act* of 1967 which marked the commencement on 1 July 1966, of the expanded softwood planting program in the States, the 1972 Act which terminated on 30 June 1976 and the 1976 Act which covered the one year period to 30 June 1977. In the eleven year period covered by the three Acts, total loan payments of approximately \$54 million were made to the States. This enabled purchases of land as well as the establishment and tending of an additional 100,000 hectares (approximately) of new softwood plantations. Loans are repayable over a 25 year period with repayments of principal and interest commencing ten years after the date of each advance.

Under the *Softwood Forestry Agreements Act* 1978 the Commonwealth Government will provide to the States financial assistance for the period 1977–78 to 1981–82 to cover the cost of maintaining those softwood forestry plantations previously established with Commonwealth assistance under the *Softwood Forestry Agreements Acts* of 1967, 1972 and 1976. The assistance for the maintenance program will be provided by way of loans repayable over 20 years with repayments commencing 15 years after the date of each advance. Interest will either be capitalised over the deferment period, or paid as it falls due, depending upon State preferences. Payments under the 1978 Act are limited to the provision of \$4.2 million for the financial year 1977–78, but thereafter the amounts provided will depend on State requirements for the maintenance program.

The Commonwealth Government has agreed to provide financial assistance to Tasmania over the next five years towards the cost of establishing some small plantations and certain silviculture projects involving native trees.

The assistance, by way of loans on a \$1 for \$1 matching basis, is intended to commence in 1978–79 with a payment of \$136,500. The loans are to be repayable over 40 years commencing 20 years after each advance is made. During the 20 years in which repayments are deferred, interest is to be capitalised.

Forest administration and research**Forestry Branch, Department of Primary Industry**

Following the transfer of research functions of the Forestry and Timber Bureau to the Commonwealth Scientific and Industrial Research Organization, Division of Forest Research in 1975, the remaining functions were subjected to a reorganization which led to the establishment of a Forestry

Branch within the Department of Primary Industry. The functions of the Forestry Branch include the formulation of policies on aspects of forestry which concern the Commonwealth Government, to collate and publish statistics relevant to forestry and to the end use of the produce of forests, to service the Australian Forestry Council and attendant bodies and to deal with international organizations on matters predominantly of a forestry nature.

Commonwealth Scientific and Industrial Research Organization

The Division of Forest Research covers a wide range of forest studies including the following: harvesting, genetics, plant physiology, nutrition, botany, tree seeds, ecology, entomology and pathology, hydrology and resource assessment. The Division maintains six regional stations in the States. These research stations are run in liaison with State forest services, other Government instrumentalities and private forest companies. 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 research programs of the Division of Chemical Technology are directed towards developing ways whereby Australia's forest resources can be more effectively utilised. The programs include the technology of fibre separation, cellulosic composite materials, lignin technology, the assessment and development of cellulosic resources, fibre properties and problems relating to the pulp and paper industry. Technology for the production of liquid fuels from wood and other plant materials is also being investigated.

The Divisions provide assistance to individuals and industry, provide training and experience for overseas technologists and maintain co-operative aid projects with developing countries.

Forestry in the Territories

The management of forests in the Australian Capital Territory is the responsibility of the Forests Section of the Department of the Capital Territory. Forests in the Northern Territory are under the control of the Northern Territory Parks and Wildlife Commission.

Forestry in the States

The objectives of the State Forest Services are primarily the development of permanent forest reserves in each State and to manage these reserves on a multiple use basis. These uses include timber production, provision of minor forest products, grazing, protection of native flora and fauna, recreation and watershed protection. The powers and functions of the State forestry authorities are laid down under forestry Acts and Regulations, and are limited to public lands, in particular to lands set aside for forestry purposes. The functions include the introduction and implementation of proper measures for management and protection of forest land, harvesting, conversion and marketing of forest products. All State forest services are actively engaged in research programs aimed at improving the growth and yield of forest products and in some cases (New South Wales and Queensland) research aimed at improving the utilization of forest products. All State forestry authorities publish annual reports.

Public land permanently reserved or dedicated primarily for timber production in Australia amounts to 12 million hectares. State forestry authorities also have control over the timber on approximately 20 million hectares of crown land not specifically reserved for permanent timber production.

Private forestry

Privately owned land carrying productive or potentially productive native forests constitute an important part of Australia's forest resource. However, with the exception of forested land owned or managed by industrial forestry companies these forests are largely unmanaged for timber production. The area of privately owned coniferous plantations continues to increase. The activities of the industrial forestry companies predominate but the small private tree plantation holdings play an important role in the total supply of timber from these plantations.

Government assisted loan schemes for the establishment of private woodlots exist in New South Wales and Victoria. In Tasmania, a new Division of Private Forestry has been established within the State Forestry Commission with the objective of encouraging private forestry, other State Forest Services provide advice and suitable planting stock for private landowners interested in forestry.

The Australian Forest Development Institute is an active association of private forest growers with chapters covering all States of the Commonwealth.

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. Some of the Creswick graduates are sent by the Forest Commission of Victoria to the University of Melbourne for further training. States other than Victoria offer traineeships tenable at the A.N.U. 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. A limited number of post-graduate forestry scholarships are offered by the Commonwealth Government.

The Australian Forestry Council

The Australian Forestry Council comprises the Ministers responsible for forestry in the six State Governments and the Commonwealth Government.

The Council is intended to provide the means for the mutual exchange between the State and Commonwealth 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 Commonwealth Governments and also private enterprise in the development of Australian forestry.

The Council is supported by a Standing Committee consisting of the Assistant Secretary, Forest Branch, Department of Primary Industry, the heads of each of the six State Forest Services, the Chief of the Division of Forest Research, CSIRO, and the Secretary of the Northern Territory Parks and Wildlife Commission.

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 Northern Territory Parks and Wildlife Commission, the Forestry and Timber Bureau in the relevant States and Territories, and the private sector of the forestry industry at 30 June 1977. The table excludes staff of forestry training establishments.

PERSONS EMPLOYED IN FORESTRY(a), 30 JUNE 1977

| Occupational group | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | A.C.T. | Aust. |
|---|--------------|--------------|--------------|------------|--------------|--------------|------------|------------|---------------|
| Professional staff— | | | | | | | | | |
| Foresters | 213 | 255 | 130 | 54 | 75 | 85 | 12 | 43 | 867 |
| Others | 86 | 75 | 110 | 32 | 1 | 40 | — | 32 | 376 |
| Field and other technical staff | 117 | 297 | 120 | 58 | 318 | 170 | 45 | 81 | 1,206 |
| Clerical staff | 400 | 301 | 278 | 139 | 89 | 144 | 23 | 44 | 1,418 |
| Labour(b) | 1,176 | 1,240 | 1,334 | 308 | 569 | 573 | 84 | 75 | 5,359 |
| Extraction(c) | 3,163 | 413 | 2,270 | 145 | 767 | 2,333 | 12 | 61 | 9,164 |
| Total | 5,155 | 2,581 | 4,242 | 736 | 1,819 | 3,345 | 176 | 336 | 18,390 |

(a) The Forestry and Timber Bureau has provided figures for employment within its own organisation. forest works, etc.

(b) Staff engaged in silvicultural

(c) Staff engaged in felling, carting, etc. Includes direct employees only.

Forest production

FOREST PRODUCTION(a) 1976-77

| | 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 '000m ³ | 1,974 | 1,588 | 501 | 4 | 1,415 | 3,763 | — | — | 9,245 |
| Rain forest species | 93 | — | 158 | — | — | — | — | — | 252 |
| Coniferous— | | | | | | | | | |
| Indigenous forest conifers— | | | | | | | | | |
| Cypress | — | — | 184 | — | — | — | 1 | — | — |
| Other | 534 | — | 46 | — | — | 10 | — | — | 2,929 |
| Plantation grown conifers | — | 565 | 244 | 951 | 121 | 122 | — | 150 | — |
| Total | 2,602 | 2,153 | 1,133 | 955 | 1,536 | 3,894 | 1 | 150 | 12,426 |
| Gross value of forest products(b) \$'000 | 43,356 | 37,308 | 22,839 | 18,178 | 16,858 | 50,129 | 16 | 2,562 | 191,246 |
| Logs(c) | 21,853 | 4,220 | 8,625 | 2,459 | 9,491 | 5,299 | 16 | 143 | 52,105 |
| Other forest products(d) | 65,209 | 41,528 | 31,463 | 20,637 | 26,349 | 55,428 | 32 | 2,705 | 243,351 |
| Total | 65,209 | 41,528 | 31,463 | 20,637 | 26,349 | 55,428 | 32 | 2,705 | 243,351 |
| Local value of forest products(e)— | | | | | | | | | |
| Total | 65,169 | 40,701 | 20,878 | 20,614 | 24,557 | 47,900 | 32 | 2,705 | 222,556 |

(a) Excludes some production from private land thought to be relatively small, details of which are not available. (b) Gross production is valued at principal markets. (c) See footnote (c) to the table Forest Production: Australia, below. (d) Includes firewood, sleepers, transoms, girders, bridge timbers, mining timber, poles, piles, charcoal (forest production only), tanning bark, essential oils, eucalyptus leaves, crude rutin. (e) Gross production valued at place of production. See footnote (b) above.

FORESTRY AND FISHERIES
FOREST PRODUCTION(a): AUSTRALIA

| | | 1974-75 | 1975-76 | 1976-77 |
|---|---------------------|----------------|----------------|----------------|
| Production of logs for sawing, peeling, slicing or pulping— | | | | |
| Broadleaved— | | | | |
| Eucalypt and related species | '000 m ³ | 9,653 | 8,695 | 9,245 |
| Rain forest species | " | 328 | 255 | 252 |
| Coniferous— | | | | |
| Indigenous forest conifers— | | | | |
| Cypress | " | 321 | | |
| Other | " | 58 | 2,705 | 2,929 |
| Plantation grown conifers | " | 2487 | | |
| Total | " | 12,847 | 11,655 | 12,426 |
| Gross value of forest products(b)— | | | | |
| Logs(c) | \$'000 | 172,833 | 167,891 | 191,246 |
| Other forest products(d) | " | 39,806 | 45,111 | 52,105 |
| Total | " | 212,639 | 213,002 | 243,351 |
| Local value of forest products(e)— | | | | |
| Total | " | 195,445 | 194,796 | 222,556 |

(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, 1976-77, 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 was estimated to be \$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 firewood, sleepers, transomes, girders, bridge timbers, mining timber, poles, piles, charcoal (forest production only), tanning bark, essential oils, eucalyptus leaves, crude rutin. (e) Gross production valued at place of production. See footnote (b) to the table Forest Production, 1976-77, above.

Timber and timber products

The selected details shown below have been compiled from the annual census of manufacturing. For further details of the Manufacturing Census see Chapter 17, Manufacturing and Internal Trade.

MANUFACTURING ESTABLISHMENTS(a)—SUMMARY OF OPERATIONS, 1976-77

| Industry class | ASIC code(b) | Number of establishments operating at end of June | Persons employed (c) | Turnover | Fixed capital expenditure (outlay on fixed tangible assets less disposals) | |
|---------------------------------|--------------|---|----------------------|----------------|--|---------------|
| | | | | | Value added | |
| Log sawmilling | 2511 | No. 861 | No. 13,723 | \$'000 355,276 | \$'000 217,749 | \$'000 13,969 |
| Plywood and manufactured boards | 2513 | 79 | 6,259 | 224,691 | 101,451 | 22,837 |

(a) All manufacturing establishments owned by multi-establishment enterprises and single establishment enterprises; with four or more persons employed. (b) Australian Standard Industrial Classification. (c) Average over whole year includes working proprietors.

TIMBER AND SELECTED TIMBER PRODUCTS PRODUCED

| Item | | 1974-75(a) | 1975-76(a) | 1976-77(a) |
|---|-------------|------------|------------|------------|
| Undressed sawn timber— | | | | |
| Recovered from sawn logs— | | | | |
| Australian grown— | | | | |
| Broadleaved | '000 cu m | 2,407 | 2,372 | 2,312 |
| Coniferous | " | 823 | 856 | 1,945 |
| Total | " | 3,230 | 3,228 | 4,257 |
| Woodchips (green weight)— | | | | |
| Hardwood (broad leaved) | '000 tonnes | 3,009 | 2,603 | 3,623 |
| Plywood— | | | | |
| Commercial—(surface measure) | '000 sq m | 6,347 | 5,967 | 6,550 |
| (1 mm basis) | " | 30,413 | 35,221 | 35,298 |
| Waterproof—(surface measure) | " | 4,430 | 4,643 | 4,097 |
| (1 mm basis) | " | 35,716 | 35,715 | 41,219 |
| Particle board (resin bonded) | cu m | 389 | 460 | 496 |
| Wood pulp— | | | | |
| Chemical | tonne | 172,274 | 162,342 | 182,775 |
| Mechanical | " | 404,684 | 392,675 | 416,905 |
| Other | " } | | | |
| Paper— | | | | |
| Newsprint | tonne | 196,346 | 206,228 | 206,590 |
| Printings | " | 58,864 | 46,510 | 55,329 |
| Writing (incl. cartridge) | " | 100,351 | 69,943 | 87,896 |
| Wrapping | " | 284,535 | 301,524 | 321,571 |
| Blotting | " | | | |
| Duplicating | " } | 37,313 | 29,381 | 30,286 |
| Other paper | " | | | |
| Tissue and sanitary papers | " | 92,457 | 88,716 | 91,405 |
| Paperboard (incl. strawboard) | " | 378,324 | 379,942 | 430,711 |

(a) Excludes production of small single establishment enterprises with less than four persons employed and establishments engaged in non-manufacturing activities but which may carry on, in a minor way, some manufacturing.

Woodchips

On 24 April 1976, under direction of the Australian Government, the Standing Committee on Science and the Environment announced the start of an inquiry into the environmental impact of the woodchip industry. The scope of the inquiry covered all woodchip programs in Australia engaged in production for export or for the domestic market and their immediate environmental impact, i.e. the impact on soil, air and water and on forest fauna and flora. The findings of the Standing Committee on Science and the Environment are shown in the Committee's report *Woodchips and the Environment* issued in 1977 by the Australian Government Publishing Service. This report includes considerable statistical and descriptive material.

The woodchip industry entails the procurement of wood and its mechanical reduction to chips about the size of an Australian 50 cent piece. These chips are either exported for pulping or retained for use in domestic pulping operations. In 1976-77 the production of hardwood chips in Australia amounted to 3,623,000 tonnes.

Imports

IMPORTS OF CRUDE WOOD AND TIMBER

| | | Quantity | | | Value (\$'000 f.o.b.) | | |
|---|-----------|----------|---------|---------|-----------------------|-----------|---------|
| | | 1975-76 | 1976-77 | 1977-78 | 1975-76 | 1976-77 | 1977-78 |
| Crude wood, and timber— | | | | | | | |
| Wood waste and charcoal | '000 cu m | n.a. | n.a. | n.a. | 9 | 9 | 8 |
| Wood in the rough or roughly squared | " | 156 | 36 | 33 | 2,221 | 1,923 | 2,146 |
| Wood shaped or simply worked— | | | | | | | |
| Railway or tramway sleepers | " | 22 | — | 17 | 3,458 | — | 3,048 |
| Timber, sawn lengthwise, sliced or peeled, but not further prepared, of a thickness exceeding 5 mm— | | | | | | | |
| Conifer— | | | | | | | |
| Douglas fir | " | 427 | 445 | 336 | 36,773 | 47,880 | 42,006 |
| Hemlock and balsam | " | 65 | 73 | 79 | 3,992 | 5,626 | 6,332 |
| Radiata pine | " | 31 | 38 | 63 | 2,123 | 2,673 | 2,604 |
| Redwood | " | 9 | 8 | 3 | 1,577 | 1,675 | 612 |
| Western red cedar | " | 80 | 99 | 86 | 10,252 | 15,418 | 13,864 |
| Other | " | 22 | 24 | 6 | (a)2,059 | (c)2,682 | (e)878 |
| Total conifer | " | 634 | 687 | 573 | 56,776 | 75,954 | 66,296 |
| Non-conifer(b) | " | 275 | 352 | 236 | 27,494 | (d)44,639 | 29,813 |
| Timber (including blocks, strips, etc.), planed, tongued, grooved, rebated, etc., but not further manufactured— | | | | | | | |
| Conifer | '000 cu m | 41 | 56 | 61 | 4,684 | 6,786 | 8,539 |
| Non-conifer | " | 50 | 71 | 65 | 7,322 | 14,033 | 13,921 |

(a) Includes a value of \$11,000 for which no quantity has been included. (b) Total value for this item for 1975-76 includes value of \$134,000 for which no quantity has been included. (c) Includes a value of \$16,000 for which no quantity has been included. (d) Includes a value of \$180,000 for which no quantity has been included. (e) Includes a value of \$3,182 for which no quantity has been included.

Exports

EXPORTS OF CRUDE WOOD AND TIMBER(a)

| | | Quantity | | | Value (\$'000 f.o.b.) | | |
|---|--------|----------|---------|---------|-----------------------|---------|---------|
| | | 1975-76 | 1976-77 | 1977-78 | 1975-76 | 1976-77 | 1977-78 |
| Crude wood, and timber— | | | | | | | |
| Wood waste and charcoal (including shell and nut charcoal) | '000m' | n.a. | n.a. | n.a. | 12 | 7 | 62 |
| Pulpwood | " | 54 | — | — | 1,078 | — | — |
| Wood in the rough or roughly squared | " | 2 | 2 | 4 | 225 | 115 | 258 |
| Wood, shaped or simply worked— | | | | | | | |
| Railway or tramway sleepers | " | 44 | 30 | 23 | 4,902 | 4,204 | 3,797 |
| Timber, sawn lengthwise, sliced or peeled, but not further prepared, of a thickness exceeding 5 mm— | | | | | | | |
| Conifer | " | 1 | — | 9 | 92 | 42 | 41 |
| Non-conifer—Jarrah | " | 1 | 2 | 1 | 159 | 317 | 294 |
| Other | " | 33 | 23 | 28 | 2,856 | 4,567 | 4,834 |
| Timber (including blocks, strips and friezes for parquet or wood block flooring, not assembled), planed, tongued, etc.— | | | | | | | |
| Conifer | " | — | — | 1 | 82 | 36 | 493 |
| Non-conifer | " | 1 | 1 | 32 | 184 | 228 | 303 |

(a) Excludes re-exports.

FISHERIES

Collection and presentation of fisheries statistics

Source and basis of statistics

Statistics presented in this section of the 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 Primary Industry 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.

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 for pearl-shell and trochus-shell refer to the actual quantities of dry shell for sale and exclude the weight of the fish.

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 spp*), golden perch (*Plectroplites ambiguus*) and eels (*Arguilla australis*). Trout are farmed in New South Wales, Victoria and Tasmania. Important pelagic fisheries include those for Australian 'salmon' (*Arripis trutta*), southern bluefin tuna (*Thunnus maccoyii*), snoek (*Leionura atun*), spanish mackerel (*Scomberomerus commersoni 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*). Expansion of trawling onto the continental slope off central New South Wales and in Western Bass Strait has established a fishery for gem fish (*Rexea solandri*). There has been a renewal of interest in the Great Australian Bight, several grounds resulting in the establishment of a joint venture operation employing three large modern freezer trawlers. The previously valuable fishery for edible school and gummy shark (*Galeorhinus australis* and *Mustelus antarcticus*) in south-eastern Australia declined significantly in the year 1972-73 because of the discovery of a high mercury content in large school shark, but production and prices have since risen as the fishery for gummy sharks has expanded, although production has not attained its former level. 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.

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. Over the last decade, important fisheries have been established in northern Australia and South Australia. Interest in deep water prawn stocks off New South Wales is growing. Bay lobsters (*Thenus spp.* and *Ibacus spp.*) are taken incidentally to prawn trawling operations. Crabs (*Scylla spp.* and *Portunus spp.*) are taken mainly in Queensland, New South Wales and Western Australia.

Molluscs (edible)

Naturally-occurring oysters are harvested in all States; in New South Wales and Queensland the Sydney rock oyster (*Crassostrea commercialis*) is cultured commercially. The introduction of the Pacific oyster (*Crassostrea gigas*) to Tasmania and South Australia has provided 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, northern Tasmania and south-western Western Australia. However, substantial fluctuations in abundance have resulted in erratic production from year to year and only the Victorian and Tasmanian beds are currently producing. A fishery based on the saucer scallop (*Amusium balloti*) is located off south and central Queensland and there is a small fishery for the same species in Shark Bay, Western Australia. An important abalone (*Haliotis spp*) fishery has been developed since

1964 in south-east Australia with Tasmania, Victoria and South Australia providing the bulk of the catch. There is also a small abalone fishery in South-west Australia. Mussels (*Mytilus planulatus*) are harvested in Victoria and New South Wales. 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

Since 1955 sperm whale (*Physeter catodon*) has been taken in southern waters of Western Australia. However the numbers of shore stations responsible for carrying out processing operations have decreased and an announcement was made late in 1978 that the last of these, located at Albany, Western Australia, would also be closing.

General

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 Commonwealth Government power to legislate for fisheries in Australian waters beyond territorial limits, the residual power in respect to waters within territorial limits (including inland waters) resting with the States. The Commonwealth 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 Commonwealth Government laws regulating the fisheries are the *Fisheries Act* 1952, the *Continental Shelf (Living Natural Resources) Act* 1968 and the *Whaling Act* 1960. Each of these applies in accordance with the Commonwealth Government's fishery power under the Constitution.

Fisheries Act

This Act, as amended in 1978, establishes a 200 mile Australian fishing zone around Australia and its external Territories. It requires Australians and foreigners engaged in fishing and boats used for fishing to be licensed if the purpose of the fishing is commercial. As well as giving effect to Australia's sovereign rights over the living resources of the 200 mile zone, the Act, in accordance with International Law, imposes an obligation on Australia to manage the resources so that they are conserved for optimum utilisation by mankind, both now and in the future.

Continental Shelf (Living Natural Resources) Act

This Act implements in Australian law the sovereign rights conferred on Australia by the Convention on the Continental Shelf, Geneva, 1958 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. 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 is 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 its 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 Commonwealth 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 and management of the living resources of the Australian Fishing Zone to ensure that they are not endangered by over exploitation; and achievement of the optimum utilisation of the living resources by the Australian fishing industry and foreign interests. Fishery resources are common property and, apart from fisheries such as those for rock lobster, abalone, southern bluefin tuna and prawns in northern Australia where the number of boats are controlled, and the rock lobster fisheries where 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 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 type 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 for the development and management of the fisheries and fishing industry which are consistent with the purposes of those Acts. The former was established with the proceeds of the sale of the assets of the Australian Whaling Commission and was replenished from Consolidated Revenue in 1976-77. The latter is a matching fund into which is paid each year an appropriation from Commonwealth 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) CSIRO Division of Fisheries and Oceanography, which has its headquarters and main laboratory at Cronulla, N.S.W. and regional laboratories in Perth and Brisbane (fisheries science and oceanography);
- (ii) CSIRO Division of Food Research, conducts research into handling storage, processing and transportation of fish at its laboratory in Hobart, Tasmania;
- (iii) State fisheries departments (fisheries laboratories have been established in Perth, Hobart, Melbourne, Sydney, Brisbane and Cairns; research vessels are operated by New South Wales, Victoria, Western Australia, Tasmania and South Australia; and the Department of the Northern Territory has a small scientific section at Darwin);
- (iv) Fisheries Division, Department of Primary Industry, Canberra (economic and management research, fishing technology, extension and education service); and
- (v) private fishing companies (surveys of fisheries resources, research into handling, processing and marketing).

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.

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, purse seine, 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 table shows details of boats and equipment engaged in the taking of fish, crustaceans and edible molluscs, and pearl-shell and trochus-shell; and the number of chasers and stations engaged in whaling operations. Boats engaged in more than one industry are classified to their main activity.

FISHERIES: BOATS AND EQUIPMENT

| | | 1974-75 | 1975-76 | 1976-77 |
|--|--------|----------|----------|-------------|
| General fisheries— | | | | |
| Boats | No. | 9,830 | 9,110 | 9,515 |
| Value of boats and equipment | \$'000 | 191,482 | 225,901 | 247,502 |
| Edible oyster fisheries— | | | | |
| Boats | No. | (a)1,818 | (a)1,926 | (a)(b)1,747 |
| Value of boats and equipment | \$'000 | (a)4,476 | (a)5,607 | (a)(b)5,742 |
| Pearl-shell and trochus-shell— | | | | |
| Boats(c) | No. | 20 | 15 | 17 |
| Whaling(c)— | | | | |
| Chasers | No. | 3 | 3 | 3 |
| Stations operating | No. | 1 | 1 | 1 |

(a) Incomplete; excludes Queensland and Tasmania. (b) Incomplete; excludes South Australia.
(c) Source: Department of Primary Industry.

Employment in fisheries

Classification of registered commercial fishermen by industry

The following table has been derived mainly from the licensing records of the various State fisheries authorities. 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

| Industry | 1974-75 | 1975-76 | 1976-77 |
|--|----------|----------|-------------|
| General fisheries(a) | 18,403 | 17,037 | 17,613 |
| Edible oyster fisheries | (b)1,444 | (b)1,390 | (b)(c)1,434 |
| Pearl-shell and trochus-shell(d) | 242 | 194 | 162 |
| Whaling(d)— | | | |
| At sea | 51 | 51 | 51 |

(a) 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. Includes the number of licenced commercial fishermen in Western Australia. (b) Incomplete; excludes Queensland and Tasmania. (c) Incomplete; excludes South Australia. (d) Source: Department of Primary Industry.

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. *Gross value of production* is the value placed on recorded production at the wholesale price realised in the principal markets. In general, the 'principal markets' are the metropolitan markets in each State, although, in cases where commodities are consumed locally or where they become raw material for a secondary industry, these points are presumed to be the principal markets. *Local value* (i.e. gross value of commodities produced at the place of production) is ascertained by deducting marketing costs from the gross value of commodities produced. Marketing costs include freight, cost of containers, commission, and other charges incurred in marketing. Gross and local values of primary commodities produced involve some duplication as they include certain primary commodities which are consumed as raw materials to produce other primary commodities (e.g. hay consumed by livestock).

FISHERIES: GROSS AND LOCAL VALUE OF PRODUCTION
(\$'000)

| Year | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | Aust. |
|----------------|-----------|--------|--------|-----------|--------|--------|-----------|------------|
| GROSS VALUE | | | | | | | | |
| 1971-72 | 18,970 | 9,507 | 11,382 | 12,380 | 30,817 | 5,929 | 3,164 | 92,148 |
| 1972-73 | (a)21,165 | 11,471 | 13,375 | 15,759 | 28,158 | 5,739 | 5,068 | (a)100,732 |
| 1973-74 | (a)20,974 | 10,895 | 15,196 | 17,442 | 30,494 | 7,014 | 7,295 | (a)109,310 |
| 1974-75 | (a)24,609 | 8,686 | 12,606 | (b)14,083 | 35,130 | 6,928 | 5,667 (a) | (b)107,709 |
| 1975-76 | 31,599 | 10,601 | 17,137 | (b)22,474 | 51,079 | 8,511 | 5,188 | (b)146,589 |
| 1976-77 | 36,059 | 16,014 | 34,814 | (b)27,179 | 68,276 | 11,713 | 11,352 | (b)205,407 |
| LOCAL VALUE(c) | | | | | | | | |
| 1971-72 | 16,323 | 8,855 | 10,764 | 11,027 | 30,625 | 5,929 | 3,164 | 86,687 |
| 1972-73 | 16,898 | 10,646 | 12,686 | 13,969 | 28,000 | 5,739 | 5,068 | 93,004 |
| 1973-74 | 16,568 | 8,682 | 14,387 | 15,433 | 30,313 | 7,014 | 7,295 | 99,692 |
| 1974-75 | 21,569 | 6,949 | 11,732 | 12,496 | 34,785 | 6,928 | 5,667 | 100,127 |
| 1975-76 | 25,334 | 8,481 | 16,152 | 20,022 | 50,870 | 8,511 | 5,188 | 134,558 |
| 1976-77 | 30,352 | 13,917 | 33,714 | 24,186 | 68,099 | 11,713 | 11,352 | 193,333 |

(a) Incomplete; excludes octopus, squid and cuttlefish in New South Wales.

(b) Incomplete; excludes oysters in South Australia.

(c) Local value is gross value less marketing costs.

Production of selected fisheries

SELECTED FISHERIES PRODUCTS: PRODUCTION AND GROSS VALUE
1976-77

| Product | | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | Aust. |
|----------------------|--------|--------|--------|----------|----------|--------|-------|-------|-----------|
| QUANTITY | | | | | | | | | |
| Fish (a) | tonnes | 18,254 | 10,089 | (b)5,425 | 14,065 | 7,575 | 2,363 | 1,483 | 59,255 |
| Crustaceans(a) | " | 2,969 | 316 | 12,187 | 4,788 | 12,277 | 1,178 | 2,929 | 36,643 |
| Molluscs (edible)(a) | " | 11,194 | 5,868 | (c)576 | (c)820 | 1,051 | 3,021 | 12 | (d)22,542 |
| GROSS VALUE (\$'000) | | | | | | | | | |
| Fish | | 12,509 | 9,312 | (b)5,298 | 9,113 | 4,226 | 1,672 | 1,664 | 43,794 |
| Crustaceans | | 9,704 | 1,675 | 28,091 | 16,406 | 55,850 | 4,702 | 8,710 | 125,139 |
| Molluscs (edible) | | 13,846 | 5,027 | (c)307 | (c)1,660 | 864 | 5,339 | 8 | (d)27,050 |

(a) Estimated live weight.

(b) Excludes freshwater fish, particulars of which are not available.

(c) Incomplete; excludes oysters.

(d) Incomplete see individual States.

SELECTED FISHERIES PRODUCTS: PRODUCTION, AND GROSS VALUE AUSTRALIA

| Product | | 1974-75 | 1975-76 | 1976-77 |
|----------------------|--------|--------------|-----------|-----------|
| QUANTITY | | | | |
| Fish(a)(b) | tonnes | 57,423 | 54,973 | 59,255 |
| Crustaceans(a) | " | 29,488 | (c)33,173 | 36,643 |
| Molluscs (edible)(a) | " | (d)(e)21,386 | (e)21,820 | (e)22,542 |
| Pearl-shell(f)(g) | " | 246.7 | 291.2 | 190.2 |
| Trochus-shell(f) | " | 21.4 | — | — |
| GROSS VALUE (\$'000) | | | | |
| Fish(b) | | 29,983 | 35,549 | 43,794 |
| Crustaceans | | 55,955 | (c)83,685 | 125,139 |
| Molluscs (edible) | | (d)(e)13,337 | (e)20,080 | (e)27,050 |
| Pearl-shell(f)(g) | | 218 | 260 | 182 |
| Trochus-shell(f) | | 8 | — | — |

(a) Estimated live weight. (b) Excludes freshwater fish caught in Queensland. (c) Excludes rock lobster in Queensland. (d) Incomplete; excludes octopus, squid and cuttlefish in New South Wales. (e) Incomplete; excludes oysters in Queensland and South Australia. (f) Source: Department of Primary Industry. (g) Excludes manufacturing shell produced from pearl culture operations.

FISH: PRODUCTION, BY PRINCIPAL TYPES

| Type | Tonnes estimated live weight | | | Gross value (\$'000) | | |
|----------------------------|------------------------------|---------------|---------------|----------------------|---------------|---------------|
| | 1974-75 | 1975-76 | 1976-77 | 1974-75 | 1975-76 | 1976-77 |
| Tuna(a) | 11,082 | 10,674 | 9,941 | 3,349 | 3,244 | 4,404 |
| Mackerel | 1,315 | 1,289 | 1,279 | 941 | 1,128 | 1,299 |
| Snoek | 2,005 | 359 | 416 | 452 | 128 | 303 |
| Mullet | 5,999 | 6,255 | 5,776 | 2,076 | 2,791 | 2,798 |
| Bream (including Tarwhine) | 1,112 | 904 | 877 | 749 | 860 | 1,034 |
| Australian salmon | 5,178 | 3,510 | 4,028 | 1,065 | 1,020 | 1,232 |
| Ruff | 1,019 | 895 | 735 | 154 | 191 | 238 |
| Snapper | 2,190 | 1,842 | 2,123 | 2,860 | 2,669 | 3,425 |
| Morwong | 1,415 | 1,815 | 1,599 | 941 | 1,416 | 1,380 |
| Whiting | 2,268 | 2,853 | 2,720 | (b)3,190 | (b)4,385 | (b)4,367 |
| Flathead | 2,848 | 2,117 | 2,018 | 1,630 | 1,584 | 1,547 |
| Shark | 4,773 | 6,320 | 6,718 | 2,640 | 3,820 | 6,447 |
| Leatherjacket | 528 | 413 | 354 | 333 | 261 | 237 |
| Other | 15,690 | 15,726 | 20,671 | 9,605 | 12,051 | 15,082 |
| Total | 57,423 | 54,973 | 59,255 | 29,983 | 35,549 | 43,794 |

(a) Includes estimates by CSIRO for New South Wales. (b) Value of whiting in Tasmania is not available for publication and has been included in 'Other'.

Crustaceans

CRUSTACEANS: PRODUCTION, BY TYPE

(tonnes live weight)

| Type | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|-----------------|---------------|------------------|------------------|---------------|------------------|---------------|
| Murray crayfish | 136 | (a)113 | (a)295 | { 23 | { 23 | 83 |
| Yabbies | | | | { 184 | { 131 | |
| Rock lobster | 13,085 | 13,005 | (b)11,830 | 12,265 | (a)12,865 | 12,700 |
| Bay lobster | 17,915 | 16,757 | 24,491 | 16,327 | 19,478 | 23,039 |
| Prawns | 573 | (a)647 | (a)702 | 712 | 700 | 821 |
| Crabs | | | | | | |
| Total | 31,709 | (c)30,521 | (c)37,318 | 29,488 | (c)33,173 | 36,643 |

(a) Excludes Victorian figure, which is not available for publication. (b) Excludes rock lobster in Queensland. (c) Incomplete; see footnotes to figures for individual species.

Molluscs (edible)**MOLLUSCS: PRODUCTION, BY TYPE**

(tonnes estimated live weight)

| Type | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|------------------------|---------------|------------------|------------------|------------------|------------------|------------------|
| Octopus | 65 | (a)40 } | (a)158 | { (b)20 | (c)59 | 78 |
| Squid | 209 | (a)314 } | | { (b)212 | 253 | 279 |
| Cuttlefish | 2 | (a)- | (a)1 | (b)- | 19 | (c)19 |
| Oysters | 10,434 | (d)9,202 | (d)10,479 | (c)(d)8,908 | (c)(d)10,273 | (c)(d)10,793 |
| Mussels | 577 | (a)23 | (a)63 | 1,019 | 1,123 | 542 |
| Pipi | 86 | 117 | 203 | 193 | 195 | 80 |
| Scallops | 10,148 | 16,953 | 12,425 | 6,062 | 4,642 | 4,431 |
| Abalone | 7,958 | 6,439 | 6,032 | 4,971 | 5,256 | 6,320 |
| Total | 29,479 | (e)33,089 | (e)29,362 | (e)21,386 | (e)21,820 | (e)22,542 |

(a) Excludes Victorian figure, which is not available for publication. (b) Excludes New South Wales figure which is not available. (c) Excludes South Australia figure, which is not available. (d) Excludes Queensland figure which is not available. (e) Incomplete; see individual species.

Pearls, pearl-shell and trochus-shell**PEARL CULTURE AND PEARL AND TROCHUS SHELL FISHING OPERATIONS(a)**

(Source: Department of Primary Industry)

| | | 1974 | 1975 | 1976 |
|---|----------|---------|---------|---------|
| QUANTITY | | | | |
| Pearl and Trochus shell fishing operations— | | | | |
| Production of— | | | | |
| Pearl shell(b) | tonne | 246.7 | 291.2 | 190.2 |
| Trochus shell | tonne | 21.4 | — | — |
| Pearl culture operations— | | | | |
| Live shell introduced | | | | |
| | No. | 558,465 | 578,437 | 464,327 |
| | tonne | 249.3 | 201.2 | 116.9 |
| Production— | | | | |
| Round and baroque pearls | | | | |
| | No. | 86,757 | 57,638 | 82,275 |
| | momme(c) | 63,722 | 42,334 | 64,173 |
| Half pearls | No. | 224,966 | 229,655 | 302,264 |
| Manufacturing shell | tonne | 66.1 | 105.2 | 82.4 |
| VALUE | | | | |
| (\$'000) | | | | |
| Pearl and Trochus shell fishing operations— | | | | |
| Production of— | | | | |
| Pearl shell | | 218 | 260 | 182 |
| Trochus shell | | 8 | — | — |
| Pearl culture operations— | | | | |
| Production of— | | | | |
| Round and baroque pearls | | | | |
| | | n.a. | 7,641 | 5,752 |
| Half pearls | | 457 | 392 | 1,063 |
| Manufacturing shell | | 24 | 49 | 48 |

(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.

Processing of fish, crustaceans and molluscs

Processing plants are located strategically throughout Australia close to fishing grounds. A number of shore-based plants have been established in remote areas of northern Australia to service the expansion of the northern prawn fishery.

Rock lobsters, prawns, abalone and scallops are frozen for export; tuna, snoek, Australian salmon and abalone are canned; small amounts of fish are smoked; and some molluscs are bottled. Hand labour is still used extensively in processing operations, but mechanisation is being progressively introduced.

Ice is used extensively 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.

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-frozen to markets.

Whale processing

WHALING

(Source: Department of Primary Industry)

| | | 1975 | 1976 | 1977 |
|---|---------|--------|--------|--------|
| Whales taken (a)— | | | | |
| Male | No. | 692 | 650 | 508 |
| Females | " | 480 | 345 | 116 |
| Total | " | 1,172 | 995 | 624 |
| Quantity of sperm whale oil produced (b) | barrels | 34,610 | 35,190 | 23,586 |
| Value of whale oil produced | \$'000 | 1,218 | 2,240 | 2,268 |
| Value of by-products (meal, meat, solubles, etc.) | " | 631 | 751 | 647 |
| Total value of products | " | 1,849 | 2,991 | 2,915 |

(a) Sperm whales only were taken. (b) 6 barrels = approximately 1.016 tonnes.

Oil from sperm whales is used in the manufacture of soap, plastics and watch lubricants, and in automatic transmission systems in motor cars.

Domestic marketing of fisheries products

Although virtually the whole of the tuna and Australian salmon catches 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 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 Victoria, South Australia and Western Australia, most fish is sent to metropolitan wholesale fish markets for auctioning; small quantities are processed for sale locally, chiefly by co-operatives. Nearly all fresh fish in Tasmania is consigned direct to processors. The principal outlets for fish products in Australia are retail and catering establishments.

Consumption of edible fisheries products

Particulars of the apparent consumption of fish, crustaceans and molluscs 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: APPARENT CONSUMPTION (Kg edible weight per person per annum)

| | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|--------------------------|---------|---------|---------|---------|---------|---------|
| Fresh or frozen— | | | | | | |
| Fish— | | | | | | |
| Australian origin(a) | 1.7 | 1.7 | 2.0 | 1.3 | 1.5 | 1.5 |
| Imported | 1.5 | 1.5 | 1.8 | 1.6 | 1.6 | 1.6 |
| Crustaceans and molluscs | 0.9 | 0.8 | 1.2 | 0.7 | 1.0 | 0.9 |
| Cured seafood(b) | 0.5 | 0.8 | 0.9 | 0.9 | 1.0 | 1.4 |
| Canned seafood— | | | | | | |
| Australian origin(a) | 0.5 | 0.3 | 0.6 | 0.7 | 0.7 | 0.5 |
| Imported | 0.9 | 0.9 | 1.2 | 1.2 | 0.7 | 1.1 |
| Total seafood | 6.0 | 6.1 | 7.8 | 6.4 | 6.6 | 7.0 |

(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. (b) Includes salted, dried, smoked and otherwise prepared.

Overseas trade in fisheries products

Edible fisheries products

OVERSEAS TRADE IN EDIBLE FISHERIES PRODUCTS

| | Quantity (tonnes) | | | Value (\$'000 f.o.b.) | | |
|--|-------------------|---------|---------|-----------------------|---------|---------|
| | '1975-76 | 1976-77 | 1977-78 | 1975-76 | 1976-77 | 1977-78 |
| IMPORTS | | | | | | |
| Fresh, chilled, frozen or boiled (a) | 21,904 | 22,033 | 22,553 | 26,412 | 33,718 | 36,337 |
| Smoked, dried, salted or in brine | 4,030 | 5,257 | 3,267 | 5,066 | 8,933 | 7,823 |
| Potted or concentrated | 142 | 160 | 141 | 390 | 762 | 862 |
| Canned— | | | | | | |
| Herrings | 1,210 | 1,594 | 1,178 | 1,428 | 1,929 | 1,966 |
| Salmon | 3,279 | 5,980 | 6,726 | 7,726 | 19,498 | 22,203 |
| Sardines, sild, brisling, etc. | 3,070 | 2,333 | 3,244 | 4,550 | 4,475 | 7,382 |
| Tuna | 213 | 655 | 1,529 | 343 | 1,399 | 3,507 |
| Other fish | 781 | 1,564 | 1,991 | 1,043 | 2,480 | 3,106 |
| Crustaceans and molluscs | 1,430 | 2,048 | 2,257 | 3,153 | 5,579 | 7,021 |
| Total canned | 9,983 | 14,174 | 16,925 | 18,243 | 35,360 | 45,185 |
| Other prepared or preserved fish, crustaceans and molluscs | 11,003 | 14,823 | 12,132 | 18,186 | 29,785 | 28,508 |
| Grand total | .. | .. | .. | 68,297 | 108,558 | 118,715 |
| EXPORTS | | | | | | |
| (Australian produce only; excludes re-exports) | | | | | | |
| Fresh, chilled or frozen (b)— | | | | | | |
| Fish | 1,487 | 5,568 | 4,692 | 1,191 | 4,092 | 2,693 |
| Crustaceans and molluscs— | | | | | | |
| Rock lobster tails | 4,018 | 4,982 | 4,604 | 35,782 | 56,580 | 55,728 |
| Prawns | 5,654 | 7,759 | 7,489 | 29,601 | 52,843 | 57,217 |
| Other | 1,815 | 1,457 | 2,636 | (c) 6,091 | 6,703 | 12,283 |
| Crustaceans and molluscs boiled in water | 383 | 220 | 857 | 1,767 | 1,418 | 6,199 |
| Prepared and preserved— | | | | | | |
| Fish | 385 | 188 | 65 | 380 | 417 | 280 |
| Crustaceans and molluscs | 1,426 | 1,870 | 1,485 | 5,576 | 12,959 | 8,671 |
| Grand total | .. | .. | .. | 80,388 | 135,012 | 143,071 |

(a) Excludes frozen smoked, which is included in item 'Smoked, dried, etc.' (b) Excludes frozen smoked, which is included in item 'Prepared and preserved crustaceans and molluscs'. (c) Total value for this item for 1975-76 includes value of \$151,000, for which no quantity has been included.

Non-edible fisheries products

OVERSEAS TRADE IN SELECTED NON-EDIBLE FISHERIES PRODUCTS

| | | Quantity | | | Value (\$'000 f.o.b.) | | |
|---|-------------|-----------|-----------|-----------|-----------------------|--------------|---------------|
| | | 1975-76 | 1976-77 | 1977-78p | 1975-76 | 1976-77 | 1977-78p |
| IMPORTS | | | | | | | |
| Fish heads, fresh or frozen | tonnes | 766 | 1,631 | 1,482 | 133 | 352 | 341 |
| Other fish waste | " | 1,434 | 2,344 | 497 | 144 | 384 | 105 |
| Fish, live(a) | '000 | 12,148 | 11,204 | 11,546 | 1,187 | 1,350 | 1,432 |
| Fish meal | tonnes | 12,947 | 7,629 | 2,762 | 2,688 | 1,956 | 1,109 |
| Whale oil | '000 litres | 32 | 8 | 17 | 21 | 8 | 24 |
| Cod-liver oil | " | 288 | 180 | 170 | 191 | 102 | 123 |
| Other oils (including seal oil) | " | 549 | 123 | 542 | 436 | 275 | 386 |
| Coral and shells and their waste | tonnes | 93 | 85 | 102 | 120 | 112 | 145 |
| Tortoise shell (including turtle shell, claws, waste) | " | 1 | 1 | - | 12 | 11 | 5 |
| Pearls | | n.a. | n.a. | n.a. | 238 | 578 | 1,169 |
| Total | | .. | .. | .. | 5,170 | 5,128 | 4,839 |
| EXPORTS | | | | | | | |
| (Australian produce only; excludes re-exports) | | | | | | | |
| Australian produce— | | | | | | | |
| Whale oil | '000 litres | 8,134 | 6,247 | 5,219 | 1,354 | 2,153 | 2,399 |
| Other oils | " | 20 | 60 | 66 | 77 | 42 | 69 |
| Pearl-shell | tonnes | 306 | 385 | 482 | 280 | 327 | 644 |
| Other shell (including trochus) | " | 444 | 512 | 1,591 | 279 | 355 | 510 |
| Natural pearls | | n.a. | n.a. | n.a. | 3 | 4 | 62 |
| Cultured pearls— | | | | | | | |
| Round | No. | 11,806 | 77,703 | 95,319 | 330 | 4,240 | 4,774 |
| Half round | " | 179,080 | 352,440 | 264,415 | 751 | 1,398 | 1,261 |
| Other | | n.a. | n.a. | n.a. | 11 | 569 | 902 |
| Total | | .. | .. | .. | 3,085 | 9,088 | 10,621 |

(a) Live fish whether or not fit for human consumption.

Further information on subjects relating to fisheries is contained in the annual statistical bulletins *Fisheries* (7602.0 and 7603.0).

CHAPTER 15

WATER RESOURCES

This chapter is divided into two major parts:—water resources in Australia, and the management of these resources. The former provides information on such topics as the geographic background to water resources, surface and groundwater supplies and use and the drainage divisions in Australia. The latter summarises Australian and State assessment and management of water resources.

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.

Introduction

Rainfall, or the lack of it, is the most important single factor determining land use and rural production in Australia. The chapter Climate of Australia contains details on geographical and climatic features that determine the Australian water pattern. Australia is the driest continent in the world. The scarcity of both surface and groundwater resources together with the low rates of precipitation, which restrict irrigation and other uses (quite apart from economic factors), has led to extensive conservation programs of dams, reservoirs, large tanks and other storages.

Geographic background

General. Water resources are determined by rainfall, evaporation and physical features including soil, vegetation and geology. Chapter 2, Climate of Australia, contains a detailed description of the climatic features of the country. A brief description of the landforms appears in Year Book No. 61, pages 25–27. In assessing Australia's water resources, dependability and quality 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 barriers; features range from sloping tablelands and uplands along the east coast Main Divide through the low plain and marked depression in the interior to the Great Western Plateau.

Drainage. Only one-third of the Australian land mass drains directly to the ocean, mainly on the coastal side of the Main Divide and inland with the Murray-Darling system. With the exception of the latter, most rivers draining to the ocean are comparatively short and account for the majority of the country's average annual discharge.

The interior lowlands exhibit endoreic drainage patterns and surface drainage is totally absent from some arid areas of low relief.

Climate. Australia's large area (7.7 million square kilometres) and latitudinal range (3,700 kilometres) have resulted in climatic conditions ranging from the alpine to the tropical. Two-thirds of the continent is arid or semi-arid, although good rainfalls (over 800 mm annually) occur in the northern monsoonal belt under the influence of the Australian-Asian monsoon and along the eastern and southern highland regions under the influence of the great atmospheric depressions of the Southern Ocean. The effectiveness of the rainfall is greatly reduced by marked alternation of wet and dry seasons, unreliability from year to year, high temperatures and high potential evaporation.

Settlement. The availability of water resources controls, to a large degree, the possibility and density of settlement; these, in turn, influence the quality of the water through production and disposal of waste. 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 settlement spread into the dry inland grazing country, the value of reliable supplies of underground water was realised. Observations of the disappearance of large quantities of the rainfall precipitated on the coastal ranges of eastern Australia eventually led to the discovery of the Great Artesian Basin which has become a major asset to the pastoral industry.

For further information on the influence of water resources on the spread of settlement in Australia *see* Year Book No. 61, page 860.

Surface supplies

Distribution and volume. As described above, permanent rivers and streams flow in only a small part of the continent. The average annual discharge of Australian rivers has been assessed at 343×10^9 cubic metres, of which 157×10^9 cubic metres is measured discharge and the remainder is estimated. This 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 while the southern part of the continent has a distinct, if somewhat less marked, winter maximum.

Variability of flow. 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 evaporation is so great that storage costs are high in terms of yield. Extreme floods also add greatly to the cost of water storage, because of the need for adequate spillway capacity.

Potential development. Over 80 per cent of all water used in Australia is surface water. This quantity is about 14×10^9 cubic metres a year and represents about 11 per cent of the possible usable surface water available in Australia; it does not include the amount diverted for hydro-electric power generation and other purposes which does not affect the quantity of water available. However, the great variability of river discharge, high evaporation and lack of sites for storage on many catchments limit potential development. As an indication of the severity of the problem, Australia's runoff is estimated at 13 per cent of rainfall compared with 40 per cent in North America and Europe, 36 per cent in South America and Asia and 24 per cent in Africa, with the complementary figure representing the evaporation and transpiration percentage. There is, however, considerable scope for greater efficiency in water use.

Groundwater supplies

Groundwater is more important than surface water in about 60 per cent of the country. Australia's estimated annual groundwater recharge is 72×10^9 cubic metres, and annual groundwater usage is estimated at nearly 3×10^9 cubic metres or about 18 per cent of Australia's total water usage.

An indication of the variability in quality and quantity of Australia's groundwater resources is given in the map sheets accompanying the Australian Water Resources Council's publication, *Groundwater Resources of Australia* (1975).

Groundwater is divided according to its occurrence in the three main classes of aquifer.

(i) *Shallow unconsolidated sediments* comprise alluvial sediments in river valleys, deltas and basins; aeolian (windblown) sediments which generally occur in coastal areas; and lacustrine (lake) sediments. These sediments are often highly permeable and porous. Permeability and porosity may vary markedly according to orientation. Unconsolidated aquifers of this group generally occur at depths of less than 150 m and are often readily accessible to sources of water for recharge. Marked seasonal variations in water level are common.

(ii) *Sedimentary rocks* are generally made up of consolidated sediments. The aquifers owe their porosity to small voids between the grains which are often well compacted and cemented. They often cover significant areas, being continuous and of appreciable thickness. Rock strata usually dip quite gently. Nevertheless, over the full extent of the larger sedimentary basins, aquifers may reach great depths. Areas where recharge takes place may be small in relation to the extent of the aquifers. Water quality in individual aquifers may be quite good and fairly uniform over large areas. Some sediments contain a number of permeable and impermeable layers, creating a vertical sequence of separate aquifers, and water quality may vary greatly between them.

(iii) *Fractured rocks* comprise hard igneous and metamorphosed rocks which have been subjected disturbance and deformation. Aquifers resulting from the weathering of any rock type are also included in this group. Water is transmitted mainly through joints, bedding planes, faults, caverns, solution cavities and other spaces in the rock mass.

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.

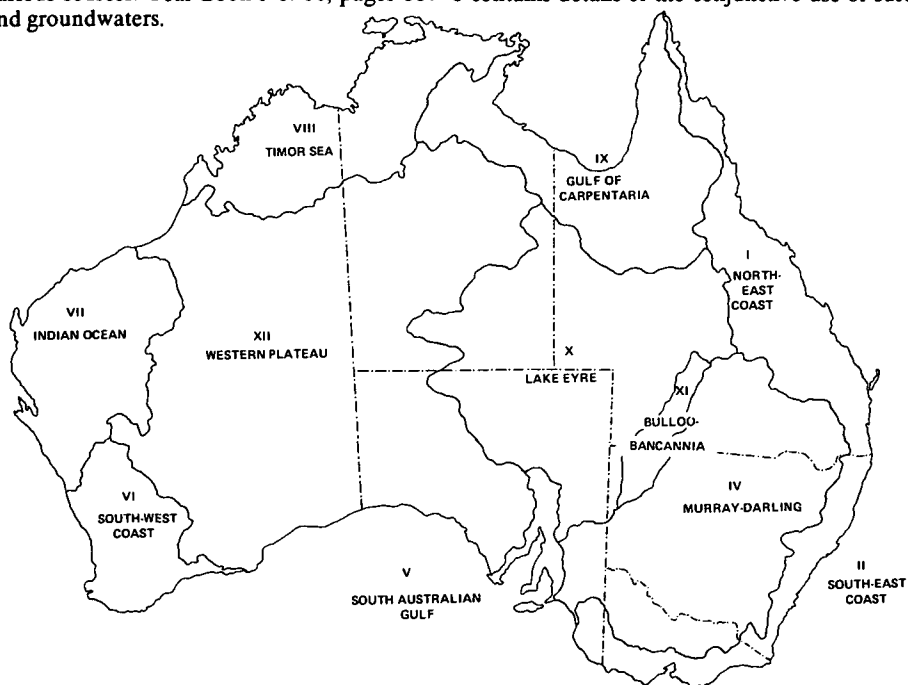
For further details on the sources of groundwater and a table of the principal water-bearing basins in Australia, see Year Book No. 61, pages 865-6. A map showing the extent of known artesian basins throughout Australia is shown on page 273 of Year Book No. 48.

Drainage divisions and the conjunctive use of surface and groundwaters

Groundwater and surface water have, in the past, tended to be viewed as separate resources because of their modes of occurrence, assessment and development. They are complementary components of the hydrologic cycle and in any assessment of the water resources of a region are not necessarily additive.

To promote a unified approach, river basins or groups of river basins have been adopted as the primary units of assessment. The *Review of Australia's Water Resources 1975* (Department of National Development, Australian Water Resources Council, A.G.P.S., Canberra) contains a summary of the 244 river basins grouped into twelve divisions, together with a map showing the divisions. (See below.)

The conjunctive approach to water resources, even to importing water from outside the region, generally makes more water available for use than would be the case with independent use of the various sources. Year Book No. 61, pages 867-8 contains details of the conjunctive use of surface and groundwaters.



AUSTRALIA: DRAINAGE DIVISIONS

This map shows the drainage divisions (grouping of river basins) adopted by the Australian Water Resources Council.

Published in *Review of Australia's Water Resources, 1975*.



PLATE 32

In the *Review of Australia's Water Resources, 1975* an attempt was made to assess the possible exploitable yield of surface water for each river basin (aggregating to Drainage Divisions) at the point of lowest practical downstream development, using the type of hydraulic structure considered technically feasible by the governments. These estimates take into account average annual flow, variability of flow, water quality and the availability of suitable sites for storage, but do not take into account economic factors.

The total annual commitment of surface water is about 30×10^9 cubic metres, which represents 24 per cent of the possible exploitable yield but only 8.6 per cent of the total runoff of Australian streams. The reasons for this low overall commitment are:

- economic resources are not fully developed.
- potential developments, while technically feasible, are expensive due to topographic and climatic limitations.
- bulk of surface water resources are remote from centres of population.

Surface water resources are developed for consumptive or non-consumptive uses. Consumptive use refers to domestic, industrial and agricultural uses and involves the removal of water from the stock of usable resources. The commitments for the table below are mostly for consumptive use in irrigation. Non-consumptive use comprises instream use of water and includes hydro-electric power generation, recreation and transportation.

AN ASSESSMENT OF THE POSSIBLE YIELD OF SURFACE WATER BY DRAINAGE DIVISION

(Source: Review of Australia's Water Resources, 1975)

| Drainage division | Adopted drainage area | Average annual discharge (a) | Annual commitments(a) | | | Possible exploitable yield | Commit- ments as a per cent- age of exploitable yield | Estimated total yield of drainage area | Possible exploitable yield as per cent- age of total yield |
|------------------------------|-----------------------------|---------------------------------------|------------------------------|-------|--------|----------------------------------|---|--|--|
| | | | Authorised and planned | | | | | | |
| | | | Present | | Total | | | | |
| | mil ha | | mil. cubic metres | | | | | mil. cu. m. | |
| I North-East Coast | 45 | 82,500 | 2,595 | 761 | 3,356 | 25,566 | 13 | 75,620 | 34 |
| II South-East Coast | 27 | 39,396 | 2,658 | 1,287 | 3,945 | (b)15,992 | 24 | 37,499 | 43 |
| III Tasmania | 7 | 49,799 | 1,722 | 73 | 1,795 | 35,495 | 5 | 49,799 | 71 |
| IV Murray-Darling | 106 | 22,261 | 15,941 | 793 | 16,734 | 18,372 | 91 | 22,204 | 83 |
| V South Australian Gulf . . | 8 | 980 | 135 | 38 | 173 | 283 | 61 | 913 | 31 |
| VI South-West Coast | 31 | 7,290 | 343 | 27 | 370 | 1,841 | 20 | 4,935 | 37 |
| VII Indian Ocean | 52 | 4,160 | — | 75 | 75 | 490 | 15 | 3,815 | 13 |
| VIII Timor Sea | 55 | 74,260 | 3,083 | 45 | 3,128 | 16,423 | 19 | 74,260 | 22 |
| IX Gulf of Carpentaria . . . | 64 | 58,230 | 76 | 86 | 162 | 10,094 | 2 | 49,180 | 21 |
| X Lake Eyre | 117 | 3,260 | 9 | — | 9 | 129 | 7 | 3,180 | 4 |
| XI Bulloo-Bancannia | 10 | 540 | 3 | — | 3 | n.a. | n.a. | 540 | n.a. |
| XII Western Plateau | 246 | — | — | — | — | — | — | — | — |
| Australia | 768 | 342,676 | 26,565 | 3,185 | 29,750 | 124,685 | 24 | 321,945 | 39 |

(a) Includes fresh and marginal water but excludes brackish and saline water. (b) Includes a small amount of brackish water.

Groundwater is an important substitute for surface water in many parts of the country such as in the arid interior where the Great Artesian Basin provides the only reliable continuous supply of water for stock and domestic purposes. This Basin underlies 23 per cent of the continent and some 30,000 holes have been drilled, about 2,900 of which are still flowing. The high ratio of sodium to calcium and magnesium ions has an adverse effect on soil structure, rendering it impervious and quite unsuitable for irrigation, but its freshness as opposed to the brackish or saline water provides watering points for stock and domestic supplies.

Groundwater is increasing in importance as a source of water for irrigation, industry and domestic supply. There are many areas of intensive groundwater development which, although small, accounted for over a third of all groundwater withdrawals in 1975. The areas shown in the table below rely almost exclusively on ground water from unconsolidated sediments.

Increasing use is made of conjunctive schemes, for example, where groundwater supplies are tapped to augment surface water or where, as in the Burdekin Delta, groundwater aquifers are artificially recharged during the summer wet season to enable water to be stored at low cost with negligible evaporation.

AREAS OF CONCENTRATED GROUNDWATER USAGE IN AUSTRALIA

(Source: Review of Australia's Water Resources, 1975)

| Area | Quantity | Use |
|---|----------------|---|
| | mil. cu m/year | |
| Burdekin Delta (Queensland) | 320 | Irrigation of sugar cane |
| Namoi Valley (New South Wales) | 108 | Irrigation of small crops, including cotton |
| Condamine Valley (Queensland) | 100 | Irrigation of grain crops |
| Southeastern South Australia(a) | 98 | Irrigation, town supplies and industry |
| Bundaberg (Queensland) | 94 | Irrigation of sugar cane, industrial and domestic use |
| Lockyer Valley (Queensland) | 70 | Irrigation of small crops and fodder |
| Perth (Western Australia) | 66 | Irrigation of market gardens, domestic gardens and urban water supply |
| Hunter Valley (New South Wales) | 53 | Irrigation of small crops |
| Callide Valley (Queensland) | 35 | Irrigation of fodder and grain crops |
| Tomago Sands (New South Wales) | 31 | Urban water supply and industrial use |
| Pioneer Valley (Queensland) | 31 | Irrigation of sugar cane and domestic use |
| North Adelaide Plains (South Australia) (a) | 21 | Irrigation of market gardens |
| Botany Sands (New South Wales) | 20 | Industrial use |
| Sub-total | 1,047 | |
| Estimated total groundwater usage | 3,000 | |

(a) Includes some water from limestone aquifers.

Major dams and reservoirs

A map entitled *Australia—Dams and Storages*, published in 1975 by the Department of Minerals and Energy (now the Department of National Development), shows the location, height of dam wall, capacity and purpose of Australia's major dams and water storages.

The table below lists major dams and reservoirs by State. It should be noted that the Hume Reservoir lies on the New South Wales-Victoria border.

MAJOR DAMS AND RESERVOIRS IN AUSTRALIA

| <i>Name and year of completion</i> | <i>Location</i> | <i>Gross capacity (million cubic metres)(a)</i> | <i>Height of wall (metres) (b)</i> | <i>Purpose</i> |
|------------------------------------|----------------------------------|---|------------------------------------|--|
| NEW SOUTH WALES | | | | |
| Eucumbene (1958) | Eucumbene River | 4,807 | 116 | Part of Snowy Mountains H/E Scheme |
| Hume (1936, 1961) | Murray River, near Albury | 3,038 | 51 | Irrigation, water supply, H/E |
| Warragamba (1960) | Warragamba River | 2,057 | 137 | Water supply for Sydney, H/E |
| Menindee Lakes (1960) | Darling River, near Menindee | 1,794 | 18 | Conservation, storage for Murray River Agreement |
| Burrendong (1967) | Macquarie River, near Wellington | 1,680 | 76 | Conservation, FC, water supply |
| Blowering (1968) | Tumut River | 1,628 | 112 | H/E, irrigation |
| Copeton (1976) | Gwydir River | 1,364 | 113 | Irrigation |
| Wyangala (1936, 1971) | Lachlan River | 1,218 | 85 | Irrigation, stock, etc. |
| Burrumbidgee (1927, 1956) | Murrumbidgee River | 1,026 | 79 | Irrigation, H/E |
| Talbingo (1971) | Tumut River | 921 | 162 | H/E |
| Jindabyne (1967) | Snowy River | 688 | 72 | H/E |
| Lake Victoria (1928) | Murray River, near S.A. border | 680 | — | Conserves supplies for S.A. |
| Keepit (1960) | Namoi River, near Gunnedah | 426 | 55 | Conservation, irrigation, H/E |
| Glenbawn (1958) | Hunter River, near Scone | 362 | 78 | Conservation, irrigation, FC |
| Tantangara (1960) | Murrumbidgee River | 254 | 45 | H/E |
| Avon (1927) | Avon River | 214 | 72 | Water supply for Sydney |
| Googong (1978) | Queanbeyan River | 125 | 59 | Water supply for Canberra-Queanbeyan |
| VICTORIA | | | | |
| Dartmouth (1977) | Mitta Mitta River | 4,000 | 180 | Irrigation storage, H/E |
| Eildon (1927, 1955) | Upper Goulburn River | 3,392 | 79 | Irrigation, H/E |
| Waranga (1910) | Near Rushworth (Swamp) | 411 | 12 | Irrigation |
| Mokoan (1971) | Winton Swamp, near Benalla | 365 | 10 | Irrigation |
| Rocklands (1953) | Glenelg River | 336 | 28 | Domestic and stock water supply |
| Eppalock (1964) | Campaspe River | 312 | 45 | Irrigation, water supply |
| Cardinia (1973) | Cardinia Creek, near Emerald | 287 | 79 | Water supply for Melbourne |
| Upper Yarra (1957) | Yarra River | 207 | 89 | Water supply for Melbourne |
| Glenmaggie (1927, 1958) | Macalister River | 190 | 37 | Irrigation |
| QUEENSLAND | | | | |
| Fairbairn (1972) | Nogoa River, central Qld | 1,440 | 49 | Irrigation |
| Somerset (1959) | Stanley River | 893 | 50 | Water supply for Brisbane, H/E |
| Monduran (1975) | Kolan River, near Gin Gin | 586 | 52 | Irrigation |
| Ross River (1974) | Near Townsville | 417 | 35 | FC, water supply |
| Tinaroo Falls (1958) | Barron River | 407 | 47 | Irrigation, H/E |
| Glenlyon (1976) | Pike Creek, near Stanthorpe | 261 | 46 | Irrigation |
| Wuruma (1968) | Nogo River, near Eidsvold | 194 | 46 | Irrigation |
| Koombooroomba (1961) | Tully River | 180 | 52 | H/E, irrigation |
| WESTERN AUSTRALIA | | | | |
| Lake Argyle (Ord) (1971) | Ord River, near Wyndham | 5,720 | 99 | Irrigation, FC, H/E |
| South Dandalup (1973) | Near Mandurah | 208 | 41 | Water supply for Perth |
| Wellington (1933, 1944, 1960) | Collie River | 185 | 37 | Irrigation, water supply |
| Serpentine (1961) | Serpentine River | 178 | 55 | Water supply for Perth |

(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 refer to the vertical distance measured from the lowest point of the general foundation to the crest of the dam, i.e., the level of the roadway or walkway on the dam.

ABBREVIATIONS: H/E—hydro-electricity, FC—Flood control and/or mitigation.

MAJOR DAMS AND RESERVOIRS IN AUSTRALIA—*continued*

| <i>Name and year of completion</i> | <i>Location</i> | <i>Gross capacity (million cubic metres)(a)</i> | <i>Height of wall (metres)(b)</i> | <i>Purpose</i> |
|--|---------------------------------------|---|-----------------------------------|-------------------------|
| TASMANIA | | | | |
| Lakes Gordon and Pedder (1974)— | | | | |
| Gordon | South West } | 11,671 | 140 | H/E |
| Scotts Peak | | 2,960 | 43 | |
| Serpentine | | | 38 | |
| Edgar | | | 17 | |
| Miena (1967) | Great Lake | 2,390 | 18 | Storage for H/E |
| Lake St Clair (1938) | Central Plateau | 2,000 (est.) | 3 | Natural storage for H/E |
| Lake Echo (1956) | Lake Echo | 725 | 19 | H/E |
| Lake King William (Clark) (1949, 1966) | Derwent River | 541 | 73 | H/E |
| Arthur's Lake (1965) | Source of Lake River, near Great Lake | 511 | 17 | H/E |
| Devils Gate (1969) | Forth River, near Devonport | 180 | 84 | H/E |
| Rowallan (1967) | Mersey River | 131 | 43 | H/E |

NORTHERN TERRITORY

| | | | | |
|-------------------------------|------------------------|-----|----|-------------------------|
| Darwin River (1972) | Darwin River | 259 | 31 | Water supply for Darwin |
|-------------------------------|------------------------|-----|----|-------------------------|

(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 refer to the vertical distance measured from the lowest point of the general foundation to the crest of the dam, i.e., the level of the roadway or walkway on the dam.

ABBREVIATIONS: H/E—hydro-electricity, FC—Flood control and/or mitigation.

MAJOR DAMS AND RESERVOIRS UNDER CONSTRUCTION OR PROJECTED

| <i>Name</i> | <i>Location</i> | <i>Gross capacity (million cubic metres)(a)</i> | <i>Height of wall (metres)(b)</i> | <i>Purpose</i> |
|------------------------------------|---|---|-----------------------------------|--------------------------|
| UNDER CONSTRUCTION | | | | |
| Wivenhoe | Brisbane River, near Fernvale, Qld | 1,150 | 58 | Water supply, FC, H/E |
| Thomson | Thomson River, near Erica, Vic. | 1,110 | 160 | Water supply, irrigation |
| Tallowa (Lake Yar-runga) | Confluence of Shoalhaven, Kangaroo Rivers, N.S.W. | 135 | 43 | Water supply |
| Julius | Leichhardt River, near Mount Isa, Qld | 123 | 35 | Water supply, mining |
| PROJECTED | | | | |
| Mackintosh | Mackintosh River, Tullibardine River, near Queenstown, Tas. | 922 | 77 | H/E |
| Lower Pieman | Pieman River, near Queenstown, Tas. | 641 | 120 | H/E |
| Split Rock | Manilla River, Namoi Valley, N.S.W. | 370 | 64 | Irrigation |
| Windamere | Cudjegong River, near Mudgee, N.S.W. | 353 | 69 | Irrigation |
| Gunpowder | Gunpowder Creek, near Mount Isa, Qld | 141 | 44 | Mining, water supply |
| Spencer | Denison Creek, near Nebo, Qld | 127 | 24 | Mining, water supply |
| Bastyan (Lake Rosebery) | Pieman River, near Queenstown, Tas. | 124 | 74 | H/E |

For footnotes and abbreviations see previous table.

The following table summarises dams and storages existing and under construction in each drainage division according to purpose, capacity and regulated discharge. Three storages counted as mainly for hydro-electricity in the South-East Coast Division and eight in the Murray-Darling are part of the Snowy Mountains Hydro-electric Scheme which, as a whole, makes a major contribution to irrigation.

LARGE DAMS—NUMBERS EXISTING AND UNDER CONSTRUCTION

(Source: Review of Australia's Water Resources, 1975)

| Drainage division(a) | Main purpose | | | | | Total capacity | Regulated discharge |
|-----------------------------------|--------------|------------|-------------------|--------------|---------------------------|----------------|---------------------|
| | Total number | Irrigation | Hydro-electricity | Water supply | Flood control, recreation | | |
| | | | | | | mil. cu. m. | mil. cu. m. |
| I North-East Coast | 33 | 12 | 1 | 20 | — | 4,100 | 1,300 |
| II South-East Coast | 99 | 5 | 5 | 87 | 2 | 10,700 | 2,700 |
| III Tasmania | 43 | 1 | 31 | 11 | — | 19,500 | 8,700 |
| IV Murray-Darling | 104 | 34 | 15 | 53 | 2 | 20,700 | 10,500 |
| V South Australian Gulf | 24 | — | — | 23 | 1 | 240 | 150 |
| VI South-West Coast | 24 | 8 | — | 15 | 1 | 870 | 360 |
| VII Indian Ocean | 1 | — | — | 1 | — | (b) | (b) |
| VIII Timor Sea | 8 | 5 | — | 3 | — | 6,100 | 1,900 |
| IX Gulf of Carpentaria | 4 | — | — | 4 | — | 140 | 10 |
| X Lake Eyre | 2 | 1 | — | 1 | — | (b) | (b) |
| Australia | 342 | 66 | 52 | 218 | 6 | 62,350 | 25,620 |

(a) Divisions XI and XII are not represented. (b) negligible.

NOTE: 1. Although most dams are used for water supply, the greatest volume of water is reserved for irrigation.

2. 'Total capacity' of storages is not the same as 'gross capacity' which includes an estimate for water below the operational outlet of the reservoir.

Water quality

Quality of water may be highly variable over time. Runoff resulting from rainfall may pick up a whole range of contaminants in passing over and through the soil; evaporation results in the concentration of these dissolved solids while, on the other hand, storm waters can dilute the concentration of pollutants. Water quality, while being generally related to the quantity of flow, may vary with the depth and breadth of a body of water.

In the long term, land use changes generally affect the quality of groundwater where runoff enters aquifers. For example, the replacement of deep rooted trees in the south-west of Western Australia by shallow rooted grasses for agriculture has disturbed the natural water and salt balance, increasing stream salinity. About four million hectares of land have been rendered sterile and difficult to till.

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 sewerage, industrial effluents and increasing salinity caused by agricultural activities. In some parts of 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 mine 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. Remedial work at Captains Flat is currently being undertaken to prevent further erosion and leaching of the waste dumps, and to minimise the flow of mine water discharging through springs into the Molonglo River.

The increasing salinity of the Murray River in recent years is a source of concern as the river is vital for irrigation and domestic water and provides much of Adelaide's water supply. The problem is the increasing salinity of water discharged from irrigation areas, compounded by concentration through evaporation. This is in addition to the river's quite high natural salt load. As the sedimentary beds of the river basin 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. Salinity levels in the river, however, vary seasonally. During the irrigation season and drought periods and following prolonged floods, the concentration of salts may increase significantly, approaching the salt tolerance limits of many crops. 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. Present control measures include the provision of evaporation basins for the disposal of highly saline drainage water and the regulation of river flow to control water quality by dilution.

Water quality is an important factor in determining the potential use of a particular water resource. Its management is essentially aimed at maintaining each resource in a condition suitable for the beneficial use or uses considered appropriate by the community.

Water management

Australia's attitudes to water resources management have changed substantially over the last twenty years. Water management is no longer seen just in terms of storing water and regulating streams for consumptive use, but also in terms of conserving unregulated streams in an unmodified landscape for wild life preservation or recreation purposes or for possible social or economic use by future generations. In addition, agricultural, industrial and urban development has led to greater attention being paid to water quality management. Increasingly, these changing attitudes have led to the perception that water and other resources need to be managed as an integral part of national and regional planning in relation to social, ecological and economic goals.

In October 1975, the Australian and State governments adopted a policy setting out the basic principles and goals underlying the approach to the development and management of water resources in Australia. This policy states that the conservation and management of water resources must take place in the broad framework not only of development and management of resources generally, but also of overall economic, environmental and social planning. A balanced approach to water resources management would include the following desirable goals:

- (a) the provision of water supplies, adequate in quantity and quality—
 - (i) to meet the needs of people throughout Australia;
 - (ii) to meet the needs of, or to stimulate, primary and secondary industry in such a way as to be compatible with both projected market outlooks for the commodities concerned, and the resources and characteristics of the region concerned;
- (b) the development and management of water resources so that, where practicable and desirable, other purposes such as flood mitigation, power generation, recreation and wildlife conservation 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 where appropriate;
- (d) the adoption of water pricing policies which enable water needs to be met at a fair and reasonable price, but which provide an incentive to all water users to avoid wasteful and environmentally harmful practices and which encourage the efficient allocation of resources;
- (e) 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;
- (f) the adoption of the general principle that direct costs, or costs related to loss of amenity attributable to pollution, should be borne by the polluter, and that, although the immediate and full implementation of this principle may not be feasible, it is none-the-less a goal to be pursued;
- (g) the zoning of flood-prone land with a view to its orderly management;
- (h) 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;
- (i) implementation of a program of public education aimed at ensuring a proper understanding of the factors affecting the development and use of water resources and a sense of responsibility in these matters;
- (j) the encouragement of an active interest and involvement of the community in the planning and management of water resources.

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 Commonwealth Constitution, primary responsibility for management of water rests with the individual State governments. The Commonwealth Government is responsible for matters relating to its Territories, and participates indirectly through financial assistance or directly in the co-ordination or operation of interstate projects through bodies such as the River Murray Commission. In other instances where political boundaries intersect some river basins, co-operation between governments has been necessary to develop resources.

The maintenance of both quantity and quality of water and the ecological balance of the environment in general are essential to the proper management of water resources. Misuse of water results in erosion, flooding, siltation and pollution and, conversely, poor land management practices can interfere with catchment efficiency through overstocking, bushfires and the destruction of vegetation cover. All States and the Commonwealth Government have initiated forestry policies which provide for reforestation and the preservation of catchments. There is a more unified approach to catchment, water, forestry and land use factors, which are now regarded as part of a single problem.

Research and continuing assessment of water resources

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 Commonwealth and State governments. The Council comprises the Commonwealth and State Ministers primarily responsible for water resources, with the Commonwealth Minister for National Development 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 a number of 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.

See Year Book No. 61, page 869 for further details on the work of the AWRC.

Water resources research

Comprehensive programs of research and investigation are being pursued by State water and agricultural authorities, the Commonwealth Scientific and Industrial Research Organization and the Australian Water Resources Council, 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 pasture by stock; and growth problems affecting plants and trees and reduction of salinity in river systems.

See Year Book No. 61, pages 863–4 for additional data on research activities in Australia.

International aspects

International water organisations

Australia liaises 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). Australia's membership of the OECD since 1970 has involved participation in the work of the Water Management Group which investigates and rationalises problems which are the subject of international concern, and develops strategies—economic, legal and technical—which might resolve them.

United Nations Educational, Scientific and Cultural Organization (UNESCO). The International Hydrological Decade (IHD) (1965–1974) was a period in which participating countries implemented an international program designed to advance the science and practice of hydrology. Following the conclusion of the IHD, an International Hydrology Program (IHP) was commenced and an Australian UNESCO Committee for the IHP (AUCIHP) was formed to co-ordinate Australian input to the IHP.

World Meteorological Organization (WMO). A Commission on Hydrology has recently strengthened its role in operational hydrology. There is an advisory Committee on Operational Hydrology on which Australia and the Philippines are represented on behalf of the WMO Regional Association V (S.E. Asia). 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). This Commission, through its committee on Natural Resources, reports on water policy issues in addition to other activities. 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.

United Nations Environment Program (UNEP). Australia participates 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). Set up in India in 1950, this Commission promotes the development and application of the science and technique of irrigation, drainage and flood control in their engineering, economic and social aspects. Australia has been a member of ICID since 1952.

United Nations World Water Conference. A Water Conference, addressed to policy-making, was held in Argentina in March 1977.

The AWRC and AUCIHP function as the Australian National Committee.

National and interstate schemes

In the section on *Water Management* above, reference was made to the responsibilities of government on the national, state and local authority levels. In this section, some additional details are provided on their roles in the management of water resources.

The Murray-Darling Drainage Division's surface water resources are the most highly developed in Australia, with 91 per cent of the possible exploitable yield currently committed for use. The Division contains the continent's largest river system which can be divided into three main groups of rivers:

- (a) the Darling River and its tributaries;
- (b) the Murrumbidgee River and its tributaries; and
- (c) the Murray River and its tributaries upstream from the confluence of the Murrumbidgee and the Murray.

The river basins that comprise the area under the control of the River Murray Commission are the nine basins in group (c) above and the three basins adjacent to the lower reaches of the Murray.

River Murray Commission

The Commission was established in 1915 to regulate the river for the three States concerned—New South Wales, Victoria and South Australia. Year Books prior to No. 39 contain brief summaries of the historical events leading to the Agreement of 1915 which provided for a minimum quantity of water to pass to South Australia. Further details on the River Murray Waters Agreement and subsequent amendments may be found in Year Book No. 61, pages 870–2.

Until the completion of the Dartmouth Dam—Australia's highest—in 1977, the key storage regulating the flow of the river was the Hume Reservoir. A series of regulating weirs to feed irrigation areas in New South Wales and Victoria also reduced losses from the river. An amendment to the Agreement to provide for the construction of a large storage at Chowilla was ratified in 1964, but for various reasons, including costs and water quality in the Lower Murray, this was deferred. An investigation of alternative sites led eventually to the completion of the Dartmouth Dam, constructed for the Commission by the State Rivers and Water Supply Commission of Victoria and funded by the four governments. The Dartmouth Dam will complement the Hume Reservoir to increase the total supply. When it is filled, the minimum share of water for South Australia will be increased.

New South Wales–Queensland Border Rivers Agreement

This agreement came into effect in July 1947 and provided for the construction of a dam and several weirs on the rivers that constitute part of the boundary between the two States. Unfavourable foundation conditions were encountered at several dam sites before a suitable site for the Glenlyon Dam on Pike Creek was eventually found. The dam was completed by 1977. The two States also considered proposals for the Balonne–Culgoa River System and by 1974 four regulating structures had been completed.

Snowy Mountains Hydro-electric Scheme

This scheme was set up in 1949 by the *Snowy Mountains Hydro-electric Power Act*. Its prime purpose was to generate large quantities of peak load power and, by diverting the southern-flowing Snowy River through trans-mountain tunnels, to augment the flow of the Murray and Murrumbidgee Rivers to permit continuing expansion of irrigation in the fertile river plains. All storage works are now completed.

Details of the diversions and associated power works, together with details of construction, are given in Chapter 18, *Electric Power*.

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, principally to stabilise production of such crops as tobacco, sugar, cotton and pastures. 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 water supplies for population centres and mining and pastoral industries.

New South Wales

Administration

The Water Resources Commission of New South Wales (formed in April 1976 by a reconstitution of the Water Conservation and Irrigation Commission) consists of three commissioners 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. An important function of the Commission is planning for the co-ordinated development and allocation of the State's water resources. This entails the assessment and projection of demand for all purposes and also involves the quantitative and qualitative assessment of the available resources. Another important planning function relates to flood plain management. The *Water Resources Commission Act, 1976*, has widened the initiatives which the Commission is able to take in the fields of flood plain management and flood mitigation management. The search for, and surveillance of, groundwater for water supply is another important planning activity.

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 342 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, by the Menindee Lakes Storage on the Darling River and by Copeton Dam on the Gwydir 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. 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. Others are: Coomealla, Curlwaa, Hay, Tullakool, Buronga, Mallee Cliffs and Coleambally.

A detailed description of the Murrumbidgee Irrigation Area is contained in Year Book No. 61, pages 875-7. The Water Resources Commission controls land transactions and water supplies for the MIA, but has no jurisdiction over land transactions in neighbouring irrigation districts (although it is responsible for the operation and maintenance of the water supply in these areas). The other irrigation areas follow the same administrative pattern as the MIA.

Irrigation 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. 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 will be irrigated, but additional water, when available, may be obtained by landholders. 'Water right' is the annual quantity that will cover 1 hectare to a depth of 100 mm.

The *Irrigation 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.

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 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.

Future program

The program of development in hand includes the provision of additional dams, storages, weirs, flood mitigation and drainage schemes and stream clearing works. Copeton Dam on the Gwydir River and Brogo Dam on the Brogo River were completed in 1976, Chaffey Dam on the Peel River, Windamere Dam on the Cudgegong River, Cudal Dam on Boree Creek and Split Rock Dam on the Manilla River have either been commenced or authorised for early construction. An ongoing program of investigations is being carried out to identify desirable additional projects which should be considered for implementation as funds become available. Increasing attention is being given to efficiency of water use and to economic, social and environmental factors in water management policies.

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 Trust) 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, rural waterworks and urban districts, flood protection districts and urban water supplies. It also supervises the activities of local urban water supply authorities, and local sewerage, river improvement and drainage authorities.

Works summarised

The State Rivers and Water Supply Commission's storages are augmented by Victoria's half share in River Murray Commission storages. Most of the water is for irrigation. However, about one quarter of irrigation production is 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.

Rural water supply systems

The principal irrigation systems in Victoria are:

- *Goulburn-Campaspe-Loddon*. The main storage is Lake Eildon with a capacity of 3,392 million cubic metres. The main products in these systems are dairy products, 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*. The Murray Valley Irrigation Area and the Torrumbarry Irrigation System are irrigated by water diverted at the Yarrawonga and Torrumbarry Weirs respectively. These areas are devoted mainly to dairying, fat lambs and canning fruit (Murray Valley) and dairying, fat lambs, vineyards, orchards and market gardens (Swan Hill). Downstream from Swan Hill, the Mildura Irrigation Trust and four Commission Districts are supplied by pumping and produce mainly dried vine fruit, citrus fruits, and table and wine grapes.

- *Southern Systems.* The Maffra-Sale-Central Gippsland district, supplied from the Macalister River and regulated by Lake Glenmaggie, is devoted mainly to dairying.
- *Werribee and Bacchus Marsh.* These Districts produce fresh fruit, vegetables and dairy products mainly for the local domestic market. Irrigation is supplied from the Werribee River system which is regulated by three main storages, viz. Pykes Creek and Melton Reservoir and Lake Merrimu.
- *Wimmera-Mallee Domestic and Stock Supply System.* Storages in the Grampian Ranges ensure farm water supplies over the riverless pastoral and cereal lands to the Murray. Without this supply, occupation of the region would be extremely hazardous. There are small areas of irrigation supplied from this system near Horsham and Murtoa.

Future Programs

The Victorian Water Commission's current Six-Year program of capital works for the period 1978-79 to 1983-84 reflects the continuing change in emphasis towards increasing expenditure on urban water supply, sewerage, environment protection and water quality. The basic principles that have been adopted were that the environmental impact of new projects should be taken into account with emphasis on multi-objective planning and that each project should be economically sound and viable.

Major provisions in the program include—

- the commencement of four major water conservation dams for urban, industrial and irrigation supply;
- the construction of large trunk pipelines to augment supply to and to enhance the operating capabilities of the Mornington Peninsula water supply system;
- the continuance of groundwater control programs in the Shepparton Region;
- the commencement of salinity control works in the Sunraysia and Kerang Regions;
- the continuance of surface drainage programs in the Northern Irrigation Districts

The program requires an allocation of \$351 million (at December 1977 prices) over the program period, subject to the availability of funds.

Queensland

Administration

The important primary industries of Queensland are subject to relatively frequent and serious losses by either drought or extensive flooding.

The right to the use and flow and to the control of water in watercourses, lakes, springs and artesian wells is vested in the Crown, and the Commissioner of Irrigation and Water Supply is authorised to take measures to conserve water and provide for its more equal distribution and beneficial use. Under the *Land and Water Resources Development Acts* 1943 to 1946, he is required 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, surface and underground water resources. As required under the *Water Act* 1926-76, rights to underground and surface water are allocated and their use is controlled by a system of licensing of all artesian bores and sub-artesian bores in areas proclaimed by the Governor in Council and all conservation and use (other than that 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.

The Commissioner 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. He is principally responsible for water conservation and supply works for rural purposes, including irrigation, stock and domestic supply. In planning such storages, economies to all users are accrued by providing, where possible, for dual or multi-purpose use of works for irrigation, rural, urban and industrial uses including power generation and mining purposes.

Summary of schemes

Unlike other States, the greater part of the area irrigated in Queensland is by individual private pumping plants draining supply from streams or underground sources, spread widely through the State, rather than in constituted irrigation areas where supply is provided by channel systems delivering water to farms. 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 purposes.

SOURCES OF IRRIGATION WATER, 1976-77

| Source of supply | Area irrigated (^{000 hectares}) | Percentage of total area irrigated % |
|--|---|---|
| Underground supplies(a) | 113.6 | 54 |
| Surface supplies— | | |
| State irrigation schemes | 32.1 | 22 |
| Rivers, creeks, lakes etc.(b) | 47.1 | 15 |
| Farm dams | 16.7 | 8 |
| Total | 95.9 | 46 |
| Town or country reticulated water supply | 0.1 | .. |
| Total, all sources | 209.6 | 100 |

(a) Naturally or artificially replenished. (b) Includes regulated and unregulated streams.

Irrigation areas

About 22 per cent of the area under irrigation is concentrated in the six established Irrigation Areas constituted under the *Irrigation Act* 1922–1974, 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. A summary is set out below; further details are shown on page 883 of Year Book No. 61.

| Irrigation areas | Comments |
|------------------------------|---|
| Dawson Valley | Around Theodore on Dawson River; cotton, graincrops and urban usage in Theodore and Moura. |
| Burdekin River | Complex system of conservation, irrigation, industrial and other uses; sugar cane, rice and seed crops; artificial recharging of underground water supplies from unregulated flows (Burdekin River) |
| Marreebah-Dimbulah | Hinterland of Cairns; tobacco and urban/hydro-electric uses. |
| St George | Balonne River; cotton, soya beans and cereals, and urban uses. |
| Emerald | Joint Federal-State undertaking based on State's largest storage—Fairbairn Dam; industrial and urban use, irrigation, cotton, soya beans and cereals. |
| Bundaberg Scheme | Joint Federal-State undertaking; sugar and urban supplies for Bundaberg. |
| Eton Scheme | Hinterland of Mackay; sugar cane and water supply in Mackay area. |

A number of other schemes have been established under the *Water Act* 1926–1976, where water from storage is released downstream to maintain adequate supplies for pumping under licence to adjacent lands. Details on these and others currently under construction are in Year Book No. 61, pages 883–4.

Rural, stock and domestic supplies

Improvements to stock and domestic water supplies are assisted by Rural Water Supply Schemes and Bore Water Supply Areas (constituted under the *Water Act*). Investigation, design and administration of these schemes are carried out by the Irrigation and Water Supply Commission.

Underground water supplies

The availability of underground water, particularly the Great Artesian Basin, has played a major part in the development of the pastoral industry in Queensland. Underground water is also used extensively for irrigation on individual farms, particularly along the coastal fringe, and for domestic purposes. Over half the area irrigated in Queensland receives its supplies from underground sources. In accordance with the requirements of the *Land and Water Resources Development Act* 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 the Burdekin Delta, Condamine Valley, Bundaberg, Lockyer Valley, Callide Valley and Pioneer Valley. The table on page 336 of this chapter provides the quantity and purpose of groundwater usage in these areas.

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*, 1932–1977, which 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 *Water Conservation Act*, 1936–1972, which 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.

- The *River Murray Waters Act* 1935–1971, which ratifies the River Murray Waters Agreement, and under which 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 *Water Resources Act* 1976, which came into force from 1 July, 1976 and superseded the *Control of Waters Act* 1919 and the *Underground Waters Preservation Act* 1969, represents the culmination of the Government's water resources policy involving the management of all aspects of water—surface and underground, quality and quantity. The Act provides for the control or diversion of surface waters from Proclaimed Watercourses and for the control of the withdrawal of underground waters from Proclaimed Regions. At the time of commencement of the Act, the River Murray was the only Proclaimed Watercourse, the Proclaimed Regions being the Northern Adelaide Plains and Padthaway. The legislation provides for control over the construction or modification of most categories of wells over the whole State and for the abatement of pollution of all waters. It establishes a South Australian Water Resources Council and Regional Advisory Committees as vehicles for public involvement in the water resources management process. At the time of commencement of the Act, Regional Committees operated in respect of the River Murray, the Northern Adelaide Plains, Padthaway and the Arid Areas. In addition, the Act provides for a Water Resources Appeal Tribunal to give individuals the opportunity to appeal against decisions of the Minister pursuant to the Act.

Summary of schemes

Australian irrigation originated in the upper Murray in South Australia and the Mildura area of Victoria. South Australian irrigation commenced with an agreement involving 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 authority controlling River Murray irrigation is the Engineering and Water Supply Department which administers government controlled areas. The principal high land crops comprise citrus and stone fruits, and vines. The reclaimed swamps along the lower section of the Murray are used almost exclusively for pasture and fodder crops. Vegetable crops of various kinds are 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 systems, has resulted in the expansion of irrigation from the River being rigidly controlled by the Government. 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 are the North Adelaide Plains (market gardens) and the Padthaway district of the south-eastern region (pastures, fodder, seed crops and vines).

Adelaide Metropolitan Water Supply

About 30 per cent of Adelaide's normal water supply needs are currently piped from the River Murray, with the percentage rising with urban and industrial development. The principal sources of supply for the ten reservoirs in the Mount Lofty Ranges are the Rivers Torrens, Onkaparinga, South Para and Myponga.

Country reticulation supplies

A number of reservoirs in the Barossa Ranges and other local sources are augmented by the Morgan-Whyalla, Swan Reach-Stockwell and Tailm Bend-Keith pipelines which provide River Murray water to extensive country areas. A network of branch mains provides the means of conveying water to numerous towns and large areas of farmlands.

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. For details on underground water resources in South Australia see Year Book No. 55 and earlier years.

South-eastern drainage

A section of the South-East Coast Drainage Division extends into South Australia but has no co-ordinated drainage pattern to form a significant surface water resource. However, high rainfall in the area is related to underground resources. Surplus water is not easily disposed of in the valleys and low range terrain, and drainage systems have been undertaken by the Government in co-operation with landholders. For further details see Year Book No. 61, pages 888-9.

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. At present, 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.

Investigations are being made, in the light of the new *Water Resources Act*, into alternative disposal schemes to provide added protection to both the river and the associated underground aquifers.

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 and Preston Valley Irrigation Districts between Waroona and Donnybrook, the water being channelled from dams in the adjacent Darling Range. The success of dairying and stock raising and, to a lesser extent, vegetable growing, which have replaced citrus growing, has led to a gradual but substantial extension of irrigation areas in the south-west.

Although not yet comparable in size with the south-west irrigation districts, the irrigation areas at Carnarvon and on the Ord and Fitzroy Rivers in the Timor Sea Drainage Division in the north of the State are of increasing significance.

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 167 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 109 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.

The Ord River Irrigation Project in the Kimberley Division provides for the eventual development of an irrigation area of 72,000 hectares of land, one third of which is in the Northern Territory. The first stage, in which water was supplied from the Kununurra Diversion Dam (capacity 98.7 mil. cubic metres) to 30 farms averaging 270 hectares plus a 970 hectare pilot farm was completed in 1965. Cotton was the principal crop, with grain sorghum and fodders for cattle fattening also important. Completion in 1971 of the Ord River Dam, which stores 5,720 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. Since then, cotton has been phased out due to high off-farm costs and increasing costs of insect control specific to the cotton industry. A downturn in the Australian beef industry coincided with this and farming activity was reduced. Rice and peanuts are now showing promise commercially.

The Camballin Irrigation District on the Fitzroy River flood plain in the West Kimberleys is dependent on diverted river flows and a small volume of storage behind the diversion structures on the Fitzroy River and Uralla Creek. Grain and fodder sorghums are the main crops.

Country water supplies controlled by Department of Public Works

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 the cereal and sheep districts of the State. Two years after the completion of the 1.7 million hectare scheme in 1961, an extension of 1.5 million hectares was agreed to with Federal-State funding.

Goldfields and Agricultural Water Supply

Water for the Eastern Goldfields is supplied by pipeline from Mundaring Reservoir in the Darling Range. With extension to towns and agricultural areas, the scheme now serves over 110 towns and localities and the water is being reticulated to 2.7 million hectares of farmland.

Great Southern Towns Water Supply

This scheme provides water from Wellington Dam to towns on the Great Southern Railway from Brookton to Katanning, supplying 32 towns and being reticulated to 0.6 million hectares of farmland.

Underground water

Considerable use is made of groundwater by individual farmers, pastoralists, market gardeners and others, although the water quality varies from place to place and much of it is too saline for irrigation or even stock purposes. 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*. Industries also use groundwater in substantial quantities, especially in the processing of titanium, iron and alumina, and this demand has intensified the search for groundwater.

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 and peas. 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. 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. The Hydro-Electric Commission, however, has planned for the future development of four storage dams in the West Coast region on the Pieman, Murchison and Mackintosh Rivers.

Administration

In Tasmania, water supply was once exclusively the responsibility of local government authorities, but three statutory authorities, the Metropolitan Water Board, the Rivers and Water Supply Commission and the North West Regional Water Supply Authority, now operate bulk supply schemes, piping water for distribution by the local government authorities in the Hobart, Launceston and N.W. Coast regions, and directly to certain industrial consumers. The Board is responsible for the supply of water in the Hobart, Clarence, Glenorchy and Kingborough local government areas, while the Commission exercises a general control over the utilisation of the State's water resources and has specific functions in relation to local government authority water, sewerage and drainage schemes. The Authority controls the supply of water to the municipalities of Latrobe, Devonport, Ulverstone, Penguin, Kentish and Wynyard.

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 for 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. The sodium alginate industry ceased production in December 1973. 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 and is now being augmented by a construction of a dam on the Curries River to supply the northern end of the Tamar Valley. 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, the Rivers and Water Supply Commission or the North West Regional Water Supply Authority, 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.

Irrigation

The Cressy-Longford Irrigation Scheme, officially opened in March 1974, was the first major irrigation project to be established in Tasmania. The source of supply is the tailrace of the Poatina hydro-electric power station from which up to 12 million cubic metres will be available to farmers both inside and outside the irrigation district. Some 9,000 hectares, half of which are watered by gravity, will eventually be irrigated. The scheme services about sixty-five farms within the irrigation district (mostly by the spray sprinkler system), while a further thirty farms on the fringes will benefit from augmented river flows.

The Cressy-Longford Scheme which is operated by the Rivers and Water Supply Commission, and a privately owned scheme at the Lawrenny estate at Ouse, are the only extensive irrigation works in Tasmania. A large portion of the 22,305 irrigated hectares in the State in 1975-76 were watered by private schemes pumping water from natural streams. Approximately 50 per cent of the area was sown and native pastures. Vegetables occupied about 30 per cent, with potatoes responding particularly well to irrigation.

Northern Territory

Information on climatic conditions will be found in the chapter *Climate of Australia*. A brief outline of contour and physical characteristics is in Chapter 27, *Territories of Australia*.

Administration

Under the Northern Territory *Control of Waters Ordinance* 1938, control of natural waters is 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 groundwater 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, 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 has applied to the Commissioner for advice on its construction and has carried out all drilling operations in accordance with advice given.

The Water Division of the Department of Transport and Works 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, stream flows, surveys of dam sites, the design of water supply schemes and reticulation lay-outs, and 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 Division administers both of the ordinances described.

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 publication, *Groundwater Resources of Australia*, 1972 and *Review of Australia's Water Resources*, 1975.

Of approximately 11,000 bores and wells registered in the Territory up to 30 June 1978, 52 per cent were for pastoral use, 13 per cent were investigation bores, 12 per cent served town and domestic supplies, 5 per cent were for crop use, 3 per cent were used on mining fields, and the remainder for various other uses.

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, including Alice Springs, Tennant Creek, Katherine and Nhulunbuy, are supplied from groundwater.

Investigations are continuing into groundwater supplies for the new township to be built in the Uranium Province, aboriginal communities and irrigation supplies in the Alice Springs District.

Surface water measurement

The hydrological investigations required in the Northern Territory as part of the National Water Resources Assessment Program are being carried out by the Water Division. The program for the Northern Territory includes establishment of base streamgauging stations and pluviographs (automatic 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. Intensive studies are being undertaken in the Uranium Province and other mining areas collecting both quantitative and qualitative data for environmental and management purposes. The streamgauging network of the Division comprises gauging stations (base gauging and supplementary) and pluviographs. The Commonwealth Scientific and Industrial Research Organization also maintains streamflow and rainfall recording stations for the arid zone research project.

Irrigation for agricultural purposes in the Territory is not extensive, being confined to isolated locations near Darwin, Adelaide River, Coomalie Creek, Daly River, Katherine, Douglas River, Ti Tree and Alice Springs for the purpose of growing fruit, vegetables, fodder crops, pastures and some dairying. Some of this irrigation is carried out using bore water.

Both the Daly and Adelaide Rivers offer considerable potential for irrigation development with regulation of the rivers. Investigations have been conducted into possible dam sites and areas suitable for irrigation in these regions. There is an increasing demand for water resources assessment studies and assistance for relatively small irrigation projects.

Australian Capital Territory

The climate of the Australian Capital Territory is such that annual evaporation exceeds the annual rainfall of about 600 mm. Primary producers have therefore found it necessary to practise water conservation, and to irrigate from groundwater supplies during dry periods.

Surface water

Surface water storages supplying the Capital City (pop. about 214,000) and the city of Queanbeyan (pop. about 22,000) are located in the heavily timbered, mountainous, western part of the A.C.T. within the catchment of the Cotter River. At present three water storages—Corin Dam (75.5 mil. cubic metres), Bendora Dam (10.7 mil. cubic metres) and Cotter Dam (4.7 mil. cubic metres), serve the two cities and another storage, Googong Dam (124.5 mil. cubic metres) was recently completed on the Queanbeyan River to the east of the A.C.T. It is expected to be commissioned as an additional source of water supply early in 1979 following final commissioning of water treatment plant facilities.

Within the Molonglo–Queanbeyan River catchments, the Cotter and Queanbeyan Rivers provide approximately two-thirds of the surface water resources suitable for development for urban water supply for the A.C.T. with a potential for serving a population of approximately 400,000.

Groundwater

Groundwater in the A.C.T. and environs occurs mainly in fractures in crystalline rock such as granite and volcanic rocks; in folded and fractured slate; and rarely, in solution cavities in limestone. Alluvial aquifers of significance are restricted to the Lake George basin and small areas along mature sections of the Molonglo and Murrumbidgee Rivers. Groundwater has been used in the past by most primary producers to augment surface storage. Groundwater production bores in the A.C.T. have yields ranging between about 0.4 and 20 cubic metres per hour; 3 cubic metres per hour is about the average yield. However, many farm bores have fallen into disuse as a result of the Government's resumption of freehold land within the A.C.T., and because of the rapid expansion of urban growth. The Bureau of Mineral Resources has provided a bore-siting, groundwater-quality and yield-prediction service in the A.C.T. since the early 1950's and until 1978 maintained a network of 48 observation bores which were monitored regularly for up to 25 years. Emphasis has shifted recently from predicting groundwater levels for rural landholders, to trying to establish the groundwater resources that are available for augmenting surface water supplies for urban purposes. The Bureau assessed the feasibility of a groundwater supply for the new National Fitness Camp at Tidbinbilla and also supervised drilling and testing of production bores for the \$500,000 camp. Data are now being collected on groundwater occurrences within the A.C.T. and environs for preparation by the Bureau of a 1:100,000 scale hydrogeologic map.

Many bores have been drilled in the Canberra area for determination of ground conditions for specific projects such as dam sites, sewer tunnels, deep foundations for large buildings; disposal of household and industrial wastes, including radioisotopes; monitoring hydrocarbons, pollution of groundwater or for feasibility studies for urban development. These bores are generally monitored for short periods only. Long-term monitoring of water infiltrating from refuse-disposal areas commenced in 1977.

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 National Development provides technical advice to landholders and drilling contractors on groundwater and, occasionally, on runoff.

CHAPTER 16

MINERAL INDUSTRY

GENERAL

Geology and mineral resources

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: one of Precambrian rocks in the west and central areas of the continent; and one of younger Palaeozoic rocks in the east.

Mineral resources

Australia is self-sufficient in most minerals of economic importance (and much more than self-sufficient in some). Known adequate reserves of minerals with production sufficient for domestic demand and exports include aluminium (bauxite), black coal, copper, gold, iron ore, lead, natural gas, nickel, salt, silver, tin, tungsten and zinc. Adequate reserves sufficient for domestic demand include clays (except light grade china clay), brown coal, dolomite and feldspar.

For further details of principal Australian mineral deposits, and notes on principal mineral resources, see Year Book No. 61, pages 925-932.

Administration

All mineral rights in Australia are vested in the Crown except those 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, these rights are held by the State Governments and in the Territories of the Commonwealth they are vested in the Commonwealth Government. The Commonwealth 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. These Acts, etc., are similar in principle but different in detail. They all made provision for a miner's rights to prospect and for small mining leases for mineral production. The principles embodied were established many years ago when mining operations were generally small scale and labour-intensive. Although amendments have been enacted to modernise the legislation, it is 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 negotiations 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). Mining legislation enacted in recent years is simpler and more suited to modern conditions.

Control of mineral 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 airborne 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 (usually 50 per cent) as a result of work done during the life of the initial agreement. It does not give the holder any rights over, or authority 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 title:

- (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.

Off-shore. The *Sea and Submerged Lands Act* 1973 asserted Commonwealth sovereignty over the territorial sea and continental shelf. However, for the purpose of administering petroleum exploration in off-shore areas, complementary legislation was passed by the Commonwealth Government and each State Government in 1967 and the arrangements under this legislation are still applied. Thus the *Petroleum (Submerged Lands) Act* 1967 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. Each State Government administers the Act in relation to its adjacent off-shore area, but refers certain matters to the Commonwealth Government. The Commonwealth Government has the administrative responsibility for the area adjacent to the Northern Territory. However, after 1 October 1978, certain administrative changes may be necessary in respect to the Designated Authority, but these changes will not affect the general administration of the Act.

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 Commonwealth Governments on a 60 : 40 basis; however, overriding royalty is payable to the State under certain conditions.

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 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 following table.

MINERAL ROYALTY RECEIPTS: GOVERNMENTS

(\$'000)

| | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|----------------------------|---------------|---------------|---------------|----------------|----------------|----------------|
| New South Wales(a) | 10,237 | 9,592 | 13,496 | 37,864 | 32,660 | 46,354 |
| Victoria(b) | 16,875 | 18,025 | 23,922 | 26,657 | 29,893 | 32,696 |
| Queensland(a) | 3,805 | 3,525 | 4,319 | 34,867 | 36,753 | 50,842 |
| South Australia | 1,821 | 1,807 | 1,944 | 2,500 | 2,788 | 3,346 |
| Western Australia | 25,247 | 27,666 | 33,615 | 39,385 | 43,111 | 51,638 |
| Tasmania(c) | 489 | 498 | 506 | 342 | 576 | 1,496 |
| Northern Territory(d) | 634 | 910 | 242 | 99 | 545 | 362 |
| Commonwealth Government(e) | 7,567 | 7,896 | 10,786 | 12,155 | 13,440 | 13,805 |
| Total | 66,676 | 69,921 | 88,831 | 153,869 | 159,766 | 200,539 |

(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) Excludes Aboriginal Benefits Trust Fund royalties from mining operations for which details are not available. (e) Includes royalties received under the *Petroleum (Submerged Lands) (Royalty) Act 1967*.

Control of Exports

The Commonwealth Government maintains export controls over certain metals, petroleum and petroleum products, and all raw and semi-processed minerals. Export control policy is currently under review.

Joint Coal Board

The Joint Coal Board was established in 1946 under joint legislation of the Commonwealth 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. In summary, the Board's functions are:

- (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 has functions similar to those of the Joint Coal Board. It also carries out research and sampling tests of Queensland coals. It 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. The price fixing of coal sold within Queensland is another important function.

Australian Atomic Energy Commission

During 1953, legislation was enacted to set up an Atomic Energy Commission to be 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 retained a provision of that Act which provided 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 National Development.

Government assistance

The Commonwealth Government and the various State Governments provide assistance to the mineral industry in a variety of ways. The main forms of assistance are discussed on the following page.

Commonwealth Government assistance

Assistance provided by the Commonwealth 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 Organisation.

Income taxation concessions. Income derived from mining principally for gold in Australia 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 (including natural gas) are allowable to a petroleum mining enterprise engaged in these operations in Australia. Capital expenditure allowable to petroleum mining enterprises includes, broadly, the costs of exploratory surveys, drilling and well-head plant; plant for the liquefaction of natural gas; and of access roads and expenditure on housing and welfare. The enterprise is entitled to these special deductions against income from any source. While the special deductions for exploration expenditure are deductible immediately against the net income of the enterprise, the deductions for capital expenditure on development are allowable over the life of the oil or gas field or over five years, whichever is less on a reducing balance basis.

An enterprise 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 enterprise, other than costs of exploration, may be deducted against income from any source over the life of the mine, or over five years, whichever is the less. Expenditure incurred by a mining enterprise in exploring for general minerals is allowable as an immediate deduction against net income derived from mining operations. Annual deductions for depreciation on petroleum mining plant or general mining plant may be allowed in lieu of spreading the cost over the life of the oil field or mine. The cost of exploration plant may also be deducted under the depreciation provisions of the law. The investment allowance scheme may permit a deduction at the rate of 40 per cent of the cost of certain new plant in its initial phase, or at 20 per cent in its second phase.

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, pipeline or similar transport facility and on certain port facilities or other facilities for ships. Allowable expenditure on transport facilities is deductible in equal annual instalments over a period of ten or twenty years at the option of the mining enterprise.

An income tax rebate of 30 cents for each dollar of share capital subscribed after 24 August 1977 is available to shareholders of petroleum mining companies exploring or mining for petroleum in off-shore areas of Australia where those companies lodge appropriate declarations with the Commissioner of Taxation in respect of the moneys subscribed. By lodging those declarations, certifying that the capital subscriptions have been, or will be, spent on eligible outgoings within a specified period, the petroleum mining companies forgo deductions to which they might otherwise be entitled for capital expenditure incurred in off-shore operations after 24 August 1977.

Petroleum search subsidy. The petroleum search subsidy scheme, introduced in 1957, was terminated on 30 June 1974. For details see Year Book No. 61, pages 936-7.

Pricing of Australian crude oil. In August 1977, the Commonwealth Government announced new arrangements in the pricing, allocating, and levying arrangements of crude oil. These will take the price of indigenous crude oil from presently known fields in the direction of import parity. This will be achieved through a uniform method of price determination. The new scheme, which took effect from 17 August 1977, applies to each known field in Australia.

Producers receive the import parity price for a specified part of their production. Import parity is received for either the first 6 million barrels of oil produced from each field per annum, or for a proportion of production per annum which will be increased over time according to a specified schedule, whichever is the greater in any particular case. The schedule is 10 per cent from 17 August 1977 until the end of the 1977-78 financial year, rising to 20 per cent for the financial year 1978-79, 35 per cent for 1979-80 and 50 per cent for 1980-81. For all additional production from each field or new development, the producers receive the price which was current up to the time of the introduction of the

new arrangements, i.e. \$2.33 per barrel in the case of the Bass Strait fields, and \$2.88 per barrel in the case of the Barrow Island field. All production from the Moonie and Alton fields and other small fields will, in practice, receive import parity prices, as the output from those fields is well below 6 million barrels per annum.

The Government will review the position before June 1981 to decide the rate at which the further progression to full import parity should take place for presently known fields. Oil from fields discovered after 14 September 1975 will continue to receive full import parity.

The import parity price will be set every six months by the Commonwealth Government and will be calculated on the basis of the price of Arabian light oil at the nearest refinery port, adjusted to allow for an appropriate quality differential. This differential will take account of the suitability of indigenous crude oil for the local market. For the period until 31 December 1978, the import parity price is set at \$12.59 per barrel for Bass Strait crude oil, \$12.64 for Barrow Island crude, and \$13.52 for Moonie crude delivered to Westernport, Kwinana, and Brisbane/Roma respectively.

Payments to producers of phosphate fertilisers. The *Phosphate Fertilisers Bounty Act* 1963 provides for a bounty to be paid on phosphatic substances produced and sold in Australia as a fertiliser. Phosphatic substances used as a supplement to stock food are also regarded as being used as a fertiliser. Bounty is payable at the rate of \$12 per tonne in respect of superphosphate where the available phosphorus content is not less than 8.5 per cent or more than 8.9 per cent by weight. Outside this range, bounty is payable at \$138 per tonne of the available phosphorus content of the substance. The intention of the Act is to assist consumers of phosphate fertilisers (primary producers). The Act expires on 30 June 1982.

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 is 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 Commonwealth 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; and 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 five sections: Planning and Co-ordination, Publications and Information, Automatic Data Processing Applications, Cartography 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 and cartographic services. The Mineral Resources Branch comprises the sections Mineral Economics and Mining Engineering and is concerned largely with those aspects of BMR's work which involve studies of the mineral industry as a whole, including the assessment of Australia's mineral resources 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. The Petroleum Exploration Branch is concerned with the technical administration of the *Petroleum (Submerged Lands) Act* 1967, the assessment of sedimentary basins in Australia and its Territories, and monitors the level of petroleum exploration, development, and production activity and associated economic factors. At 30 June 1978, 529 officers were employed at BMR, this included 242 professional officers (geologists, geophysicists, chemists, engineers and mineral economists).

BMR maintains laboratories in Canberra 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 Kowen Forest (Australian Capital Territory), Mundaring (Western Australia), Mawson (Antarctica), and Macquarie Island. The geophysical observatories are engaged in geomagnetic, ionospheric, and seismology research.

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 generally 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. 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 1976-77 amounted to \$394,543, including \$216,444 on the Department's own drilling program.

Victoria. The Department of Minerals and Energy 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 ground water 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, pipeline, mining and extractive industry legislation ensures that petroleum exploration and production (both on-shore and off-shore), mining and quarrying are carried on 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 and equipment, and assistance to prospectors. The Department maintains a concentration plant for tin ores at Irvinebank, an assay office at Cloncurry and diamond drilling plants in various parts of the State. 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.

South Australia. The Department of Mines provides the following services and facilities to the mineral industry: drilling and testing of mineral deposits; geophysical investigation; well logging; development of sub-surface water supplies for farming, pastoral, irrigation, and mining purposes; 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 fifteen 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 percussive and diamond drills for exploration, as well as a complete plant for small shaft sinking and tunnelling. Other assistance is rendered to the industry through geological and engineering advice, 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 Mines and Energy operates two batteries for the treatment of ores for miners. The Tennant Creek Battery is treating parcels of gold ore, while the Mount Wells Battery is crushing parcels of gold, tin, lead, copper and wolfram ore, and carrying out experimental work on more complex ores. The crushing charges are subsidised by the Government. Mining plant such as drills, compressors, pumps, and small hoists are available for hire to prospectors. Financial assistance is available to prospectors for mine development such as shaft sinking, driving, rising or winzing, and for cartage subsidies. Roads and water supply services are provided and maintained for mines under active development throughout the Northern Territory.

The Northern Territory Geological Survey undertakes geological and geophysical investigations including some engineering geology projects, and is also available to assist with the evaluation of individual mineral occurrences for prospectors and exploration companies. Technical libraries and collections of drill cores and cuttings are maintained in Darwin, Alice Springs and Tennant Creek.

Research

Research investigations into problems of exploration, mining, 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 25 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

Technical consulting, contract research and process design 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 Commonwealth Government. Extensive facilities are available in the fields of analytical chemistry, mineralogy, petrology, chemical metallurgy and mineral engineering, process instrumentation and control, water and waste water treatment 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 360).

Much of the biological research has involved studies on the biology and biochemistry associated with mineralisation processes. The expertise gained is applied to *in situ* examinations of sulphide mineralisation in carbonate-rich sediments. On the geological side, research is co-ordinated with the field programs of the Bureau of Mineral Resources, and includes studies on the McArthur and Georgina Basins and the Adelaide Geosyncline.

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; and
- 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 357.

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, Mineral Engineering, Mineralogy, Mineral Physics, Process Technology and the Fuel Geoscience Unit, and in the Division of Building Research. Major laboratories are located at Clayton and Highett (Vic.), Port Melbourne, Sydney and Perth. Current research program objectives and sub-program titles are:

- Exploration techniques.* To improve and develop procedures for locating mineral deposits (geochemistry, geophysics, geological pattern recognition, isotopic studies);
- Ore deposits.* To elucidate the nature, mode of origin and factors controlling the location of economic mineral deposits (regional studies, nickel deposits, mineralising processes, depositional environment, mineralogical research techniques);
- Mining, beneficiation and control.* To increase the overall efficiency of mining operations and mineral beneficiation processes (mineral dressing, reactive mineral systems, iron ores, coal, phosphate ores);
- Process metallurgy and engineering.* To improve existing technology and initiate new processes in the field of process metallurgy, hydrometallurgy, chemical structures and thermodynamics, pyrometallurgy);
- Environment.* To protect and improve the quality of the human and natural environment (air pollution and abatement, solid and liquid wastes, aquatic environment, urban air quality); and
- Energy.* To support national plans developed to ensure the availability of energy in forms required by consumers and based on indigenous resources (coal conversion, coal and oil resource characterisation, energy conservation, energy conversion and storage and coal utilisation).

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.

Department of National Development

The National Coal Research Advisory Committee, established in December 1964, no longer exists as such but has been incorporated into the Energy Research and Development Division of the Department of National Development. For details of this Division's functions and those of the National Energy Advisory Committee (NEAC) which advises the Minister for National Development on matters relating to national energy policy *see* Chapter 25, Science and Technology.

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, the CSIRO and the Australian Mineral Development Laboratories. Membership of the Association at 30 June 1978 was: full members 45, associate members 20, registered divisions 10. Expenditure on research projects during the year 1977-78 was \$551,643.

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 Commonwealth 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, Third and Fourth International Tin Agreements, which came into force on 21 February 1962, 21 March 1967 and 1 July 1971 respectively. Details of the Second and Third Agreements are given in Year Book No. 57, pages 911-12. Details of the Fourth Agreement are given in Year Book No. 61, page 942.

Australia has signed and ratified the Fifth International Tin Agreement which came into operation on 1 July 1976 for a period of 5 years. Australia joined the Fourth and Fifth Agreements as a 'producing' (i.e. exporting) member, whereas in the first three agreements Australia's status had been that of a 'consuming' (i.e. importing) member.

The objectives and provisions of the present Agreement are essentially the same as for its predecessors. The International Tin Agreement establishes floor and ceiling prices for tin and, by the medium of a buffer stock and remedial trading, aims at confining the prices within these limits. 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 price market. In addition, consuming countries may also make contributions in either cash or tin metal up to the equivalent of 20,000 tonnes of tin metal. In the event of persistent market disequilibrium through causes beyond the control of the buffer stock mechanism, the agreement also provides for the regulation of exports and stocks to stabilise the market.

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, Thailand, Zaire; *Consumers*—Austria, Belgium-Luxembourg, Bulgaria, Canada, Czechoslovakia, Denmark, France, Germany (Federal Republic of), Hungary, India, Ireland (Republic of), Italy, Japan, Netherlands, Poland, Romania, Spain, Turkey, United Kingdom, United States of America, 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.

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, Germany (Federal Republic of), Hungary, India, Ireland (Republic of), Italy, Japan, Mexico, Morocco, Netherlands, Norway, Peru, Poland, South Africa (Republic of), Spain, Sweden, Tunisia, Union of Soviet Socialist Republics, United Kingdom of Great Britain and Northern Ireland, 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.

Association of Iron Ore Exporting Countries (APEF)

Australia is a founder member of the Association of Iron Ore Exporting Countries (APEF). Other members include Algeria, India, Liberia, Mauritania, Peru, Sierra Leone, Sweden and Venezuela.

The objectives of the Association are to promote close co-operation among Member countries with a view to safeguarding their interests in relation to the iron ore export industry; to ensure the orderly and healthy growth of export trade in iron ore; to assist Member countries to secure fair and

remunerative returns from the exploitation, processing and marketing of iron ore with a view to improving their export earnings and terms of trade; to contribute to the economic and social development of Member countries and, in particular, to encourage further processing of iron ore in Member countries including into iron and steel; and to provide a forum for the exchange of information and effective and meaningful consultations on problems relating to the iron ore export industry with a view to enabling Member countries to take appropriate action.

Although meetings of the Association have been mainly concerned with administrative matters, it has been agreed that the Secretariat's work programme should give priority to the preparation of statistical material. The Association has also discussed APEF's attitude to the UNCTAD Ad Hoc Intergovernmental Group of Experts on Iron Ore.

International Bauxite Association

Australia joined the International Bauxite Association as a founder member in October 1974. Other members are Dominican Republic, Ghana, Guinea, Guyana, Haiti, Indonesia, Jamaica, Sierra Leone, Surinam and Yugoslavia. Members account for about three-quarters of world bauxite production with Australia accounting for nearly one-third of world production.

The objectives of the Association are to promote the orderly and rational development of the bauxite industry; to secure for members fair and reasonable returns from the exploration, processing and marketing of bauxite and its products for the economic and social development of their peoples, bearing in mind the recognised interests of consumers; and generally to safeguard the interests of member countries in relation to the bauxite industry.

The Association consists of a Council of Ministers which meets once a year and is the supreme organ, an Executive Board consisting of senior officials which meets three times a year and a Secretariat which is located in Kingston, Jamaica.

The IBA provides members with an opportunity to discuss common problems and evolve co-operative policies to facilitate further development of their bauxite/alumina/aluminium industries. To date the Association's work has been mostly concerned with exchanging views and information on a range of industry matters. The commercial and technical aspects of formulating minimum export prices for bauxite and alumina has received particular attention. In December 1977 the Council adopted a recommendation on a minimum CIF price for bauxite in North America. The Association publishes a Quarterly Review and a bi-monthly newsletter.

MINERAL INDUSTRY STATISTICS

Statistics in the following pages refer mainly to the mining industry, mineral production, mineral exploration, mineral processing and treatment, and overseas trade.

Mining industry statistics

This section contains statistics of the mining industry in Australia obtained from the annual mining censuses. Commencing with the year ended June 1969, the annual mining census has been conducted on an integrated basis with the annual census of manufacturing and with the periodic electricity and gas and retail and wholesale trade censuses; it is therefore on a different basis to those of earlier years.

Further information regarding these differences and mining industry statistics for years prior to 1968-69 is contained in Year Book No. 57, and earlier issues.

The following table shows key items of data for Australia for 1976-77 and summary data for 1971-72 to 1975-1976.

MINING ESTABLISHMENTS: SUMMARY OF OPERATIONS BY INDUSTRY CLASS

| Industry class | | Number of establishments operating at end of June | Persons employed at end of June (b) | | | Wages and salaries (c) | Turnover | Stocks at 30 June | | Purchases, transfers in and selected expenses | Value added | Fixed capital expenditure (outlay on fixed tangible assets less disposals) | |
|----------------|---|---|-------------------------------------|---------|---------|------------------------|-----------|-------------------|---------|---|-------------|--|---------|
| ASIC Code (a) | Description | | Males | Females | Persons | | | 1976 | 1977 | | | | |
| 1976-77 | | No. | No. | No. | No. | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | |
| | Metallic minerals— | | | | | | | | | | | | |
| 1101 | Bauxite | 6 | 1,724 | 231 | 1,955 | 25,249 | n.p. | 13,296 | 13,462 | n.p. | 155,585 | 16,349 | |
| 1102 | Copper (incl. copper-gold) | 19 | 4,375 | 253 | 4,628 | 65,734 | 202,874 | 23,085 | 19,784 | 69,575 | 129,998 | 13,806 | |
| 1103 | Gold | 32 | 1,299 | 77 | 1,376 | 15,900 | 58,162 | 10,041 | 9,956 | 19,446 | 38,631 | 17,155 | |
| 1104 | Iron ore | 26 | 7,107 | 913 | 8,020 | 118,974 | 960,857 | 83,008 | 95,905 | 377,566 | 596,189 | 63,497 | |
| 1105 | Mineral sands | 24 | 2,775 | 231 | 3,006 | 37,918 | 148,302 | 42,215 | 41,340 | 69,355 | 78,072 | 11,513 | |
| 1106 | Nickel | 9 | 3,384 | 242 | 3,626 | 43,215 | 211,710 | 12,095 | 15,643 | 76,294 | 138,964 | 32,131 | |
| 1107 | Silver-lead-zinc | 14 | 6,247 | 268 | 6,515 | 85,802 | 361,481 | 62,349 | 62,092 | 84,971 | 276,253 | 24,320 | |
| 1108 | Tin | 40 | 1,503 | 103 | 1,606 | 15,114 | 85,626 | 8,407 | 6,877 | 26,564 | 57,532 | 8,506 | |
| 1109 | Metallic minerals n.e.c. | 14 | 1,537 | 160 | 1,697 | 20,866 | n.p. | 20,437 | 24,113 | n.p. | 109,070 | 14,632 | |
| 11 | Total metallic minerals | 184 | 29,951 | 2,478 | 32,429 | 428,772 | 2,419,313 | 274,934 | 289,173 | 853,259 | 1,580,293 | 201,909 | |
| | Coal and Crude petroleum (incl. natural gas)— | | | | | | | | | | | | |
| 1201 | Black coal | 126 | 22,972 | 482 | 23,454 | 366,626 | 1,656,291 | 128,521 | 169,093 | 533,887 | 1,162,976 | 177,519 | |
| 1202 | Brown coal | 4 | | | | | | | | | | | |
| 1300 | Crude petroleum (incl. natural gas) | 9 | 3,080 | 98 | 3,178 | 42,124 | 628,116 | 25,392 | 34,134 | 69,117 | 567,740 | 97,518 | |
| | Construction materials— | | | | | | | | | | | | |
| 1401 | Sand and gravel | 324 | 1,662 | 126 | 1,788 | 17,585 | 102,125 | 5,949 | 6,572 | 42,389 | 60,358 | 6,119 | |
| 1402 | Crushed and broken stone | 318 | 3,755 | 311 | 4,066 | 42,252 | 186,885 | 21,962 | 22,703 | 78,828 | 108,798 | 9,901 | |
| 1403 | Dimension stone and other construction materials n.e.c. | 55 | 146 | 8 | 154 | 795 | 2,600 | 278 | 295 | 1,240 | 1,377 | 178 | |
| 14 | Total construction materials | 697 | 5,563 | 445 | 6,008 | 60,632 | 291,610 | 28,190 | 29,569 | 122,456 | 170,533 | 16,199 | |
| | Other non-metallic minerals— | | | | | | | | | | | | |
| 1501 | Limestone | 51 | 651 | 10 | 661 | 6,992 | 29,586 | 1,997 | 2,287 | 13,185 | 16,690 | 535 | |
| 1502 | Clays | 103 | 216 | 18 | 234 | 1,784 | 15,241 | 1,666 | 2,123 | 9,365 | 6,333 | 305 | |
| 1503 | Non-metallic minerals n.e.c. | 113 | 1,764 | 160 | 1,924 | 20,632 | 103,327 | 12,121 | 21,421 | 55,362 | 57,265 | 19,771 | |
| 15 | Total other non-metallic minerals | 267 | 2,631 | 188 | 2,819 | 29,408 | 148,154 | 15,784 | 25,831 | 77,913 | 80,289 | 20,612 | |
| | Total Mining | 1976-77 | 1,287 | 64,197 | 3,691 | 67,888 | 927,563 | 5,143,484 | 472,821 | 547,801 | 1,656,632 | 3,561,832 | 513,757 |
| | (excl. services to mining) | 1975-76 | 1,280 | 63,868 | 3,741 | 67,609 | 782,522 | 4,315,793 | 346,272 | 478,579 | 1,379,845 | 3,068,254 | 548,280 |
| | | 1974-75 | 1,315 | 65,447 | 3,675 | 69,122 | 675,442 | 3,725,629 | 242,390 | 341,432 | 1,155,702 | 2,669,069 | 496,199 |
| | | 1973-74 | 1,315 | 61,006 | 3,050 | 64,056 | 481,006 | 2,798,062 | 216,389 | 242,586 | 828,164 | 1,996,096 | 338,573 |
| | | 1972-73 | 1,330 | 60,140 | 2,920 | 63,060 | 402,894 | 2,265,129 | 210,951 | 211,775 | 668,651 | 1,597,301 | 322,930 |
| | | 1971-72 | 1,410 | 60,222 | 2,957 | 63,179 | 373,999 | 1,994,261 | 165,244 | 211,178 | 611,888 | 1,428,307 | 482,611 |

(a) Australian Standard Industrial Classification.

(b) Includes working proprietors.

(c) Excludes amounts drawn by working proprietors.

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 |
| 1976-77— | | | | | | | | | | |
| New South Wales | 2 | 164 | 11 | 60 | 1 | 8 | — | 13 | 14 | 245 |
| Victoria | — | — | — | 32 | — | (c)73 | — | (c)1 | — | 106 |
| Queensland | (d)3 | (d)166 | (d)1 | (d)222 | (d)15 | (d)2 | — | (d)14 | (d)19 | (d)404 |
| South Australia | — | 18 | — | 3 | — | 27 | 2 | 6 | 2 | 54 |
| Western Australia | (c)13 | (c)594 | — | 71 | 1 | 13 | 1 | 22 | 15 | 700 |
| Tasmania | — | 169 | — | — | — | 4 | — | 1 | — | 174 |
| Northern Territory | 3 | 18 | — | — | — | — | — | — | 3 | 18 |
| Australian Capital Territory | — | — | — | — | (b) | (b) | — | — | (b) | (b) |
| Australia(b)(c) | 21 | 1,129 | 12 | 388 | 17 | 127 | 3 | 57 | 53 | 1,701 |
| 1975-76 | 18 | 1,064 | 22 | 455 | 2 | 132 | 4 | 47 | 46 | 1,698 |

(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.

(d) Year ended 31 December 1976.

Mineral production

This section contains details of the output (quantity and value) of minerals produced and the metallic content of ores, concentrates, etc.

The statistics shown have been derived from data collected in the annual mining census and in returns to the various State Mines Departments, supplemented in some cases by information made available by the Department of National Resources and from other sources.

For details of the scope of mineral production statistics and their relation to mining industry statistics, and the principles for measuring the output of minerals, see Year Book No. 61 and earlier issues.

Quantity of minerals produced

The following tables show particulars of the quantities of minerals produced during 1976-77 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.

| Mineral | | 1974-75 | 1975-76 | 1976-77 |
|---|-------------|------------|---------|---------|
| METALLIC MINERALS | | | | |
| Antimony concentrate | tonnes | 1,555 | 1,649 | n.p. |
| Antimony content | " | 990 | 1,089 | n.p. |
| Antimony ore | tonnes | n.p. | 507 | 1,230 |
| Antimony content | " | n.p. | n.p. | 111 |
| Bauxite | '000 tonnes | 22,205 | 24,861 | 24,826 |
| Alumina (Al ₂ O ₃) content | " | n.p. | n.p. | n.p. |
| Beryllium ore | tonnes | 6 | — | — |
| Beryllium oxide (BeO) content | mtu | 72 | — | — |
| Bismuth concentrate | tonnes | 4,388 | 4,829 | 5,338 |
| Bismuth content | tonnes | 690 | 817 | 853 |
| Copper content | tonnes | 575 | 695 | 1,116 |
| Gold content | kg | 974 | 729 | 485 |
| Selenium content | tonnes | — | — | 28 |
| Silver content | kg | 386 | 286 | 191 |
| Copper concentrate | tonnes | 894,062 | 788,703 | 755,714 |
| Copper content | " | 220,257 | 202,865 | 198,069 |
| Bismuth content | tonnes | 484 | 34 | 203 |
| Gold content | kg | 2,522 | 2,000 | 2,369 |
| Lead content | tonnes | 599 | 507 | 364 |
| Silver content | kg | 39,000 | 32,232 | 28,362 |
| Zinc content | tonnes | 1,800 | 1,655 | 1,210 |
| Copper ore | tonnes | (a) 15,336 | 4,364 | 11,874 |
| Copper content | " | 996 | 372 | 2,029 |
| Gold content | kg | — | 3 | 1 |
| Silver content | " | 18 | 15 | 216 |
| Copper ore for fertilizer | tonnes | 1,000 | — | — |
| Copper content | " | 8 | — | — |
| Copper oxide | tonnes | 1,446 | 2,316 | 2,735 |
| Copper content | " | 1,111 | 1,784 | 2,129 |
| Copper precipitate | tonnes | 44 | 68 | 45 |
| Copper content | " | 32 | 50 | 29 |
| Gold bullion(b) | kg | 12,903 | 15,964 | 15,608 |
| Gold content | " | 10,022 | 12,550 | 11,004 |
| Silver content | kg | 2,014 | 2,383 | 1,734 |
| Gold ore | tonnes | 236 | 294 | 115 |
| Gold content | kg | 2 | 59 | 2 |
| Iron ore(c) | '000 tonnes | 98,159 | 92,687 | 94,766 |
| Iron content | " | 60,860 | 58,263 | 60,164 |
| Iron oxide(d) | tonnes | 62,886 | 55,758 | 56,934 |
| Lead concentrate | tonnes | 615,212 | 576,481 | 632,210 |
| Lead content | " | 390,848 | 369,466 | 391,286 |
| Antimony content | " | 675 | 580 | 535 |
| Cadmium content | " | 57 | 54 | 64 |
| Copper content | " | 3,679 | 3,347 | 4,057 |
| Gold content | kg | 383 | 307 | 260 |

For footnotes see end of table

QUANTITY OF MINERALS PRODUCED AND METALLIC CONTENTS OF ORES CONCENTRATES,
ETC.—continued

| Mineral | | 1974-75 | 1975-76 | 1976-77 |
|---------------------------------|-------------|---------|---------|---------|
| Silver content | " | 560,391 | 559,923 | 682,578 |
| Sulphur content | tonnes | 51,153 | 45,362 | 48,536 |
| Zinc content | " | 31,127 | 31,283 | 34,314 |
| Lead-copper concentrate | tonnes | 19,952 | 19,480 | 25,709 |
| Lead content | " | 4,207 | 4,823 | 6,215 |
| Copper content | " | 2,652 | 2,656 | 3,328 |
| Gold content | kg | 913 | 986 | 1,132 |
| Silver content | " | 45,211 | 42,780 | 49,533 |
| Sulphur content | tonnes | 6,055 | 5,527 | 7,674 |
| Zinc content | " | 2,409 | 1,942 | 2,490 |
| Lead ore (e) | tonnes | 47,562 | 42,997 | 34,760 |
| Lead content | " | 2,613 | 2,718 | 1,923 |
| Silver content | kg | 2,939 | 3,503 | 2,175 |
| Lead-zinc middlings | tonnes | 10,654 | 9,483 | 21,656 |
| Lead content | " | 2,371 | 1,745 | 1,992 |
| Antimony content | " | 10 | 9 | — |
| Cadmium content | " | 21 | 19 | 43 |
| Copper content | " | 128 | 114 | 260 |
| Gold content | kg | 28 | 25 | 58 |
| Silver content | " | 16,842 | 13,674 | 21,764 |
| Sulphur content | tonnes | 3,036 | 2,702 | 6,172 |
| Zinc content | " | 3,359 | 3,139 | 9,334 |
| Manganese ore— | | | | |
| Metallurgical grade | '000 tonnes | 1,410 | 1,576 | 1,681 |
| Manganese content | " | 667 | 765 | 806 |
| Mineral sands (f)— | | | | |
| Ilmenite concentrate (g) | tonnes | 891,090 | 929,269 | 990,444 |
| Titanium dioxide content | " | 503,582 | 523,527 | 541,079 |
| Leucoxene concentrate | tonnes | 17,559 | 14,821 | 8,818 |
| Titanium dioxide content | " | 15,642 | 13,082 | 7,700 |
| Monazite concentrate | tonnes | 3,371 | 4,766 | 7,019 |
| Monazite content | " | 3,108 | 4,392 | 6,487 |
| Rutile concentrate | tonnes | 334,205 | 367,763 | 370,532 |
| Titanium dioxide content | " | 320,496 | 352,710 | 354,966 |
| Xenotime concentrate | tonnes | 16 | 14 | 13 |
| Yttrium oxide content | kg | 4,880 | 4,200 | 3,900 |
| Zircon concentrate | tonnes | 392,751 | 386,604 | 407,603 |
| Zirconium dioxide content | " | 322,191 | 316,075 | 325,542 |
| Nickel concentrate | tonnes | 405,380 | 471,662 | 450,224 |
| Nickel content | " | 49,106 | 57,307 | 54,578 |
| Cobalt content | " | 79 | 135 | 171 |
| Copper content | " | 4,449 | 4,585 | 4,438 |
| Palladium content | kg | 147 | 192 | 213 |
| Platinum content | " | 62 | 79 | 81 |
| Nickel ore | '000 tonnes | 1,042 | 1,922 | 2,238 |
| Nickel content | tonnes (a) | | 23,646 | 26,521 |
| Pyrite concentrate | tonnes | 219,066 | 213,348 | 227,532 |
| Sulphur content | " | 104,126 | 101,352 | 109,807 |
| Tantalite-columbite concentrate | kg | 178,700 | 119,970 | 104,990 |
| Tantalite-columbite content | " | 53,734 | 52,160 | 41,050 |
| Tin concentrates | tonnes | 19,552 | 19,143 | 20,944 |
| Tin content | " | 10,095 | 9,609 | 10,253 |
| Tin-copper concentrate | tonnes | 2,506 | 2,896 | 2,610 |
| Tin content | " | 73 | 76 | 72 |
| Copper content | " | 522 | 628 | 535 |
| Tungsten concentrates— | | | | |
| Scheelite concentrate | tonnes | 1,672 | 2,360 | 3,190 |
| Tungstic oxide content | m.t.u. | 120,700 | 167,000 | n.p. |
| Wolfram concentrate | tonnes | 524 | 641 | 567 |
| Tungstic oxide content | m.t.u. | 36,862 | 45,422 | 39,735 |
| Zinc concentrate | tonnes | 879,612 | 839,627 | 822,367 |
| Zinc content | " | 457,700 | 432,661 | 426,194 |
| Cadmium content | " | 1,523 | 1,500 | 1,441 |
| Cobalt content | " | 116 | 103 | 109 |
| Copper content | " | 1,181 | 1,200 | 1,226 |
| Gold content | kg | 170 | 204 | 215 |

For footnotes see end of table

QUANTITY OF MINERALS PRODUCED AND METALLIC CONTENTS OF ORES CONCENTRATES,
ETC.—*continued*

| <i>Mineral</i> | | 1974-75 | 1975-76 | 1976-77 |
|---|-------------|---------|---------|---------|
| Lead content | tonnes | 15,862 | 17,405 | 16,446 |
| Manganese content | " | 6,146 | 5,785 | 5,241 |
| Mercury content | kg | 86 | 332 | 21 |
| Silver content | kg | 62,245 | 65,072 | 53,199 |
| Sulphur content | tonnes | 278,915 | 268,068 | 261,861 |
| Zinc ore | tonnes | 33,493 | 22,851 | 4,643 |
| Zinc content | " | 11,779 | 8,583 | 1,764 |
| COAL | | | | |
| Black coal | '000 tonnes | 70,142 | 69,269 | 75,982 |
| Bituminous | " | 65,475 | 63,967 | 70,467 |
| Sub-bituminous | " | 4,667 | 5,302 | 5,516 |
| Brown coal (lignite)(<i>h</i>) | " | 24,441 | 26,711 | 28,231 |
| Brown coal briquettes | " | 1,092 | 946 | 1,035 |
| PETROLEUM (<i>i</i>) | | | | |
| Crude oil | '000 cu m | 23,096 | 23,839 | 24,549 |
| Natural gas | mil. cu m | 4,633 | 5,172 | 6,093 |
| Natural gas condensate(<i>j</i>) | cu m | 7,719 | 6,619 | 5,612 |
| Ethane | '000 cu m | 63,677 | 73,208 | 103,350 |
| Liquefied petroleum gases (<i>k</i>)— | | | | |
| Propane | '000 cu m | 1,026 | 1,053 | 1,208 |
| Butane | '000 cu m | 1,148 | 1,182 | 1,325 |
| CONSTRUCTION MATERIALS(<i>l</i>) | | | | |
| Sand | '000 tonnes | 24,807 | 23,206 | 24,950 |
| Gravel | " | 17,315 | 15,230 | 15,071 |
| Dimension stone | " | 163 | 169 | 87 |
| Crushed and broken stone | " | 57,337 | 53,780 | 53,012 |
| Other | " | 33,697 | 31,826 | 30,222 |
| OTHER NON-METALLIC MINERALS | | | | |
| Asbestos | tonnes | 36,558 | 57,235 | 55,814 |
| Barite | " | 12,013 | n.p. | n.p. |
| Carbon dioxide | " | n.p. | n.p. | n.p. |
| Chlorite | " | 403 | 208 | — |
| Clays— | | | | |
| Brick and shale | '000 tonnes | 7,844 | 8,856 | 8,571 |
| Other(<i>m</i>) | " | 1,311 | 1,202 | 1,190 |
| Diatomite | tonnes | 6,035 | 1,681 | 1,371 |
| Dolomite | " | 411,541 | 515,094 | 535,330 |
| Felspar (including cornish stone) | " | 4,278 | 4,123 | 2,998 |
| Garnet concentrate | " | — | 1 | 658 |
| Gypsum | '000 tonnes | 1,008 | 912 | 992 |
| Limestone (including shell and coral) | " | 11,209 | 10,185 | 10,528 |
| Magnesite, crude | tonnes | 36,273 | n.p. | 16,873 |
| Mineral pigments—red ochre | " | — | 874 | 166 |
| Peat(<i>n</i>) | " | 3,384 | n.p. | n.p. |
| Pebbles—for grinding | " | 998 | 1,799 | 1,260 |
| Perlite | " | 3,555 | 2,136 | 4,621 |
| Phosphate rock | " | 35,815 | 168,601 | 455,986 |
| Pyrophyllite | " | 14,264 | 15,542 | 12,112 |
| Salt | '000 tonnes | 5,057 | 5,350 | 5,023 |
| Silica | " | 1,388 | 1,188 | 1,406 |
| Sillimanite | tonnes | 703 | 567 | 7,228 |
| Talc (including steatite) | " | 71,669 | 74,098 | 86,222 |

(a) Includes copper slag. (b) Includes alluvial gold. (c) Includes iron concentrate. (d) For cement manufacture, coal washing. (e) Includes silver-lead ore, silver-lead slimes and lead slag. (f) Details relating to rutile-zircon concentrates produced in one State and finally separated in another State are included in separate form in the data of the State of origin. (g) Includes Beneficiated Ilmenite. Also includes ilmenite from which titanium dioxide is not commercially extractable. (h) Excludes brown coal used for briquette production. (i) Source: Department of National Development and State Mines Departments. (j) Sales—excludes condensate blended and other petroleum products. (k) Excludes refinery production. (l) Incomplete, see individual States. (m) Incomplete owing to difficulties of coverage. (n) 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

| <i>Contents of metallic minerals produced</i> | | <i>1974-75</i> | <i>1975-76</i> | <i>1976-77</i> |
|--|-------------|----------------|----------------|----------------|
| Alumina (Al ₂ O ₃) | '000 tonnes | n.p. | n.p. | n.p. |
| Antimony | tonnes | n.p. | n.p. | n.p. |
| Beryllium oxide (BeO) | mtu(a) | 72 | — | — |
| Bismuth | kg | 1,238,837 | 890,703 | 1,056,199 |
| Cadmium | tonnes | 1,601 | 1,573 | 1,548 |
| Cobalt | " | 1,055 | 2,026 | 2,210 |
| Copper | " | 235,590 | 218,296 | 217,216 |
| Gold | kg | 15,061 | 16,901 | 15,666 |
| Iron(b) | '000 tonnes | 60,860 | 58,263 | 60,164 |
| Lead | tonnes | 416,500 | 396,664 | 418,226 |
| Manganese | " | 672,926 | 771,060 | 811,414 |
| Mercury | kg | 86 | 332 | 21 |
| Monazite | tonnes | 3,108 | 4,392 | 6,487 |
| Nickel | " | 49,106 | 80,953 | 81,099 |
| Palladium | kg | 147 | 192 | 213 |
| Platinum | " | 62 | 79 | 81 |
| Selenium | tonnes | — | — | 28 |
| Silver | kg | 709,913 | 721,544 | 840,084 |
| Sulphur | tonnes | 443,285 | 423,011 | 434,050 |
| Tantalite-columbite (Ta ₂ O ₅ + Nb ₂ O ₅) | '000 grams | 53,734 | 52,160 | 41,050 |
| Tin | tonnes | 10,168 | 9,685 | 10,325 |
| Titanium dioxide (TiO ₂) | " | 839,720 | 889,460 | 903,756 |
| Tungstic oxide (WO ₃) | mtu(a) | 157,562 | 212,422 | n.p. |
| Yttrium oxide (Y ₂ O ₃) | kg | 4,880 | 4,200 | 3,900 |
| Zinc | tonnes | 508,174 | 479,263 | 475,306 |
| Zirconium dioxide (ZrO ₂) | " | 322,229 | 316,131 | 325,572 |

(a) Metric ton unit (mtu) equals 10 kilograms. (b) Excludes iron content of iron oxide not intended for metal extraction. Includes iron contained in iron concentrate.

NOTE: Particulars of production of uranium oxide (U₃O₈) are not available for publication.

Value of minerals produced

The following table shows the value of minerals produced in the past six years.

VALUE OF MINERALS PRODUCED
(S'000)

| <i>Mineral</i> | <i>1971-72</i> | <i>1972-73</i> | <i>1973-74</i> | <i>1974-75</i> | <i>1975-76</i> | <i>1976-77</i> |
|--------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| METALLIC MINERALS | | | | | | |
| Antimony— | | | | | | |
| Concentrate | 176 | 546 | 932 | 1,904 | 1,462 | n.p. |
| Ore | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. |
| Bauxite | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. |
| Beryllium ore | 16 | 23 | 23 | 1 | — | — |
| Bismuth concentrate | 5,066 | 6,813 | 7,609 | 14,085 | 10,591 | 12,183 |
| Copper— | | | | | | |
| Concentrate | 114,956 | 154,748 | 267,873 | 168,047 | 159,876 | 182,448 |
| Ore(a) | 947 | 701 | n.p. | 766 | 305 | 1,202 |
| Ore for fertiliser | 6 | 9 | 5 | 3 | — | — |
| Oxide | 475 | 757 | 982 | 1,406 | 1,900 | 2,730 |
| Precipitate | 134 | 101 | 168 | 31 | 42 | 31 |
| Gold— | | | | | | |
| Bullion(b) | 21,435 | 25,730 | 26,839 | 43,139 | 43,735 | 47,501 |
| Concentrate | n.a. | n.a. | n.a. | — | — | 219 |
| Ore | — | — | 3 | 8 | 10 | 3 |
| Iron ore | 372,483 | 395,189 | 427,518 | 613,169 | 674,515 | 746,577 |
| Iron oxide | 773 | 1,150 | n.p. | 855 | 915 | 1,000 |
| Lead concentrate | (c) 69,340 | (c) 72,060 | 110,875 | 124,519 | 117,099 | 177,760 |
| Lead-copper concentrate | 4,444 | 6,089 | 8,799 | 7,609 | 8,363 | 10,822 |
| Lead ore(d) | 321 | 494 | 403 | 579 | 566 | 527 |
| Lead-zinc middlings | 1,846 | 2,560 | 2,002 | 2,422 | 2,094 | 5,630 |
| Manganese ore | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. |
| Mineral sands— | | | | | | |
| Ilmenite concentrate(e) | 8,071 | 8,155 | 7,953 | 14,270 | 15,835 | 17,753 |
| Leucoxene concentrate | 1,089 | 722 | 1,060 | 2,079 | 2,078 | 1,318 |
| Monazite concentrate | 608 | 551 | 542 | 515 | 774 | 1,178 |
| Rutile concentrate | 41,023 | 36,510 | 36,750 | 53,674 | 71,750 | 75,654 |
| Xenotime concentrate | 18 | 22 | 7 | 12 | 9 | 9 |
| Zircon concentrate | 12,503 | 11,821 | 16,726 | 58,128 | 60,935 | 42,026 |

For footnotes see end of table

VALUE OF MINERALS PRODUCED—continued

| <i>Mineral</i> | <i>1971-72</i> | <i>1972-73</i> | <i>1973-74</i> | <i>1974-75</i> | <i>1975-76</i> | <i>1976-77</i> |
|---|------------------|------------------|------------------|------------------|------------------|------------------|
| Nickel concentrate | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. |
| Nickel ore | — | n.p. | — | n.p. | n.p. | n.p. |
| Pyrite concentrate | 2,230 | 139 | 238 | 441 | 771 | 709 |
| Tantalite-columbite concentrate | 835 | 670 | 777 | 942 | 1,256 | 1,127 |
| Tin concentrate | 30,406 | 32,282 | 43,448 | 49,138 | 49,060 | 70,022 |
| Tin-copper concentrate | 659 | 516 | 860 | 390 | 435 | 383 |
| Tungsten ores and concentrates | 7,979 | 5,550 | 5,292 | 11,385 | 15,497 | 34,204 |
| Uranium concentrate | n.a. | n.a. | n.a. | — | 2,641 | 15,460 |
| Zinc concentrate | 63,393 | 61,820 | 97,122 | 138,385 | 133,340 | 132,922 |
| Zinc ore | — | — | 1,551 | 2,439 | 1,600 | 325 |
| Other metallic minerals | — | — | — | 84 | 2,928 | — |
| <i>Total metallic minerals</i> | <i>921,642</i> | <i>995,416</i> | <i>1,281,782</i> | <i>1,572,746</i> | <i>1,676,273</i> | <i>1,986,680</i> |
| COAL | | | | | | |
| Black coal | 330,504 | 390,980 | 449,855 | 874,879 | 1,211,199 | 1,438,289 |
| Brown coal (lignite) (f) | 21,768 | 24,716 | 27,251 | 40,556 | 48,346 | 55,905 |
| Brown coal briquettes | 11,280 | 9,173 | 11,011 | 11,391 | 11,974 | 14,925 |
| <i>Total coal</i> | <i>363,553</i> | <i>424,869</i> | <i>488,116</i> | <i>926,827</i> | <i>1,271,519</i> | <i>1,509,119</i> |
| PETROLEUM(g) | | | | | | |
| <i>Petroleum</i> | <i>271,981</i> | <i>311,903</i> | <i>378,750</i> | <i>446,298</i> | <i>488,419</i> | <i>534,815</i> |
| CONSTRUCTION MATERIALS(h) | | | | | | |
| <i>Construction materials</i> | <i>159,031</i> | <i>170,484</i> | <i>196,611</i> | <i>238,044</i> | <i>255,836</i> | <i>272,774</i> |
| OTHER NON-METALLIC MINERALS | | | | | | |
| Asbestos | (i)453 | 3,256 | 4,140 | 7,960 | 18,406 | 20,382 |
| Barite | 202 | 208 | 98 | 303 | n.p. | n.p. |
| Carbon dioxide | 38 | 47 | 52 | 45 | 56 | 163 |
| Chlorite | n.a. | n.a. | n.a. | 10,084 | 8,723 | — |
| Clay— | | | | | | |
| Brick clay and shale | 8,408 | 9,355 | 11,153 | 10,241 | 12,634 | 12,821 |
| Other clays | 2,385 | 2,682 | n.p. | n.p. | 4,335 | 4,774 |
| Diatomite | 17 | 43 | 70 | 45 | 60 | 71 |
| Dolomite | 844 | 888 | 1,087 | 991 | 1,262 | 1,421 |
| Felspar (including cornish stone) | 38 | 35 | 48 | 87 | 97 | 77 |
| Garnet concentrate | 8 | 2 | 2 | — | — | 11 |
| Gems | 27,262 | 40,911 | 47,262 | 37,032 | 41,972 | 64,006 |
| Gypsum | 2,819 | 2,826 | 3,665 | 3,176 | 3,069 | 4,216 |
| Limestone (including shell and coral) | 15,135 | 16,932 | 20,794 | 24,221 | 26,087 | 30,154 |
| Magnesite, crude | 236 | 318 | 291 | 722 | n.p. | 340 |
| Mineral pigments—red ochre | — | 10 | 6 | — | 15 | 3 |
| Peat(j) | 87 | n.p. | 143 | 146 | n.p. | n.p. |
| Pebbles—for grinding | 38 | 36 | 43 | 27 | 38 | 35 |
| Perlite | 3 | 18 | 11 | 32 | 12 | 45 |
| Phosphate rock | 10 | 6 | 6 | 894 | 1,508 | 4,477 |
| Pyrophyllite | 58 | 112 | 103 | 156 | 200 | 187 |
| Salt | 11,804 | 12,655 | 16,410 | 21,951 | 29,394 | 33,623 |
| Silica | 3,555 | 4,484 | 5,353 | 6,301 | 6,559 | n.p. |
| Sillimanite | 17 | 17 | 19 | 22 | 18 | 141 |
| Talc (including steatite) | 782 | n.p. | 1,363 | 1,348 | n.p. | n.p. |
| Vermiculite | 1 | 35 | n.p. | n.p. | — | n.p. |
| <i>Total other non-metallic minerals</i> | <i>74,253</i> | <i>95,943</i> | <i>116,062</i> | <i>120,097</i> | <i>149,398</i> | <i>188,057</i> |
| TOTAL | | | | | | |
| Total, all minerals and construction materials | 1,790,460 | 1,998,615 | 2,461,320 | 3,304,012 | 3,841,444 | 4,491,445 |

(a) Includes value of copper slag. (b) Includes alluvial gold. (c) Excludes value of Western Australian production. (d) Includes value of silver-lead ore, silver-lead slimes and lead slag. (e) Includes beneficiated ilmenite. (f) Excludes value of coal used in making briquettes. (g) 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. (h) Incomplete owing to difficulties of coverage in some States. (i) Excludes Western Australian production. (j) Comprises peat for fertiliser and peat moss.

Foreign control of the mining industry in Australia

Summary information on foreign ownership and control of the mining industry in Australia is shown in Chapter 24. More detailed statistics are available in *Foreign Ownership and Control of the Mining Industry* (5317.0) and *Foreign Control in Mineral Exploration* (5230.0).

Mineral exploration (other than for petroleum)

Definition

Exploration 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 carried out primarily for the purpose of commencing or extending mining or quarrying operations (including the construction of drives, shafts, winzes, etc. in underground mines, and the preparation of quarrying sites, including overburden removal, for open-cut extraction).

Sources of statistics

The statistics of exploration for minerals *other than petroleum* are derived from the annual mineral exploration census conducted by the Australian Bureau of Statistics in each State and the Northern Territory (in New South Wales the census is conducted jointly with the State Mines Department).

Classification

The data obtained in the mineral exploration census are divided into the following categories:

(a) *Private exploration on production leases*—relates to exploration carried out on the production lease by privately-operated mines currently producing or under development for the production of minerals.

(b) *Other private exploration*—relates to exploration carried out by private enterprises on areas covered by exploration licences, authorities to enter, authorities to prospect and similar licences and authorities issued by State Governments for exploration of minerals. Also included is exploration by private enterprises which is not directly connected with areas under lease, licence, etc.

(c) *Exploration by government*—relates to exploration of minerals carried out by:

- (i) State Mines Departments and business undertakings operated by State and local government authorities.
- (ii) the Commonwealth Government (Bureau of Mineral Resources, Geology and Geophysics, The Joint Coal Board, The Atomic Energy Commission and The Mines Branch of the Department of the Northern Territory).

Expenditure, metres drilled

The following table show expenditure and metres drilled on mineral exploration other than for petroleum in Australia during the last six years.

MINERAL EXPLORATION (OTHER THAN FOR PETROLEUM)

| | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|----------------------------|---------|---------|---------|---------|---------|---------|
| Expenditure (\$'000)— | | | | | | |
| On drilling | 32,864 | 29,039 | 28,824 | 36,172 | 35,104 | 40,888 |
| Other | 91,611 | 79,088 | 83,714 | 88,029 | 82,033 | 108,605 |
| Australia | 124,475 | 108,127 | 112,539 | 124,200 | 117,137 | 149,493 |
| Metres drilled ('000)— | | | | | | |
| Drilled-core | 794 | 769 | 657 | 733 | 530 | 529 |
| Drilled-non-core | 2,514 | 2,181 | 1,854 | 1,775 | 1,589 | 1,434 |
| Australia | 3,308 | 2,949 | 2,511 | 2,509 | 2,119 | 1,963 |

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*, and by the Australian Bureau of Statistics in its quarterly bulletin, *Petroleum Exploration* (8409.0).

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 costs and 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 table shows particulars of expenditure, and wells and metres drilled in petroleum exploration in recent years.

PETROLEUM EXPLORATION

| | | 1974 | 1975 | 1976 |
|---|---------------|----------------|---------------|---------------|
| Expenditure— | | | | |
| Private sources | \$'000 | 84,286 | 57,552 | 49,031 |
| Government sources | \$'000 | 9,716 | 7,379 | 5,225 |
| Total | \$'000 | 94,002 | 64,931 | 54,257 |
| Wells— | | | | |
| Drilled (i.e. those which reached final depth)— | | | | |
| As oil producers | No. | 1 | — | — |
| As gas producers | No. | 4 | 3 | 6 |
| As oil and gas producers | No. | 3 | 1 | — |
| Plugged and abandoned | No. | 43 | 21 | 11 |
| Total | No. | 51 | 25 | 17 |
| Average final depth of wells drilled | m | 2,321 | 1,953 | 2,342 |
| Drilling still in progress at 31 December (uncompleted holes) | No. | 2 | 1 | 3 |
| Wells drilled or drilling over 3,000 metres | No. | 16 | 5 | 4 |
| Metres drilled— | | | | |
| Completed wells | m | 118,256 | 47,617 | 40,198 |
| Uncompleted holes | m | 3,028 | 620 | 7,314 |
| Total | m | 121,284 | 48,237 | 47,512 |

Mineral processing and treatment

The extraction of minerals from ore deposits, as in mining and quarrying, is only a part of mineral technology, as few minerals can be directly used in the form in which they are mined. In most cases minerals must undergo considerable processing and treatment before utilisation. The sectors of the economy which carry out this work are classified for statistical purposes to Manufacturing Industry (see Chapter 17).

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

| Commodity | | 1974-75(a) | 1975-76(a) | 1976-77(a) |
|--|-------------|------------|------------|------------|
| METALS(b) | | | | |
| Non-ferrous— | | | | |
| Alumina | '000 tonnes | 5,073 | 5,619 | 6,474 |
| Refined aluminium | tonnes | 222,876 | 220,027 | 236,943 |
| Blister copper(c) | " | 189,257 | 174,230 | 164,041 |
| Refined copper | " | 178,451 | 164,279 | 157,452 |
| Lead bullion (for export)(e) | " | 149,876 | 152,256 | 158,656 |
| Refined lead | " | 170,508 | 168,183 | 165,582 |
| Refined zinc | " | 243,209 | 204,534 | 261,914 |
| Refined tin | " | 5,973 | 5,386 | 5,373 |
| Ferrous— | | | | |
| Pig iron(d) | '000 tonnes | 7,598 | 7,519 | 6,958 |
| Steel ingots(d) | " | 8,063 | 7,937 | 7,493 |
| Precious— | | | | |
| Refined gold(e) | '000 grams | 10,744 | 12,829 | 11,127 |
| Refined silver | " | 272,855 | 226,209 | 253,268 |
| FUELS | | | | |
| Coal products— | | | | |
| Metallurgical coke | '000 tonnes | 5,103 | 5,253 | 4,876 |
| Brown coal briquettes | " | 1,092 | 946 | 1,035 |
| Petroleum products— | | | | |
| Motor spirit | mil. litres | 12,508 | 12,501 | 13,056 |
| Furnace fuel | '000 tonnes | 4,656 | 4,340 | 4,604 |
| Automotive distillate | " | 4,682 | 5,003 | 5,249 |
| Industrial diesel fuel | " | 1,110 | 1,216 | 1,242 |
| BUILDING MATERIALS | | | | |
| Clay bricks | millions | 1,722 | 1,820 | 2,044 |
| Portland cement | '000 tonnes | 5,273 | 5,100 | 5,039 |
| Plaster of paris | " | 339 | 355 | 381 |
| Plaster sheets | '000 sq m | 42,372 | 44,794 | 50,503 |
| CHEMICALS | | | | |
| Sulphuric acid | '000 tonnes | 1,770 | 1,295 | 1,721 |
| Caustic soda | tonnes | 141,430 | 139,535 | 129,460 |
| Superphosphate(f) | '000 tonnes | 3,092 | 2,278 | 3,137 |

(a) Some products exclude production of single establishment manufacturing establishments employing less than four persons and production of establishments predominantly engaged in non-manufacturing activities but which may carry on in a minor way, some manufacturing. (b) Excludes secondary metal with the exception of pig iron and steel ingots. (c) Metallic content. (d) Year ended 31 May. (e) Newly-won gold of Australian origin. (f) 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 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

| Commodity(a) | Quantity | | | Value (\$'000 f.o.b.) | | |
|--|-----------|-----------|-----------|-----------------------|-----------|-----------|
| | 1975-76 | 1976-77 | 1977-78 | 1975-76 | 1976-77 | 1977-78 |
| EXPORTS(b) | | | | | | |
| Non-ferrous— | | | | | | |
| Copper— | | | | | | |
| Concentrate tonnes | 158,891 | 143,012 | 109,157 | 40,838 | 50,960 | 31,996 |
| Blister " | 9,497 | 7,247 | 7,542 | 13,505 | 13,254 | 14,938 |
| Refined " | 85,845 | 75,278 | 62,671 | 82,715 | 90,973 | 67,157 |
| Matte, slags, etc. " | 30,548 | 12,057 | 11,683 | 2,546 | 5,688 | 5,088 |
| Lead— | | | | | | |
| Concentrate " | 84,507 | 68,472 | 140,572 | 19,044 | 20,348 | 41,988 |
| Bullion " | 151,652 | 156,794 | 157,915 | 70,841 | 106,203 | 116,897 |
| Refined " | 153,675 | 132,493 | 138,595 | 38,103 | 55,784 | 71,593 |
| Slags and residues " | 19,340 | 13,403 | 2,589 | 1,544 | 1,655 | 846 |
| Zinc— | | | | | | |
| Concentrate " | 424,582 | 379,113 | 389,247 | 62,224 | 58,950 | 44,751 |
| Refined " | 124,068 | 170,675 | 184,290 | 70,816 | 109,390 | 96,066 |
| Slags and residues " | 5,304 | 6,494 | 5,446 | 1,482 | 1,880 | 1,404 |
| Tin— | | | | | | |
| Concentrate " | 7,339 | 11,461 | 14,682 | 14,217 | 28,837 | 49,841 |
| Refined " | 2,351 | 1,838 | 2,787 | 12,131 | 13,335 | 27,375 |
| Aluminium— | | | | | | |
| Alumina '000 tonnes | 5,265 | 5,877 | 6,368 | 436,064 | 566,976 | 667,606 |
| Refined tonnes | 69,073 | 75,533 | 75,921 | 44,009 | 60,084 | 69,270 |
| Ferrous and alloy— | | | | | | |
| Iron ore— | | | | | | |
| Pellets '000 tonnes | 9,040 | 8,792 | 8,548 | 137,553 | 164,713 | 175,747 |
| Fines " | 34,810 | 37,443 | 34,999 | 270,537 | 323,717 | 367,089 |
| Lump " | 35,080 | 34,540 | 31,143 | 362,908 | 413,234 | 409,087 |
| Tungsten— | | | | | | |
| Scheelite concentrate tonnes | 2,286 | 3,101 | 3,341 | 12,114 | 22,450 | 33,813 |
| Wolfram concentrate " | 533 | 525 | 767 | 2,588 | 3,894 | 6,861 |
| Pig iron " | 593,051 | 763,421 | 519,176 | 40,478 | 56,813 | 39,583 |
| Steel ingots, blooms " | 1,527,951 | 1,550,193 | 1,084,249 | 159,814 | 172,545 | 137,906 |
| Mineral sands— | | | | | | |
| Ilmenite concentrate '000 tonnes | 628 | 1,167 | 1,039 | 8,406 | 17,985 | 22,503 |
| Rutile concentrate " | 339 | 289 | 315 | 65,646 | 63,430 | 62,031 |
| Zircon concentrate " | 286 | 351 | 366 | 51,716 | 47,727 | 30,706 |
| Precious— | | | | | | |
| Gold, refined '000 grams | 7,232 | 7,924 | 8,194 | 27,874 | 29,642 | 40,998 |
| Silver, refined " | 89,982 | 129,002 | 103,411 | 9,663 | 16,134 | 14,262 |
| Coal, black '000 tonnes | 29,224 | 34,432 | 37,161 | 1,023,455 | 1,281,944 | 1,457,178 |
| Crude oil(c) '000 cu m | 243 | 206 | 210 | 17,559 | 15,462 | 16,125 |
| IMPORTS | | | | | | |
| Tin, refined tonnes | 34 | 17 | 215 | 181 | 117 | 1959 |
| Nickel (pigs, anodes, etc.) " | 962 | 1,210 | 2,008 | 4,081 | 5,033 | 8,154 |
| Ferro-alloys " | 25,529 | 28,663 | 20,048 | 11,953 | 16,938 | 11,378 |
| Gold— | | | | | | |
| Unrefined bullion(d) '000 grams | 2,876 | 1,905 | 1,241 | 9,769 | 6,468 | 5,537 |
| Refined " | 13 | 110 | 228 | 49 | 308 | 796 |
| Crude oil(e) '000 cu m | 8,783 | 10,092 | 11,261 | 516,361 | 646,499 | 799,135 |
| Asbestos tonnes | 54,495 | 70,731 | 58,265 | 17,930 | 29,415 | 25,978 |
| Diamonds— | | | | | | |
| Industrial metric carats | 744,655 | 1,015,153 | 833,964 | 2,804 | 4,512 | 4,263 |
| Gemstone " | 86,228 | 91,336 | 132,815 | 17,435 | 22,717 | 31,202 |
| Phosphate rock '000 tonnes | 1,461 | 1,329 | 1,510 | 53,212 | 42,227 | 55,279 |
| Potassium fertilisers tonnes | 110,190 | 165,470 | 157,397 | 7,565 | 9,625 | 9,137 |
| Sulphur " | 156,494 | 315,432 | 6,271 | 4,986 | 10,697 | 14,442 |

(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 1976-77 and their principal metallic content as estimated by assay.

PRINCIPAL METALLIC CONTENTS OF SELECTED ORES AND ETC. ETC. EXPORTED FROM AUSTRALIA, 1976-77

| <i>Metallic contents—estimated from assay</i> | | | | | | | | |
|---|---------------|----------------|----------------|--------------|---------------|------------------------|--------------|----------------|
| <i>Ores and concentrates, etc.</i> | <i>Copper</i> | <i>Lead</i> | <i>Zinc</i> | <i>Tin</i> | <i>Iron</i> | <i>Tungstic Oxides</i> | <i>Gold</i> | <i>Silver</i> |
| | tonnes | tonnes | tonnes | tonnes | '000 tonnes | tonnes | kg | kg |
| Copper concentrate . . . | 44,064 | — | — | — | — | — | 3,363 | 5,717 |
| Blister copper | 7,194 | — | — | — | — | — | 1,723 | 1,237 |
| Copper matte, slags, etc.(a) | 2,024 | 2,614 | — | 2 | — | — | 653 | 3,433 |
| Lead concentrate | 3,336 | 32,394 | 4,915 | — | — | — | 1,213 | 75,329 |
| Lead bullion | 9 | 155,799 | — | — | — | — | — | 320,572 |
| Lead slags and residues | 517 | 4,849 | 36 | 20 | — | — | 53 | 9,981 |
| Zinc concentrate | — | 1,558 | 195,952 | — | — | — | — | 26,128 |
| Zinc slags and residues | — | — | — | — | — | — | — | — |
| Tin concentrate | 5 | — | — | 4,399 | — | — | — | — |
| Iron ore— | | | | | | | | |
| Pellets | — | — | — | — | 5,494 | — | — | — |
| Fines | — | — | — | — | 23,212 | — | — | — |
| Lump | — | — | — | — | 22,331 | — | — | — |
| Scheelite concentrate . . | — | — | — | — | — | 216,650 | — | — |
| Wolfram concentrate . . | — | — | — | — | — | 35,966 | — | — |
| Total metallic content . . . | 57,154 | 197,214 | 205,967 | 4,421 | 51,037 | 252,616 | 7,005 | 442,397 |

(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)

| METALS(a) | | | | | | | | | | |
|-----------------------|--------------------------|------------------------------------|------------------------------|---------------------------------|----------------------------|--------------------------|---|-------------------------|----------------------------|----------------------------------|
| Period | Tin | | | Nickel U.S.A. (\$US-16) | Aluminium | | Gold | | Silver | |
| | Aust. (\$A- tonne) | L.M.E. (£Stg- metric ton) | Straits (\$Mal- picul) | | Aust. (\$A-tonne) | U.S.A. (USc-lb) | Premium markets (\$A-f. oz) Australia and Overseas | U.K. (\$US-f. oz) | Aust. (\$A-kg) | U.K. (Sig new pence-f. oz) |
| | | | | | | | | | | |
| 1974-75 | 5,715.8 | 3,246.7 | 1,022.3 | 1.93 | 671.0 | 38.1 | 121.54 | 167.86 | 104.9 | 187.9 |
| 1975-76 | 5,698.3 | 3,402.7 | 1,014.9 | 2.17 | 751.7 | 41.1 | 110.40 | 139.32 | 112.4 | 221.9 |
| 1976-77 | 8,404.2 | 5,263.7 | 1,344.6 | 2.38 | 860.3 | 46.6 | 114.8 | 131.3 | 127.6 | 262.9 |
| 1976-77 | | | | | | | | | | |
| Highest | 10,812.0 | 6,435.0 | 1,660.0 | 2.41 | 907.0 | 51.0 | 135.8 | 153.6 | 141.6 | 289.7 |
| Lowest | 6,659.0 | 4,431.0 | 1,158.8 | 2.20 | 787.0 | 42.5 | 86.1 | 103.5 | 106.5 | 230.4 |
| Period | Copper | | Lead | | Zinc | | | | | |
| | Aust. (\$A- tonne) | L.M.E. (£Stg- metric ton) | Aust. (\$A- tonne) | L.M.E. (£Stg- metric ton) | U.S.A. (USc-lb) | Aust. (\$A- tonne) | L.M.E. (£Stg- metric ton) | Prod. (Stg- ton) | U.S.A. (USc-lb) | |
| | | | | | | | | | | |
| 1974-75 | 1,050.5 | 598.3 | 366.6 | 216.5 | 23.95 | 612.8 | 359.1 | 353.6 | 38.55 | |
| 1975-76 | 1,017.9 | 655.3 | 300.8 | 194.9 | 20.32 | 628.7 | 364.3 | (b)795.0 | 37.99 | |
| 1976-77 | 1,239.9 | 823.6 | 475.3 | 323.7 | 27.5 | 694.8 | 390.4 | (b)783.8 | 37.08 | |
| 1976-77 | | | | | | | | | | |
| Highest | 1,400.0 | 936.3 | 625.0 | 439.0 | 31.0 | 793.0 | 440.5 | (b)795.0 | 40.00 | |
| Lowest | 1,020.0 | 728.5 | 375.0 | 248.5 | 23.0 | 639.0 | 294.0 | (b)700.0 | 34.00 | |
| ORES AND CONCENTRATES | | | | | | | | | | |
| Period | Tin | | Wolfram | | Ilmenite | | Rutile | | Zircon | |
| | Aust. (\$A-mtu) | | Europe (\$Stg-mtu) | | Europe (\$A-metric ton) | | Europe (\$A-metric ton) | | Europe (\$A-metric ton) | |
| 1974-75 | 48.58 | | 37.00-50.25 | | 13.00-18.00 | | 200.00-330.00 | | 170.00-330.00 | |
| 1975-76 | 47.89 | | 36.75-64.00 | | 15.00-18.00 | | 290.00-330.00 | | 140.00-330.00 | |
| 1976-77 | 71.93 | | (c)143.50-186.50 | | 15.00-18.00 | | 200.00-330.00 | | 90.00-160.00 | |
| 1976-77- | | | | | | | | | | |
| Highest | 87.80 | | (c)186.50 | | 18.00 | | 330.00 | | 160.00 | |
| Lowest | 57.35 | | (c)143.50 | | 15.00 | | 200.00 | | 90.00 | |

(a) Where a daily price does not actually exist for a commodity, daily prices have been imputed from price data which are available. (b) From 2 January 1976 prices quoted in \$US per tonne. (c) From 1 December 1976 prices quoted in \$US per metric ton unit.

Prices data shown are those quoted in the relevant markets and are mainly derived from information collected and compiled by the Bureau of Mineral Resources. Overseas data are supplied to the Bureau of Mineral Resources by the *Metal Bulletin* and *Metals Week*.

REVIEW OF RECENT DEVELOPMENTS IN THE AUSTRALIAN MINERAL INDUSTRY

Major developments in the Australian mineral industry, particularly during 1977 and the first half of 1978, are reviewed briefly in subsequent parts of this section. Additional information on developments in the industry is available in *Australian Mineral Industry Annual Review 1976* 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.

General Review of 1977

The rate of expansion of the Australian mining industry declined somewhat in 1977 in the face of difficult world trading conditions for a number of mineral commodities. Despite this, the ex-mine index of output at constant prices showed an increase of 4 per cent compared with 3 per cent in 1976. Value added for the mining industry (excluding smelting and refining) increased by 16 per cent to \$3,562 million. Despite the overall rise, the continued recession of demand was reflected in the fact that both quantities and values of production of a number of base metal and other minerals declined.

'Mines and Quarries' was easily the largest single export-earning group in 1977-78, 28.8 per cent of total exports. 'Mines and Quarries', however excludes some exports by the smelting and refining section of the industry which are allocated to 'Manufactures'.

Imports—1977. The import bill for mineral primary products rose by 27 per cent to \$916 million, primarily, as in 1976, because of an increase in the value of crude oil imports which rose by 27 per cent from \$563 million to \$717 million. Crude oil was the largest Australian mineral import and accounted for 78 per cent of the total value of mineral primary product imports. Other significant mineral imports were ferro-alloys, asbestos, elemental sulphur, and fertiliser minerals.

Exports—1977. Exports of mineral primary products accounted for 8.3 per cent of the total value of merchandise exports compared with 8.0 per cent in 1976; the value of mineral exports rose by 15 per cent to \$4,743 million. However, there was a decline in the export of the minerals and metals which have traditionally been growth commodities in the export trade due mainly to their oversupply in world markets, and the continued sluggishness in most western industrial economies. This decline was in the quantity and value of copper ores and concentrates, and the quantities of refined and blister copper; the quantity of iron ore, the quantities and values of pig iron ingots, and steel ingots and blooms; the quantity and value of manganese ore; the values of nickel metal and alloys, nickel powder, and nickel ores and concentrates; the quantities and values of the mineral sands, rutile and zircon; and the quantity and value of zinc ores and concentrates, and zinc slabs.

Black coal remained the largest mineral export earner, increasing in value by 17 per cent to \$1,398 millions and accounting for 29 per cent of the total value of mineral primary products exports.

Second was iron ore, which increased in value by 15 per cent to \$952 million (the quantity however decreased by 3 per cent), and alumina which increased in quantity by 5 per cent and in value by 20 per cent to \$629 million. These three items accounted for 63 per cent of the total value of exports of mineral primary products. Other major commodities which recorded value increases were ilmenite (24 per cent), lead ores and concentrates (87 per cent), lead bullion (47 per cent), salt (10 per cent) and refined silver (56 per cent).

Reflecting buoyant world demand and rising prices, significant increases were also recorded in the value of refined gold, and the quantities and values of tin and tungsten ores. For the first time uranium made a significant contribution (\$74 million) to mineral exports.

National sufficiency in minerals—1977. The mineral industry's contributions to the national economy can also be assessed by considering the ability of the industry to satisfy domestic mineral, metal, and fuel requirements. Crude oil, phosphate rock, asbestos, diamonds, ferro-alloys, elemental sulphur and potassium fertilisers were the main mineral deficiencies. Australia is a net exporter of nickel, but refined nickel is still imported to meet demand for forms not produced locally. Domestic production supplied only about 72 per cent of estimate consumption of crude oil. Asbestos production went mainly to the export market and about 74 000 tonnes of asbestos were imported.

Bauxite and Alumina

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).

In 1977 production of bauxite increased to more than 26 million tonnes, alumina production to 6.7 million tonnes, and aluminium to 247,577 tonnes. Australia was again the world's largest producer of bauxite and alumina.

An alumina refinery of initial rated capacity of 200,000 tonnes/year will be commissioned in 1981 at Wagerup, W.A. Capacity will be increased over 15 years to 2 million tonnes/year. Bauxite will be supplied from Mount William, W.A. All alumina produced will be exported.

The first stage of the alumina refinery at Worsley, W.A., will be completed in 1981. Initial rated capacity is one million tonnes/year, and ultimate capacity two million tonnes/year. Bauxite will be supplied from Mount Saddleback, W.A. All alumina produced will be exported.

The production capacity of the aluminium smelter at Kurri Kurri, N.S.W., is to be increased from 45,000 tonnes to 67,900 tonnes/year by late 1979. New furnaces commissioned at the Bell Bay, Tasmania, aluminium smelter in mid-1977 increased capacity from 93,000 to 112,000 tonnes/year. It was announced in 1978 that an aluminium smelter will be constructed at Gladstone, Queensland; the first stage will have a design capacity of 180,000 tonnes/year. The rated capacity of the other Australian aluminium smelter, at Point Henry, Victoria, supplied with Western Australian alumina, is 91,500 tonnes/year.

Copper

A summary of the copper mining industry in Australia 1953–1975 and the sufficiency of present ore reserves was published in the Australian Mineral Industry Quarterly Review Vol. 30 No. 1.

The Commonwealth Government continued its assistance to the Mount Lyell mine, Tasmania, in the form of our interest-free loan, to June 1980.

Drilling at Teutonic Bore, W.A., has revealed a deposit of between 2–3 million tonnes of ore containing 3.5 per cent copper, 9.5 per cent zinc, and 150g/t silver. The SECOR copper rod line at Townsville, Queensland, was commissioned in December 1971. A substantial copper-zinc deposit has been indicated by drilling near Benambra, Victoria.

Iron

A summary of growth of the Australian iron ore industry 1965 to 1975 has been published in the *Australian Mineral Industry Quarterly Review*, Vol. 29 No. 1.

A heavy-media beneficiation plant is being constructed at Mount Whaleback, W.A., near Newman. It will have the capacity to treat seven million tonnes/year of low-grade ore to produce five million tonnes/year of high-grade concentrates. Completion date is late 1979.

Hamersley Iron Pty Ltd is increasing production capacity from 40 to 46 million tonnes per annum of saleable iron ore by construction of a concentration plant to treat low grade ore at Mount Tom Price. Cliffs Robe River Iron Associates is expanding mine production capacity at Robe River from 16 to 20 million tonnes per annum.

Silver, lead and zinc

Mine production of lead and zinc metal in 1977 was 432,204 tonnes and 491,608 tonnes respectively.

A summary of the Australian lead and zinc industry from 1953 to 1973 was published in the *Australian Mineral Industry Quarterly Review*, Vol. 27 No. 4.

Production from the Woodlawn, N.S.W., mine commenced in 1978. A decline shaft is being sunk at the Sorby Hills, W.A., lead deposit.

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 1977 exports were 36.0 million tonnes valued at \$1,398 million. These increased exports have been largely to Japan for use in the iron and steel industry and to Europe as steaming coal. 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 and steaming coal have been located. Raw coal production in 1977 increased to 87.5 million tonnes; saleable coal output totalled 70.9 million tonnes.

Petroleum

At the end of 1976, there were nine oil fields in production: Moonie, Alton and Bennett in Queensland; Barrow Island, Yardarino and Dongara in Western Australia; and Barracouta, Halibut, Mackerel and Kingfish offshore from Victoria in Bass Strait. The production of crude oil (excluding condensate and LPG) in 1977 amounted to 24,986,000 cubic metres representing 71 per cent of the year's total input to Australian refineries. The average daily production of 68,454 cubic metres in 1977 was one per cent higher than in 1976. Natural gas production in 1976 amounted to 6,728 million cubic metres, 13.5 per cent more than in 1976. About 10 per cent of this was used in the field and processing plants and the balance was sold, mainly as fuel, to markets in Victoria, South Australia, Western Australia, New South Wales and Queensland.

During 1977 the major onshore discovery was gas in the Kidman No. 1 well in the Cooper Basin, South Australia. Offshore there were no major discoveries but shows of gas were reported in Haycock No. 1 and Scott Reef No. 2A, both on the Northwest Shelf, off Western Australia. In the first nine months of 1978, there have been major onshore discoveries of gas in Kirby No. 1, in South Australia, Wackett No. 1 and Ashby No. 1, in Queensland, and significant oil discoveries in Boggo Creek No. 2 (No. 1 was dry) in Queensland, and Strzelecki No. 3, South Australia. Offshore new oil discoveries have been made in Seahorse No. 1 and West Halibut No. 1 (the Fortescue Field), both in the Gippsland Basin, offshore from Victoria.

The provisional figure for metres drilled in petroleum exploration and development in Australia in 1977 was 11,489 metres, 42.8 per cent more than that drilled in 1976; 60,562 metres were in exploration drilling, including 35,826 metres offshore. Of the forty-one wells completed in 1977, twenty-one were exploration wells, including thirteen offshore. Compared with 1976, there was a rise of two in the number of exploration wells and an increase of seven in the number of development wells

drilled. There was also an increase of ten in the number of offshore exploration wells. Two exploration wells were completed as gas producers and two as oil producers. Of the twenty development wells, seventeen were completed as gas producers and two as oil producers; one was abandoned.

Nickel

A summary of the growth of the Australian nickel industry was published in the *Australian Mineral Industry Quarterly Review*, Vol. 28 No. 4.

Mine production of nickel in ore and concentrates was 85,868 tonnes in 1977, about 11 per cent of world mine production. Production commenced at Agnew, W.A., in 1978. The concentrates are toll-smeltered at the Kalgoorlie smelter, the capacity of which was increased. Australia's major nickel producer, Western Mining Corporation Ltd, cut back production in late 1977 because of excess world nickel supplies and the very large nickel stockpiles held by major producers.

Mineral sands

The history of the mineral sands industry is presented in the *Australian Mineral Industry Quarterly Review*, Vol. 25 No. 1.

Phosphate

Australia's only phosphate mine, at Duchess, Qld, closed for economic reasons on 30 June 1978. It is now on care and maintenance.

Uranium

The Australian Government has announced that uranium mining will go ahead, subject to controls.

Diamonds

Diamond exploration in the Kimberley region of Western Australia has resulted in the discovery of a number of kimberlite pipes. On the basis of diamonds found, Conzinc Riotinto of Australia is setting up a pilot plant to treat kimberlite at Ashton, W.A.

REFERENCES

Further detailed statistics and information on the subjects dealt with in this chapter are contained in the annual printed publication *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 the ABS a quarterly publication, *The Australian Mineral Industry, (Quarterly Review and Statistics)* (8403.0). The annual ABS statistical publications, *Mining Establishments, Summary of Operations (Preliminary)* (8401.0), *Mining Establishments, Details of Operations* (8402.0); *Mineral Production* (8405.0); *Mineral Exploration* (8407.0) and the irregular publications *Mining Industry, Foreign Ownership and Control* (5317.0) and *Foreign Control in Mineral Exploration* (5323.0), contain economic statistics of the industry prepared and published as soon as possible after the data have been compiled. A monthly statistical publication, *Minerals and Mineral Products* (8404.0) is issued also, and other current statistics on mining or mine products are contained in the *Monthly Review of Business Statistics* (1304.0), the *Digest of Current Economic Statistics* (1305.0), and the monthly publication *Production Statistics* (8302.0).

CHAPTER 17

MANUFACTURING AND INTERNAL TRADE

MANUFACTURING

Introduction

History

An historical summary of the development of the 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 the Commonwealth 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 Commonwealth 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 22, Public Finance, for products on which bounties are paid.)

Government authorities

Industries Assistance Commission

The Industries Assistance Commission is a statutory authority which came into existence on 1 January 1974 as a result of a passing of the *Industries Assistance Commission Act 1973* by the Australian Parliament. The Commission replaced the Tariff Board, which since 1921 had been responsible for advising the Government on assistance for industries mainly in the secondary sector of the economy. (The *Industries Assistance Commission Act 1973* was amended in March 1978.)

The Commission is an advisory authority, advising the Government. Its functions are to hold inquiries and make reports to the Government in respect to matters of assistance to industries in the primary, secondary and tertiary sectors of the economy and in respect to other matters referred to the Commission by the Government. The Government is required to seek the Commission's advice before it makes changes in the long term assistance afforded industries; but the Government is not obliged to accept the Commission's advice.

References from the Government requiring the Commission to inquire and report on certain matters mainly arise from representations to the Government from organisations, companies or individuals seeking assistance. References are also initiated by the Government and the Commission itself has the power to initiate an inquiry.

The receipt of a reference from the Government is the official document directing the Commission to inquire and report on matters in accordance with the terms of reference and the guidelines as set by the Government.

Public hearings are held by the Commission in Canberra and in capital cities throughout Australia. At these hearings evidence is taken on oath or affirmation. The Act requires the Commission to take into consideration only sworn evidence. The inquiry subject and the date and location of public hearings are advertised in the press and advised by Commission circular.

If after receiving a report from the Commission, the Government decides that assistance afforded a particular industry should be changed, it introduces a proposal to this effect in Parliament. Thus the final responsibility for altering assistance given to particular industries within Australia rests with Parliament.

Copies of the Commission's reports, when released for publication by the Government, are sold by Australian Government Publishing Service bookshops.

The Commission is also required to report annually to the Government on its operations and on the general structure of industry assistance within Australia and its effects on the economy.

Temporary Assistance Authority

The Temporary Assistance Authority (TAA), which replaced the Special Advisory Authority set up under the *Tariff Board Act*, came into operation on 1 January 1974 under the provisions of the *Industries Assistance Commission Act 1973* (since amended).

The main function of the TAA is to undertake inquiries and submit reports to the Government within 45 days of receipt of a reference from the Government on the question of whether urgent action is necessary to provide assistance to any industry that is experiencing difficulty due to the importation of specified goods. If urgent action is necessary the Authority recommends the nature and extent of the assistance to be provided.

The Authority's reports on individual inquiries are normally made public once the Government's decision is announced and are available, as is the annual report, from the Australian Government Publishing Service bookshops.

Bureau of Industry Economics

In September 1976, the Australian Government announced that the Bureau of Industry Economics would be established as a centre for research into the manufacturing and commerce sectors. The Bureau began operations in May 1977. Being formally attached to the Department of Industry and Commerce, it has professional independence in the conduct and reporting of its research.

The major objectives of the Bureau are to:

- carry out research work needed to assist the Government in the formation of industrial policy
- assist the Industries Assistance Commission (IAC) and other government bodies by making submissions on the results of its research
- attract a high standard of professional staff and publish its research findings
- complement the work of other research agencies and co-operate with universities and colleges in developing research programs.

The Bureau is also concerned with developments in mining, rural industry, public services (for example education, health, defence) and trade in goods and services which are linked with the manufacturing and commerce sectors.

A Council has been set up to advise the Minister of Industry and Commerce about the Bureau's work and to ensure that it is relevant to contemporary and long term issues in manufacturing and commerce. Members of the Council are drawn from a wide range of industries and backgrounds, including the universities and the trade union movement. In this way the Council of Advice provides a major link between the Bureau and the community. The Council assists with the development of the work of the Bureau and the effective dissemination of the results of the Bureau's work.

In its investigations, the Bureau principally makes use of economics and related disciplines. Technical and social factors affecting industry structure and performance are also taken into account.

The techniques of economic analysis used include supply and demand estimation, industry structure-performance relationships, input-output analysis, econometrics, cost-benefit methods and socio-demographic investigations. In addition, the Bureau is associated with the large-scale models of the Australian economy under development by the IMPACT team and at the Melbourne University Institute of Applied Economic and Social Research.

The staff of the Bureau includes officers with backgrounds in business, consultancy, government and university teaching and research. An initial nucleus of about 30 persons has been established and it is envisaged that additional recruitment will bring the size of the Bureau to about 100 persons within a few years.

Project control and resource commitments are determined by means of a feasibility study. Within the broad topic under investigation, several specific projects may be justified in relation to previous research findings, data availability, relevance to long-term policy issues and overall budget constraints. Some projects require special surveys where existing data sources are inadequate or more detailed information is required for particular industries. In certain projects the Bureau will undertake joint research with organisations in the private sector and consultants may be engaged where this will significantly enhance the quality of the research or will remedy any lack of in-house expertise.

When initial findings are available, work-in-progress papers are prepared to discuss the methods employed and to ensure that specialist qualified observers have an opportunity to comment on objectives of the research programme. Final reports on projects will be widely distributed with the aim of informing industry groups, government policy makers and teaching and research institutions about industrial and commercial developments.

Standardisation

The *Commonwealth Scientific and Industrial Research Organization* has functions concerned with the improvement of efficiency in industrial operations. For further particulars see Chapter 25, Science and Technology, in 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 Commonwealth and State Governments and of industry. Approximately half its funds are provided by Commonwealth Government grant, the remainder coming primarily from membership subscriptions and from the sale of publications. Organisations, companies, and individuals are eligible for subscribing membership.

The Association is controlled by a Council comprising representatives from Commonwealth 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 subject 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 (NATA)* 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 acoustic and vibration measurement, biological testing, chemical testing, electrical testing, heat and temperature measurement, mechanical testing, metrology, non-destructive testing and optics and photometry.

The *Industrial Design Council of Australia (IDCA)* 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 Commonwealth 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, Adelaide, Perth and Hobart.

The Australian Design Award is granted for high-quality products of Australian design and manufacture. An index of these products is held in each State office. These products are also displayed in Australian Design Centres.

Regular contact is maintained with senior executives of manufacturing companies, departmental officers and designers through the Design Delegate program of lectures. Inquirers 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.

The Council's National Secretariat is in Melbourne.

Productivity Action

For information about the Productivity Group Movement and Productivity Promotion Council of Australia see Chapter 25, 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 were included in Year Book No. 57, pages 721-9, and in earlier issues.

MANUFACTURING INDUSTRY: AUSTRALIA(a), 1901 TO 1967-68

| Year | Factories | Employment(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 | \$'000 |
| 1901 . . | 11,143 | 198 | n.a. | 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 389. 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 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.

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.

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.

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 | 5 | | 1,276 |
| 1967-68 census if ASIC had been used (b) | 445 | 376 | 95 | 100 | 51 | 27 | 3 | | 1,097 |

(a) Excludes establishments engaged in slaughtering, milk treating and printing. (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 (a) 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 subsequent years, which include the aforementioned employees.

In integrating the censuses, the items of data on the census forms were standardised for all census sectors, which 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.

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. In addition, 'value added' as calculated for the Manufacturing Census differs from the concept used in National Accounts where the concept of 'value added' also excludes some administrative expenses and sundry charges and the change in stocks component is measured by valuing the physical change in stocks at current prices. It is not practicable in the Manufacturing Census to collect data fully in accord with the national accounts concept of 'value added'.

Commencing with the 1975-76 Manufacturing Census, only a limited range of data (i.e. employment and wages and salaries) is collected from single establishment manufacturing enterprises with less than four persons employed. This procedure is expected to significantly reduce both the statistical reporting obligations of small businesses and the collecting and processing costs of the Australian Bureau of Statistics without affecting the reliability of information for the evaluation of trends in the manufacturing sector of the economy (as these small enterprises contribute only marginally to statistical aggregates).

For a more detailed description of the Integrated Economic Censuses reference should be made to Year Book No. 56, Chapter 31.

Multi-establishment enterprises and single establishment manufacturing enterprises with four or more persons employed

Main structural aggregates relating to number of establishments, employment, wages and salaries, turnover, purchases, transfers in and selected expenses, stocks, and value added are shown in the following tables. Further detailed statistics are contained in the following ABS statistical bulletins: *Manufacturing Establishments, Details of Operations by Industry Class* (8203.0), *Manufacturing Establishments, Summary of Operations by Industry Class* (8202.0) and *Manufacturing Establishments: Selected Items of Data Classified by Industry and Employment Size, Australia* (8204.0).

Summary of operations

The following table shows the summary of operations for manufacturing establishments.

MANUFACTURING ESTABLISHMENTS—SUMMARY OF OPERATIONS, BY INDUSTRY SUB-DIVISION: AUSTRALIA 1975-76(a) AND 1976-77(a)

| Industry sub-division | ASIC code (b) | Number of establishments operating at end of June | Persons employed(c) | | | Wages and salaries \$m | Turn-over \$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 | | | |
| 1975-76 | | | | | | | | | | | | |
| Food, beverages and tobacco | 21-2 | 3,535 | 144,705 | 52,194 | 196,899 | 1,557 | 8,557 | 1,003 | 1,057 | 5,537 | 3,074 | 305 |
| Textiles | 23 | 700 | 24,601 | 19,375 | 43,976 | 322 | 1,278 | 240 | 267 | 763 | 542 | 28 |
| Clothing and footwear | 24 | 2,445 | 20,383 | 68,640 | 89,023 | 547 | 1,701 | 243 | 282 | 898 | 842 | 16 |
| Wood, wood products and furniture | 25 | 4,040 | 67,040 | 11,428 | 78,468 | 535 | 2,055 | 260 | 297 | 1,110 | 982 | 84 |
| Paper and paper products, printing | 26 | 2,650 | 72,015 | 25,874 | 97,889 | 807 | 2,772 | 395 | 367 | 1,352 | 1,391 | 84 |
| Chemical, petroleum, and coal products | 27 | 913 | 44,166 | 16,127 | 60,293 | 569 | 3,124 | 601 | 590 | 1,851 | 1,262 | 149 |
| Non-metallic mineral products | 28 | 1,557 | 43,288 | 5,079 | 48,367 | 438 | 1,778 | 216 | 249 | 941 | 870 | 129 |
| Basic metal products | 29 | 550 | 87,096 | 6,819 | 93,915 | 856 | 4,671 | 908 | 1,105 | 3,210 | 1,658 | 284 |
| Fabricated metal products | 31 | 3,937 | 83,550 | 21,271 | 104,821 | 793 | 2,870 | 471 | 521 | 1,532 | 1,387 | 79 |
| Transport equipment | 32 | 1,301 | 125,327 | 16,916 | 142,243 | 1,154 | 4,098 | 775 | 768 | 2,297 | 1,795 | 110 |
| Other machinery and equipment | 33 | 3,805 | 132,935 | 45,233 | 178,168 | 1,394 | 4,725 | 1,163 | 1,202 | 2,521 | 2,243 | 122 |
| Miscellaneous manufacturing | 34 | 2,074 | 43,417 | 22,961 | 66,378 | 501 | 1,855 | 307 | 319 | 994 | 873 | 62 |
| Total manufacturing | | 27,507 | 888,523 | 311,917 | 1,200,440 | 9,472 | 39,485 | 6,581 | 7,023 | 23,007 | 16,921 | 1,452 |
| 1976-77 | | | | | | | | | | | | |
| Food, beverages and tobacco | 21-2 | 3,388 | 144,563 | 51,400 | 195,963 | 1,754 | 9,649 | 1,048 | 1,175 | 6,275 | 3,501 | 384 |
| Textiles | 23 | 668 | 22,278 | 16,950 | 39,228 | 325 | 1,393 | 268 | 279 | 840 | 563 | 27 |
| Clothing and footwear | 24 | 2,305 | 19,427 | 64,614 | 84,041 | 581 | 1,822 | 288 | 309 | 949 | 894 | 15 |
| Wood, wood products and furniture | 25 | 3,964 | 66,568 | 11,293 | 77,861 | 603 | 2,347 | 304 | 352 | 1,281 | 1,115 | 81 |
| Paper and paper products, printing | 26 | 2,608 | 71,577 | 25,850 | 97,427 | 911 | 3,139 | 365 | 432 | 1,590 | 1,616 | 114 |
| Chemical, petroleum and coal products | 27 | 914 | 44,538 | 15,934 | 60,472 | 640 | 3,666 | 589 | 683 | 2,300 | 1,459 | 171 |
| Non-metallic mineral products | 28 | 1,538 | 42,703 | 4,905 | 47,608 | 486 | 2,035 | 246 | 309 | 1,099 | 999 | 99 |
| Basic metal products | 29 | 550 | 87,084 | 6,721 | 93,805 | 993 | 5,621 | 1,112 | 1,293 | 3,820 | 1,981 | 250 |
| Fabricated metal products | 31 | 3,920 | 82,653 | 20,295 | 102,948 | 882 | 3,237 | 506 | 562 | 1,754 | 1,539 | 80 |
| Transport equipment | 32 | 1,290 | 125,992 | 17,162 | 143,154 | 1,307 | 4,713 | 770 | 976 | 2,787 | 2,132 | 141 |
| Other machinery and equipment | 33 | 3,695 | 126,123 | 42,258 | 168,381 | 1,492 | 5,082 | 1,171 | 1,278 | 2,742 | 2,446 | 124 |
| Miscellaneous manufacturing | 34 | 2,009 | 43,086 | 22,185 | 65,271 | 557 | 2,118 | 319 | 358 | 1,166 | 991 | 63 |
| Total manufacturing | | 26,849 | 876,592 | 299,567 | 1,176,159 | 10,531 | 44,823 | 6,986 | 8,004 | 26,603 | 19,237 | 1,551 |

(a) See, Manufacturing industry statistics from 1968-69, page 382. (b) Australian Standard Industrial Classification. (c) Average over whole year. Includes working proprietors. (d) Outlay on fixed tangible assets less disposals.

Employment

The statistics on the number of persons employed shown in the following table relate to the average whole year employment, including working proprietors and those persons 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, 1976-77, AND TOTAL MANUFACTURING, 1974-75 AND 1975-76(a)**

| Industry sub-division | ASIC code(b) | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | A.C.T. | Aust. |
|---------------------------------------|-----------------|----------------|----------------|----------------|----------------|---------------|---------------|--------------|--------------|------------------|
| MALES EMPLOYED | | | | | | | | | | |
| Food, beverages and tobacco | 21-2 | 46,532 | 42,633 | 27,917 | 12,734 | 10,017 | 4,048 | 228 | 454 | 144,563 |
| Textiles | 23 | 6,369 | 12,277 | 633 | 1,352 | 485 | 1,162 | — | — | 22,278 |
| Clothing and footwear | 24 | 5,778 | 11,555 | 806 | 968 | 243 | 77 | — | — | 19,427 |
| Wood, wood products and furniture | 25 | 21,441 | 16,549 | 9,648 | 7,787 | 6,536 | 4,167 | 62 | 378 | 66,568 |
| Paper and paper products, printing | 26 | 25,509 | 24,027 | 6,725 | 5,392 | 4,067 | 4,798 | 69 | 990 | 71,577 |
| Chemical, petroleum and coal products | 27 | 20,027 | 15,328 | 2,863 | 2,320 | 2,761 | 1,239 | — | — | 44,538 |
| Non-metallic mineral products | 28 | 15,379 | 11,882 | 5,631 | 4,028 | 4,580 | 889 | — | — | 42,703 |
| Basic metal products | 29 | 50,248 | 11,829 | 5,616 | 9,464 | 5,812 | n.p. | 792 | 235 | 87,084 |
| Fabricated metal products | 31 | 29,924 | 28,538 | 8,916 | 6,861 | 6,612 | 1,331 | 128 | 343 | 82,653 |
| Transport equipment | 32 | 34,557 | 52,211 | 10,484 | 22,296 | 5,464 | 938 | — | — | 125,992 |
| Other machinery and equipment | 33 | 53,056 | 43,532 | 9,196 | 13,079 | 6,335 | 735 | 82 | 153 | 126,123 |
| Miscellaneous manufacturing | 34 | 16,137 | 18,645 | 2,795 | 3,829 | 1,407 | n.p. | — | — | 43,086 |
| Total manufacturing | 1976-77 | 324,957 | 289,006 | 91,230 | 90,110 | 54,319 | 23,056 | 1,361 | 2,553 | 876,592 |
| | 1975-76 | 333,322 | 291,736 | 92,289 | 90,272 | 53,696 | 22,827 | 1,721 | 2,660 | 888,523 |
| | 1974-75 | 348,638 | 302,234 | 90,202 | 94,275 | 53,207 | 23,699 | 1,788 | 2,773 | 916,816 |
| FEMALES EMPLOYED | | | | | | | | | | |
| Food, beverages and tobacco | 21-2 | 16,320 | 15,753 | 7,708 | 5,407 | 4,254 | 1,722 | 64 | 172 | 51,400 |
| Textiles | 23 | 5,174 | 8,812 | 596 | 971 | 274 | 1,123 | — | — | 16,950 |
| Clothing and footwear | 24 | 21,245 | 35,382 | 3,421 | 3,145 | 1,259 | 162 | — | — | 64,614 |
| Wood, wood products and furniture | 25 | 3,719 | 3,085 | 1,658 | 1,233 | 1,208 | 314 | 25 | 51 | 11,293 |
| Paper and paper products, printing | 26 | 10,349 | 8,686 | 2,167 | 1,895 | 1,500 | 709 | 30 | 514 | 25,850 |
| Chemical, petroleum and coal products | 27 | 9,301 | 5,165 | 547 | 460 | 366 | 95 | — | — | 15,934 |
| Non-metallic mineral products | 28 | 1,899 | 1,695 | 443 | 408 | 376 | 53 | — | — | 4,905 |
| Basic metal products | 29 | 3,647 | 1,369 | 310 | 840 | 359 | n.p. | 87 | 23 | 6,721 |
| Fabricated metal products | 31 | 7,825 | 7,325 | 1,978 | 1,741 | 1,105 | 197 | 46 | 78 | 20,295 |
| Transport equipment | 32 | 3,916 | 9,953 | 635 | 2,271 | 243 | 142 | — | — | 17,162 |
| Other machinery and equipment | 33 | 20,277 | 14,595 | 1,133 | 5,242 | 906 | 64 | 2 | 44 | 42,258 |
| Miscellaneous manufacturing | 34 | 9,938 | 8,639 | 1,133 | 1,876 | 557 | n.p. | — | — | 22,185 |
| Total manufacturing | 1976-77 | 113,610 | 120,459 | 21,729 | 25,489 | 12,407 | 4,737 | 254 | 882 | 299,567 |
| | 1975-76 | 120,405 | 125,371 | 21,936 | 25,833 | 12,257 | 4,926 | 315 | 874 | 311,917 |
| | 1974-75 | 129,544 | 130,617 | 22,220 | 26,966 | 12,645 | 5,153 | 289 | 899 | 328,333 |
| PERSONS EMPLOYED | | | | | | | | | | |
| Food, beverage and tobacco | 21-2 | 62,852 | 58,386 | 35,625 | 18,141 | 14,271 | 5,770 | 292 | 626 | 195,963 |
| Textiles | 23 | 11,543 | 21,089 | 1,229 | 2,323 | 759 | 2,285 | — | — | 39,228 |
| Clothing and footwear | 24 | 27,023 | 46,937 | 4,227 | 4,113 | 1,502 | 239 | — | — | 84,041 |
| Wood, wood products and furniture | 25 | 25,160 | 19,634 | 11,306 | 9,020 | 7,744 | 4,481 | 87 | 429 | 77,861 |
| Paper and paper products, printing | 26 | 35,858 | 32,713 | 8,892 | 7,287 | 5,567 | 5,507 | 99 | 1,504 | 97,427 |
| Chemical, petroleum and coal products | 27 | 29,328 | 20,493 | 3,410 | 2,780 | 3,127 | 1,334 | — | — | 60,472 |
| Non-metallic mineral products | 28 | 17,278 | 13,577 | 6,074 | 4,436 | 4,956 | 942 | 879 | 258 | 47,608 |
| Basic metal products | 29 | 53,895 | 13,198 | 5,926 | 10,304 | 6,171 | n.p. | — | — | 93,805 |
| Fabricated metal products | 31 | 37,749 | 35,863 | 10,894 | 8,602 | 7,717 | 1,528 | 174 | 421 | 102,948 |
| Transport equipment | 32 | 38,473 | 62,164 | 11,119 | 24,567 | 5,707 | 1,080 | — | — | 143,154 |
| Other machinery and equipment | 33 | 73,333 | 58,127 | 10,329 | 18,321 | 7,241 | 799 | 84 | 197 | 168,381 |
| Miscellaneous manufacturing | 34 | 26,075 | 27,284 | 3,928 | 5,705 | 1,964 | n.p. | — | — | 65,271 |
| Total manufacturing | 1976-77 | 438,567 | 409,465 | 112,959 | 115,599 | 66,726 | 27,793 | 1,615 | 3,435 | 1,176,159 |
| | 1975-76 | 453,727 | 417,107 | 114,225 | 116,105 | 65,953 | 27,753 | 2,036 | 3,534 | 1,200,440 |
| | 1974-75 | 478,182 | 432,851 | 112,422 | 121,241 | 65,852 | 28,852 | 2,077 | 3,672 | 1,245,149 |

(a) See 'Manufacturing industry statistics from 1968-69', page 382.

(b) Australian Standard Industrial Classification.

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,
1976-77, AND TOTAL MANUFACTURING, 1974-75 AND 1975-76**

(\$ million)

| <i>Industry sub-division</i> | <i>ASIC code(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>Aust.</i> |
|--|-------------------------|---------------|--------------|------------|-------------|-------------|-------------|-------------|---------------|---------------|
| Food, beverages and tobacco | 21-2 | 583 | 529 | 321 | 143 | 123 | 47 | 3 | 6 | 1,754 |
| Textiles | 23 | 97 | 176 | 8 | 19 | 6 | 18 | — | — | 325 |
| Clothing and footwear | 24 | 187 | 330 | 26 | 28 | 9 | 1 | — | — | 581 |
| Wood, wood products and furniture | 25 | 200 | 151 | 83 | 70 | 60 | 34 | 1 | 4 | 603 |
| Paper and paper products, printing | 26 | 342 | 310 | 77 | 65 | 48 | 54 | 1 | 13 | 911 |
| Chemical, petroleum and coal products | 27 | 306 | 219 | 37 | 30 | 34 | 14 | — | — | 640 |
| Non-metallic mineral products | 28 | 182 | 141 | 59 | 43 | 48 | 9 | — | — | 486 |
| Basic metal products | 29 | 563 | 141 | 67 | 99 | 75 | n.p. | 11 | 3 | 993 |
| Fabricated metal products | 31 | 330 | 315 | 89 | 68 | 64 | 12 | 2 | 4 | 882 |
| Transport equipment | 32 | 358 | 575 | 94 | 221 | 49 | 9 | — | — | 1,307 |
| Other machinery and equipment | 33 | 656 | 524 | 88 | 150 | 63 | 7 | 1 | 2 | 1,492 |
| Miscellaneous manufacturing | 34 | 219 | 243 | 30 | 47 | 15 | n.p. | — | — | 557 |
| Total manufacturing | 1976-77 | 4,024 | 3,656 | 979 | 982 | 594 | 246 | 18 | 31 | 10,531 |
| | 1975-76 | 3,670 | 3,287 | 874 | 872 | 509 | 211 | 21 | 29 | 9,472 |
| | 1974-75 | 3,365 | 2,961 | 734 | 797 | 434 | 195 | 20 | 27 | 8,533 |

(a) Australian Standard Industrial Classification.

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, 1976-77(a) AND
TOTAL MANUFACTURING, 1974-75 AND 1975-76(a)**

(\$ million)

| <i>Industry sub-division</i> | <i>ASIC code(b)</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> |
|--|-------------------------|---------------|---------------|--------------|--------------|--------------|--------------|-------------|---------------|---------------|
| Food, beverages and tobacco | 21-2 | 2,949 | 3,103 | 1,952 | 718 | 610 | 283 | 14 | 20 | 9,649 |
| Textiles | 23 | 468 | 699 | 39 | 92 | 26 | 68 | — | — | 1,393 |
| Clothing and footwear | 24 | 649 | 1,003 | 64 | 82 | 20 | 4 | — | — | 1,822 |
| Wood, wood products and furniture | 25 | 769 | 606 | 296 | 294 | 207 | 159 | 2 | 14 | 2,347 |
| Paper and paper products, printing | 26 | 1,224 | 1,052 | 253 | 229 | 145 | 199 | 2 | 35 | 3,139 |
| Chemical, petroleum and coal products | 27 | 1,754 | 1,078 | 400 | 141 | 230 | 62 | — | — | 3,666 |
| Non-metallic mineral products | 28 | 686 | 579 | 290 | 189 | 223 | 46 | — | — | 2,035 |
| Basic metal products | 29 | 2,591 | 744 | 707 | 438 | 777 | n.p. | — | — | 5,621 |
| Fabricated metal products | 31 | 1,183 | 1,103 | 361 | 272 | 256 | 43 | 7 | 12 | 3,237 |
| Transport equipment | 32 | 1,106 | 2,311 | 466 | 684 | 118 | 27 | — | — | 4,713 |
| Other machinery and equipment | 33 | 2,244 | 1,811 | 313 | 479 | 209 | 17 | 3 | 6 | 5,082 |
| Miscellaneous manufacturing | 34 | 804 | 956 | 123 | 158 | 64 | n.p. | — | — | 2,118 |
| Total manufacturing | 1976-77 | 16,428 | 15,047 | 5,264 | 3,776 | 2,884 | 1,197 | 124 | 103 | 44,823 |
| | 1975-76 | 14,555 | 13,220 | 4,564 | 3,461 | 2,433 | 1,030 | 127 | 96 | 39,485 |
| | 1974-75 | 13,238 | 11,730 | 4,034 | 3,003 | 2,032 | 906 | 95 | 95 | 35,132 |

(a) See 'Manufacturing industry statistics from 1968-69', page 382.

(b) Australian Standard Industrial Classification.

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, 1976-77, AND TOTAL MANUFACTURING, 1974-75 AND 1975-76**
(*\$ million*)

| <i>Industry sub-division</i> | <i>ASIC code (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>Aust.</i> |
|---------------------------------------|--------------------------|---------------|--------------|--------------|--------------|--------------|-------------|-------------|---------------|---------------|
| Food, beverages and tobacco | 21-2 | 1,931 | 1,998 | 1,305 | 443 | 399 | 178 | 9 | 12 | 6,275 |
| Textiles | 23 | 301 | 407 | 22 | 62 | 16 | 33 | — | — | 840 |
| Clothing and footwear | 24 | 359 | 513 | 26 | 42 | 7 | 2 | — | — | 949 |
| Wood, wood products and furniture | 25 | 424 | 330 | 160 | 173 | 104 | 80 | 1 | 7 | 1,281 |
| Paper and paper products, printing | 26 | 628 | 538 | 127 | 121 | 68 | 100 | — | 8 | 1,590 |
| Chemical, petroleum and coal products | 27 | 1,040 | 678 | 313 | 83 | 149 | 37 | — | — | 2,300 |
| Non-metallic mineral products | 28 | 379 | 285 | 168 | 102 | 123 | 26 | 69 | 11 | 1,099 |
| Basic metal products | 29 | 1,674 | 498 | 499 | 298 | 598 | n.p. | | | 3,820 |
| Fabricated metal products | 31 | 638 | 576 | 203 | 156 | 148 | 24 | 4 | 5 | 1,754 |
| Transport equipment | 32 | 583 | 1,353 | 313 | 471 | 57 | 10 | | | 2,787 |
| Other machinery and equipment | 33 | 1,197 | 1,001 | 175 | 256 | 103 | 8 | 1 | 3 | 2,742 |
| Miscellaneous manufacturing | 34 | 443 | 528 | 70 | 81 | 37 | n.p. | | | 1,166 |
| Total manufacturing | 1976-77 | 9,596 | 8,705 | 3,380 | 2,287 | 1,809 | 694 | 84 | 47 | 26,603 |
| | 1975-76 | 8,331 | 7,564 | 2,851 | 2,012 | 1,544 | 577 | 83 | 44 | 23,007 |
| | 1974-75 | 7,815 | 7,032 | 2,542 | 1,807 | 1,332 | 559 | 70 | 47 | 21,203 |

(a) Australian Standard Industrial Classification.

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 BY INDUSTRY
SUB-DIVISION, 1976-77(a) AND TOTAL MANUFACTURING, 1974-75 AND 1975-76(a)**
(*\$ million*)

| <i>Industry sub-division</i> | <i>ASIC code (b)</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> |
|---------------------------------------|--------------------------|---------------|--------------|------------|-------------|-------------|-------------|-------------|---------------|--------------|
| OPENING STOCKS AT 30 JUNE 1976 | | | | | | | | | | |
| Food, beverages and tobacco | 21-2 | 329 | 383 | 109 | 152 | 39 | 34 | 1 | 1 | 1,048 |
| Textiles | 23 | 89 | 140 | 7 | 14 | 4 | 14 | — | — | 268 |
| Clothing and footwear | 24 | 98 | 159 | 13 | 16 | 2 | — | — | — | 288 |
| Wood, wood products and furniture | 25 | 92 | 74 | 38 | 48 | 24 | 27 | — | 1 | 304 |
| Paper and paper products, printing | 26 | 139 | 133 | 28 | 21 | 16 | 24 | — | 3 | 365 |
| Chemical, petroleum and coal products | 27 | 315 | 176 | 42 | 16 | 28 | 13 | — | — | 589 |
| Non-metallic mineral products | 28 | 109 | 57 | 33 | 17 | 24 | 5 | 33 | 2 | 246 |
| Basic metal products | 29 | 538 | 131 | 116 | 102 | 123 | n.p. | | | 1,112 |
| Fabricated metal products | 31 | 186 | 194 | 46 | 40 | 31 | 7 | 1 | 2 | 506 |
| Transport equipment | 32 | 169 | 382 | 69 | 132 | 12 | 6 | | | 770 |
| Other machinery and equipment | 33 | 484 | 474 | 63 | 104 | 43 | 2 | — | 2 | 1,171 |
| Miscellaneous manufacturing | 34 | 123 | 151 | 16 | 21 | 7 | n.p. | | | 319 |
| Total manufacturing | | 2,670 | 2,451 | 580 | 683 | 352 | 204 | 35 | 11 | 6,986 |
| CLOSING STOCKS AT 30 JUNE 1977 | | | | | | | | | | |
| Food, beverages and tobacco | 21-2 | 385 | 409 | 126 | 171 | 43 | 39 | 1 | 1 | 1,175 |
| Textiles | 23 | 96 | 143 | 8 | 14 | 4 | 14 | — | — | 278 |
| Clothing and footwear | 24 | 106 | 167 | 14 | 19 | 2 | — | — | — | 309 |
| Wood, wood products and furniture | 25 | 108 | 83 | 45 | 55 | 30 | 30 | — | 1 | 352 |
| Paper and paper products, printing | 26 | 165 | 152 | 34 | 26 | 20 | 32 | — | 3 | 432 |
| Chemical, petroleum and coal products | 27 | 363 | 201 | 54 | 17 | 34 | 14 | — | — | 683 |
| Non-metallic mineral products | 28 | 127 | 74 | 43 | 25 | 32 | 5 | 39 | 2 | 309 |
| Basic metal products | 29 | 634 | 161 | 116 | 115 | 149 | n.p. | | | 1,293 |
| Fabricated metal products | 31 | 203 | 213 | 53 | 44 | 39 | 8 | 1 | 2 | 562 |
| Transport equipment | 32 | 206 | 471 | 107 | 171 | 16 | 6 | | | 976 |
| Other machinery and equipment | 33 | 530 | 504 | 74 | 114 | 52 | 3 | 1 | 2 | 1,278 |
| Miscellaneous manufacturing | 34 | 136 | 168 | 19 | 23 | 8 | n.p. | | | 358 |
| Total manufacturing | | 3,056 | 2,744 | 692 | 795 | 430 | 232 | 42 | 11 | 8,004 |
| Opening stocks | 1975-76 | 2,532 | 2,364 | 504 | 638 | 298 | 201 | 34 | 9 | 6,581 |
| | 1974-75 | 2,053 | 1,919 | 395 | 495 | 218 | 135 | 18 | 9 | 5,241 |
| Closing stocks | 1975-76 | 2,680 | 2,472 | 591 | 676 | 354 | 205 | 36 | 10 | 7,023 |
| | 1974-75 | 2,529 | 2,344 | 503 | 635 | 297 | 190 | 34 | 10 | 6,542 |

(a) See 'Manufacturing industry statistics from 1968-69', page 382.

(b) Australian Standard Industrial Classification.

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 383.

MANUFACTURING ESTABLISHMENTS—VALUE ADDED, BY INDUSTRY SUB-DIVISION, 1976-77, AND TOTAL MANUFACTURING, 1974-75 AND 1975-76

(\$ million)

| <i>Industry sub-division</i> | <i>ASIC code (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>Aust.</i> |
|---|--------------------------|---------------|--------------|--------------|--------------|--------------|-------------|-------------|---------------|---------------|
| Food, beverages and tobacco | 21-2 | 1,073 | 1131 | 664 | 294 | 215 | 110 | 6 | 8 | 3,501 |
| Textiles | 23 | 174 | 295 | 19 | 30 | 10 | 35 | - | - | 563 |
| Clothing and footwear | 24 | 298 | 499 | 38 | 44 | 13 | 2 | - | - | 894 |
| Wood, wood products and furniture | 25 | 361 | 285 | 143 | 127 | 109 | 83 | 1 | 7 | 1,115 |
| Paper and paper products, printing | 26 | 623 | 532 | 132 | 113 | 81 | 107 | 2 | 27 | 1,616 |
| Chemical, petroleum and coal products | 27 | 763 | 425 | 99 | 58 | 88 | 26 | - | - | 1,459 |
| Non-metallic mineral products | 28 | 325 | 312 | 132 | 94 | 108 | 21 | - | - | 999 |
| Basic metal products | 29 | 1,012 | 277 | 208 | 154 | 206 | n.p. | 32 | 5 | 1,981 |
| Fabricated metal products | 31 | 562 | 546 | 165 | 121 | 115 | 20 | 3 | 7 | 1,539 |
| Transport equipment | 32 | 559 | 1,047 | 191 | 252 | 66 | 16 | - | - | 2,132 |
| Other machinery and equipment | 33 | 1,092 | 841 | 149 | 233 | 116 | 10 | 3 | 4 | 2,446 |
| Miscellaneous manufacturing | 34 | 375 | 445 | 56 | 80 | 27 | n.p. | - | - | 991 |
| Total manufacturing | 1976-77 | 7,218 | 6,635 | 1,996 | 1,600 | 1,154 | 531 | 47 | 57 | 19,237 |
| | 1975-76 | 6,371 | 5,765 | 1,800 | 1,486 | 945 | 456 | 46 | 53 | 16,921 |
| | 1974-75 | 5,900 | 5,123 | 1,600 | 1,335 | 780 | 402 | 41 | 49 | 15,230 |

(a) Australian Standard Industrial Classification.

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 30 JUNE 1977(a) BY INDUSTRY SUB-DIVISION, AND TOTAL MANUFACTURING 1974-75 AND 1975-76(a)

| <i>Industry sub-division</i> | <i>ASIC code (b)</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> |
|---|--------------------------|---------------|--------------|--------------|--------------|--------------|-------------|-------------|---------------|---------------|
| Food, beverages and tobacco | 21-2 | 986 | 962 | 612 | 381 | 301 | 114 | 17 | 15 | 3,388 |
| Textiles | 23 | 237 | 318 | 35 | 37 | 28 | 13 | - | - | 668 |
| Clothing and footwear | 24 | 914 | 1,141 | 100 | 83 | 55 | 12 | - | - | 2,305 |
| Wood, wood products and furniture | 25 | 1,281 | 1,091 | 617 | 342 | 398 | 200 | 11 | 24 | 3,964 |
| Paper and paper products, printing | 26 | 1,108 | 867 | 220 | 198 | 147 | 44 | 4 | 20 | 2,608 |
| Chemical, petroleum and coal products | 27 | 423 | 283 | 67 | 56 | 63 | 22 | - | - | 914 |
| Non-metallic mineral products | 28 | 521 | 373 | 259 | 141 | 161 | 53 | 13 | 17 | 1,538 |
| Basic metal products | 29 | 214 | 174 | 59 | 47 | 38 | 12 | 4 | 2 | 550 |
| Fabricated metal products | 31 | 1,534 | 1,122 | 467 | 349 | 342 | 76 | 15 | 15 | 3,920 |
| Transport equipment | 32 | 395 | 428 | 155 | 139 | 145 | 25 | 1 | 2 | 1,290 |
| Other machinery and equipment | 33 | 1,580 | 1,282 | 251 | 300 | 231 | 40 | 2 | 9 | 3,695 |
| Miscellaneous manufacturing | 34 | 814 | 705 | 168 | 178 | 125 | 17 | 1 | 1 | 2,009 |
| Total manufacturing | 1976-77 | 10,007 | 8,746 | 3,010 | 2,251 | 2,034 | 628 | 68 | 105 | 26,849 |
| | 1975-76 | 10,329 | 8,873 | 3,122 | 2,287 | 2,054 | 667 | 69 | 106 | 27,507 |
| | 1974-75 | 10,134 | 8,924 | 3,008 | 2,131 | 1,974 | 628 | 68 | 104 | 26,971 |

(a) See 'Manufacturing industry statistics from 1968-69', page 382.

(b) Australian Standard Industrial Classification.

Single establishment manufacturing enterprises with less than four persons employed

Summary of operations

The following table shows the summary of operations for single establishment manufacturing enterprises with less than four persons employed.

SINGLE ESTABLISHMENT MANUFACTURING ENTERPRISES WITH LESS THAN FOUR PERSONS EMPLOYED: SUMMARY OF OPERATIONS, BY INDUSTRY SUB-DIVISION: AUSTRALIA, 1976-77(a) AND TOTAL MANUFACTURING 1975-76(a)

| Industry sub-division | ASIC code(b) | Number of establishments operating at end of June | Persons employed at end of June 1977(c) | | | Wages and salaries |
|---|----------------|---|---|--------------|---------------|--------------------|
| | | | Males | Females | Total | |
| | | | No. | No. | No. | \$m |
| Food, beverages and tobacco | 21-2 | 679 | 1,011 | 494 | 1,505 | 3.7 |
| Textiles | 23 | 197 | 247 | 164 | 411 | 1.1 |
| Clothing and footwear | 24 | 511 | 436 | 599 | 1,035 | 2.7 |
| Wood, wood products and furniture | 25 | 2,509 | 4,052 | 867 | 4,919 | 11.0 |
| Paper and paper products, printing | 26 | 1,107 | 1,452 | 794 | 2,246 | 7.1 |
| Chemical, petroleum and coal products | 27 | 223 | 315 | 126 | 441 | 1.7 |
| Non-metallic mineral products | 28 | 424 | 700 | 167 | 867 | 2.8 |
| Basic metal products | 29 | 95 | 165 | 28 | 193 | 0.8 |
| Fabricated metal products | 31 | 1,839 | 3,045 | 693 | 3,738 | 11.2 |
| Transport equipment | 32 | 550 | 944 | 189 | 1,133 | 3.3 |
| Other machinery and equipment | 33 | 1,466 | 2,262 | 653 | 2,915 | 9.7 |
| Miscellaneous manufacturing | 34 | 1,439 | 1,995 | 769 | 2,764 | 6.2 |
| Total manufacturing | 1976-77 | 11,039 | 16,624 | 5,543 | 22,167 | 61.2 |
| | 1975-76 | 10,307 | 15,361 | 5,185 | 20,546 | 52.5 |

(a) See 'Manufacturing industry statistics from 1968-69', page 382.
(c) Including working proprietors.

(b) Australian Standard Industrial Classification.

Electricity and gas establishments

As mentioned on page 382 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 1971-72 and 1974-75. Censuses were not conducted for 1970-71, 1972-73 or for 1973-74.

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 which are mainly concerned with the production and/or distribution of electricity or gas and which are 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, 1971-72 AND 1974-75

| 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) | | | |
| 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 | 4 | | | | | | | | | | |
| 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 | 14 | 6,174 | 358 | 6,532 | 34 | 106 | 9 | 9 | 29 | 78 | 42 |
| Gas | 2 | | | | | | | | | | |
| Western Australia— | | | | | | | | | | | |
| Electricity | 46 | 4,275 | 331 | 4,606 | 23 | 82 | 8 | 8 | 23 | 60 | 81 |
| Gas | 2 | | | | | | | | | | |
| Tasmania— | | | | | | | | | | | |
| Electricity | 3 | 2,727 | 244 | 2,971 | 15 | 48 | 5 | 5 | 2 | 46 | 35 |
| Gas | 2 | | | | | | | | | | |
| Northern Territory— | | | | | | | | | | | |
| Electricity | 6 | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. |
| Gas | .. | | | | | | | | | | |
| Australian Capital Territory— | | | | | | | | | | | |
| Electricity | 1 | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. |
| 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 |
| 1974-75 | | | | | | | | | | | |
| New South Wales— | | | | | | | | | | | |
| Electricity | 47 | 22,988 | 2,370 | 25,358 | 218 | 974 | 73 | 83 | 462 | 522 | 173 |
| Gas | 22 | 2,385 | 550 | 2,935 | 22 | 79 | 9 | 16 | 36 | 51 | 36 |
| Victoria— | | | | | | | | | | | |
| Electricity | 13 | 17,025 | 1,763 | 18,788 | 167 | 563 | 30 | 39 | 206 | 366 | 121 |
| Gas | 1 | | | | | | | | | | |
| Queensland— | | | | | | | | | | | |
| Electricity | 20 | 8,151 | 858 | 9,009 | 78 | 319 | 15 | 17 | 137 | 184 | 59 |
| Gas | 8 | 476 | 64 | 540 | 4 | 17 | 1 | 1 | 7 | 10 | 2 |
| South Australia— | | | | | | | | | | | |
| Electricity | 10 | 5,764 | 340 | 6,104 | 52 | 145 | 11 | 13 | 57 | 92 | 35 |
| Gas | 2 | | | | | | | | | | |
| Western Australia— | | | | | | | | | | | |
| Electricity | 16 | 4,964 | 399 | 5,363 | 41 | 145 | 12 | 15 | 55 | 94 | 57 |
| Gas | 2 | | | | | | | | | | |
| Tasmania— | | | | | | | | | | | |
| Electricity | 2 | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. |
| Gas | 2 | | | | | | | | | | |
| Northern Territory— | | | | | | | | | | | |
| Electricity | 6 | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. |
| Gas | — | | | | | | | | | | |
| Australian Capital Territory— | | | | | | | | | | | |
| Electricity | 1 | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. |
| Gas | — | | | | | | | | | | |
| Australia— | | | | | | | | | | | |
| Electricity | 115 | 57,273 | 5,318 | 62,591 | 545 | 2,091 | 136 | 161 | 881 | 1,235 | 465 |
| Gas | 37 | 7,662 | 1,332 | 8,994 | 71 | 254 | 20 | 31 | 114 | 151 | 69 |

(a) Covers production and distribution. (b) At end of June. (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.

Principal Manufacturing Commodities

The production of certain commodities is shown in the monthly and quarterly publications of the ABS, and in the annual publication, *Manufacturing Commodities, Selected Principal Articles Produced (Preliminary)* (8365.0) A more comprehensive list of articles produced is contained in the annual publication, *Manufacturing Commodities, Principal Articles Produced* (8303.0).

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 ABS bulletin 8303.0 mentioned above.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS:
AUSTRALIA

| Commodity code | Article | | 1974-75 | 1975-76 | 1976-77 ^a |
|---------------------------|--|----------------------|---------|---------|----------------------|
| | Acid (in terms of 100%)— | | | | |
| 401.29 | Hydrochloric | tonnes | 43,419 | 48,046 | 51,526 |
| 401.37 | Nitric | " | 168,315 | 165,091 | 177,647 |
| 401.57 | Sulphuric | '000 tonnes | 1,730 | 1,281 | 1,721 |
| 171.03, 04, 07, 08 | Aerated and carbonated waters | '000 litres | 845,418 | 891,234 | 792,507 |
| | Air-conditioning equipment— | | | | |
| 657.03, 05 | Room air conditioners (refrigerated) | No. | 52,737 | 31,666 | 41,006 |
| 657.13, 15 | Room air coolers (evaporative coolers) | " | 128,728 | 85,752 | n.y.a. |
| 657.21, 22, 23 | Package unit air conditioners | " | 21,604 | 17,901 | 23,003 |
| | Animal feeds— | | | | |
| | From wheat— | | | | |
| 152.06 | Pollard | '000 tonnes | 269 | 254 | 237 |
| 159.11 | Poultry pellets and crumbles | " | 1,111 | 1,104 | 1,088 |
| 159.15 | Poultry mash | " | 225 | 235 | 218 |
| 159.21 | Other prepared stock and poultry feed | " | 501 | 490 | 540 |
| 159.01 | Canned dog and cat foods | '000 kg | 133,845 | 150,866 | 169,896 |
| 159.02 | Dog biscuits (whole) | " | 20,060 | 19,223 | n.y.a. |
| 159.03 | Other manufactured dog and cat food | " | 40,518 | 42,879 | n.y.a. |
| 475.04, 06, 07, 85 | Asbestos cement building sheets (finished) | '000 m ² | 42,424 | 39,976 | n.y.a. |
| | Bags, leather, fibre, etc.— | | | | |
| | Handbags— | | | | |
| 864.31 | Leather | '000 | 273 | 336 | n.y.a. |
| 864.33 | Plastic | " | 1,316 | 1,158 | n.y.a. |
| 864.39 | Other | " | 355 | 410 | n.y.a. |
| 946.01-52 | Hessian and calico bags | '000 doz | 1,858 | 1,113 | n.y.a. |
| 864.11-19 | Suitcases, kitbags and trunks | '000 | 1,290 | 1,149 | n.y.a. |
| | Bath heaters— | | | | |
| 652.01 | Electric | No. | 6,027 | 8,819 | 8,047 |
| 652.03, 06, 08 | Gas | " | 2,586 | n.a. | n.a. |
| 652.05 | Solid fuel | " | 1,978 | 1,669 | 1,665 |
| 779.02-37 | Bathing suits (a) | '000 doz | 238 | 273 | 240 |
| | Baths (exclude infants baths)— | | | | |
| 671.03 | Pressed steel—Enamelled | '000 | 130 | 142 | 142 |
| 671.01, 04, 08 | Other (exclude pressed steel, galvanised) | " | 45 | 37 | 39 |
| | Batteries, wet cell type— | | | | |
| 685.13, 15 | Auto (S.L.I.) 6 volts | '000 | 350 | 314 | 298 |
| 685.17, 19 | Auto (S.L.I.) 12 volts | " | 2,317 | 2,468 | 2,573 |
| 685.33, 35 | Radio, homelighter, fencer | No. of 2 volts cells | 38,198 | 26,159 | 16,089 |
| 685.43-65 | Traction, plant and other | " | 192,349 | 163,767 | 151,466 |
| 172.02, 04, 06 | Beer (excluding waste beer) | mil. litres | 1,954 | 1,916 | 1,939 |
| 064.21 | Biscuits | '000 kg | 119,707 | 117,863 | 127,293 |
| 372.52-56, 374.51-57 | Blankets, Woollen—Pure and Mixtures | '000 | 1,470 | 2,022 | 1,581 |
| 152.02 | Bran (wheaten) | '000 tonnes | 137 | 130 | 115 |
| 172.21 | Brandy | '000 litre al | 1,608 | 1,552 | n.y.a. |
| 777.41, 49 | Brassieres | '000 doz | 596 | 723 | 637 |
| 066.01-31 | Breakfast food, cereal (ready to eat) | tonnes | 62,531 | 67,344 | n.y.a. |
| 472.01, 03 | Bricks, clay | million | 1,722 | 1,815 | 1,830 |
| 261.41 | Briquettes, brown coal | '000 tonnes | 1,092 | 946 | 1,035 |
| 051.30, 052.20 | Butter—from cream (exclude whey cream) | '000 kg | 155,689 | 145,916 | n.y.a. |
| 773.51, 53, 74, 75, 83 | Cardigans, jumpers, etc. | '000 doz | 1,739 | 1,965 | 1,879 |
| 474.02 | Cement, Portland | '000 tonnes | 5,068 | 5,100 | 5,007 |

(a) Includes swim shorts. Excludes infants' and babies' swim-wear.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS:
AUSTRALIA—continued

| Commodity code | Article | | 1974-75 | 1975-76 | 1976-77p |
|---------------------------------|--|---------------------|------------------|---------|----------|
| 053.45 | Cheese (non-processed) | '000kg | 98,630 | 112,617 | 103,549 |
| | Cloth (including mixtures)— | | | | |
| 373.10-52 | Cotton (a) | '000m ² | 43,822 | 44,708 | 39,608 |
| 374.02-16 | Rayon and acetate | " | 16,279 | 16,936 | 16,595 |
| 374.20-34 | Synthetic (non-cellulosic) | " | 94,725 | 100,994 | 96,909 |
| 372.02-50 | Wool (excluding blanketing and rug) | " | 10,607 | 14,297 | 6,539 |
| 435.22 | Coke—Metallurgical | '000 tonnes | 5,103 | 4,732 | 4,876 |
| 475.90 | Concrete, ready mixed | '000m ³ | 10,229 | 10,273 | 10,331 |
| | Confectionery— | | | | |
| 104.06-18 | Chocolate | '000 kg | 61,690 | 55,251 | 56,345 |
| 104.21-29 | Other | " | 62,740 | 63,273 | 60,331 |
| 452.04 | Copper, refined (b) | '000 tonnes | 178 | 164 | 157 |
| 171.06, 10 | Cordials and syrups | '000 litres | 89,203 | 100,759 | 104,415 |
| 777.01-29 | Corsets and corselets | '000 doz | 197 | 188 | 185 |
| 611.01 | Cycles (complete) | '000 | 193 | 217 | 258 |
| 804.01 | Dentifrices (toothpaste) | '000 kg | 6,410 | 6,704 | n.y.a. |
| 499.42 | Electricity | mil. kWh | 73,933 | 76,597 | 82,522 |
| 523.76-78 | Electrodes for manual welding | '000 kg | 25,704 | 22,997 | 20,093 |
| 502.22-39 | Engines, spark and compression ignition (c) | '000 | 434 | 342 | n.y.a. |
| | Essences, flavouring— | | | | |
| 139.31 | Domestic | '000 litres | 432 | 332 | n.y.a. |
| 139.35 | Industrial | " | 4,304 | 4,609 | n.y.a. |
| 696.01, 03, 05 | Fans, electric (propellor type) | No. | 701,375 | 541,766 | 499,210 |
| 045.01, 51 | Fish, canned (including fish loaf) | '000 kg | 9,587 | 7,273 | 6,191 |
| | Floorboards— | | | | |
| 332.06 | Australian timber | m ³ } | 280,818 | 276,536 | n.y.a. |
| 332.08 | Imported timber | " } | | | |
| | Floor coverings— | | | | |
| 841.01-07 | Textile | '000 m ² | 22,738 | 31,939 | 29,057 |
| 841.31-61, 69 | Smooth surface and embossed | " | 9,589 | 7,366 | 5,947 |
| 841.67, 68 | Timber parquetry | " | 136 | 122 | 150 |
| 841.85 | Underfelts, underlays, etc. (d) | " | 15,172 | 11,641 | 10,488 |
| 692.21, 23 | Floor polishers, electric | No. | 25,277 | 23,586 | 17,645 |
| | Flour— | | | | |
| 068.01 | Self-raising | '000 kg | 46,459 | 37,423 | n.y.a. |
| 062.01, 10, 32 | Wheaten (e) | '000 tonnes | 1,247 | 1,242 | 1,182 |
| | Fruit juices, natural— | | | | |
| 074.61-69, 79 | Single strength | '000 litres | 179,777 | 187,762 | n.y.a. |
| 074.76, 89 | Concentrated(f) | " | 11,792 | 16,269 | n.y.a. |
| 781.06-29 | Gloves, work(g) | '000 doz pairs | 3,859 | 3,829 | 3,712 |
| 127.21 | Glucose | '000 kg | 58,807 | 51,880 | 50,540 |
| 832.58, 59 | Golf clubs | doz | 42,186 | 52,324 | n.y.a. |
| | Handkerchiefs | | | | |
| 786.01 | Men's | '000 doz | 1,156 } 594 } | 865 | n.y.a. |
| 786.11 | Women's | " | | | |
| | Heaters, room— | | | | |
| 651.01, 03 | Solid fuel | No. | 3,842 | 3,547 | 3,542 |
| 651.11-20 | Electric radiators and fires | '000 | 739 | 648 | 683 |
| 651.04, 05, 21, 22, 26, 27, 775 | Gas fires and space heaters | No. | 65,951 | 61,620 | 61,179 |
| | Hosiery— | | | | |
| | Women's (including panty hose) | '000 doz pairs | n.a. | 6,756 | 6,422 |
| | Men's | " | 1,753 | 1,993 | 1,881 |
| | Children's and infants' | " | 982 | 1,112 | 1,120 |
| 051.61 | Ice cream(h) | '000 litres | 206,652 | 213,275 | 211,240 |
| 051.87, 89, 90 | Infants', invalids' and health beverages from cows milk(i) | '000 kg | 29,487 | 29,804 | 28,811 |
| | Ink, printing— | | | | |
| 419.31 | News | " | 8,683 | 6,596 | n.y.a. |
| 419.43-59 | Other | " | 12,424 | n.a. | n.y.a. |

(a) Excludes tyre-cord fabric and towelling. (b) Primary origin only. (c) Petrol and diesel. Excludes car, motorcycle, truck, tractor, aero, and marine engines. (d) Needled (or bonded) felts of jute or jute/hair mixtures (for all purposes). (e) Includes wheatmeal for baking and sharps and other flour. (f) Excludes grape must. (g) Excludes fabric liners for dipped gloves but includes moulded or heat-sealed work gloves. (h) Includes ice-cream combined with other confections. Including those aerated milk-based confections which contain 10% or more butterfat. (i) Includes malted milk and milk sugar (lactose).

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS:
AUSTRALIA—continued

| Commodity code | Article | | 1974-75 | 1975-76 | 1976-77p |
|-----------------------|---|---------------------|---------|---------|----------|
| | Iron and steel— | | | | |
| 442.04, 08 | Pig iron | '000 tonnes | 7,531 | 7,331 | 6,958 |
| 442.80-83 | Steel ingots | " | 7,856 | 7,832 | n.y.a. |
| 442.28 | Blooms and slabs(a) | " | 6,594 | 6,477 | 6,028 |
| 693.51, 61, 63 | Irons, electric (hand, domestic) | '000 | 798 | 746 | 901 |
| 076.60 | Jams (including conserves, jellies, etc.) | '000 kg | 31,588 | 31,121 | 26,998 |
| 391.04 | Lard | " | 3,210 | 2,466 | n.y.a. |
| | Lawn mowers— | | | | |
| 699.52, 53 | Petrol, rotary | No. | 353,512 | 336,866 | 307,173 |
| 699.41, 45, 55, 61 | Other types(b) | " | 19,340 | 19,559 | 13,711 |
| 453.04 | Lead refined(c) | '000 tonnes | 171 | 168 | n.y.a. |
| | Leather— | | | | |
| | Dressed or finished— | | | | |
| 301.43-65 | Chrome tanned (including retanned) | '000 m ² | 5,059 | 5,015 | n.y.a. |
| 301.31-37, 83-89 | Vegetable tanned, by weight | '000 kg | n.a. | n.a. | n.y.a. |
| 301.67, 69 | Vegetable tanned, by measurement | '000 m ² | 136 | 141 | n.y.a. |
| | Lime— | | | | |
| 275.43, 45 | Crushed | tonnes | 201,483 | 228,220 | n.y.a. |
| 479.18 | Hydrated | '000 tonnes | 120 | 110 | n.y.a. |
| 479.12 | Quick | " | 563 | 564 | n.y.a. |
| 802.21 | Lipstick | '000 kg | 40 | 41 | n.y.a. |
| 063.11-21, 31 | Malt (excluding extract) | '000 tonnes | 442 | 403 | 386 |
| | Margarine— | | | | |
| 121.01 | Table | '000 kg | 28,763 | 46,482 | 67,765 |
| 121.06, 08 | Other | " | 54,872 | 56,635 | 50,484 |
| | Mattresses— | | | | |
| 844.22, 25, 27 | Inner spring | '000 | 652 | 630 | 685 |
| 844.42, 45, 47 | Rubber | " | n.a. | 16 | 17 |
| 844.52-67 | Other | " | 522 | 542 | 551 |
| 027.02-77 | Meat, canned(d) | '000 kg | 42,397 | 43,878 | 52,677 |
| | Meters (domestic)— | | | | |
| 702.01 | Electricity consumption | '000 | 293 | 248 | 285 |
| 703.01 | Gas consumption | " | 65 | 62 | 96 |
| 703.11 | Water consumption | " | 207 | 189 | 173 |
| | Milk, condensed, concentrated and evaporated— | | | | |
| 051.21, 22 | Full cream, coffee and milk, sweetened | '000 kg | 14,113 | 15,364 | 19,081 |
| 051.23, 052.42 | Full cream, unsweetened | " | 34,592 | 34,350 | 39,378 |
| 051.28 | Skim | " | 15,277 | 22,312 | 21,684 |
| | Milk powder in powdered form— | | | | |
| 051.72, 73 | Full cream | " | 43,126 | 43,977 | 58,634 |
| 051.76-79 | Skim | " | 160,954 | 149,097 | 96,659 |
| 051.81, 82 | Buttermilk or mixed skim and buttermilk | " | 11,516 | 11,676 | 8,791 |
| 503.13-32 | Motors, electric (excl. automotive) | '000 | 4,536 | 4,140 | n.y.a. |
| | Motor vehicles, finished— | | | | |
| 581.02-08 | Cars | No. | 319,877 | 308,537 | 308,704 |
| 581.10-16 | Station wagons | " | 57,076 | 55,289 | 58,567 |
| 582.04 | Utilities | " | 32,526 | 26,031 | 24,745 |
| 582.06 | Panel vans | " | 29,147 | 28,195 | 24,653 |
| 582.08-24 | Truck and truck-type vehicles | " | 7,869 | 7,488 | 10,694 |
| | Motor vehicles, partly finished— | | | | |
| 581.22-28, 582.31, 32 | Cars, station wagons, utilities, vans | " | 1,145 | 1,489 | 1,536 |
| 582.33-46 | Trucks and truck-type vehicles | " | 25,023 | 22,834 | 22,709 |
| 589.81-89 | Motor vehicle safety belts | '000 | 3,009 | 2,193 | n.y.a. |
| 465.16, 17 | Nails | " | 23,295 | 22,683 | 20,899 |
| | Oatmeal and rolled oats— | | | | |
| 062.61, 63 | For porridge, etc. | tonnes | 15,171 | 14,863 | 13,412 |
| 393, 394 | Oils and fats, crude—Vegetable | '000 kg | 75,139 | 69,230 | 65,698 |
| | Paints, etc.— | | | | |
| | Architectural and decorative(e)— | | | | |
| | Solvent thinned— | | | | |
| 410.01 | Primers and undercoats | '000 litres | 11,935 | 12,596 | 12,153 |
| 410.03, 05, 07 | Finishing coats | " | 29,892 | 30,823 | 28,901 |
| | Water thinned— | | | | |
| 410.11, 13, 15 | Plastic latex | " | 27,766 | 32,277 | 35,133 |
| 410.17 | Other water based | " | 245 | 254 | 256 |

(a) Primary mills output. (b) Petrol cylinder, electric and hand. (c) Includes lead content of lead alloys from primary sources but excludes lead-silver bullion. (d) Excludes poultry and baby food. (e) Excludes heavy duty coatings.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS:
AUSTRALIA—continued

| Commodity code | Article | | 1974-75 | 1975-76 | 1976-77 |
|----------------------------|---|---------------------|---------|---------|---------|
| 410.25 | Tinting colours (all types) packed for sale or transfer out | '000 litres | 522 | 508 | 582 |
| | Paper— | | | | |
| 351.11 | Newsprint | '000 tonnes | 196 | 206 | 207 |
| 351.18-79 | Other | " | 574 | 536 | 584 |
| 352.11-33 | Paperboard | " | 378 | 380 | 436 |
| 336.12 | Particle board (resin bonded) | '000 m ² | 389 | 460 | 515 |
| 975.04, 09, 11 | Perambulators, pushers and strollers | '000 | n.a. | n.a. | n.a. |
| 479.22 | Plaster of paris | '000 tonnes | 339 | 347 | 381 |
| 479.32, 33 | Plaster sheets—Non-acoustic | '000 m ² | 42,372 | 44,794 | 50,503 |
| 334.32, 34, 36, 38 | Plywood, 1 mm basis | " | n.a. | 78,191 | n.y.a. |
| | Preserves— | | | | |
| | Fruit— | | | | |
| 076.01-50 | Canned or bottled | '000 kg | 226,210 | 175,317 | 179,666 |
| 074.01 | Pulp and puree—single strength | " | 4,381 | 5,598 | n.y.a. |
| | Vegetables— | | | | |
| 094.02-47 | Canned or bottled | " | 133,131 | 122,856 | 125,180 |
| 092.02, 06, 10, 19 | Quick frozen | " | 96,235 | 130,627 | 135,369 |
| | Pyjamas— | | | | |
| 774.20, 22, 27, 29 | Men's, youth's and boy's (suits only) | '000 doz | 350 | 340 | 296 |
| 774.50-59, 64, 66 | Women's, maid's and girl's (incl. nightdresses) | " | 875 | 748 | 704 |
| 832.65, 85 | Racquet frames (all types) | doz. | 14,639 | 12,792 | 9,571 |
| 643.01-37 | Radio receiving sets (including radiograms) | No. | 352,321 | 117,350 | 50,300 |
| | Records (phonograph)— | | | | |
| 646.35, 65 | Single play | '000 | 6,324 | 5,512 | 6,843 |
| 646.37, 41, 67, 71 | Extended play | " | 510 | 328 | 177 |
| 646.43, 45, 73, 75 | Long play | " | 21,860 | 21,245 | 21,174 |
| 657.33, 34, 35, 41 | Refrigerators, domestic, electric and gas | " | 247 | 230 | n.y.a. |
| 403.404 | Resins, plastics and synthetic, for all purposes | '000 tonnes | 438 | 380 | 469 |
| 061.67, 69 | Rice, polished, unpolished and broken | '000 kg | 228,895 | 298,051 | n.y.a. |
| 372.70, 72, 374.59 | Rugs | '000 | 117 | 159 | 130 |
| 123.18-25 | Sauce | '000 litres | 34,259 | 28,142 | n.y.a. |
| 062.04 | Semolina | '000 tonnes | 24 | 27 | 28 |
| 773.02-09 | Shirts (men's, youths' and boys'), collar attached (a) | '000 doz | 576 | 595 | 480 |
| 653.01 | Sink heaters, electric | No. | 7,830 | 9,838 | 10,602 |
| 671.11-18 | Sinks, steel and other (standard size) | " | 210,243 | 244,821 | 260,737 |
| 805.01-13 | Soap, for personal toilet use (b) | tonnes | 29,357 | 28,464 | 28,281 |
| | Soup— | | | | |
| 122.02, 09 | Canned | '000 litres | 53,268 | 37,572 | 32,966 |
| 122.13, 15 | Dry-mix | '000 kg | 7,086 | 5,524 | n.y.a. |
| 127.11-19 | Starch (incl. cornflour) | " | 149,012 | 126,478 | 132,959 |
| 401.53 | Stearine (stearic acid) | " | 4,758 | 4,602 | n.y.a. |
| 461.20 | Steel, constructional, fabricated | tonnes | 688,345 | 537,124 | n.y.a. |
| | Stoves, ovens and ranges, domestic cooking— | | | | |
| 661.01-11 | Electric(c) | No. | 257,732 | 247,148 | 244,924 |
| 662.26, 31, 34, 36, 42, 43 | Gas(d) | " | 105,454 | 108,448 | 109,197 |
| 662.01, 03 | Solid fuel | " | 4,781 | 4,048 | 3,081 |
| | Sugar— | | | | |
| 102.01 | Raw | '000 tonnes | 2,849 | 2,850 | n.y.a. |
| 102.12 | Refined | " | 709 | 702 | n.y.a. |
| 405.36 | Sulphate of ammonia | tonnes | 275,224 | 223,784 | 201,589 |
| 415.07 | Superphosphate(e) | '000 tonnes | 3,092 | 2,316 | 3,137 |
| 803.61 | Talcum powder | '000 kg | 4,409 | 4,173 | n.y.a. |
| | Tallow (including dripping), rendered— | | | | |
| 391.15 | Edible | " | 74,335 | 86,908 | n.y.a. |
| 391.24 | Inedible | " | 272,379 | 294,573 | n.y.a. |
| 643.57-60, 68 | Television sets (colour) | No. | 163,472 | 441,735 | n.y.a. |
| 645.51-58 | Television picture tubes incorp. new screens | " | 256,089 | 45,606 | n.y.a. |
| | Tiles, roofing— | | | | |
| 475.30 | Concrete | | | | |
| 472.12 | Terracotta | '000 | 202,209 | 219,663 | 229,892 |

(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.

QUANTITIES OF PRINCIPAL ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS:
AUSTRALIA—continued

| Commodity code | Article | | 1974-75 | 1975-76 | 1976-77p |
|--|---|---------------------|---------|---------|----------|
| | Timber— | | | | |
| | From native logs— | | | | |
| 331.01-07 | Hardwood, etc. | '000 m ³ | 2,407 | 2,372 | 3,468 |
| 331.09-19 | Softwood | " | 823 | 856 | n.y.a. |
| 331.23, 25 | From imported logs | " | 2 | n.a. | n.y.a. |
| 661.21, 23 | Toasters, electric (domestic) | No. | 613,606 | 592,344 | 625,816 |
| 183.21-28 | Tobacco | '000 kg | 2,430 | 2,101 | n.y.a. |
| 094.51 | Tomato juice | '000 litres | 14,208 | 7,229 | 7,497 |
| 094.53 | Tomato paste and puree | " | n.a. | n.a. | n.y.a. |
| 373.58-64 | Towels | '000 doz | 779 | 784 | 813 |
| 671.51-59 | Toilet cisterns | No. | 444,590 | 494,273 | 546,334 |
| 683.03-11 | Transformers, chokes and ballasts, for distribution of power and light, etc. | " | 17,181 | 15,185 | 17,647 |
| 863.01 | Umbrellas, street and general purpose | '000 | 925 | 666 | n.y.a. |
| 773.90-97 | Underwear (men's, women's, children's) | '000 doz | 6,797 | 6,271 | n.y.a. |
| 774.01-18, 36-49, 61-73, 91-97 | | | | | |
| 692.02, 04 | | | | | |
| | Vacuum cleaners (domestic) | '000 | 250 | 251 | 195 |
| | Wash basins— | | | | |
| 671.37 | Earthenware | " | 279 | 276 | 295 |
| 693.02-18 | Washing machines, household, electric | " | 333 | 351 | 299 |
| | Weatherboards— | | | | |
| 332.12 | Australian timber | m ³ | 32,858 | 33,457 | n.y.a. |
| 332.14 | Imported timber | " | 1,376 | 2,317 | n.y.a. |
| 152.14 | Wheatmeal for stock feed | '000 tonnes | 636 | 539 | n.y.a. |
| 519.01 | Wheelbarrows (metal) | No. | 159,099 | 182,794 | n.y.a. |
| | Wine, beverage— | | | | |
| 172.42 | Fortified | '000 litres | 66,022 | 68,586 | n.y.a. |
| 172.46 | Unfortified | " | 158,078 | 164,014 | n.y.a. |
| 341.31-45 | Wood pulp (air dried) | '000 tonnes | 577 | 555 | 597 |
| 242.07-11 | Wool, scoured or carbonised | tonnes | 52,899 | 69,272 | 75,273 |
| 242.33, 35 | Wool tops, pure | '000 kg | 8,413 | 15,416 | 16,532 |
| | Yarn (including mixtures)— | | | | |
| 364.11-50 | Cotton | " | 23,492 | 24,486 | 20,735 |
| 363.47-75 | Woollen | " | 13,837 | 16,247 | 13,864 |
| 363.17-31 | Wool worsted | " | 4,569 | 6,131 | 5,467 |
| 365.38-65 | Rayon and acetate, spun | " | 1,391 | 2,321 | n.y.a. |
| 365.90, 366.03, 04, 16, 29, 30, 42, 55, 56, 88, 96, 97 | Synthetic (non-cellulosic) fibres spun | " | 11,271 | 15,033 | 12,686 |
| 457.04 | | | | | |
| | Zinc, refined (a) | '000 tonnes | 243 | 205 | 262 |

(a) Primary origin only includes small quantities of zinc dust.

Australian Standard Commodity Classification

The ABS has developed and recently published a new classification manual called the *Australian Standard Commodity Classification* (ASCC) (1207.0) to enable users to compare statistics of commodities produced in Australia with statistics of commodities imported and exported.

The first edition of the ASCC manual, which relates to the year 1975-76, links production, import and export items at their most detailed level of comparability, in the form of standard (ASCC) commodity items. In a large number of cases, however, due to the differences between production, imports and export items, comparability is only achieved at fairly broad aggregate levels. In the ASCC, commodities are grouped under industries (as defined in the Australian Standard Industrial Classification (ASIC)) in which they are typically produced. The first edition of the ASCC only covers commodities originating in manufacturing industries.

Considerable further development will take place over the coming years to improve the alignment between production, import and export items in the ASCC.

In 1979 the ABS will be publishing a new statistical bulletin containing comparable commodity statistics of Australian production, imports and exports based on the ASCC (standard) items contained in the ASCC manual.

Additionally, the introduction of the ASCC will affect the publication of traditional manufacturing and overseas trade commodity statistics in those instances where detailed commodity items are

being combined either for confidentiality reasons or for the publication of more summary commodity statistics. In these instances the commodity groupings will, where appropriate, reflect the classification requirements embodied in the ASCC. This will be particularly relevant in the case of manufacturing commodity statistics.

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 Year Book No. 61, pages 1077–81.

Similarly, *industry concentration* statistics have been published for 1968–69 and 1972–73. These aim to show the extent to which individual enterprise groups dominate particular industries. A description and summary tables of these statistics are given in Year Book No. 61, pages 1081–4 for 1968–69, and the publication *Manufacturing Census, Industry Concentration Statistics, Australia* (8207.0) for 1972–73.

Foreign Ownership and Control in Manufacturing Industry

Summary information on foreign ownership and control in manufacturing industry is shown in Chapter 24. More detailed statistics are available in *Foreign Control in Manufacturing Industry, Study of Large Enterprise Groups, 1972–73 (Advance Release)* (5314.0), *Foreign Control in Manufacturing Industry, Study of Large Enterprise Groups, 1972–73* (5315.0), *Foreign Ownership and Control in Manufacturing Industry, 1972–73 (Advance Release)* (5321.0) and *Foreign Ownership and Control in Manufacturing Industry, 1972–73* (5322.0).

INTERNAL TRADE

Wholesale Trade

For summary tables showing final figures from the 1968–69 census of Wholesale Trade see Year Book No. 61, pages 1070–2. Further and more detailed statistics are included in separate bulletins published by Central and State offices of ABS.

Retail Trade

Retail census

The definition of retail trade, for the purpose of the most recent retail census which was taken for the year ended 30 June 1974, is the resale of new and used goods to final consumers for personal and household consumption. For information and detailed tables relating to the 1973–74 Retail Census, reference should be made to Year Book No. 61, pages 1072–6, and census bulletins *Census of Retail Establishments and Selected Service Establishments 1973–74—Final Bulletins* (8614.0 to 8619.0, 8620.0 and 8621.0). Summary of operations details of establishments classified by industry group for Australia for 1973–74 are set out in the following table.

RETAIL ESTABLISHMENTS AND SELECTED SERVICE ESTABLISHMENTS: SUMMARY OF OPERATIONS, BY INDUSTRY GROUP, 1973-74

| Industry group | Number of establishments at 30 June 1974 | Employment at end of June 1974 (a) | | | Wages and salaries (b) | Retail sales | Whole-sale sales | Other operating revenue | Turn-over |
|--|--|------------------------------------|---------|---------|------------------------|--------------|------------------|-------------------------|-----------|
| | | Males | Females | Persons | | | | | |
| | | | | | | | | | |
| RETAIL ESTABLISHMENTS | | | | | | | | | |
| | No. | No. | No. | No. | \$m | \$m | \$m | \$m | \$m |
| Department variety and general stores | 1,672 | 36,721 | 85,582 | 122,303 | 407.2 | 2,399.8 | 85.0 | 52.1 | 2,536.9 |
| Food stores | 47,957 | 99,692 | 127,582 | 227,274 | 429.0 | 5,073.8 | 25.1 | 34.5 | 5,133.5 |
| Clothing, fabrics and furniture stores | 19,334 | 30,308 | 57,170 | 87,478 | 239.2 | 2,076.1 | 7.5 | 10.0 | 2,093.6 |
| Household appliance and hardware stores | 9,734 | 26,625 | 20,044 | 46,669 | 151.5 | 1,110.0 | 47.2 | 129.2 | 1,286.4 |
| Motor vehicle dealers, petrol and tyre retailers | 28,170 | 155,807 | 36,445 | 192,252 | 681.6 | 5,340.0 | 1,222.5 | 915.9 | 7,478.4 |
| Other retailers | 20,139 | 30,436 | 48,147 | 78,583 | 171.2 | 1,461.1 | 13.4 | 26.7 | 1,501.2 |
| Total retail establishments | 127,006 | 379,589 | 374,970 | 754,559 | 2,079.7 | 17,460.9 | 1,400.7 | 1,168.4 | 20,030.1 |
| SELECTED SERVICE ESTABLISHMENTS | | | | | | | | | |
| | No. | No. | No. | No. | \$m | \$m | \$m | \$m | \$m |
| Restaurants and licensed hotels | 11,478 | 63,364 | 88,871 | 152,235 | 416.9 | 1,290.9 | 1.7 | 625.1 | 1,917.6 |
| Licensed clubs | 3,287 | 33,526 | 18,186 | 51,712 | 185.6 | 310.9 | 0.8 | 348.4 | 660.0 |
| Hairdressing and beauty salons | 9,349 | 5,896 | 20,562 | 26,458 | 46.7 | 8.0 | — | 117.9 | 125.9 |
| Total selected service establishments | 24,114 | 102,786 | 127,619 | 230,405 | 649.2 | 1,609.8 | 2.5 | 1,091.3 | 2,703.6 |
| Total retail and selected service establishments | 151,120 | 482,375 | 502,589 | 984,964 | 2,729.0 | 19,070.7 | 1,403.2 | 2,259.8 | 22,733.7 |

(a) At end of June; includes working proprietors but excludes unpaid helpers working at least 15 hours during the week. (b) Excludes drawings by working proprietors.

Retail surveys

In intercensal periods, estimates of the value of retail sales by broad commodity groups are obtained quarterly by means of sample surveys for each State and Australia.

The following table shows the value of retail sales of goods in each of the commodity groups specified. The figures have been obtained from a sample based on the 1973-74 Retail Census. More detailed information concerning the quarterly surveys of retail trade is contained in the quarterly publication *Retail Sales of Goods* (8503.0).

VALUE OF RETAIL SALES: COMMODITY GROUPS (a)
 (\$ million)

| Commodity group | 1975-76 | 1976-77 | 1977-78 |
|---|-----------------|-----------------|-----------------|
| Groceries | 3,156.7 | 3,711.5 | 4,273.4 |
| Butchers' meat | 1,114.0 | 1,269.4 | 1,417.9 |
| Other food (b) | 1,857.3 | 2,082.1 | 2,331.1 |
| <i>Total, food and groceries</i> | <i>6,128.0</i> | <i>7,063.0</i> | <i>8,022.4</i> |
| Beer, wine and spirits | 2,534.9 | 2,840.6 | 3,123.7 |
| Clothing and drapery | 2,925.9 | 3,241.3 | 3,584.2 |
| Footwear | 453.3 | 508.1 | 573.0 |
| Hardware, china and glassware(c) | 768.4 | 838.2 | 959.6 |
| Electrical goods(d) | 1,742.9 | 1,929.9 | 1,888.0 |
| Furniture and floor coverings | 1,088.5 | 1,211.3 | 1,294.6 |
| Chemists' goods | 1,053.5 | 1,138.1 | 1,232.0 |
| Newspapers, books and stationery | 686.3 | 773.2 | 861.2 |
| Other goods(e) | 1,663.5 | 1,832.1 | 2,036.3 |
| Total (excluding motor vehicles, etc.) | 19,045.2 | 21,375.8 | 23,575.0 |

(a) Excludes Northern Territory and Australian Capital Territory. (b) Includes fresh fruit and vegetables, confectionery, soft drinks, ice cream, cakes, pastry, cooked provisions, fish, and wrapped lunches. (c) Excludes basic building materials, builders' hardware and supplies such as tools of trade, paint, etc. (d) Includes radios, television and accessories, musical instruments, domestic refrigerators, etc. (e) Includes tobacco, cigarettes, etc., sporting goods, etc., but excludes grain and produce and business machines.

Retail sales of goods at constant prices

The following table shows series of the value of retail sales of goods at constant prices. The scope of the series at average 1968-69 prices is identical to that of the series at current prices based on the

1968-69 Retail Census, while the scope of the series at average 1974-75 prices is identical to that of the series at current prices based on the 1973-74 Retail Census.

A detailed description of the nature of these estimates at constant prices, and of the sources and methods used in preparing them, can be found in the Explanatory Notes of the March 1978 issue of *Retail Sales of Goods* (8503.0).

VALUE OF RETAIL SALES OF GOODS AT CONSTANT PRICES BY BROAD COMMODITY GROUPS^(a)
(\$ million)

| <i>Broad commodity group</i> | <i>At average 1968-69 prices^(b)</i> | | <i>At average 1974-75 prices^(c)</i> | | | |
|--|--|-----------------|--|-----------------|-----------------|-----------------|
| | <i>1973-74</i> | <i>1974-75</i> | <i>1974-75</i> | <i>1975-76</i> | <i>1976-77</i> | <i>1977-78</i> |
| Food and drink | 4,907.9 | 5,023.0 | 7,429.6 | 7,621.0 | 7,917.4 | 8,184.0 |
| Clothing, hardware, electrical and furniture | 4,040.2 | 4,115.1 | 5,984.9 | 6,217.3 | 6,202.6 | 6,110.8 |
| Other | 1,801.2 | 1,901.2 | 2,925.2 | 2,929.9 | 2,964.1 | 3,047.3 |
| Total (excluding motor vehicles, parts, petrol, etc.) | 10,749.3 | 11,039.3 | 16,339.7 | 16,768.2 | 17,084.1 | 17,342.1 |

^(a) Excludes Northern Territory and Australian Capital Territory.
1973-74 Retail Census.

^(b) Series based on 1968-69 Retail Census.

^(c) Series based on

CHAPTER 18

ELECTRIC POWER

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 17, Manufacturing and Internal Trade.

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.

Most of Australia is poorly supplied with water; only about 13 per cent receives an annual rainfall of 750 mm or more, 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; the two major projects in the 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.

SNOWY MOUNTAINS HYDRO-ELECTRIC SCHEME*

Snowy Mountains Hydro-electric Power Act 1949

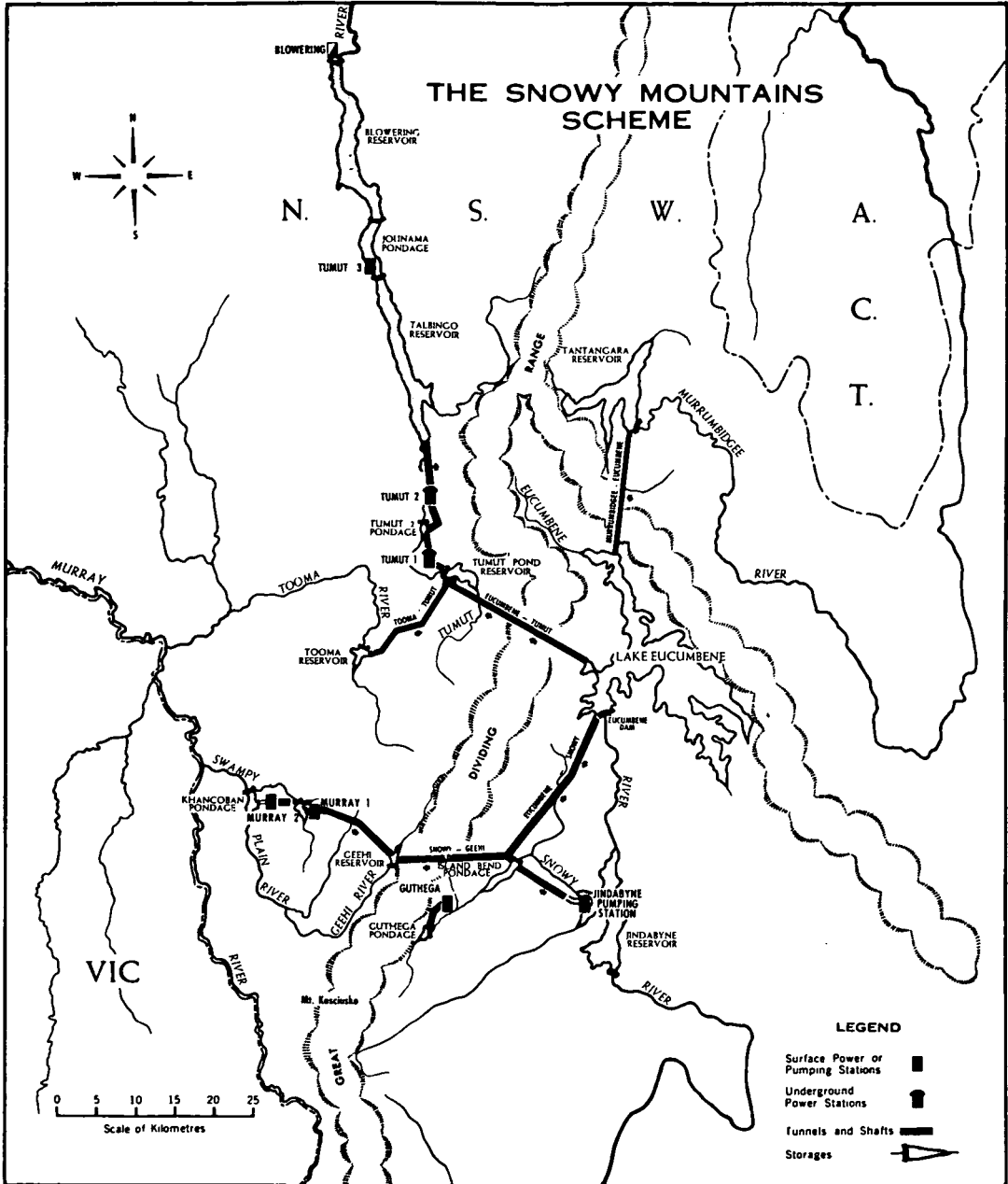
In July 1949 the Commonwealth Government established the Snowy Mountains Hydro-electric Authority, and empowered it: to generate electricity by means of hydro-electric works in the Snowy Mountains area; to supply electricity to the Commonwealth Government (i) for defence purposes, (ii) for consumption in the Australian Capital Territory; and to 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 Commonwealth 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 Commonwealth 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 33 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. For a description of the Snowy-Tumut and Snowy-Murray Development, and progress of the scheme, *see* previous issues of the Year Book.

* *See also* Chapter 15, Water Resources, of this issue and the special detailed article in Year Book No. 42, pp. 1103-30.

**PLATE 33**

Utilisation of power from scheme

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 GWh a year. The Commonwealth Government reserves 670 GWh for supply to the A.C.T.;

Victoria receives one-third of the surplus and N.S.W. is entitled to the other two-thirds. For convenience, the Commonwealth Government's requirements are drawn from the New South Wales transmission network by an exchange arrangement between the Commonwealth Government and the Electricity Commission of New South Wales. Electricity over and above that required by the Commonwealth Government is divided between the States of New South Wales and Victoria in the ratio 2:1.

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.

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 1978 there were 41 retail supply authorities throughout the State, comprising 33 electricity county councils (consisting of groups of shire and/or municipal councils), 2 city councils, 1 municipal council, 3 shire councils, and 2 private franchise holders.

Most electricity distribution areas have been consolidated into country 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 210 cities, municipalities and shires in New South Wales, 203 are included in one or other of the 33 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, 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 the standardising of materials and equipment.

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 1978 the Authority was committed to the payment of \$41,594,018 in subsidies, of which \$35,569,374 had been paid. Further details of the operation of the scheme are given in Year Book No. 56, page 956.

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 1,683 kilometres of traffic routes throughout the State.

Generation and transmission

Of the State's electrical power requirements during the year ended 30 June 1978, almost all was generated in New South Wales (88.5 per cent by coal fired power stations, 0.3 per cent by internal combustion plants, 9.3 per cent from the Snowy Mountains Hydro-electric Authority and 1.7 per cent by other hydro-electric stations). Net interstate exports of electricity accounted for the remaining 0.2 per cent.

Major generating stations. At 30 June 1978 the major power stations of the State system of the Electricity Commission of New South Wales and their nominal capacities were as follows: Liddell (Hunter Valley), 2,000 MW; Munmorah (Tuggerah Lakes), 1,400 MW; Vales Point (Lake Macquarie), 1,535 MW; Wangi (Lake Macquarie), 330 MW; Tallawarra (Lake Illawarra), 320 MW; Wallerawang (near Lithgow), 740 MW; Pyrmont (Sydney), 200 MW. The total nominal capacity of the Electricity Commission's system as at 30 June 1978 was 7,277 MW. 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 33 kV and 22 kV 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 1978 there were in service 3,528 circuit kilometres of 330 kV and 6,673 kilometres of 132 kV transmission lines (including 298 kilometres operating for the time being at 66 kV). There were also in service 4,630 kilometres of transmission line of 66 kV and lower voltages, and 485 kilometres of underground cable. The installed transformer capacity at the Commission's 162 sub-stations was 23,968 MVA.

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 28.75 MW) and the North-West County Council (15 MW). 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 approximately 6,453 MW at 30 June 1977, while the number of ultimate consumers at this date was 1,864,033.

Future development

Future projects include the installation of one further 660 MW unit at Vales Point to be in operation in 1978. A further 500 MW unit is to be installed at Wallerawang in 1981. Two 660 MW units are scheduled to be installed at a new power site at Eraring in the early 1980's. An Environmental Impact Statement has been issued for the installation of a further two 660 MW units at Eraring.

The development of the 330 kV main system is continuing. The construction of major 330 kV transmission lines from Wallerawang to Sydney South has now been completed. A new 330 kV sub-station at Beaconsfield West is being established and a major 330 kV cable is being laid to that sub-station from Sydney South substation. Work has commenced on the 330 kV line from Wagga to Jindera (north of Albury) which will also be extended to inter-connect with the Victorian system. 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 400). Apart from this area, major hydro-electric stations are in operation at the Warragamba Dam (50 MW) and Hume Dam (50 MW). In addition, there are six smaller hydro-electric installations in operation in various parts of the State. A pumped-storage hydro-electric system to produce 240 MW is being installed as part of the Shoalhaven Scheme in conjunction with the Metropolitan Water Sewerage and Drainage Board.

Victoria

A detailed description is given in Year Book No. 39 of the development of the generation and supply of electricity in the cities of Melbourne, Geelong, Ballarat and Bendigo to the time of the creation of the State Electricity Commission in 1921 and the early development of the Commission's undertakings.

State Electricity Commission of Victoria

Established under earlier legislation and currently operating under the provisions of the *State Electricity Commission Act* 1958, No. 6377 as a semi-government authority, the principal function of the Commission is to generate or purchase electricity for supply throughout Victoria. The Commission may own, develop and operate brown coal open cuts, and briquetting plant and develop the State's hydro-electric resources. The Commission is required to meet from its own revenue, which it controls, all expenditure involved in operating its power and fuel undertakings and to provide for statutory transfers to the Consolidated Revenue fund of the State.

Since it began operating in 1921 the Commission has expanded and co-ordinated the generation, purchase and supply of electricity on a State-wide basis to the stage where its system generates almost all the electricity produced in Victoria (which has an area of 228,000 sq km) and the transmission network covers practically the entire population of the State. As at 30 June 1978, the Commission had gross fixed assets of \$2,328 million, employed 19,308 persons, had a total income of \$548.1 million and, during the preceding twelve months, had increased sales of electricity by 3.6 per cent.

Victoria's electricity system is based on the utilisation of the extensive brown coal deposits in the La Trobe Valley in Central Gippsland, about 140 to 180 km east of Melbourne. These deposits total about 65,000 megatonnes, of which about 29,000 megatonnes are commercially recoverable at present day costs.

In 1977-78 the output of brown coal from the Commission's three open cuts at Yallourn, Yallourn North and Morwell totalled 29.4 megatonnes of which 26.3 megatonnes were used in the Commission's power stations. A further 2.9 megatonnes were used to produce 1.1 megatonne of briquettes and 0.21 megatonne was sold to the public. Sales of briquettes to the public totalled 723,000 tonnes, producing an income of \$12.4 million. Apart from the brown coal, 341 kilotonnes of briquettes and 140.0 kilotonnes of fuel oil were used as fuel in power stations.

Electricity generation, transmission and supply

In 1977-78 the Commission generated in its thermal and hydro-electric power stations, or purchased, 20,106 GWh. The total installed generating plant capacity at 30 June 1978 was 4,745 MW, inclusive of the capacity both within the State and available to Victoria from New South Wales.

The power stations are interconnected and feed electricity into a common pool for general supply. The major generating plant in the interconnected system is the 1,600 MW Hazelwood base load, brown-coal-fuelled power station near Morwell in the La Trobe Valley, 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 partially completed Yallourn 'W' station. Peak load steam stations are located in Melbourne (Newport, Richmond and Spencer Street). Hydro-electric stations are located at Kiewa, at Eildon, on the Rubicon and Royston Rivers near Eildon and at Cairn Curran. All generators for public supply within Victoria are owned by the Commission except Spencer Street Power Station, which remains the property of the Melbourne City Council although operated as a unit of the interconnected system.

Generation in thermal stations is supplemented by supply from the Commission's hydro stations in the mountains in the north east of the State and by entitlements from the Snowy Mountains Hydro-electric Scheme in south-eastern New South Wales (one third of output after provision for the Commonwealth Government's needs) and the Hume Power Station on the Murray River boundary with New South Wales (half of output). The Snowy Mountains Scheme is linked to the Victorian system by a 330 kV transmission line which allows for a two-way interchange with New South Wales.

At 30 June 1978 the electrical transmission and distribution system in the State supply network comprised 108,244 km of overhead lines and 3,541 km of underground lines. There are 4 auto-transformation stations, 26 terminal substations, 177 zone substations and 79,043 distribution substations. Transmission is mainly by 500, 330, 220 and 66 kV lines which supply the principal distribution centres and provide interconnection between the power stations. The total length of the 500, 330 and 220 kV lines is 3,734 km.

The Commission sells electricity retail in all Victorian supply areas except for eleven Melbourne metropolitan municipalities. These municipalities purchase electricity in bulk from the Commission and retail it to approximately 269,000 customers within the municipalities concerned under franchises granted by the Victorian Government before the Commission was established in 1921. Bulk supply is also provided to several municipalities in New South Wales and to a number of towns and areas bordering the Murray River.

Complete electrification of the State has virtually been achieved and only a few remote areas do not receive supply. At 30 June 1978 the Commission had 1,243,300 retail customers excluding bulk sales, and the income derived was \$430.4 million. There were 1,060,800 domestic, 80,800 industrial and 100,300 commercial consumers. In country areas electricity was supplied to about 76,000 farms. Sales of electricity during the period, including bulk supplies, totalled 16,393 kWh and produced total income of \$529 million.

Current and future development

Power station projects currently under construction are Yallourn W, Loy Yang and Jeeralang gas turbine station in the La Trobe Valley, Newport in Melbourne and Dartmouth in north-eastern Victoria. Yallourn W is designed as a 4 unit, base load station of 1450 MW capacity fuelled by brown coal. The first two 350 MW units are now in commission. The second two units, each of 375 MW capacity, are scheduled to begin operating in 1980 and 1981. The total cost of the station is estimated to exceed \$400 million. The Commission is erecting a 500 MW natural gas fired power station at Newport to come into operation at the end of the decade. A hydro-electric station with one 150 MW unit capacity is being built at Dartmouth, in conjunction with the dam currently under construction, to come into operation about 1980. The largest project is a major base load generating complex of about 4000 MW capacity at Loy Yang in the eastern part of the La Trobe Valley, planned to begin

operating in the early 1980s. A new coalfield will be opened for this development. At Jeeralang, near Morwell, a 225 MW gas turbine station is under construction and a second station of 240 MW capacity will be put into service progressively from late 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.

Legislation

Prior to the reorganisation of the electricity supply industry in Queensland on 1 July 1977, there were six regulatory Acts (*see* Year Book No. 61, p. 98). These Acts were repealed by the *Electricity Act* 1976 which consolidated and amended the law relating to the organisation and regulation of the generation, transmission, distribution, supply and use of electricity in Queensland and to matters of safety associated with these functions.

State Electricity Commission of Queensland

Its main functions are to plan and ensure the proper development and coordination of the electricity supply industry throughout the State, to enforce safety regulations, to control electricity charges, to raise capital for development, and to administer all electricity supply legislation.

Organisation

Generation and main transmission are functions of the Queensland Electricity Generating Board. It operates the power stations and main transmission lines in the interconnected grid supplying power from Cooktown to the New South Wales border and west to centres such as Winton and Julia Creek.

The Queensland Electricity Generating Board supplies energy in bulk to seven distributing boards whose responsibility is the distribution of electricity to retail consumers in their respective areas. These boards are the South East Queensland Electricity Board, the South West Queensland Electricity Board, the Wide Bay-Burnett Electricity Board, the Capricornia Electricity Board, the Mackay Electricity Board, the North Queensland Electricity Board and the Far North Queensland Electricity Board.

Four of these distributing boards (the South West Queensland, Capricornia, North Queensland and Far North Queensland) also operate small internal combustion stations in their respective areas.

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 1977-78 being derived from this fuel. Hydro-electric stations located mainly in North Queensland provided 9 per cent, and the balance of the production was provided from diesel power and gas turbine stations. These diesel power and gas turbine stations use light fuel oil as their energy source. The power station at Roma also uses locally-produced natural gas. Electricity generated in Queensland in power stations during 1977-78 totalled 9,982 GWh. A further 121 GWh were purchased in bulk from other producers of electricity for re-distribution to consumers.

At 30 June 1978 the total generating capacity of all public supply authorities in Queensland was 2,857 MW, comprising 2,511 MW of steam plant, 132 MW of hydro-electric plant, 51 MW of internal combustion plant and 163 MW gas turbine plant.

The southern-central electricity network is served by the following steam power stations: Swanbank 'A' (396 MW), Swanbank 'B' (480 MW), Tennyson 'A' (120 MW), Tennyson 'B' (120 MW), Bulimba (180 MW), Howard (38 MW), Callide (120 MW) and Rockhampton (53 MW). Gas turbine stations at Middle Ridge (60 MW), Swanbank 'C' (30 MW) and Rockhampton (25 MW) also serve the southern-central network. Power supply to this network has been augmented by the commissioning of three 275 MW steam sets together with a 14 MW gas turbine set at the thermal power station at Gladstone. The northern electric network is supplied by a steam power station at Collinsville (180 MW), hydro-electric stations at Kareeya (72 MW) and Barron Gorge (60 MW) and a gas turbine station at Mackay (34 MW).

The electrical transmission and distribution systems within the State comprised approximately 105,700 circuit kilometres of electric lines at 30 June 1978. The main transmission voltages are 275kV, 132kV, 110kV, 66kV and, in certain areas, 33kV and 22kV. The electricity supply industry's extensive rural electrification program continued using the single wire earth return system, and nearly 25,500 kilometres of this system of distribution were in service at 30 June 1978.

At 30 June 1977 the total number of electricity consumers was 740,000.

Future development

Construction of the power station at Gladstone in Central Queensland is well advanced. When complete, this station will consist of six 275 MW steam sets and one 14 MW gas turbine set. By 30 June 1978 the first three steam sets and the gas turbine set were fully operational. The remaining three sets are due for completion in early 1979, 1981 and 1982 respectively.

Approval has been given by the Government to proceed with the Wivenhoe Pumped Storage Hydro-Electric Project in conjunction with the construction of the Wivenhoe Dam on the Brisbane River. The power station will consist of two 250 MW pump turbine units, to be commissioned in 1983, at an estimated cost of \$167 million. Contracts have been placed for the major plant items comprising turbines, pumps and generators, and tenders have been called for the major civil works associated with the project.

The Tarong coalfield will be the site of the next major thermal power station. A 1400 MW station comprising 4 350 MW sets will be established, with the first set due to commence operating in 1985.

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; arrange, by agreement with other organisations which generate or supply electricity, 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 1977, the Electricity Trust operated plant with a capacity of 1,615 MW, making it the most important authority supplying electricity in the State. There were approximately 527,700 ultimate consumers of electricity in the State, of whom 522,000 were supplied directly and approximately 5,700 indirectly (i.e. through bulk supply) by the Trust. Its major steam stations are Osborne (240 MW), Port Augusta Playford 'A' (90 MW) and Playford 'B' (240 MW), and Torrens Island (880 MW).

The Trust also operates a turbo-generator station at Dry Creek (156 MW) and a small station at Port Lincoln (9 MW). The Trust ceased operating the Mount Gambier Power Station in October 1976.

The two main fuels used by the Trust are sub-bituminous coal from Leigh Creek for the Playford power stations at Port Augusta and natural gas from the Gidgealpa-Moomba field for the Torrens Island and Dry Creek stations.

Western Australia

For information on the early history of electricity supply in the metropolitan area, see Year Book No. 39, page 1189.

State Energy Commission of Western Australia

On 1 July 1975 the Government of Western Australia combined the State Electricity Commission and the Fuel and Power Commission to form a new organisation known as the State Energy Commission of Western Australia. The new Commission is specifically charged with the responsibility for ensuring the effective and efficient utilisation of the State's energy resources and for providing its people with economical and reliable supplies of electricity and gas.

The Commission operates coal-burning power stations at East Perth, South Fremantle, Bunbury and Muja and a coal and oil-burning station at Kwinana. A small hydro-electric station is situated at Wellington Dam near Collie and there is a gas turbine generating plant at Geraldton. A uniform tariff electricity supply is provided from these stations through an interconnected grid system to the Metropolitan Area and the South-West and Great Southern Areas, including an area extending

eastward to Koolyanobbing and northwards as far as Binu beyond Northampton. The Commission also owns and operates diesel power stations at Esperance, Fitzroy Crossing, Halls Creek, Kununurra, Onslow, Port Hedland and Roebourne.

Small electricity supply systems too remote to be connected to the grid system or supplied from the Commission-owned diesel stations are still controlled by local government authorities and are being absorbed in a leasing arrangement whereby the local generating plant and distribution system is operated by the Commission under an arrangement known as the Country Towns' Assistance Scheme. Under the scheme, the Commission undertakes to operate, maintain, replace or upgrade plant and supply equipment as necessary. At the present time there are 34 country towns supplied under the provisions of the Country Towns' Assistance Scheme.

Natural gas is reticulated in most areas of the Perth metropolitan region and in Pinjarra, simulated natural gas (SNG) is reticulated in the Bunbury area, and tempered liquified petroleum gas (TLP) is reticulated in Albany.

Some details of the Commission's activities for the year ending June 1978 are: number of electricity consumer accounts, 382,567 and gas consumer accounts; 83,332 electricity generated 4,557 GWh; gas sold 935,305,196 units; fuel used for electricity generation 2,134,053 tonnes of coal, 233,801 tonnes of fuel oil, and 62,862,802 litres of diesel fuel.

Sales for the year ending 30 June 1978, compared with those for the preceding year, show an increase of 7.4 per cent for electricity and 9.5 per cent for gas.

Tasmania

A considerable part of the water catchment in Tasmania is at high level. The establishment of numerous dams has created substantial artificial storage which has enabled the State to produce energy at a lower cost than elsewhere in Australia and 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 the energy industry to Tasmania. 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

The Commission was created in 1930, taking over the activities of the Hydro-Electric Department and the existing small hydro-electric installations. Development initially concentrated on hydro-electric generation feeding into a State-wide power grid (King Island from 1951 and Flinders Island from 1968 are outside the grid and are supplied by diesel generators). Unusually low rainfall during 1967 severely restricted the State's generating capacity and prompted the construction of a substantial oil-fired thermal station with a capacity of 240 MW. This station, completed during 1974, remains on standby.

Output and capacity of hydro-electric system

For information on the development of the Tasmanian generating system *see* Year Book No. 61, pages 984-985.

The current status of the Tasmanian generating system stands at: hydro generation, 1540.4 MW; oil-fired thermal, 240 MW; and diesel, 1.7 MW. The installation of the second generator in the Gordon River Hydro-Electric Scheme, Stage I, was carried out during 1978, increasing generating capacity by 144 MW.

The future development program provides for the completion of Stage I of the Gordon River Scheme and construction of a system based on the Pieman, Murchinson and Mackintosh Rivers in Western Tasmania; these works, which have already been approved, will add 851 MW to the State's power grid.

The Commission is conducting extensive surveys and investigation of other possible schemes with a view to construction after the completion of the present program. It is estimated that the potential which can be developed economically should ultimately harness 3,000 MW 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 MW diesel alternators which are retained as a standby for essential supplies. The total number of ultimate consumers at 30 June 1978 was 74,605. During the year 1977-78 the bulk electricity purchased was 1,234 GWh and the system maximum demand was 338 MW.

Northern Territory

Since 1 July 1978, the responsibility for the generation and distribution of electricity has been under the control of the Northern Territory Electricity Commission, a statutory body which came into operation with the establishment of Self Government in the Northern Territory.

The major electricity supply source in Darwin is Stokes Hill Power Station, an oil-fired steam power station with an installed capacity of 141 MW. There is also a standby gas turbine with a capacity of 10 MW.

Alice Springs, Pine Creek, Katherine, Mataranka, Larrimah, Tennant Creek, Elliott and Tea Tree are supplied by diesel power stations. At Alice Springs a new 6 MW generator commissioned late in 1978 took the generating capacity to 30.8 MW and planning is underway for stage four of the power station. Katherine is supplied by an 8.5 MW diesel station while Tennant Creek Power Station's capacity has risen to 6.4 MW with the commissioning early in July, 1978 of a fourth 1.6 MW unit.

Other power stations operated by the Commission are: Pine Creek (950 kW), Mataranka (400 kW), Elliott (340 kW), Tea Tree (170 kW) and Larrimah (110 kW). Nabalco operates a 110 MW oil-fired steam power station at Gove as well as a 12 MW diesel station.

Other communities and Aboriginal settlements in the Territory generate their own power.

The Northern Territory Electricity Commission is currently investigating a number of alternative proposals for augmenting electricity supplies in the major centres. These include coal, hydro-electricity from the Ord River and from Territory rivers, natural gas and oil from Central Australia.

CHAPTER 19

HOUSING AND CONSTRUCTION

This chapter gives details of: the characteristics of dwellings obtained from censuses (pages 409, 410); government activities in the field of housing (pages 410–420); financial arrangements associated with the erection or purchase of homes (pages 420–424); a summary of building activities (pages 424–428); and summary of construction (other than building) activities (pages 428, 429).

HOUSING

Census dwellings

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 and 1976 Census publications is shown in the *ABS Catalogue of Publications* (1101.0).

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 1976 Census, together with information from earlier censuses.

Number of dwellings

The following table shows the number of occupied and unoccupied dwellings in Australia at each census from 1947 to 1976. Occupied dwellings are classified into 'private' and 'non-private' dwellings.

Private dwellings were classified into the following categories for the 1976 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—comprises 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.

Non-private dwellings include hotels, motels, boarding houses and hostels, educational, religious and charitable institutions, hospitals, defence and penal establishments, caravan parks, staff barracks and quarters, etc.

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.

DWELLINGS(a): AUSTRALIA, CENSUSES, 1947 TO 1976

| Census | Occupied | | Total | Unoccupied |
|--------------|-----------|-------------|-----------|------------|
| | Private | Non-private | | |
| 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 |
| 1976 | 4,140,521 | 21,543 | 4,162,064 | 431,200 |

(a) Excludes dwellings occupied solely by Aborigines before 1966.

The total numbers of occupied and unoccupied dwellings in each State and Territory at the Censuses of 1971 and 1976 were as follows:

DWELLINGS: CENSUSES, 1971 AND 1976

| State or Territory | Census 30 June 1971 | | Census 30 June 1976 | |
|--|---------------------|----------------|---------------------|----------------|
| | Occupied | Unoccupied | Occupied | Unoccupied |
| New South Wales | 1,364,542 | 124,522 | 1,499,001 | 152,960 |
| Victoria | 1,015,485 | 88,521 | 1,126,304 | 119,592 |
| Queensland | 517,245 | 51,077 | 602,426 | 62,686 |
| South Australia | 344,112 | 30,553 | 392,253 | 39,768 |
| Western Australia | 286,845 | 28,274 | 339,105 | 34,064 |
| Tasmania | 110,420 | 13,307 | 122,573 | 15,786 |
| Northern Territory | 17,792 | 929 | 23,270 | 2,292 |
| Australian Capital Territory | 38,118 | 1,874 | 57,132 | 4,052 |
| Australia | 3,694,559 | 339,057 | 4,162,064 | 431,200 |

Year Book No. 61, pages 209–213, contains tables with the following information from the Censuses of 1966 and 1971:

- Occupied dwellings, number and percentage distribution, urban and rural;
- Occupied dwellings by class;
- Inmates by class of dwelling, numbers and percentage distribution, urban and rural;
- Occupied private houses and self-contained flats by nature of occupancy;
- Occupied private houses and self-contained flats by material of outer walls;
- Occupied private dwellings by number of rooms and class of dwelling;
- Occupied private dwellings by number of bedrooms and class of dwelling;
- Number of occupied self-contained flats and number of inmates by number of flats in block;
- Occupied private houses and self-contained flats by gas, electricity, and television facilities;
- Occupied private dwellings by bathroom and kitchen facilities and class of dwelling;
- Occupied private houses and self-contained flats by number of motor vehicles, urban and rural;
- Occupied private dwellings by method of sewage disposal and class of dwelling;
- Unoccupied private dwellings by reason unoccupied: numbers and percentage distribution urban and rural;
- Unoccupied private dwellings by reason unoccupied and class of dwelling.

Similar information from the 1976 Census will be available from the ABS from early 1979.

Government activities in the housing field

Former Arrangements between Commonwealth and State Governments

Over the period between 1945 and 1971, public housing was provided under the terms of a series of Housing Agreements entered into between the Commonwealth and the State Governments. For more detailed explanations, see Year Book No. 61, page 228.

With effect from 1 July 1971, a new arrangement was introduced under which the State Governments allocated loan funds for public housing purposes and were financially assisted by the Commonwealth making payments of non-repayable interest-free grants under the *States Grants (Housing) Act* 1971. Originally, that Act was to operate in respect of five financial years, but in 1973 it was amended to apply to operations in 1971–72 and 1972–73 only. For further information regarding the *States Grants (Housing) Act* 1971 see Year Book No. 59, page 210.

1973–1974 Housing Agreement

A further Housing Agreement was entered into between the Commonwealth and all States in 1973 in relation to Welfare housing. It was amended in some minor respects in 1974.

In each of the five financial years commencing 1 July 1973, advances are being made by the Commonwealth for the financing of State housing authority programs and the making of Home Builders' Account loans through terminating building or co-operative housing societies (or an approved lending authority in some States).

Advances are repayable over 53 years with interest at 4 per cent per annum on housing authority advances and 4½ per cent per annum on Home Builders' Account advances.

Needs tests based on percentages of average weekly earnings figures published quarterly by the Australian Statistician are laid down in the Agreement to determine eligibility for housing authority dwellings and home loans.

The sale of housing authority dwellings is limited to 30 per cent of the family dwellings completed in the five year period commencing 1 January 1974.

Housing Agreement (Servicemen)

Prior to 30 June 1971, housing for servicemen was provided under the terms of the 1956-1966 Housing Agreement which, in the main, was concerned with public housing and which expired on that date. With effect from 1 July 1971, a separate agreement was concluded between the Commonwealth and State Governments to provide for the construction of dwellings for allotment to servicemen and for improvements to existing accommodation occupied by them. Programmes are negotiated annually and the full capital cost is made available by the Commonwealth in repayable, interest-bearing advances to the States.

Operations under the 1973-1974 Housing Agreement and the Housing Agreement (Servicemen)

The following tables show the results of operations under the 1973-1974 Housing Agreement and the Housing Agreement (Servicemen) during 1976-1977 and 1977-1978. Corresponding figures for 1975-1976 appear in Year Book No. 62, page 460.

1973-74 HOUSING AGREEMENT: SUMMARY 1976-1977

| | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | Total |
|---|---------|--------|--------|--------|--------|--------|---------|
| HOUSING FUNDS (\$'000) | | | | | | | |
| Commonwealth advances to States for housing | 123,411 | 98,159 | 37,410 | 56,360 | 35,440 | 24,220 | 375,000 |
| State housing authorities (a) | 86,388 | 68,711 | 28,572 | 33,560 | 23,036 | 19,376 | 259,643 |
| Home builders' account (a) | 37,023 | 29,448 | 8,838 | 22,800 | 12,404 | 4,844 | 115,357 |
| Amounts drawn by institutions | 58,644 | 49,167 | 11,983 | 27,264 | 8,020 | 6,578 | 161,656 |
| Housing Agreement (Servicemen) advances | 15,280 | 4,191 | 12,300 | 2,107 | 1,230 | 6 | 35,114 |
| NUMBER OF DWELLINGS | | | | | | | |
| State housing program— | | | | | | | |
| Commenced | 3,030 | 2,455 | 1,085 | 1,167 | 885 | 803 | 9,425 |
| Completed | 2,769 | 2,318 | 696 | 1,176 | 821 | 752 | 8,532 |
| Under construction at 30 June 1977 | 2,510 | 2,457 | 502 | 1,200 | 532 | 439 | 7,640 |
| Home builders' account— | | | | | | | |
| Purchased— | | | | | | | |
| New | 690 | 297 | 186 | 2,105 | 46 | 18 | 3,342 |
| Other | 1,378 | 1,065 | 204 | 219 | 29 | 240 | 3,135 |
| New construction— | | | | | | | |
| Approved | 797 | 815 | 281 | 501 | 297 | 165 | 2,856 |
| Commenced | 611 | 888 | 279 | 554 | 300 | 178 | 2,810 |
| Completed | 596 | 945 | 289 | 643 | 351 | 174 | 2,998 |
| Service housing— | | | | | | | |
| Agreed program | 194 | — | 150 | 23 | 25 | — | 392 |
| Completed (b) | 154 | 65 | 255 | 68 | 40 | — | 582 |
| Sold under— | | | | | | | |
| 1973-74 Housing agreement | 28 | 1,622 | 161 | 251 | 85 | 27 | 2,174 |
| Earlier agreements | 974 | 1,579 | 620 | — | 694 | 6 | 3,873 |

(a) Between 20 and 30 per cent of total advances to a State in a financial year must be allocated to Home Builders' Accounts, the balance being allocated to State Housing Authorities. (b) Includes completions of houses for servicemen programmed in previous years.

1973-74 HOUSING AGREEMENT: SUMMARY 1977-78

| | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | Total |
|---|---------|---------|--------|--------|--------|--------|---------|
| HOUSING FUNDS (\$'000) | | | | | | | |
| Commonwealth advances to States for housing | 128,011 | 101,759 | 39,810 | 58,460 | 36,740 | 25,220 | 390,000 |
| State housing authorities (a) | 89,608 | 71,231 | 30,400 | 34,810 | 25,718 | 20,000 | 271,767 |
| Home builders' account (a) | 38,403 | 30,528 | 9,410 | 23,650 | 11,022 | 5,220 | 118,233 |
| Amounts drawn by institutions | 60,403 | 47,767 | 12,344 | 28,782 | 16,548 | 6,601 | 172,445 |
| Housing Agreement (Servicemen) advances | 7,947 | 753 | 12,500 | 1,317 | 2 | — | 22,519 |

1973-74 HOUSING AGREEMENT: SUMMARY 1977-78—continued

| | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | Total |
|--|--------|-------|-----|-------|-------|------|-------|
| NUMBER OF DWELLINGS | | | | | | | |
| State housing program— | | | | | | | |
| Commenced | 2,839 | 1,779 | 719 | 1,171 | 1,043 | 922 | 8,473 |
| Completed | 2,207 | 2,330 | 897 | 1,380 | 1,277 | 862 | 8,953 |
| Under construction at 30 June 1978 | 3,142 | 1,906 | 324 | 991 | 298 | 499 | 7,160 |
| Home builders' account— | | | | | | | |
| Purchased— | | | | | | | |
| New | 507 | 281 | 154 | 2,205 | 32 | 39 | 3,218 |
| Other | 1,606 | 857 | 220 | 267 | 343 | 191 | 3,484 |
| New construction— | | | | | | | |
| Approved | 506 | 663 | 290 | 343 | 282 | 159 | 2,243 |
| Commenced | 399 | 946 | 289 | 362 | 282 | 132 | 2,410 |
| Completed | 491 | 1,019 | 329 | 411 | 710 | 202 | 3,162 |
| Service housing— | | | | | | | |
| Agreed program | | | | | | | |
| Completed (b) | 55 | 61 | 290 | 67 | — | — | 473 |
| Sold under— | | | | | | | |
| 1973-74 Housing agreement | — | 1,434 | 205 | 376 | 166 | — | 2,181 |
| Earlier agreements | 131 | 931 | 368 | — | 289 | 1 | 1,720 |

(a) See footnote (a) on previous table.

(b) See footnote (b) on previous table.

Dwellings for Aged Pensioners Scheme

Year Book No. 61, page 229 gives information on the *States Grants (Dwellings for Aged Pensioners) Act 1969* and the *States Grants (Dwellings for Pensioners) Act 1974*. An amendment of the latter Act in 1977 extended the Scheme for a further one year and allocated \$10 million for payment to the States in the financial year ending 30 June 1978.

Building Schemes approved under the Acts in 1975-76, 1976-77 and 1977-78 are shown in the following table.

DWELLINGS FOR PENSIONERS SCHEME: APPROVALS

| | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | Total |
|--------------------------------------|--------|-------|-------|-------|------|------|--------|
| Number of building schemes approved— | | | | | | | |
| 1975-76 | 5 | 12 | 12 | 8 | 5 | 2 | 44 |
| 1976-77 | 11 | — | 6 | 4 | 4 | 1 | 26 |
| 1977-78 | 12 | 23 | 9 | 3 | 9 | 1 | 57 |
| Number of units in approved schemes— | | | | | | | |
| 1975-76 | 97 | 81 | 127 | 103 | 40 | 47 | 495 |
| 1976-77 | 138 | — | 55 | 57 | 66 | 9 | 325 |
| 1977-78 | 195 | 137 | 78 | 58 | 46 | 14 | 528 |
| Estimated cost of approved schemes— | | | | | | | |
| 1975-76 \$'000 | 1,731 | 1,602 | 2,037 | 1,531 | 580 | 682 | 8,164 |
| 1976-77 \$'000 | 2,084 | — | 944 | 907 | 895 | 158 | 4,986 |
| 1977-78 \$'000 | 4,070 | 2,530 | 1,490 | 930 | 700 | 280 | 10,000 |

Defence service homes

The *Defence Service Homes Act 1918*, formerly the *War Service Homes Act 1918*, 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; 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*; and members of the Forces who serve on continuous full-time service and national servicemen whose periods of service ended not earlier than 7 December 1972 and who meet certain prescribed conditions. The categories of eligible persons also include the widows and, in some circumstances, the widowed mothers of eligible persons, and persons domiciled in Australia and employed in certain sea-going service during the 1914-18 and 1939-45 Wars.

The maximum amount of loan or advance which may be granted under the *Defence Service Homes Act* 1918 is \$15,000. The maximum period of repayment is 45 years or, in the case of the widow or widowed mother of an Australian ex-serviceman, 50 years; but normally the repayment period is restricted to not more than 32 years.

The Defence Service Homes Corporation is, subject to the directions of the Minister for Veterans' Affairs, responsible for the administration of the *Defence Service Homes Act*.

Operations under the Defence Service Homes Act

The following tables give details of the operations under the *Defence Service Homes Act* in the year 1977-78 and from the inception of the scheme on 6 March 1919 to 30 June 1978. The earliest single year for which details are given in the tables is 1972-73; for earlier years see previous issues of the Year Book. The figures shown include operations in Papua New Guinea and on Norfolk Island.

DEFENCE SERVICE HOMES ACT: OPERATIONS, 1977-78 AND TO 30 JUNE 1978

| 1977-78 | | | | | |
|---|--------|-------------|--------------------------------|--|-----------|
| <i>Eligibility established from following service—</i> | | | | | |
| | | 1914-18 War | 1939-45 War Korea, etc. (a) | Regulars and National Servicemen serving on or after 7 December 1972 | Total |
| Applications received | No. | 89 | 5,721 | 2,248 | 8,058 |
| Applications approved | " | 71 | 4,544 | 1,586 | 6,201 |
| Homes purchased | " | 53 | 2,609 | 703 | 3,365 |
| Homes built, or assistance given to build them | " | 5 | 696 | 448 | 1,149 |
| Mortgages discharged | " | 10 | 1,038 | 334 | 1,382 |
| <i>Total homes provided</i> | " | 68 | 4,343 | 1,485 | 5,896 |
| Transfers and resales | " | 1 | 117 | 64 | 182 |
| Total capital expenditure | \$'000 | n.a. | n.a. | n.a. | 90,321 |
| Total capital receipts | " | n.a. | n.a. | n.a. | (b)90,012 |

| From inception to 30 June 1978 | | | | | |
|---|--------|-------------|--------------------------------|--|--------------|
| <i>Eligibility established from following service—</i> | | | | | |
| | | 1914-18 War | 1939-45 War Korea, etc. (a) | Regulars and National Servicemen serving on or after 7 December 1972 | Total |
| Applications received | No. | 120,004 | 497,670 | 14,622 | 632,296 |
| Applications approved | " | 59,143 | 305,100 | 7,870 | 372,113 |
| Homes purchased | " | 20,935 | 165,366 | 4,469 | 190,770 |
| Homes built, or assistance given to build them | " | 24,232 | 77,000 | 1,471 | 102,703 |
| Mortgages discharged | " | 4,399 | 44,265 | 1,277 | 49,941 |
| <i>Total homes provided</i> | " | 49,566 | 286,631 | 7,217 | 343,414 |
| Transfer and resales | " | 9,695 | 17,364 | 240 | 27,299 |
| Total capital expenditure | \$'000 | n.a. | n.a. | n.a. | 2,100,923 |
| Total capital receipts | " | n.a. | n.a. | n.a. | (c)1,742,101 |

(a) Korea, Singapore, Malaysia or Vietnam (Southern Zone) and Vietnamese waters. (b) Total capital receipts for the year, not including interest received from applicants. (c) Includes interest receipts.

HOUSING AND CONSTRUCTION
DEFENCE SERVICE HOMES ACT: OPERATIONS

| Year | Number of Homes provided | | | | Total | Total capital expendi- ture | Total capital receipts(b) |
|---------------|-----------------------------|---------------------------|----------------|-------------------------|-------|--------------------------------------|---------------------------------|
| | Applications received | Homes purchased (a) | Homes built | Mortgages discharged | | | |
| | | | | | | \$'000 | \$'000 |
| 1972-73 . . . | 11,687 | 4,990 | 919 | 1,467 | 7,376 | 74,326 | (b)97,622 |
| 1973-74 . . . | 15,494 | 6,223 | 715 | 1,356 | 8,294 | 102,000 | (b)101,467 |
| 1974-75 . . . | 14,582 | 5,840 | 1,244 | 1,780 | 8,864 | 130,000 | (b)91,640 |
| 1975-76 . . . | 11,646 | 5,009 | 1,472 | 1,797 | 8,278 | 128,194 | (b)110,720 |
| 1976-77 . . . | 10,059 | 2,860 | 1,357 | 1,573 | 5,790 | 94,657 | (b)124,424 |
| 1977-78 . . . | 8,058 | 3,365 | 1,149 | 1,382 | 5,896 | 90,321 | (c)90,012 |

(a) Homes purchased with assistance under the Defence Service Homes Act. (b) Includes interest receipts. (c) Total capital receipts for the year, not including interest received from applicants.

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) | | | | | | | | | |
| 1972-73 . . . | 23,858 | 21,497 | 13,443 | 6,137 | 5,986 | 2,050 | 71 | 1,284 | 74,326 |
| 1973-74 . . . | 30,171 | 27,149 | 17,400 | 10,418 | 9,500 | 3,200 | 162 | 4,000 | 102,000 |
| 1974-75 . . . | 37,925 | 32,250 | 22,785 | 11,867 | 16,400 | 3,220 | 133 | 5,420 | 130,000 |
| 1975-76 . . . | 40,954 | 31,971 | 20,254 | 10,490 | 16,005 | 2,795 | (c) | 5,725 | 128,194 |
| 1976-77 . . . | 31,109 | 21,607 | 14,635 | 9,120 | 11,798 | 1,788 | (c) | 4,600 | 94,657 |
| 1977-78 . . . | 24,948 | 22,417 | 15,700 | 9,769 | 11,049 | 1,807 | (c) | 4,631 | 90,321 |

NUMBER OF SECURITIES IN FORCE

| At end of June— | | | | | | | | | |
|--------------------|--------|--------|--------|--------|--------|-------|----|-------|---------|
| 1973 . . . | 63,590 | 54,933 | 25,497 | 16,618 | 17,597 | 4,341 | 68 | 1,399 | 184,043 |
| 1974 . . . | 62,699 | 54,379 | 25,527 | 16,603 | 17,576 | 4,397 | 73 | 1,671 | 182,925 |
| 1975 . . . | 63,035 | 54,363 | 26,181 | 16,879 | 18,095 | 4,484 | 67 | 2,022 | 185,126 |
| 1976 . . . | 62,535 | 53,109 | 26,367 | 16,736 | 18,072 | 4,483 | 33 | 2,355 | 183,690 |
| 1977 . . . | 61,367 | 52,316 | 26,197 | 16,504 | 17,855 | 4,380 | 38 | 2,575 | 181,232 |
| 1978 . . . | 60,033 | 51,004 | 26,129 | 16,381 | 17,628 | 4,305 | 46 | 2,804 | 178,330 |

VALUE OF ADVANCES OUTSTANDING (\$'000)

| At end of June— | | | | | | | | | |
|--------------------|---------|---------|---------|---------|---------|--------|-----|-----|-----------|
| 1973 . . . | 354,216 | 280,040 | 128,229 | 80,762 | 86,843 | 22,263 | (c) | (d) | 952,353 |
| 1974 . . . | 363,071 | 288,556 | 135,961 | 84,624 | 90,336 | 23,997 | (c) | (d) | 986,545 |
| 1975 . . . | 382,562 | 302,077 | 150,560 | 91,341 | 101,351 | 25,901 | (c) | (d) | 1,053,792 |
| 1976 . . . | 402,045 | 313,014 | 162,454 | 95,314 | 109,329 | 27,117 | (c) | (d) | 1,109,273 |
| 1977 . . . | 408,911 | 314,001 | 168,289 | 97,822 | 113,757 | 27,113 | (c) | (d) | 1,129,893 |
| 1978 . . . | 412,695 | 316,039 | 174,941 | 100,516 | 117,941 | 27,229 | (c) | (d) | 1,149,361 |

NUMBER OF HOMES PROVIDED

| | | | | | | | | | |
|---------------|-------|-------|-------|-----|-------|-----|----|-----|-------|
| 1972-73 . . . | 2,302 | 2,173 | 1,298 | 648 | 597 | 218 | 9 | 131 | 7,376 |
| 1973-74 . . . | 2,449 | 2,245 | 1,434 | 757 | 783 | 280 | 14 | 332 | 8,294 |
| 1974-75 . . . | 2,402 | 2,172 | 1,544 | 836 | 1,245 | 251 | 10 | 404 | 8,864 |
| 1975-76 . . . | 2,437 | 2,098 | 1,379 | 704 | 1,059 | 204 | 7 | 390 | 8,278 |
| 1976-77 . . . | 1,724 | 1,359 | 967 | 555 | 740 | 122 | 9 | 314 | 5,790 |
| 1977-78 . . . | 1,697 | 1,425 | 1,059 | 555 | 726 | 127 | 7 | 300 | 5,896 |

(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, 3,639 homes, which had been provided originally under the Housing Agreements with the States, have been taken over in accordance with those Agreements.

Home Savings Grant Scheme

The administration of the Home Savings Grant Scheme is a function of the Department of Housing and Construction. The purpose of the scheme is to encourage people to save regularly towards the ownership of their first home and to assist them financially with its acquisition by means of a home savings grant. A further objective is to increase the funds available in Australia for housing purposes by rewarding savings made with those institutions that provide the bulk of private housing finance. The grant is a tax-free gift, not a loan.

The Scheme was introduced in 1964. Persons acquiring their home on or before 31 December 1976 may qualify under the *Homes Savings Grant Act 1964*, the conditions of which are explained in detail in Year Book No. 61, page 233. Briefly, to be eligible applicants must have been under the age of thirty-six, and married or engaged to be married, or divorced or widowed with dependent children, and the value of the home including the land must have not exceeded \$22,500.

Persons acquiring their homes on and after 1 January 1977 may qualify under the *Homes Savings Grant Act 1976*. Under the conditions of this 'new' Home Savings Grant Scheme, applications for grants may be made by persons who, on and after 1 January 1977, contract to buy or build, or commence to construct, their first home in Australia. Applicants may be young or old, married or single. There is no limit to the value of the home, but it must be intended as the applicant's principal place of residence. Persons who are not Australian citizens must have the right to reside here permanently. Persons under eighteen years of age must be married or engaged. Applicants cannot have owned a home, or received a grant before.

The amount of grant is related to the 'savings period', which is the period of one, two or three complete years before the contract date, during which the applicant/s must have saved in an acceptable form. The grant is calculated on the basis of \$1 for each \$3 of acceptable savings, including savings held at the beginning of the savings period. A maximum grant of \$667 is payable in respect of a savings period of one year, \$1,333 for two years and \$2,000 for three years. Grants of \$667 first became payable for people contracting to buy or build their home from 1 January 1977. The larger grants apply first from 1 January 1978 and 1979 respectively.

The main forms of savings that are acceptable are those most commonly used to accumulate savings for a home, that is, with banks (other than cheque accounts), building societies and credit unions. Savings expended on or before the contract date in connection with the home, such as for the deposit on the home or for the land, are also acceptable.

Full details of the new scheme are available in a booklet, 'Your Home Savings Grant', copies of which are available from the Department of Housing and Construction and from savings institutions. Further information on the operation of the scheme is contained in the Department's Annual Report.

Operations under the Home Savings Grant Scheme

Particulars of applications received and approved during 1977-78 and from inception in respect of the *Homes Savings Grant Act 1964*, and the *Homes Savings Grant Act 1976*, are set out below.

HOMES SAVINGS GRANT ACT 1964: OPERATIONS 1977-78

| | N.S.W. | Vic. | Qld | S.A.(a) | W.A. | Tas. | A.C.T. (b) | Aust. |
|---|--------|------|-----|---------|------|------|---------------|-------|
| Applications received No. | 806 | 659 | 531 | 239 | 263 | 74 | 5 | 2,577 |
| Applications approved(c) " | 550 | 362 | 456 | 160 | 158 | 74 | 3 | 1,763 |
| Grants approved \$'000 | 339 | 227 | 272 | 99 | 95 | 43 | 2 | 1,076 |
| Average grant approved \$ | 617 | 626 | 596 | 618 | 598 | 586 | 652 | 610 |
| Expenditure from National Welfare Fund \$'000 | 314 | 229 | 277 | 88 | 95 | 44 | 2 | 1,050 |

(a) Includes Northern Territory. (b) Includes Queanbeyan, N.S.W. (c) Includes applications received on or before 30 June 1977 and approved after that date.

HOMES SAVINGS GRANT ACT 1964: OPERATIONS, 1972-73 TO 1977-78 AND TO 30 JUNE 1978

| Year | Applications received | Applications approved | Grants approved | Average grant approved | Expenditure from National Welfare Fund |
|--------------------------------|-----------------------|-----------------------|-----------------|------------------------|--|
| | | | \$'000 | \$ | \$'000 |
| 1972-73 | 47,260 | 40,847 | 21,343 | 523 | 21,287 |
| 1973-74 | 41,609 | 40,278 | 24,814 | 616 | 24,658 |
| 1974-75 | 20,624 | 20,314 | 12,845 | 632 | 13,163 |
| 1975-76 | 11,373 | 10,398 | 6,487 | 624 | 6,575 |
| 1976-77 | 7,412 | 5,251 | 3,263 | 621 | 3,299 |
| 1977-78 | 2,577 | 1,763 | 1,076 | 610 | 1,050 |
| Total from 20 July 1964 | 408,880 | 367,773 | 177,920 | 484 | 177,860 |

HOMES SAVINGS GRANT ACT 1976: OPERATIONS, 1977-78

| | | N.S.W. | Vic. | Qld | S.A.(a) | W.A. | Tas. | A.C.T.(b) | Aust. |
|---|--------|--------|--------|-------|---------|-------|-------|-----------|--------|
| Applications received | No. | 19,825 | 16,932 | 7,657 | 5,918 | 4,816 | 1,736 | 1,549 | 58,433 |
| Applications approved | " | 15,899 | 14,780 | 6,810 | 5,128 | 4,053 | 1,644 | 1,476 | 49,790 |
| Grants approved | \$'000 | 11,082 | 11,219 | 4,980 | 3,628 | 2,807 | 1,270 | 1,144 | 36,131 |
| Average grant approved | \$ | 697 | 759 | 731 | 708 | 693 | 773 | 775 | 726 |
| Expenditure from Consolidated Revenue | \$'000 | 10,416 | 10,493 | 4,706 | 3,477 | 2,679 | 1,166 | 1,058 | 33,995 |

(a) Includes Northern Territory.

(b) Includes Queanbeyan, N.S.W.

HOMES SAVINGS GRANT ACT 1976: OPERATIONS, 1 JANUARY 1977 TO 30 JUNE 1978

| Period | Applications received | Applications approved | Grants approved | Average grant approved | Expenditure from consolidated revenue |
|---------------------------------------|-----------------------|-----------------------|-----------------|------------------------|---------------------------------------|
| | | | \$'000 | \$ | \$'000 |
| 1 January 1977-30 June 1977 | 11,850 | 8,447 | 5,491 | 650 | 5,035 |
| 1 July 1977-30 June 1978 | 58,433 | 49,790 | 36,131 | 726 | 33,995 |
| Total from 1 January 1977 | 70,283 | 58,237 | 41,622 | 715 | 39,030 |

Housing loan interest deduction scheme

The housing loan interest deduction scheme provides for the allowance of an income tax deduction for eligible housing loan interest payments. To qualify, interest paid after 30 June 1976 must relate to the first home of the taxpayer (or of his or her spouse) and be paid during the first five years of occupancy of that first home.

The amount of the housing loan interest deduction that may be an allowable deduction is governed by a 'net income' test under which all eligible interest paid in the relevant income year is deductible if the taxpayer concerned has a net income for that year of \$4,000 or less. For a taxpayer with a higher net income, the percentage of interest deductible is 100 per cent reduced by 1 per cent for each \$100 by which his or her net income for the year exceeds \$4,000. The deduction is therefore not available to a person whose net income is \$14,000 or more.

'Net income' for purposes of the scheme means gross income (including exempt income but not family allowances or domiciliary nursing care benefits) less expenses of a revenue nature incurred in the course of earning the income. In measuring the deduction allowable, the net income of the taxpayer is combined with the net income of his or her spouse.

The deduction will be terminated with effect from 1 November 1978. No reduction on account of housing loan interest paid by an employee may therefore be made in the level of tax instalments deductible under the pay-as-you-earn (PAYE) system from salary or wages paid after 31 October 1978.

Housing loans insurance scheme

The Housing Loans Insurance Corporation was established under the *Housing Loans Insurance Act 1965* to insure approved lenders against losses arising from the making of housing loans. For further information regarding the Corporation and earlier operation of the Scheme see Year Book No. 61, pages 235-6.

Following amendments to the Act in mid-1977, loans for owner-occupancy homes are insurable without limit on loan amount, interest rate or term. 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 up to, but less than, 96 per cent of valuation, with the premium rate falling progressively to a minimum of 0.1 per cent on loans of less than 76 per cent of valuation. On loans from 96 to 100 per cent of valuation, the premium charged is 1.4 per cent of the valuation of the loan plus 10 per cent of the amount so calculated. The amendments to the Act also empowered the Corporation to insure loans for rental housing projects and loans to developers and builders.

From November 1965, when the Corporation commenced operations, until the end of June 1978, 324,000 loans to the value of \$5,254 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 420-424, for their financial advances to persons wishing to purchase or build a home). For summarised figures of total government construction of houses and other dwellings, see pages 424 and 426. 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 Commonwealth Government have provided most of the Housing Commission's capital funds and by 30 June 1978 had aggregated \$1,054,204,000 of which \$108,422,000 had been repaid. Other net funds of the Commission at 30 June 1978 comprised: repayable advances from the State, \$114,102,000; public loans raised by the Commission, \$18,693,000; grants from the Commonwealth Government, \$35,901,000; grants from the State, \$26,623,000 (including \$9,515,000 from consolidated revenue and \$17,108,000 from taxes on poker machines); provision for maintenance of properties, \$7,157,000; and accumulated surplus, \$110,979,000. In addition, the Commission owed \$21,913,000 to creditors, mainly for purchase of land and work-in-progress. These funds were represented by fixed assets, \$1,259,264,000 (including \$217,342 debtors for purchase of homes); and current assets, \$23,291,000. In 1977-78, the Commission's income was \$119,899,000 (including rent \$99,566,000 and interest \$16,849,000); expenditure was \$111,087,000 (interest, \$43,872,000).

Most of the permanent dwellings provided by the Commission have been erected under the Federal-State Housing Agreements. In 1977-78, 2,682 houses and flats 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 1978, were approximately \$10.20 a week for elderly single persons and \$16.40 a week for elderly couples. As at 30 June 1978, 9,683 units had been completed.

Victoria—Ministry of Housing. The Ministry of Housing co-ordinates all Government housing activities in Victoria. The authorities within the Ministry are the Housing Commission, Registry of Co-operative Housing Societies and Co-operative Societies, Home Finance Trust (see page 421), Decentralised Industry Housing Authority and Teacher Housing Authority.

Housing Commission, Victoria. The Housing Commission, Victoria, was set up in 1938 as a result of the Housing Act of the previous year. The main 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 persons of limited means; 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; the giving of advice to the public with respect to finance for the purchase or construction of homes; the preparation and implementation of urban renewal proposals; and since December 1974, the performance of the functions of the former Ministry of Aboriginal Affairs relating to Aboriginal housing. Since the signing of the 1945 Housing Agreement the construction of dwellings has been financed by the Commonwealth Government and Commission Funds.

At 30 June 1977, the Housing Commission had completed 84,323 dwelling units under the State Housing Scheme and 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 1977, 6,954 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 a Treasury Trust Fund—the Queensland Housing Commission Fund. Total disbursements by the Commission for the year 1977–78 amounted to \$124,893,669.

During 1977–78 the Commission provided 2,971 dwelling units, bringing the total number under all schemes since the revival of housing construction in 1944–45 to 56,034. Of this number 33,856 houses, or 60 per cent, were for home ownership, and 22,178, or 40 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 (Dwellings for Pensioners)* and *States Grants (Housing)* legislation. Operating under the provisions of the *State Housing Act* 1945–1978, the Commission, through its scheme of worker's dwellings, makes advances for the construction of dwellings to eligible persons who own a suitable building site. The number of workers' dwellings completed during 1977–78 amounted to 1,368, making a total of 33,689 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 667 of the Commission's houses during 1977–78.

South Australia—The South Australian Housing Trust. The South Australian Housing Trust operates under the *South Australian Housing Trust Act*, 1936–1973 and the *Housing Improvement Act*, 1940–1973 for the purpose of providing houses for families of limited means. Houses are built for both rental and sale, and to 30 June 1978, 83,668 had been completed throughout the State, of which 44,454 had been built and sold under various schemes.

In 1953 the Trust began building cottage or pensioner flats for elderly people. At 30 June 1978 it had built 2,047 cottage flats from its own resources and an additional 867 for charitable and non profit organisations.

During 1962 the Trust commenced construction of rental-purchase houses. The aim of this scheme is to provide a less expensive purchase house for the lower income groups. As expected, houses purchased under the scheme have, to some extent, replaced 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. It also builds houses for the Commonwealth Government. In order to assist primary producers, the Trust erects houses on the client's own land for his own use or that of his employees either using local materials or transporting pre-fabricated houses to the site.

There has been a considerable increase in the number of houses provided for disadvantaged and handicapped persons. Many of the houses were extensively altered to assist the handicapped to live a full and independent life.

The Trust is also responsible for administering all houses financed through the State Aboriginal Advancement Scheme in accordance with policies formulated by the Aboriginal Housing Board of South Australia. The Board comprises six Aboriginal members, and a representative each from the Department of Community Welfare, the Department of Aboriginal Affairs, Aboriginal Hostels Limited and the Trust. The Trust provides all the normal housing management services for the houses. At the end of June 1978, a total of 707 had been built or purchased in South Australia. Since 1973, the Trust has purchased, under the Special Rental Scheme, 1,098 old houses and cottages, mainly in the City and inner suburbs. After upgrading, these have been let to needy cases requiring accommodation close to essential welfare and social support. The scheme has greatly assisted the disadvantaged and contributed to Urban Renewal.

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, the *States Grants (Housing) Act* 1978 and the 1978 Housing Agreement, its activities include: construction of houses for other Government Departments (both Commonwealth and State Government, and semi-and local government authorities) in Western Australia; and construction and maintenance of houses for the Government Employees' Housing Authority.

At 30 June 1978, the Commission had completed under all schemes since 30 June 1944 a total of 65,853 units of accommodation throughout the State (including 12,046 units completed under the *Defence Services Homes Act 1918*).

During the twelve months ended 30 June 1978, 1,607 units of accommodation were completed: metropolitan area, 838; country, 561; and north of the 26th parallel, 203. A further 376 units were under construction.

Building Societies are a major source of housing finance in Western Australia. At June 30 1978, it was estimated that the assets of all societies were about \$1,309 million. Currently, 10 permanent and 556 terminating societies are operating. Under the Housing Agreement with the Commonwealth the State is required by July 1 1980 to allocate not less than 40 per cent of the funds the State receives under the Agreement to the Home Purchase Assistance Account. Advances are made for the account to terminating building societies which in turn make loans available to eligible applicants being those persons unable to obtain mortgage finance assistance in the open market or from other sources.

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 10.25 per cent reducible. Loans may be made for up to 95 per cent of the value of the house and land or a specified sum, whichever is the lesser amount. The maximum loan permitted in respect of the metropolitan region south of the 26th parallel is \$28,000. For a new house situated north of the 26th parallel and in the North West or Eastern Land Divisions, the maximum loan is \$45,500 and in the Kimberley Land Division \$46,500.

Tasmania—Department of Housing and Construction (Housing Division). The Department of Housing and Construction, established in September 1977, is comprised of the Housing and Construction Divisions. The Housing Division is continuing the functions of the former Housing Department which was established in 1953 for the purpose of administering that portion of the *Homes Act 1935* relating 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 1977-78 dwelling completions numbered 904. Construction since 1974 totalled 17,712. At 30 June 1978, they comprised 16,054 detached and semi-detached units (9,884 of timber), 885 elderly persons' flatettes, 316 multi-unit flats, 430 villa units and 27 moveable units.

The Division now allots all welfare housing accommodation on a rental basis. Weekly rental of a new typical standard home was about \$37.00 at 30 June 1977 and \$46.00 at 30 June 1978. In certain necessitous cases, rental rebates are allowed. Under current policy a married couple occupying an elderly persons' unit and whose only income is the age pension pay \$10.00 a week, while a single person solely dependent on the pension pays \$7.00 a week.

Housing schemes in Australia 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 the Commonwealth Public Service.

Australian Capital Territory. The Commonwealth Government provides houses and flats for rental to persons on low incomes who live or are employed in the Australian Capital Territory. At 30 June 1978 the Department of the Capital Territory controlled 7,920 houses and 3,175 flats for rental purposes. Government rental houses may be purchased by 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 1972-73 to 1977-78, and the second shows the number of tenants paying rent for dwellings under control of government housing authorities at the end of each year 1972-73 to 1977-78.

GOVERNMENT HOUSING AUTHORITIES: REVENUE FROM RENTALS
(S'000)

| <i>Year</i> | <i>N.S.W.</i> | <i>Vic.(a)</i> | <i>Qld(b)</i> | <i>S.A.(c)</i> | <i>W.A.</i> | <i>Tas.</i> | <i>N.T.</i> | <i>A.C.T.</i> | <i>Aust.</i> |
|-----------------|---------------|----------------|---------------|----------------|-------------|-------------|-------------|---------------|--------------|
| 1972-73 | 36,726 | 22,778 | 11,407 | 17,150 | 12,209 | 2,578 | 4,335 | 5,598 | 112,781 |
| 1973-74 | 42,378 | 26,820 | 12,104 | 18,730 | 12,791 | 3,404 | 2,313 | 5,555 | 124,095 |
| 1974-75 | 49,401 | 31,596 | 13,959 | 22,271 | 15,810 | 4,281 | 1,739 | 7,479 | 146,536 |
| 1975-76 | 63,870 | 42,031 | 19,326 | 28,930 | 17,040 | 5,569 | 2,486 | 10,839 | 190,091 |
| 1976-77 | 84,242 | 49,714 | 26,766 | 35,913 | 19,586 | 7,368 | 3,281 | 15,626 | 242,496 |
| 1977-78 | 99,566 | n.y.a. | 32,069 | 42,331 | 24,337 | 9,855 | n.y.a. | 20,538 | 228,696 |

(a) Figures relate to Housing Commission only. (b) Excludes rentals in respect of tenanted temporary dwellings. (c) Excludes rentals in respect of temporary and emergency dwellings to 30 June 1977, by which date all had been removed.

GOVERNMENT HOUSING AUTHORITIES: NUMBER OF TENANTS PAYING RENT

| <i>Year</i> | <i>N.S.W.</i> | <i>Vic.(a)</i> | <i>Qld(b)</i> | <i>S.A.(c)</i> | <i>W.A.</i> | <i>Tas.(d)</i> | <i>N.T.</i> | <i>A.C.T.(d)</i> | <i>Aust.</i> |
|-----------------|---------------|----------------|---------------|----------------|-------------|----------------|-------------|------------------|--------------|
| 1972-73 | 69,178 | 40,335 | 18,463 | 35,155 | 24,055 | 4,560 | 4,826 | 9,651 | 206,223 |
| 1973-74 | 70,510 | 39,996 | 18,183 | 35,592 | 24,304 | 4,841 | 2,517 | 9,506 | 205,449 |
| 1974-75 | 73,021 | 40,726 | 18,947 | 36,752 | 25,767 | 5,350 | 2,012 | 10,481 | 213,056 |
| 1975-76 | 78,325 | 40,057 | 20,508 | 37,847 | 24,791 | 6,150 | 3,109 | 11,152 | 221,939 |
| 1976-77 | 80,510 | 40,053 | 20,772 | 39,013 | 24,818 | 6,695 | 3,428 | 10,967 | 226,256 |
| 1977-78 | 82,893 | n.y.a. | 21,863 | 40,129 | 24,323 | 7,489 | n.y.a. | 10,575 | 187,272 |

(a) Figures relate to Housing Commission only. (b) Excludes tenanted temporary dwellings. (c) Excludes temporary and emergency dwellings (all removed by 30 June 1977). (d) 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 Commonwealth 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. Since 30 November 1976, the sale of these homes on a terms basis has not been permitted, although the Agency still acts as agent for the Commission in collecting instalments payable by purchasers of homes sold prior to that date. 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 1978 the advances outstanding amounted to \$143,115 in respect of 40 houses.

Between 1 July 1956 and 30 November 1976, the Sale of Homes Agency 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 provided 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, 1966 and 1973 Agreements and the *States Grants (Housing) Act* of 1971 are given in the following table.

RURAL BANK OF NEW SOUTH WALES—SALE OF HOMES AGENCY ADVANCES FOR HOMES SOLD UNDER THE 1956, 1961, 1966 AND 1973 FEDERAL-STATE HOUSING AGREEMENTS AND THE STATES GRANTS (HOUSING) ACT OF 1971

| 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 |
| 1972-73 | 974 | 13,970 | 28,819 | 239,156 | 22,942 | 180,438 |
| 1973-74 | 76 | 1,158 | 28,895 | 240,313 | 21,550 | 167,995 |
| 1974-75 | 79 | 1,514 | 28,974 | 241,827 | 20,779 | 160,422 |
| 1975-76 | 180 | 4,402 | 29,154 | 246,229 | 19,939 | 154,635 |
| 1976-77 | 22 | 573 | 29,176 | 246,802 | 18,905 | 144,899 |
| 1977-78 | — | — | 29,176 | 246,802 | 17,818 | 134,529 |

(a) Comprises principal outstanding and loan charges due but not paid.

Prior to 30 November 1976 the Sale of Homes Agency also acted as agent for the Housing Commission in arranging the sale of houses erected by the Commission on applicants' land. Under this scheme persons who had established a housing need could apply to the Commission to have a standard-type dwelling erected on their own land. The houses were sold, at a price equivalent to their capital cost, on the same terms as for houses erected under the 1956 to 1973 Housing Agreements and the *States Grants (Housing) Act of 1971*. Up to 30 June 1978, 768 houses had been built at a cost of \$8,197,000, the balance of indebtedness at that date was \$4,399,000.

Rural Bank of New South Wales—Other loans. The Rural Bank of New South Wales provides assistance to individuals for the erection or 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 new long-term loans for housing purposes is 9.75 per cent per annum.

Victoria

Housing Commission of Victoria. Commission policy is to encourage home ownership; of the 84,323 dwelling units built up to 30 June 1977 under the State Housing Scheme, the Federal-State Agreements and Housing Grant, a total of 44,270 houses have been sold (25,984 in the metropolitan area and 18,286 in the country).

Home Finance Trust. The Home Finance Trust is a corporate body constituted under the *Home Finance Act 1962*. It is authorised to receive money on deposit, the repayment of which is guaranteed by the Government of Victoria, for the purpose of making loans for housing on the security of first and second mortgages. Under the terms of the Act the Trust is precluded from making loans in certain circumstances.

The number of loans granted by the Trust to 30 June 1977 and subsisting totalled 2,941 on the security of first mortgages and 642 on second mortgages, the amounts involved being \$26.4 million and \$2.2 million respectively.

(See Savings Banks, page 243 of Year Book No. 61, for activities of the State Savings Bank of Victoria.)

Queensland

Queensland Housing Commission. The major housing scheme financed solely by the State Government is the Workers Dwelling Scheme. Under the *State Housing Act 1945-78*, an eligible person who is the owner of a suitable building site may obtain an advance, secured by mortgage on the land, from the Housing Commission for the erection of a worker's dwelling. The Housing Commission also provides finance for the purchase of homes constructed by the Commission to the applicant's design on Commission land under contract of sale. At 30 June 1978, the maximum advance under both schemes was \$18,000 with interest chargeable at 7½ per cent, and repayments over periods up to 45 years.

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 co-terminous, but not exceeding 30 years. The interest rate was 10.25 per cent at 30 June 1978, and the interest is adjusted quarterly.

At 30 June 1978 there were 6,125 mortgages outstanding. A minimum deposit of \$500 was required under the rental-purchase scheme from 1 January 1977 and at 30 June 1978 there were 5,441 advances outstanding under the 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 and the Housing Trust are the principal agents of the State Government for the distribution of moneys received under housing assistance arrangements with the Commonwealth Government. During 1977-78, 2,751 individual loans were made for a total outlay of \$50,422,585 in the Home Builders' Account. The balance of loans outstanding on this account at 30 June 1978 totalled \$275,651,875. The Bank administers the *Advances for Homes Act*, 1928-1972 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 1978 was \$9,736,180. The present maximum housing loan is \$21,000, repayable over a period not exceeding forty years at a rate of interest of 6.75 per cent per annum calculated on monthly balances. Interest rates are subject to variation with a likely increase of 0.5 per cent per annum for each year the loan has been advanced to a ceiling interest rate not exceeding the Commonwealth Bond rate.

Western Australia

State Housing Commission of Western Australia. Under current policy commenced by the Commission in October 1976, all sales are on a cash basis through approved Terminating Building Societies with finance to be funded from the Home Purchase Assistance Account where the family is eligible, or from an outside source where the family is ineligible for Home Purchase Assistance Account finance.

Assistance through Terminating Building Societies is available to acceptable applicants under first mortgage conditions if they are able to meet the eligibility requirements. Funds are not available for second mortgages.

The Commission can refer only those applicants who are able to satisfy eligibility requirements to the various Terminating Building Societies. Acceptance of their application for a loan lies with the Society concerned. They are not bound to assist Commission applicants. The interest rate on advances varies from 6 per cent to 9 per cent depending on family income and the maximum repayment period is thirty years.

The Societies are required to accept no less than 3 per cent of the value of the house and land as deposit, but a deposit of 5 per cent or greater is sought by the societies. If the amount of finance required is in excess of the combined maximum advance and deposit provided, a second mortgage or personal loan will be required to bridge the gap.

The income is based on seasonally adjusted average weekly earnings; currently (November 1978) an applicant in the metropolitan area cannot have an income exceeding \$202.35 per week, plus \$5.00 per week for each dependent child in excess of two. The maximum value of house and land is \$30,000 with a maximum advance of 90 per cent of the maximum valuation being obtainable.

The remainder of the State is divided into areas in which the income eligibility varies from \$202.35 per week to \$276.90 per week plus \$5.00 per week for each dependent child in excess of two. The maximum advance in these areas is 90 per cent on the maximum value of house and land which varies from \$30,000 to \$52,000.

(See Savings Banks, page 243 of Year Book No. 61 for activities of the Savings Bank Division of the Rural and Industries Bank of Western Australia).

Tasmania

Department of Housing and Construction, Housing Division. The interest rate on purchase contract loans at 1 July 1978 was 5.75 per cent. The number of loans outstanding at 30 June 1978 was 7,038 and the amount outstanding, \$59,685,000.

Agricultural Bank of Tasmania. The Agricultural Bank of Tasmania is responsible for the administration of funds made under the Home Purchase Assistance section of the *Housing Assistance Act* 1978. A new Housing Agreement operating from 1 July 1978 consolidates all past agreements. The State has also provided State Loan Funds for lending under the *Homes Act* specifically available for first home builders. Interest rates vary from 6 per cent to 9.5 per cent depending on need. Repayments are normally 30 years.

Principles to apply under the new agreement include:

- To facilitate home ownership for those able to afford it but not able to gain it through the private market.
- Provide assistance for home ownership in the most efficient way and thus exclude from eligibility those not in need, to minimise continued availability of assistance to those no longer in need and to

accord benefits which are designed so that assistance being provided is related to the particular family's or individual's current economic and social circumstances.

- The States will be able to exercise maximum autonomy and flexibility in the administrative arrangements necessary to achieve these principles.

The following table shows details for recent years.

AGRICULTURAL BANK, ADVANCES FOR HOUSING (a)

| Particulars | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|---|---------|---------|---------|---------|---------|---------|
| Advances approved: | | | | | | |
| Number | 317 | 490 | 453 | 431 | 393 | 366 |
| Value (\$'000) | 3,018 | 5,480 | 6,148 | 6,100 | 8,355 | 8,354 |
| Advances Outstanding (b) (\$'000) | 23,219 | 25,608 | 30,290 | 33,481 | 38,832 | 43,726 |

(a) Excludes advances to Co-Operative Housing Societies.

(b) At end of period.

Northern Territory

Loans Scheme. This scheme was commenced in 1953 and is administered by the Home Finance Trustee under the *Housing Loans Ordinance* 1949-1975. 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 \$15,000. The rate of interest charged is 10 per cent per annum reducible to 9 per cent per annum if instalment payments are made on or before the due date. The maximum period of repayment is thirty-two years for brick houses and twenty-five years for other houses.

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 either 5.75 per cent or 9 per cent subject to a means test.

Housing Commission Sales Scheme. Since the July 1977 amendment of the *Housing Ordinance* 1959-1977, the Housing Commission has been permitted to sell its houses to tenants in occupation. To qualify for purchase, tenants are required to have completed a period of five years' continuous satisfactory tenancy (as assessed by the Commission) after which period they may purchase either the dwelling in which they are living or select from a range of new Commission houses. The terms require a cash deposit of \$500 and repayment of the remainder of the loan over a period not exceeding 45 years. There is no prescribed limit to the amount of the loan and the two-tiered interest structure is fixed by the Commission from time to time and is applied according to applicant incomes.

Australian Capital Territory

Loans to a maximum of \$23,000 over a maximum term of thirty-two years may be granted by the Commissioner for Housing for the purchase or erection of dwellings in the Australian Capital Territory to a person who does not already own a dwelling in the Australian Capital Territory or Queanbeyan; is not employed outside the Australian Capital Territory; and has not, or whose spouse has not, already had financial assistance from Government funds for housing in the Australian Capital Territory.

A means test is applied for loans. Applicants whose joint income does not exceed 120 per cent of the Australian male seasonally-adjusted average weekly earnings may qualify for a loan. An additional income allowance of \$2.00 per week is made for each dependent child in excess of two.

The rate of interest is 10½ per cent, with a reduction of 1 per cent if payment is made by the due date. A concessional rate of 6¾ per cent (less 1 per cent if payment is made by the due date), applies if the combined gross income of the breadwinner and spouse does not exceed 120 per cent of the Australian seasonally adjusted male average weekly earnings. At 30 June 1978, 13,788 houses were under mortgage to the Commissioner.

Governmental rental houses valued at current market values may be sold to tenants. 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 thirty-two years. There are two rates of interest applicable: the normal rate is 10½ per cent (less one per cent for payment by the due date) on the first \$15,000 and 12½ per cent (less one per cent as above) on the remainder of the mortgage; while a concessional rate of 6¾ per cent (less one per cent for payment by the due date) applies in situations where the combined incomes of breadwinner and spouse do not

exceed 95 per cent of Australian Capital Territory average weekly earnings. In both instances, an allowance of \$2 for each dependent child after the second child is deducted from total gross income. To 30 June 1978, 14,794 houses had been sold to tenants.

Savings banks, trading banks, life insurance companies and registered building societies

For information on loans approved to individuals for owner occupied housing *see* Chapter 21, Private Finance.

CONSTRUCTION

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 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.

The building statistical collections cover all new dwellings, new other building jobs valued at \$10,000 and over, and alterations and additions (to both dwellings and other building) valued at \$10,000 and over. From 1966-67 to 1972-73, alterations and additions of \$10,000 and over were included with new dwellings and new other building. From 1973-74, alterations and additions (of \$10,000 and over) to new dwellings are shown separately, but for other building, new work and alterations and additions continue to be shown combined.

Number of new houses

The following table provides a summary of the number of new houses approved, commenced, completed and under construction by type of ownership in each State and Territory for the year 1977-78. For a graph showing these details over a ten-year period, *see* Plate 34, page 425.

NUMBER OF NEW HOUSES 1977-78
('000)

| | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | A.C.T. | Aust. |
|----------------------------|--------|------|------|------|------|------|------|--------|-------|
| Private— | | | | | | | | | |
| Approved | 28.2 | 22.1 | 18.8 | 6.6 | 10.9 | 2.2 | 0.4 | 1.6 | 90.8 |
| Commenced | 24.7 | 22.8 | 17.6 | 6.3 | 10.2 | 2.1 | 0.5 | 1.6 | 85.8 |
| Completed | 24.6 | 24.2 | 17.4 | 7.4 | 11.4 | 2.2 | 0.5 | 2.0 | 89.7 |
| Under construction (a) . . | 10.2 | 13.9 | 4.5 | 2.3 | 3.5 | 1.4 | 0.4 | 0.6 | 36.6 |
| Government— | | | | | | | | | |
| Approved | 1.5 | 1.9 | 1.1 | 0.9 | 1.0 | 0.6 | 0.7 | 0.1 | 7.8 |
| Commenced | 1.3 | 1.5 | 1.5 | 1.3 | 1.1 | 0.5 | 0.6 | 0.2 | 8.2 |
| Completed | 1.6 | 2.3 | 1.8 | 1.6 | 1.3 | 0.6 | 0.8 | 0.6 | 10.5 |
| Under construction (a) . . | 0.9 | 1.1 | 0.5 | 1.0 | 0.2 | 0.2 | 0.4 | 0.1 | 4.5 |
| Total— | | | | | | | | | |
| Approved | 29.7 | 24.0 | 19.9 | 7.5 | 11.8 | 2.8 | 1.1 | 1.7 | 98.5 |
| Commenced | 26.0 | 24.3 | 19.0 | 7.7 | 11.3 | 2.7 | 1.1 | 1.9 | 94.0 |
| Completed | 26.2 | 26.5 | 19.2 | 9.0 | 12.7 | 2.8 | 1.3 | 2.5 | 100.1 |
| Under construction (a) . . | 11.1 | 14.9 | 5.0 | 3.4 | 3.7 | 1.6 | 0.8 | 0.7 | 41.1 |

(a) At end of period.

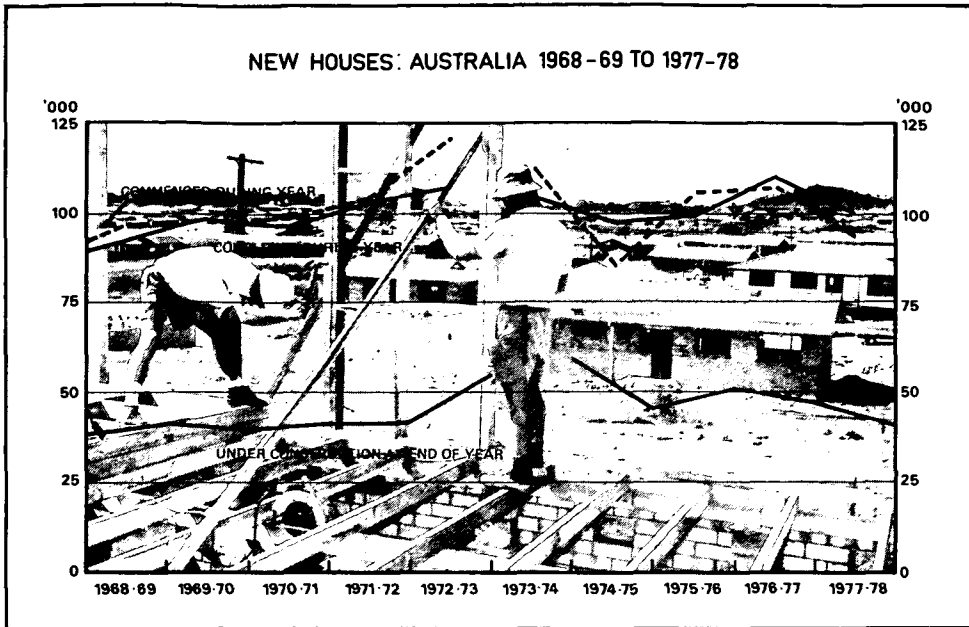


PLATE 34

Number of 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 table shows the number of new houses completed in each State and Territory during the year 1977-78, classified according to the material of their outer walls.

NUMBER OF NEW HOUSES COMPLETED BY MATERIAL OF OUTER WALLS 1977-78
(^{'000})

| Material of outer wall | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | A.C.T. | Aust. |
|------------------------|-------------|-------------|-------------|------------|-------------|------------|------------|------------|--------------|
| Double brick(a) | 1.8 | 2.0 | 2.4 | 2.8 | 9.5 | 0.1 | 0.7 | 0.1 | 19.5 |
| Brick veneer(a) | 20.1 | 21.0 | 10.0 | 4.6 | 1.8 | 2.3 | 0.1 | 2.4 | 62.4 |
| Timber | 0.7 | 1.4 | 1.9 | 0.2 | 0.2 | 0.2 | 0.1 | - | 4.6 |
| Asbestos cement | 3.3 | 1.9 | 4.7 | 1.3 | 1.0 | 0.2 | 0.1 | - | 12.5 |
| Other | 0.3 | 0.1 | 0.2 | 0.1 | 0.2 | - | 0.2 | - | 1.1 |
| Total | 26.2 | 26.5 | 19.2 | 9.0 | 12.7 | 2.8 | 1.3 | 2.5 | 100.1 |

(a) Includes houses constructed of concrete masonry blocks, concrete and stone.

Number of new other dwellings

The level of other dwelling construction is highly variable and does not follow the traditionally regular pattern experienced in house construction. This can be explained partly by the generally larger size of other dwelling construction jobs and also by the extent of speculative building of private flats, home units and similar other dwelling projects. Although construction of government-owned other dwellings is substantial, the proportion of government-owned other dwellings to total other dwellings constructed is smaller than that of government-owned houses to total houses.

The following table shows the number of new other dwellings approved, commenced, completed and under construction by type of ownership in each State and Territory for the year 1977-78. For a graph showing these details over a ten year period, see Plate 35, page 426.

HOUSING AND CONSTRUCTION
NUMBER OF NEW OTHER DWELLINGS, 1977-78
(^{'000})

| | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | A.C.T. | Aust. |
|---------------------------------|--------|------|-----|------|------|------|------|--------|-------|
| Private— | | | | | | | | | |
| Approved | 5.4 | 3.9 | 4.9 | 1.4 | 3.5 | 0.5 | 0.1 | 0.4 | 20.1 |
| Commenced | 5.3 | 4.5 | 4.6 | 1.2 | 3.1 | 0.6 | 0.1 | 0.4 | 19.7 |
| Completed | 6.2 | 6.4 | 4.5 | 2.0 | 4.0 | 0.8 | 0.1 | 0.5 | 24.7 |
| Under construction(a) | 3.9 | 3.4 | 2.0 | 0.8 | 1.6 | 0.5 | 0.1 | 0.2 | 12.7 |
| Government— | | | | | | | | | |
| Approved | 2.6 | 0.7 | 0.2 | 0.7 | 0.6 | 0.4 | 0.1 | — | 5.2 |
| Commenced | 2.6 | 0.5 | 0.2 | 0.6 | 0.5 | 0.4 | — | 0.1 | 5.0 |
| Completed | 1.4 | 0.6 | 0.2 | 0.7 | 0.6 | 0.3 | 0.1 | 0.2 | 4.1 |
| Under construction(a) | 3.2 | 0.3 | 0.1 | 0.6 | 0.1 | 0.2 | — | 0.2 | 4.8 |
| Total— | | | | | | | | | |
| Approved | 8.0 | 4.5 | 5.1 | 2.0 | 4.1 | 0.9 | 0.2 | 0.4 | 25.3 |
| Commenced | 7.9 | 5.1 | 4.8 | 1.8 | 3.6 | 0.9 | 0.1 | 0.6 | 24.7 |
| Completed | 7.7 | 7.0 | 4.8 | 2.7 | 4.7 | 1.1 | 0.3 | 0.7 | 28.8 |
| Under construction(a) | 7.1 | 3.8 | 2.1 | 1.4 | 1.7 | 0.7 | 0.2 | 0.4 | 17.4 |

(a) At end of period.

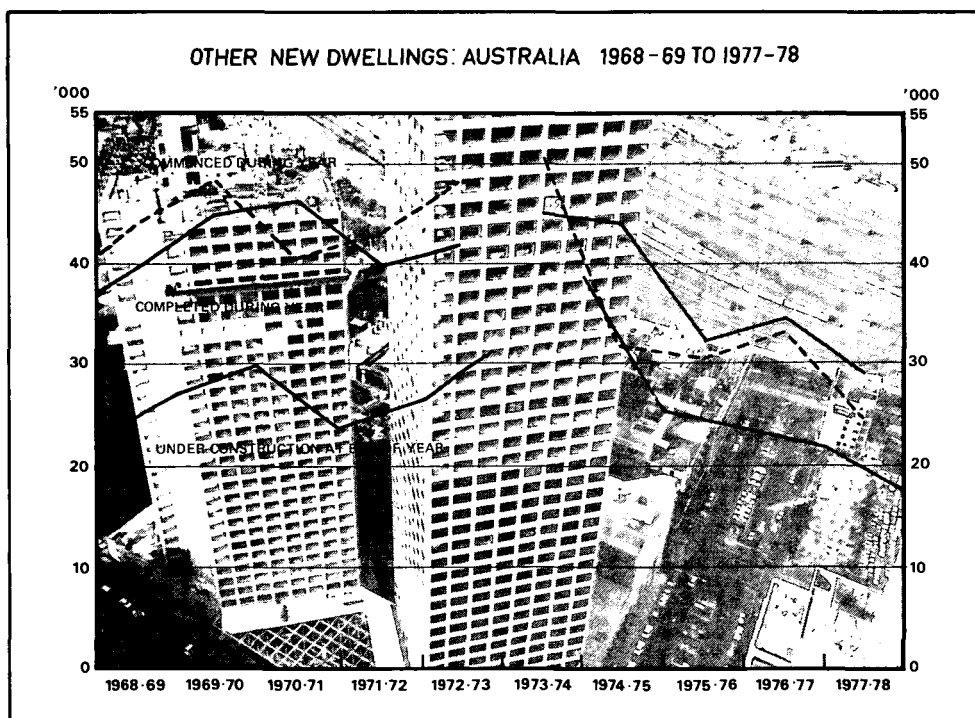


PLATE 35

Number, average value, average value per square metre and average size of private contract built houses

The following table shows the number, average value, average value per square metre and average size in square metres of private contract built new houses commenced in each Capital City Statistical Division, the Greater Darwin Area and the A.C.T. part of the Canberra Statistical District which comprises the urban areas of the A.C.T. The average 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.

NUMBER, AVERAGE VALUE, AVERAGE VALUE PER SQUARE METRE AND AVERAGE SIZE OF NEW PRIVATE CONTRACT BUILT HOUSES COMMENCED 1977-78

| | <i>Capital City Statistical Divisions</i> | | | | | | <i>Greater Darwin</i> | <i>Canberra (A.C.T. part)</i> | <i>Total</i> |
|------------------------------|---|-------------------|-----------------|-----------------|--------------|---------------|-----------------------|-------------------------------|--------------|
| | <i>Sydney</i> | <i>Mel-bourne</i> | <i>Brisbane</i> | <i>Adelaide</i> | <i>Perth</i> | <i>Hobart</i> | <i>area</i> | | |
| Number ('000) | 10.5 | 10.8 | 7.0 | 3.2 | 6.7 | 0.4 | 0.1 | 1.6 | 40.2 |
| Average value (\$'000) | 28.8 | 32.1 | 25.4 | 32.8 | 29.4 | 34.3 | 44.6 | 32.6 | 29.7 |
| Average size (sq. m) | 143 | 145 | 132 | 145 | 143 | 146 | 147 | 145 | 142 |
| Average value per sq. m (\$) | 202 | 221 | 192 | 227 | 205 | 236 | 303 | 225 | 209 |

Value of buildings

The following table shows the value of all buildings approved, commenced, completed, under construction, work done and work yet to be done in Australia for the year 1977-78, according to the class of building. The classification of other building by type of building is according to the function a building is intended to serve as specified on building authorisations.

VALUE(a) BY CLASS OF BUILDING, 1977-78
(\$ million)

| <i>Class of building</i> | <i>Approved</i> | <i>Commenced</i> | <i>Completed</i> | <i>Under construction(b)</i> | <i>Work done (c)</i> | <i>Work yet to be done (b)</i> |
|--|-----------------|------------------|------------------|------------------------------|----------------------|--------------------------------|
| New houses | 2,836.1 | 2,808.7 | 2,965.3 | 1,310.0 | 2,925.1 | 661.0 |
| New other dwellings | 514.2 | 556.3 | 630.3 | 420.1 | 609.2 | 215.9 |
| <i>Total new dwellings</i> | <i>3,350.3</i> | <i>3,365.0</i> | <i>3,595.6</i> | <i>1,730.0</i> | <i>3,534.3</i> | <i>876.9</i> |
| <i>Alterations and additions to dwellings(d)</i> | <i>292.1</i> | <i>298.7</i> | <i>285.1</i> | <i>112.6</i> | <i>295.2</i> | <i>54.3</i> |
| Hotels, etc. | 75.2 | 58.5 | 74.1 | 53.9 | 65.5 | 27.3 |
| Shops | 347.6 | 384.6 | 323.2 | 329.3 | 342.1 | 173.8 |
| Factories | 360.7 | 368.8 | 337.8 | 334.4 | 391.2 | 134.2 |
| Offices | 240.4 | 331.2 | 510.6 | 711.6 | 439.1 | 323.4 |
| Other business premises | 246.0 | 242.1 | 260.0 | 215.2 | 248.7 | 103.6 |
| Education | 469.2 | 449.2 | 439.7 | 506.4 | 473.9 | 225.2 |
| Religion | 23.8 | 28.5 | 32.3 | 15.2 | 31.4 | 8.3 |
| Health | 368.9 | 261.8 | 317.8 | 570.2 | 319.4 | 254.0 |
| Entertainment and recreation | 167.2 | 184.5 | 120.3 | 153.6 | 133.2 | 94.2 |
| Miscellaneous | 195.1 | 232.1 | 187.7 | 330.5 | 235.9 | 196.0 |
| <i>Total other building</i> | <i>2,494.1</i> | <i>2,541.4</i> | <i>2,603.6</i> | <i>3,220.2</i> | <i>2,680.4</i> | <i>1,540.1</i> |
| Total building | 6,136.6 | 6,205.0 | 6,484.3 | 5,062.8 | 6,509.9 | 2,471.3 |

(a) Refer to paragraph 2 of Building page 424.

(b) At end of period.

(c) During period.

(d) Valued at \$10,000 and over.

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 as at 30 June 1978, classified according to their main building occupations and the type of building on which they were working.

**NUMBER OF PERSONS WORKING ON BUILDING JOBS, BY OCCUPATIONAL STATUS,
OCCUPATION AND CLASS OF BUILDING WORK AT 30 JUNE 1978
(^{'000})**

(Including contractor and sub-contractor principals actually working on jobs but excluding persons working on owner-built houses)

| | <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> |
|-----------------------------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------|--------------|
| Contractors | 2.8 | 2.8 | 1.7 | 0.7 | 1.0 | 0.3 | 0.1 | 0.3 | 9.7 |
| Sub-contractors | 8.5 | 9.5 | 4.9 | 3.5 | 5.0 | 0.6 | 0.5 | 1.0 | 33.5 |
| Wage earners | 22.3 | 16.8 | 13.4 | 6.5 | 10.3 | 3.3 | 1.5 | 3.4 | 77.5 |
| <i>Total</i> | <i>33.6</i> | <i>29.1</i> | <i>20.0</i> | <i>10.7</i> | <i>16.3</i> | <i>4.1</i> | <i>2.1</i> | <i>4.7</i> | <i>120.7</i> |
| Carpenters | 9.8 | 9.3 | 7.2 | 2.8 | 3.6 | 1.5 | 0.4 | 1.1 | 35.6 |
| Bricklayers | 4.1 | 3.6 | 2.2 | 1.5 | 2.6 | 0.3 | 0.2 | 0.4 | 15.0 |
| Painters | 2.7 | 2.1 | 1.5 | 0.9 | 1.3 | 0.3 | 0.1 | 0.3 | 9.3 |
| Electricians | 2.5 | 2.2 | 1.3 | 0.8 | 1.4 | 0.2 | 0.1 | 0.3 | 8.9 |
| Plumbers | 3.2 | 3.1 | 1.8 | 0.9 | 1.6 | 0.3 | 0.2 | 0.4 | 11.6 |
| Builders' labourers | 4.4 | 3.3 | 2.0 | 1.4 | 1.8 | 0.6 | 0.4 | 0.7 | 14.7 |
| Other | 6.9 | 5.4 | 3.9 | 2.4 | 4.0 | 0.8 | 0.6 | 1.5 | 25.6 |
| <i>Total</i> | <i>33.6</i> | <i>29.1</i> | <i>20.0</i> | <i>10.7</i> | <i>16.3</i> | <i>4.1</i> | <i>2.1</i> | <i>4.7</i> | <i>120.7</i> |
| New dwellings | 13.3 | 12.9 | 10.8 | 4.9 | 9.3 | 1.7 | 0.9 | 1.8 | 55.5 |
| Other buildings(a) | 17.5 | 15.3 | 7.4 | 5.3 | 5.6 | 2.1 | 1.1 | 2.7 | 56.9 |
| Repairs, maintenance(b) | 2.9 | 0.9 | 1.8 | 0.5 | 1.4 | 0.3 | 0.2 | 0.3 | 8.3 |
| <i>Total</i> | <i>33.6</i> | <i>29.1</i> | <i>20.0</i> | <i>10.7</i> | <i>16.3</i> | <i>4.1</i> | <i>2.1</i> | <i>4.7</i> | <i>120.7</i> |

(a) Includes persons working on alterations and additions carried out by builders on new buildings.

(b) Carried out by builders of new buildings.

Construction (other than building)

These statistics relate to work by private contractors on construction (other than building) prime contracts valued at \$100,000 or more, inclusive of all associated sub-contract work performed for the prime contractor. Alterations and additions undertaken as prime contracts valued at \$100,000 or more are included in the statistics. Repairs and maintenance contracts, construction undertaken by government authorities involving their own work forces, and construction on their own account by enterprises in the private sector, are excluded.

The following table shows the value of construction (other than building) activity undertaken as prime contracts commenced, completed, under construction, work done and work yet to be done in Australia for the year of 1977-78.

**VALUE OF CONSTRUCTION (OTHER THAN BUILDING) PRIME CONTRACTS BY OWNERSHIP,
1977-78
(\$ million)**

| | <i>Commenced</i> | <i>Completed</i> | <i>Under construc- tion(a)</i> | <i>Work done(b)</i> | <i>Work yet to be done(a)</i> |
|---|------------------|------------------|--|-------------------------|---------------------------------------|
| PRIVATE | | | | | |
| Roadwork | 70.9 | 90.0 | 48.4 | 76.5 | 20.9 |
| Water supply, storage sewerage and drainage | 27.8 | 29.8 | 9.3 | 32.4 | 3.9 |
| Electricity, oil and gas production and distribution facilities | 42.4 | 85.8 | n.p. | 31.9 | n.p. |
| Marine work | 7.8 | 65.3 | 2.0 | 12.4 | 1.2 |
| Heavy industrial facilities | n.p. | n.p. | 304.0 | 238.3 | 149.6 |
| Other(c) | n.p. | n.p. | n.p. | 72.8 | n.p. |
| <i>Total</i> | <i>595.6</i> | <i>532.7</i> | <i>479.1</i> | <i>464.3</i> | <i>234.7</i> |
| GOVERNMENT | | | | | |
| Roadwork | 131.1 | 183.8 | 156.0 | 160.0 | 59.0 |
| Water supply storage, sewerage and drainage | 208.2 | 333.0 | 461.6 | 258.6 | 146.8 |
| Electricity, oil and gas production and distribution facilities | 232.9 | 131.2 | n.p. | 280.4 | n.p. |
| Marine work | 105.5 | 73.4 | 213.1 | 74.3 | 132.4 |
| Heavy, industrial facilities | n.p. | n.p. | 11.3 | 10.1 | 1.7 |
| Other(c) | 149.5 | 138.3 | n.p. | 186.7 | n.p. |
| <i>Total</i> | <i>835.6</i> | <i>873.6</i> | <i>2,292.1</i> | <i>970.1</i> | <i>941.1</i> |
| TOTAL | | | | | |
| Roadwork | 202.0 | 273.8 | 204.4 | 236.5 | 79.8 |
| Water supply, storage, sewerage and drainage | 236.0 | 362.8 | 470.9 | 291.0 | 150.7 |
| Electricity, oil and gas production and distribution facilities | 275.3 | 217.1 | 1,064.2 | 312.3 | 485.9 |
| Marine work | 113.3 | 138.7 | 215.1 | 86.7 | 133.7 |
| Heavy industrial facilities | n.p. | n.p. | 315.2 | 248.3 | 151.3 |
| Other(c) | n.p. | n.p. | 501.4 | 259.5 | 174.4 |
| <i>Total</i> | <i>1,431.2</i> | <i>1,406.3</i> | <i>2,771.2</i> | <i>1,434.4</i> | <i>1,175.8</i> |

(a) At end of period. (b) During period. (c) Comprises Bridges, Aerodromes, Railways, Telecommunications and Miscellaneous.

More detailed information on building activity is contained in *Building and Construction* (8701.0) (final issue 1971-72) and *Building Statistics* (quarterly) (8705.0). Current information is obtainable also in the *Monthly Review of Business Statistics* (1304.0), the *Digest of Current Economic Statistics* (monthly) (1305.0), the *Building Statistics: Number of Dwellings, Preliminary Estimates* (quarterly) (8703.0), *Building Operations* (quarterly) (8704.0), *Building Approvals* (monthly) (8702.0) and *Construction (other than building) Operations* (quarterly) (8708.0). Details for particular States are available from publications issued regularly by the Deputy Commonwealth Statistician in each State. The *Building Industry Quarterly* published by the Department of Housing and Construction contains further information on current trends in housing activity.

The annual reports of the Commonwealth and State Government Housing Authorities show further details of government activities in the field of housing.

CHAPTER 20

TRANSPORT AND COMMUNICATION

The statistics in this chapter relate in the main to the year 1976-77, with comparisons restricted to a few recent years. The chapter contains information on shipping; railways; tram, bus and ferry services; motor vehicles; road traffic accidents; roads and bridges; air transport; postal services; internal and overseas telecommunication services; radio communication stations; broadcasting and television; and government bodies concerned with these activities.

More detailed figures and particulars for earlier years are included in the publications listed at the end of the chapter.

THE AUSTRALIAN TRANSPORT ADVISORY COUNCIL

In April 1946, the State and Commonwealth 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 (ATAC), thus established, is comprised of the Commonwealth Ministers for Transport, Capital Territory, Northern Territory, and each State Minister with transport responsibilities. The New Zealand Minister of Transport, Civil Aviation and Railways, and the Northern Territory Cabinet Member for Transport and Industry attend as observers.

The council primarily considers policy matters relating to transport operations, co-ordination and developments. 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 Commonwealth 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 Commonwealth and State Governments. ATAC is the meeting ground at a ministerial level and provides an effective means of 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, and highway planning; the exchange of views and the formulation of common policies on a wide range of transport matters; the effecting, at ministerial level, of Commonwealth-State and interstate co-operation on such matters as urban transport arrangements and funding, provision of funds for roads, 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.

The Bureau of Transport Economics

This Bureau, which from June 1977 incorporated the functions of the former Commonwealth Bureau of Roads, undertakes research and analysis to assist the Commonwealth Government in the assessment, formulation and development of policy aimed at the efficient allocation of resources in the transport field. This work covers all transport activities and includes the analysis of funding for road investment as well as matters relating to the reduction of transport costs and the rational planning of future transport facilities. For administrative purposes the Bureau is attached to the Department of Transport, but it is responsible to the Minister for Transport for the conduct of its studies and investigations.

SHIPPING

Control of shipping

Commonwealth Government navigation and shipping legislation

For an outline of the development and scope of Commonwealth Government legislation, see Year Book No. 55, pages 366-7.

Commonwealth Government Acts concerned with shipping are: the *Navigation Act* 1912, the *Sea Carriage of Goods Act* 1924, the *Seamen's Compensation Act* 1911, the *Seamen's War Pensions and Allowances Act* 1940, the *Pollution of the Sea by Oil Act* 1960, the *Pollution (Shipping Levy) Act* 1972, the *Pollution (Shipping Levy Collection) Act* 1972, the *Australian Shipping Commission Act* 1956, the *Stevedoring Industry Act* 1956, the *Beaches, Fishing Grounds and Sea Routes Protection Act* 1932, the *Submarine Cables and Pipelines Protection Act* 1963, the *Lighthouses Act* 1911, the *Explosives Act* 1961, the *Inter-State Commission Act* 1975, the *King Island Harbour Agreement Act* 1973, the *King Island Shipping Service Agreement Act* 1974, the *Ship Construction Bounty Act* 1975, the *Trade Practices Act*, 1974, Part X.

Navigation Act 1912 as Amended

One of the largest Commonwealth Acts, the *Navigation Act*, with forty-four sets of Regulations made under it, provides for various regulatory controls over ships and their crews, passengers and cargoes, mainly in connection with the ensuring of the safety of the ship and the preservation of life at sea. Substantial penalties are provided for serious offences. In particular, it gives effect to the important international conventions produced under the aegis of the Inter-Government Maritime Consultative Organisation (IMCO) dealing with safety of life at sea, ships' load lines and prevention of collisions.

Taken in the order in which they appear in the Act, the main substantive matters dealt with are as follows:

Masters and seamen. Some sections deal with the examination of masters, mates and engineers for certificates of competency. Other sections ensure that appropriate conditions apply to crews serving on ships by providing for the supervision of the engagement, discharge and payment of wages; discipline at sea; the settlement of wages and other disputes; the return to their home port of distressed seamen; taking charge of wages and effects of deceased seamen and of those who have deserted or been left behind; and enquiries into deaths at sea. These matters are administered by Mercantile Marine Offices established at numerous ports. The health of seamen is cared for by the prescription of scales of medicines and medical stores to be carried by ships, and there are provisions to give effect to International Labour Organisation Convention requirements for the accommodation of crews. Plans for new or altered accommodation in ships have to be approved by a Crew Accommodation Committee.

There are requirements for the manning of ships, designed to ensure that sufficient officers and men are carried for safety and operational purposes. Manning disputes are dealt with by a statutory Committee of Advice. The Act provides for a Marine Council to advise the Minister on the suitability of persons for engagement as seamen.

Ships and shipping. There are particularly important provisions dealing with ship safety in such matters as survey of ships, load lines, life-saving and fire appliances, prevention of collisions, and carriage of potentially dangerous cargoes. Whilst in Australia, all ships come under the survey provisions of the *Navigation Act* and require certificates issued by the Department of Transport unless they are registered in a country which is a party to the Convention concerned and hold valid certificates issued by their Governments and conforming to the requirements of the Safety of Life at Sea and Load Lines Conventions. There is power to detain any ship the condition of which does not conform with the conditions set out in its certificate or which appears to be overloaded or otherwise unseaworthy.

Passengers. These provisions deal with matters necessary or convenient for regulating the carriage of passengers in respect of such matters as numbers that may be carried, accommodation and health aspects.

Coasting trade. Under the coastal trade provisions of the *Navigation Act*, the Australian coastal trade is reserved for licensed vessels, i.e. those which comply with Australian standards of manning, accommodation, and award conditions and wages. The Act does not restrict the class of ships which may obtain a licence. It is open to any vessel irrespective of the registry to obtain a licence on compliance with these conditions and to operate in the Australian coastal trade subject to approval being given for the importation of the vessel where necessary. Provision exists

for unlicensed vessels to operate in the coast trade under single voyage permits in certain circumstances where licensed vessels are not available or are inadequate to meet the needs of the trade. Strict control is exercised over the issue of permits for the carriage of coastal cargoes.

Wrecks and salvage. There are provisions in relation to wrecks and salvage, covering preservation of life and of the wreck and its cargo and related matters.

Prevention, etc., of pollution by oil of the Australian coast, coastal waters and reefs. Under these provisions, where oil is escaping, or likely to escape, from a ship, the Minister is empowered to take action to prevent or reduce pollution of the area.

Courts of Marine Inquiry. There are provisions for the holding of Courts of Marine Inquiry to investigate the circumstances attending any casualties to ships that come within Commonwealth legislative authority, usually following a preliminary investigation. Such courts are provided with power to examine all the circumstances and to deal with the certificates of ships' officers found to have been at fault.

The last amending *Navigation Act* was passed in 1972. It was mainly for the purpose of inserting provisions dealing with the tonnage measurements of ships.

Australian Shipping Commission

The Commission was established by the *Australian Coastal Shipping Commission Act 1956*. The Commission's role has been to establish, maintain and operate interstate, overseas and territorial shipping services. The Commission's title was changed in October 1974 to the Australian Shipping Commission to reflect the increasing importance of its overseas trading activities.

As at 30 June 1978 the Commission, operating as the Australian National Line, owned and/or operated a fleet of thirty-five vessels. The fleet includes eleven vessels engaged in overseas trading: five vehicle deck cargo ships totalling 104,712 tonnes deadweight; three cellular container ships totalling 95,951 tonnes deadweight; two ore-bulk carriers totalling 261,946 tonnes deadweight; and one hybrid container vessel of 16,477 tonnes deadweight. The Line had yet to commission two overseas built bulk carriers of 139,507 tonnes deadweight and 122,734 tonnes deadweight respectively.

The coastal fleet of twenty two vessels includes one vehicle deck passenger ship, the *Empress of Australia* of 2,736 tonnes deadweight; seven vehicle deck cargo ships totalling 48,410 tonnes deadweight; one container bulkship of 12,140 tonnes deadweight in the Darwin trade; two bulk carriers in the 100,000 tonnes deadweight class; four bulk carriers in the 50-100,000 tonnes deadweight class; six other bulk carriers each less than 50,000 tonnes deadweight totalling 86,478 tonnes deadweight; and one grain carrier of 2,054 tonnes deadweight.

Two Australian built 27,500 tonnes deadweight bulk carriers and two 16,557 tonnes deadweight bulk carriers built in Japan will be delivered to the Line during the latter half of 1978.

The Line operates specialised terminals at Adelaide, Melbourne, Burnie, Devonport, Bell Bay, Sydney, Port Kembla, Brisbane, Mackay, Townsville, Cairns and Darwin.

The *Empress of Australia* carried 110,140 passengers between Melbourne and Devonport together with 30,701 vehicles during the year ending 30 June 1978.

Australian Shipbuilding Board

Advice to the Minister on the shipbuilding industry, including recommendations on bounty for each particular shipbuilding proposal, is provided by the Australian Shipbuilding Board. This Board has a membership of six including a representative from each of the Department of Defence (Navy Office) and the trade union movement.

To 31 December 1977, 355 vessels valued at approximately \$788 million had been completed by Australian shipyards. Seventy-seven of those vessels (ranging from customs launches to survey and research vessels, landing craft and lighthouse supply vessels) were built for the Commonwealth Government. The remaining 278 were built under a Commonwealth subsidy scheme for other ship owners, including the Australian National Line.

Three major Australian shipyards are building merchant vessels—one in South Australia, and two in New South Wales; two other shipyards are engaged principally in naval shipbuilding—one in New South Wales and one in Victoria. There are numerous smaller yards building fishing vessels and other small craft and many builders of wooden commercial and pleasure boats.

Shipbuilding Assistance

The shipbuilding industry in Australia has been given Government assistance since the introduction of the shipbuilding subsidy scheme in 1947. The level of maximum subsidy has been determined by the Government on the basis of inquiries into the industry by the former Tariff Board, now the Industries Assistance Commission. These inquiries have been held in 1954, 1959, 1963, 1971 and 1976. The Commission, in 1978, has a reference under inquiry covering the construction of vessels under 6,000 tons gross.

Present policy is given effect by the *Ship Construction Bounty Act 1975*. Assistance is by way of a bounty at a fixed percentage dependent upon the size of the vessel and, for maximum bounty, the date upon which construction was commenced in the shipyard. This rate is applied to the lowest acceptable Australian tender received as a result of public calling of tenders with appropriate deductions applied for items ineligible for bounty. Under the policy Australian owners may seek approval to import ships when overseas prices are less than the bounty-paid Australian price.

Vessels eligible for the bounty are fishing vessels of 21 metres length and longer and other vessels of 150 gross construction tons and above. For the smaller vessels, bounty is at 25 per cent, rising at 2.5 per cent per 1,000 tons gross to the maximum which, in 1978, is 31 per cent. This diminishes to a long-term rate of 25 per cent for vessels commenced in 1981. The administration of the policy on shipbuilding assistance is the responsibility of the Minister for Industry and Commerce.

Importation of Ships

The control of imports forms an integral part of the Government's shipbuilding assistance arrangements. Under the Customs (Prohibited Imports) Regulations ships may only be imported into Australia with the written permission of the Minister for Transport. The Minister has issued a General Consent under these Regulations permitting certain small vessels to be imported without his specific written permission.

Australian Stevedoring Industry Authority

Following extensive consultations with parties directly involved in the Australian stevedoring industry, a National Stevedoring Industry Conference was established to consider the development of a framework within which parties directly involved in the industry could be given greater responsibility in the industry's affairs. In April 1977 a report of the National Stevedoring Industry Conference was presented and, as a consequence, legislation was developed to provide for: termination of the operation of the Australian Stevedoring Industry Authority; alternative means for dealing with industry funding arrangements; and measures designed to improve the operational and industrial relations aspects of the industry. Legislation was introduced into the Parliament during November 1977 and becomes operative from a date to be proclaimed.

An important part of the proposed new arrangements is the establishment of a Stevedoring Industry Consultative Council which would be under the chairmanship of a Government appointee and draw its membership from all major organisations concerned with stevedoring.

The legislation provides for the establishment of a federal co-ordinating committee comprising representatives of both the employers and the Waterside Workers' Federation to oversee the implementation and operation of arrangements agreed to in the National Stevedoring Industry Conference. In each port a Port Co-ordinating Committee is to be established to implement the arrangements at the local level.

Legislation will also provide for the establishment of the National Stevedoring Industry Finance Committee to oversee the disbursement of funds collected for employers by various statutory levies. The statutory provisions relating to the industry are contained in the *Stevedoring Industry Act (Termination) Act 1977*; the *Stevedoring Industry Charge (Termination) Act 1977*; the *Stevedoring Industry Finance Committee Act 1977*; the *Stevedoring Industries Levy Act 1977*; the *Stevedoring Industry Levy Collection Act 1977*; and the *Port Statistics Act 1977*.

Tasmanian Freight Equalisation Scheme

The Commission of Inquiry into Transport to and from Tasmania in its Report published in March 1976 found that because of Tasmania's physical separation from the mainland by sea, Tasmanian shippers suffer a cost disability in moving non-bulk cargoes by sea between Tasmania and the mainland.

Following on from the Report, the Commonwealth Government introduced, with effect from 1 July 1976, the Tasmanian Freight Equalisation Scheme. The Scheme is designed to equalise door-to-door freight costs of moving certain eligible commodities between Tasmania and the mainland with those for moving similar commodities over comparable interstate mainland rail and road routes by subsidising freight transport charges for shipments by sea of those commodities between Tasmania and the mainland.

The northbound component applies to eligible goods of Tasmanian origin produced for use or sale on the mainland. Under the southbound component, however, only certain producer raw materials, machinery and equipment are eligible for assistance. The northbound component was introduced in July 1976 and the southbound component in July 1977. Assistance under the latter applied to shipments made from 1 July 1976.

Assistance provided under the Scheme for northbound cargoes totalled \$16.4 million in 1976-77. In 1977-78, \$18.8 million was paid in respect of northbound cargoes and for southbound cargoes, for 1976-77 and 1977-78, a total of \$2.1 million. The Commonwealth Department of Transport is responsible for the administration of the Scheme.

Revised rates of assistance for northbound cargoes were introduced on 1 July 1978 following a review of freight costs by the Bureau of Transport Economics. The efficiency of the Scheme is to be reviewed not later than 1980.

Trade Practices Act 1974 (Part X—Overseas Cargo Shipping)

The Overseas Cargo Shipping provisions of the Trade Practices Act are administered by the Minister for Transport.

The principal 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 him 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 the 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 his business, e.g. engaging in freight cutting with the object of substantially damaging the business of another shipowner.

The provisions also protect the rights of efficient Australian flag operators to participate to a reasonable extent in overseas cargo shipping.

Review of Australia's Overseas Cargo Shipping Legislation

On 17 March 1977 the Minister for Transport announced the establishment of a study group to review Australia's overseas cargo shipping legislation and report within six months.

The review covered the operation of Part X of the Trade Practices Act, possible future legislative arrangements and the role and long-term financing of the Australian Shippers' Council.

The recommendations of the report are being considered by the Government.

Maritime Industry Commission of Inquiry

For details see Year Book No. 61, pages 370-1.

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; overseas via ports in the same State; 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.

Transshipments 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 has not yet been converted to metric.

Overseas shipping

The following table shows the number of vessels entered and cleared direct from and to overseas countries, and the aggregate net tonnage involved, for the years 1971-72 to 1976-77.

OVERSEAS SHIPPING(a): VESSELS ENTERED AND CLEARED

| | | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|---------|---------------|---------|---------|---------|---------|---------|---------|
| Entered | number | 5,439 | 5,647 | 5,975 | 6,230 | 5,772 | 5,830 |
| | '000 net tons | 53,144 | 62,628 | 72,042 | 80,313 | 75,002 | 79,666 |
| Cleared | number | 5,447 | 5,631 | 5,909 | 6,254 | 5,824 | 5,824 |
| | '000 net tons | 53,491 | 62,031 | 71,462 | 80,305 | 75,399 | 79,503 |

(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 and those for each year from 1921-22 to 1950-51 were published in Year Book No. 40, page 97. Those for each year from 1948-49 are shown in the Statistical Summary of this Year Book.

The following table shows, for each State and the Northern Territory, the number of vessels entered and cleared direct from and to overseas countries, and the aggregate net tonnage involved.

OVERSEAS SHIPPING(a): VESSELS ENTERED AND CLEARED, STATES, 1976-77

| | | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | Aust. |
|---------|---------------|--------|-------|--------|-------|--------|-------|-------|--------|
| Entered | number | 1,457 | 658 | 1,138 | 227 | 1,989 | 157 | 204 | 5,830 |
| | '000 net tons | 15,789 | 5,260 | 14,807 | 1,978 | 37,108 | 2,506 | 2,217 | 79,666 |
| Cleared | number | 1,203 | 558 | 1,317 | 300 | 2,135 | 128 | 183 | 5,824 |
| | '000 net tons | 13,844 | 4,352 | 16,463 | 2,202 | 38,105 | 2,313 | 2,223 | 79,503 |

(a) Excludes vessels of 200 net tons and under.

The following table shows particulars of overseas shipping which entered Australian ports according to country of registration of vessels.

OVERSEAS SHIPPING: VESSELS ENTERED DIRECT, BY COUNTRY OF REGISTRATION, AUSTRALIA(a)
(^{'000} net tons)

| Country of registration of vessels | 1974-75 | 1975-76 | 1976-77 | Country of registration of vessels | 1974-75 | 1975-76 | 1976-77 |
|------------------------------------|---------|---------|---------|------------------------------------|---------|---------|---------|
| Australia | 398 | 512 | 1,514 | Panama | 3,189 | 3,358 | 4,138 |
| China—excl. Taiwan Province | 752 | 813 | 870 | Singapore, Republic of | 991 | 1,229 | 1,282 |
| —Taiwan Province only | 456 | 490 | 695 | Sweden | 1,506 | 1,053 | 875 |
| Denmark | 1,022 | 374 | 725 | United Kingdom | 12,263 | 9,938 | 8,823 |
| Germany, Federal Republic of | 2,575 | 1,932 | 1,836 | United States of America | 860 | 623 | 620 |
| Greece | 4,248 | 4,156 | 4,186 | U.S.S.R. | 795 | 1,369 | 1,114 |
| Hong Kong | 345 | 922 | 984 | Other countries | 4,480 | 4,311 | 4,039 |
| India | 1,548 | 1,034 | 2,285 | All countries— | | | |
| Italy | 978 | 722 | 629 | In cargo | 19,764 | 18,089 | 19,118 |
| Japan | 22,904 | 24,080 | 26,049 | Proportion of total % | 24.6 | 24.1 | 24.0 |
| Liberia | 11,876 | 12,129 | 13,795 | In ballast | 60,549 | 56,913 | 60,548 |
| Netherlands | 1,218 | 798 | 540 | Proportion of total % | 75.4 | 75.9 | 76.0 |
| Norway | 7,909 | 5,159 | 4,667 | Grand Total | 80,313 | 75,002 | 79,666 |

(a) Excludes vessels of 200 net tons and under.

Australian registered tonnage which entered Australian ports from overseas during the year 1976-77 represented 1.90 per cent of the total tonnage entered.

Interstate shipping

Interstate movement

Interstate direct. The following table shows the number of coastal vessels entered and the net tonnage recorded into each State and the Northern Territory from any other State during 1976-77. Total interstate movements by coastal and overseas vessels are shown in *Total interstate movements* below.

INTERSTATE MOVEMENT: COASTAL VESSELS ENTERED INTERSTATE DIRECT 1976-77(a)

| | | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | Aust. |
|-------------------|-----------|--------|-------|-------|-------|-------|-------|------|--------|
| Number of vessels | | 683 | 1,238 | 292 | 375 | 163 | 1,084 | 71 | 3,906 |
| Net tonnage | '000 tons | 5,502 | 6,500 | 2,374 | 1,942 | 2,315 | 3,218 | 219 | 22,070 |

(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 overseas vessels entered and cleared which, having arrived at an Australian port direct from an overseas port, continued their voyages from/to overseas countries via other Australian States.

INTERSTATE MOVEMENT: OVERSEAS VESSELS ENTERED AND CLEARED VIA OTHER AUSTRALIAN STATES, 1976-77(a)

| | | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | Aust. |
|---------|---------------|--------|-------|-------|-------|-------|-------|------|--------|
| Entered | number | 1,205 | 1,321 | 697 | 486 | 430 | 351 | 45 | 4,535 |
| | '000 net tons | 9,267 | 9,149 | 4,936 | 2,994 | 3,939 | 1,535 | 401 | 32,220 |
| Cleared | number | 1,464 | 1,379 | 532 | 415 | 275 | 375 | 62 | 4,502 |
| | '000 net tons | 11,403 | 9,561 | 3,254 | 2,816 | 2,710 | 1,701 | 394 | 31,839 |

(a) Excludes vessels of 200 net tons and under.

Total interstate movements. The following table shows, for each State and the Northern Territory, the total number of vessels entered from and cleared for other States during the year 1976-77, together with the aggregate net tonnage. Total interstate movement includes details of vessels entered or cleared interstate direct, interstate via ports in the same State and overseas via other States.

INTERSTATE MOVEMENT: TOTAL VESSELS ENTERED AND CLEARED, STATES AND NORTHERN TERRITORY, 1976-77(a)

| | | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | Aust. |
|---------|---------------|--------|--------|-------|-------|-------|-------|------|--------|
| Entered | number | 1,952 | 2,562 | 1,149 | 922 | 628 | 1,520 | 116 | 8,849 |
| | '000 net tons | 15,137 | 15,680 | 7,909 | 5,379 | 6,378 | 5,118 | 620 | 56,220 |
| Cleared | number | 2,200 | 2,649 | 964 | 800 | 492 | 1,513 | 138 | 8,756 |
| | '000 net tons | 16,936 | 16,479 | 6,048 | 4,803 | 5,191 | 5,065 | 640 | 55,162 |

(a) Excludes vessels of 200 net tons and under.

Australian trading vessels

The following table shows particulars of all Australian trading vessels of 150 gross tons or more engaged in the regular overseas, interstate or intrastate services at 30 June 1977.

**AUSTRALIAN TRADING VESSELS OF 150 GROSS TONS OR MORE
30 JUNE 1977**

(Source: Department of Transport)

| Vessels | Number | Tonnes deadweight | Tons gross |
|---|--------|----------------------|------------|
| Interstate vessels— | | | |
| Australian owned registered | 52 | 900,836 | 598,847 |
| Australian owned and registered, engaged in Australian coastal trade | 7 | 158,172 | 102,406 |
| Overseas owned and registered on charter, engaged in Australian coastal trade | 12 | 687,640 | 375,661 |
| Total interstate fleet | 71 | 1,746,648 | 1,076,914 |
| Intrastate vessels | 23 | 290,589 | 182,393 |
| Total coastal trading vessels | 94 | 2,037,237 | 1,259,307 |
| Overseas trading vessels— | | | |
| Registered in Australia | 15 | 765,162 | 478,505 |
| Registered overseas | 5 | 143,031 | 89,986 |
| Total overseas trading vessels | 20 | 908,193 | 568,491 |
| Total Australian trading vessels | 114 | 2,945,430 | 1,827,798 |

Harbour boards and trusts

For detailed information see the individual State Year Books.

Shipping at principal ports

The following table shows the total volume of shipping—overseas and coastal—entering the principal ports of Australia.

TOTAL SHIPPING: VESSELS ENTERED AT PRINCIPAL PORTS(a)

| Port of entry | 1974-75 | | 1975-76 | | 1976-77 | |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | Num- ber | Net tons | Num- ber | Net tons | Num- ber | Net tons |
| | | '000 | | '000 | | '000 |
| New South Wales— | | | | | | |
| Sydney | 2,925 | 16,481 | 2,409 | 15,584 | 2,249 | 16,125 |
| Botany Bay | 366 | 3,286 | 288 | 3,501 | 279 | 3,891 |
| Newcastle | 1,377 | 9,093 | 934 | 8,172 | 869 | 8,512 |
| Port Kembla | 804 | 7,401 | 734 | 7,473 | 693 | 7,151 |
| Victoria— | | | | | | |
| Melbourne | 2,608 | 13,059 | 2,369 | 12,245 | 2,517 | 13,410 |
| Geelong | 420 | 2,936 | 371 | 2,794 | 337 | 2,741 |
| Westernport | 386 | 4,720 | 423 | 5,089 | 435 | 5,437 |
| Queensland— | | | | | | |
| Brisbane | 1,246 | 8,573 | 1,219 | 8,519 | 1,229 | 8,720 |
| Bundaberg | 90 | 467 | 83 | 557 | 97 | 658 |
| Cairns | 176 | 696 | 149 | 748 | 147 | 767 |
| Gladstone | 429 | 7,005 | 388 | 6,206 | 404 | 6,675 |
| Hay Point | 159 | 4,459 | 150 | 4,416 | 162 | 5,292 |
| Mackay | 225 | 1,056 | 245 | 1,124 | 252 | 1,144 |
| Rockhampton | 80 | 299 | 97 | 354 | 67 | 244 |
| Townsville | 328 | 1,700 | 363 | 1,909 | 353 | 2,122 |
| Weipa | 285 | 5,337 | 232 | 4,277 | 240 | 4,576 |
| South Australia— | | | | | | |
| Adelaide | 1,108 | 4,087 | 1,140 | 4,053 | 942 | 3,628 |
| Port Lincoln | 158 | 809 | 140 | 667 | 118 | 525 |
| Port Pirie | 146 | 863 | 157 | 976 | 133 | 831 |
| Port Stanvac | 68 | 1,238 | 97 | 1,605 | 96 | 1,639 |
| Thevenard | 100 | 430 | 66 | 295 | 63 | 278 |
| Whyalla | 311 | 2,369 | 283 | 2,060 | 204 | 1,558 |
| Western Australia— | | | | | | |
| Fremantle(b) | 1,345 | 10,699 | 1,318 | 10,754 | 1,313 | 11,007 |
| Albany | 127 | 855 | 125 | 743 | 126 | 779 |
| Bunbury | 154 | 937 | 111 | 799 | 171 | 1,637 |
| Geraldton | 109 | 811 | 144 | 883 | 141 | 975 |
| Yampi Sound | 130 | 1,577 | 117 | 1,130 | 102 | 954 |
| Port Hedland | 639 | 15,749 | 561 | 13,066 | 478 | 12,146 |
| Dampier | 532 | 12,487 | 540 | 12,591 | 492 | 13,218 |
| Port Walcott | 173 | 4,716 | 171 | 4,538 | 143 | 5,053 |
| Tasmania— | | | | | | |
| Hobart | 505 | 1,594 | 440 | 1,546 | 383 | 1,333 |
| Burnie | 344 | 1,398 | 366 | 1,569 | 366 | 1,688 |
| Devonport | 422 | 1,247 | 361 | 1,144 | 405 | 1,312 |
| Launceston | 413 | 2,314 | 386 | 2,211 | 421 | 2,651 |
| Port Latta | 40 | 716 | 32 | 692 | 38 | 734 |
| Northern Territory— | | | | | | |
| Darwin | 134 | 670 | 148 | 678 | 135 | 623 |
| Groote Island | 96 | 700 | 106 | 770 | 96 | 731 |
| Gove | 129 | 1,852 | 97 | 1,491 | 106 | 1,608 |

(a) Excludes vessels of 200 net tons and under. (b) Includes Kwinana.

Shipping cargo

Overseas and interstate cargo

The following table shows a summary of overseas and interstate cargo discharged and loaded during the past six years.

CARGO DISCHARGED AND LOADED: AUSTRALIA
(^{'000})

| Year | Overseas cargo | | | | Interstate cargo | | | |
|---------------|----------------|--------------|---------|--------------|------------------|--------------|--------|--------------|
| | Discharged | | Loaded | | Discharged | | Loaded | |
| | Tonnes | Cubic metres | Tonnes | Cubic metres | Tonnes | Cubic metres | Tonnes | Cubic metres |
| 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 |
| 1973-74 . . . | 23,055 | 7,641 | 150,471 | 3,071 | 28,570 | 3,224 | 29,471 | 3,034 |
| 1974-75 . . . | 21,893 | 8,029 | 164,866 | 2,926 | 27,864 | 3,199 | 28,454 | 3,143 |
| 1975-76 . . . | 19,718 | 7,170 | 156,133 | 2,488 | 28,371 | 2,978 | 28,241 | 2,937 |
| 1976-77 . . . | 20,554 | 7,775 | 164,899 | 2,219 | 28,762 | 2,179 | 28,477 | 1,999 |

The following table shows details of container and non-container cargo discharged and loaded at Australian ports during 1976-77.

OVERSEAS CONTAINER AND NON-CONTAINER CARGO DISCHARGED AND LOADED BY PORT,
1976-77
(^{'000})

| Port | Discharged | | | | Loaded | | | |
|----------------------------|--------------|--------------|---------------|--------------|--------------|--------------|----------------|--------------|
| | Container | | Non-container | | Container | | Non-container | |
| | Tonnes | Cubic metres | Tonnes | Cubic metres | Tonnes | Cubic metres | Tonnes | Cubic metres |
| New South Wales— | | | | | | | | |
| Sydney | 933 | 1,380 | 1,640 | 987 | 812 | 512 | 4,875 | 184 |
| Newcastle | 7 | 19 | 930 | 5 | 11 | 5 | 10,622 | 1 |
| Total | 940 | 1,399 | 2,570 | 992 | 823 | 517 | 15,497 | 185 |
| Victoria— | | | | | | | | |
| Melbourne | 622 | 2,481 | 1,066 | 1,213 | 1,208 | 493 | 791 | 219 |
| Geelong | — | — | 1,137 | 1 | — | — | 1,576 | 3 |
| Total | 622 | 2,481 | 2,203 | 1,214 | 1,208 | 493 | 2,367 | 222 |
| Queensland— | | | | | | | | |
| Brisbane | 78 | 308 | 840 | 431 | 363 | 42 | 1,724 | 82 |
| Gladstone | — | — | 716 | — | — | — | 8,067 | 2 |
| Weipa | — | — | 59 | — | — | — | 5,275 | — |
| Total | 78 | 308 | 1,615 | 431 | 363 | 42 | 15,066 | 84 |
| South Australia— | | | | | | | | |
| Adelaide | 21 | 54 | 437 | 363 | 51 | 56 | 457 | 251 |
| Total | 21 | 54 | 437 | 363 | 51 | 56 | 457 | 251 |
| Western Australia— | | | | | | | | |
| Fremantle | 35 | 198 | 4,753 | 252 | 164 | 44 | 5,838 | 95 |
| Dampier | — | — | 257 | — | — | — | 36,870 | — |
| Port Hedland | — | — | 71 | 2 | — | — | 27,441 | — |
| Total | 35 | 198 | 5,081 | 254 | 164 | 44 | 70,149 | 95 |
| Tasmania— | | | | | | | | |
| Hobart | 2 | — | 120 | 12 | 6 | — | 143 | — |
| Launceston | — | — | 100 | 8 | — | — | 1,603 | 8 |
| Total | 2 | — | 220 | 20 | 6 | — | 1,746 | 8 |
| Other Ports | 12 | — | 6,719 | 61 | 61 | 13 | 56,941 | 210 |
| Total all Ports | 1,710 | 4,440 | 18,845 | 3,335 | 2,676 | 1,165 | 162,223 | 1,055 |

The following table shows details of overseas and interstate cargo discharged and loaded at principal Australian ports during 1976-77.

CARGO DISCHARGED AND LOADED AT PRINCIPAL PORTS, 1976-77

('000)

| Port | Overseas cargo | | | | Interstate cargo | | | |
|---------------------------------|----------------|--------------|----------------|--------------|------------------|--------------|---------------|--------------|
| | Discharged | | Loaded | | Discharged | | Loaded | |
| | Tonnes | Cubic metres | Tonnes | Cubic metres | Tonnes | Cubic metres | Tonnes | Cubic metres |
| New South Wales— | | | | | | | | |
| Sydney | 2,572 | 2,367 | 5,687 | 696 | 2,052 | 148 | 152 | 202 |
| Botany Bay | 1,787 | — | 168 | — | 3,979 | — | 177 | — |
| Newcastle | 937 | 24 | 10,633 | 6 | 3,392 | — | 532 | — |
| Port Kembla | 492 | 2 | 6,474 | — | 6,587 | — | 1,564 | — |
| Other | 11 | — | 756 | — | 46 | — | 13 | — |
| <i>Total New South Wales</i> | <i>5,799</i> | <i>2,393</i> | <i>23,718</i> | <i>701</i> | <i>16,055</i> | <i>148</i> | <i>2,437</i> | <i>203</i> |
| Victoria— | | | | | | | | |
| Melbourne | 1,688 | 3,694 | 1,999 | 712 | 2,448 | 202 | 2,002 | 190 |
| Geelong | 1,137 | 2 | 1,576 | 3 | 421 | — | 1,106 | — |
| Portland | 163 | 1 | 243 | — | 19 | — | 11 | — |
| Westernport | 132 | — | 1,421 | — | 413 | — | 9,242 | — |
| <i>Total Victoria</i> | <i>3,119</i> | <i>3,696</i> | <i>5,239</i> | <i>715</i> | <i>3,301</i> | <i>202</i> | <i>12,361</i> | <i>190</i> |
| Queensland— | | | | | | | | |
| Brisbane | 918 | 740 | 2,087 | 123 | 3,385 | 3 | 98 | 24 |
| Cairns | 39 | — | 453 | 1 | 13 | 4 | 13 | 2 |
| Gladstone | 716 | — | 8,067 | 2 | 91 | — | 565 | — |
| Hay Point | — | — | 12,489 | — | — | — | 155 | — |
| Mackay | 62 | 1 | 642 | — | 52 | — | 321 | — |
| Townsville | 446 | 33 | 1,345 | 6 | 139 | — | 211 | — |
| Weipa | 59 | — | 5,275 | — | — | — | 55 | — |
| Other | 2 | — | 1,309 | — | 58 | — | 244 | — |
| <i>Total Queensland</i> | <i>2,242</i> | <i>774</i> | <i>31,669</i> | <i>133</i> | <i>3,737</i> | <i>7</i> | <i>1,662</i> | <i>26</i> |
| South Australia— | | | | | | | | |
| Port Adelaide | 459 | 417 | 508 | 307 | 681 | 5 | 297 | 3 |
| Ardrossan | — | — | 147 | — | — | — | 401 | — |
| Port Lincoln | 65 | — | 447 | — | 43 | — | 3 | — |
| Port Pirie | 5 | — | 561 | — | 223 | — | 160 | — |
| Port Stanvac | 1,684 | — | 109 | — | 505 | — | 482 | — |
| Whyalla | 109 | — | 1,318 | — | 1,119 | — | 1,343 | — |
| Other | 23 | — | 428 | — | — | — | 503 | — |
| <i>Total South Australia</i> | <i>2,344</i> | <i>417</i> | <i>3,519</i> | <i>307</i> | <i>2,572</i> | <i>5</i> | <i>3,190</i> | <i>3</i> |
| Western Australia— | | | | | | | | |
| Fremantle | 4,788 | 450 | 6,002 | 139 | 1,209 | 8 | 1,116 | 35 |
| Albany | 78 | — | 741 | 42 | 21 | — | — | — |
| Bunbury | 130 | — | 1,964 | 53 | — | — | 96 | — |
| Dampier | 257 | — | 36,870 | — | — | — | — | — |
| Geraldton | 17 | — | 920 | 49 | — | — | — | — |
| Port Hedland | 71 | 2 | 27,441 | — | 2 | 1 | 5,816 | — |
| Port Walcott | 367 | — | 13,521 | 14 | — | — | — | — |
| Yampi Sound | 2 | — | 2,685 | — | 11 | — | 69 | — |
| Other | 98 | 2 | 2,012 | 47 | 36 | — | 215 | — |
| <i>Total Western Australia</i> | <i>5,810</i> | <i>455</i> | <i>92,157</i> | <i>344</i> | <i>1,279</i> | <i>9</i> | <i>7,312</i> | <i>35</i> |
| Tasmania— | | | | | | | | |
| Hobart | 123 | 12 | 149 | — | 661 | 230 | 439 | 198 |
| Burnie | 63 | 3 | 168 | — | 230 | 290 | 363 | 296 |
| Devonport | 16 | — | 34 | 11 | 155 | 628 | 221 | 600 |
| Launceston | 100 | 8 | 1,603 | 8 | 714 | 538 | 151 | 371 |
| Port Latta | 19 | — | 2,112 | — | 16 | — | 10 | — |
| Other | 18 | — | 298 | — | 1 | 58 | 8 | 60 |
| <i>Total Tasmania</i> | <i>339</i> | <i>23</i> | <i>4,363</i> | <i>18</i> | <i>1,777</i> | <i>1,743</i> | <i>1,192</i> | <i>1,525</i> |
| Northern Territory— | | | | | | | | |
| Darwin | 305 | 18 | 6 | — | 21 | 34 | 9 | 2 |
| Groote Island | 19 | — | 1,245 | — | 6 | 13 | 305 | 3 |
| Gove | 578 | — | 2,983 | — | 14 | 17 | 8 | 12 |
| <i>Total Northern Territory</i> | <i>901</i> | <i>18</i> | <i>4,234</i> | <i>—</i> | <i>41</i> | <i>64</i> | <i>322</i> | <i>17</i> |
| Australia | 20,554 | 7,775 | 164,899 | 2,219 | 28,762 | 2,179 | 28,477 | 1,999 |

Overseas cargo according to major trade areas and type of service

The following table shows details 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).

OVERSEAS CARGO LOADED AND DISCHARGED IN AUSTRALIA: MAJOR TRADE AREAS BY TYPE OF SERVICE
(^{'000})

| <i>Major trade areas</i> | <i>Liners (a)</i> | | <i>Tramps, bulkships, 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> |
| 1976-77— | | | | | | |
| Overseas cargo loaded— | | | | | | |
| North America and Hawaii . . . | 491 | 195 | 5,859 | 1 | 6,350 | 196 |
| South America | 56 | 26 | 506 | — | 562 | 26 |
| Europe (including U.S.S.R.) . . . | 1,102 | 445 | 29,902 | 32 | 31,004 | 479 |
| Africa | 118 | 44 | 1,609 | 21 | 1,727 | 65 |
| Asia— | | | | | | |
| Eastern Asia | 1,340 | 283 | 114,455 | 13 | 115,794 | 297 |
| Other Asia | 854 | 394 | 6,217 | 398 | 7,072 | 793 |
| Total Asia | 2,194 | 677 | 120,671 | 412 | 122,866 | 1,089 |
| Papua New Guinea, New Zealand and Pacific Islands . . | 701 | 304 | 1,672 | 46 | 2,373 | 350 |
| Indian Ocean Islands and Antarctic Area | 1 | — | 16 | 15 | 17 | 15 |
| Overseas cargo discharged— | | | | | | |
| North America and Hawaii . . . | 628 | 993 | 1,708 | 487 | 2,336 | 1,480 |
| South America | 15 | 18 | 73 | — | 87 | 18 |
| Europe (including U.S.S.R.) . . . | 564 | 1,944 | 799 | 175 | 1,362 | 2,120 |
| Africa | 60 | 51 | 123 | 1 | 183 | 52 |
| Asia— | | | | | | |
| Eastern Asia | 481 | 1,842 | 2,185 | 1,324 | 2,666 | 3,166 |
| Other Asia | 254 | 654 | 11,612 | 76 | 11,866 | 730 |
| Total Asia | 735 | 2,496 | 13,797 | 1,400 | 14,531 | 3,896 |
| Papua New Guinea, New Zealand and Pacific Islands . . | 456 | 147 | 1,125 | 52 | 1,581 | 199 |
| Indian Ocean Islands and Antarctic Area | — | — | 470 | 9 | 470 | 9 |
| Total loaded— | | | | | | |
| 1974-75 | 4,643 | 2,503 | 160,224 | 423 | 164,866 | 2,926 |
| 1975-76 | 4,766 | 1,989 | 151,366 | 499 | 156,133 | 2,488 |
| 1976-77 | 4,663 | 1,691 | 160,236 | 528 | 164,899 | 2,219 |
| Total discharged— | | | | | | |
| 1974-75 | 2,229 | 5,679 | 19,663 | 2,350 | 21,893 | 8,029 |
| 1975-76 | 2,407 | 5,459 | 17,311 | 1,711 | 19,718 | 7,170 |
| 1976-77 | 2,458 | 5,651 | 18,097 | 2,125 | 20,554 | 7,775 |

(a) Cargo and passenger liners.

Overseas cargo according to country of registration of vessels

The following table shows the total overseas cargo, discharged and loaded combined, according to the country in which the vessels were registered.

**OVERSEAS CARGO DISCHARGED AND LOADED, BY COUNTRY OF REGISTRATION OF VESSELS:
AUSTRALIA
(^{'000})**

| Country of registration of vessels | 1974-75 | | 1975-76 | | 1976-77 | |
|--|----------------|---------------|----------------|--------------|----------------|--------------|
| | Tonnes | Cubic metres | Tonnes | Cubic metres | Tonnes | Cubic metres |
| Australia | 367 | 503 | 715 | 655 | 2,427 | 763 |
| Belgium-Luxembourg | 578 | - | 592 | - | 969 | 1 |
| Canada | 2,565 | 80 | 1,244 | - | 1,047 | - |
| China-excl. Taiwan Province | 1,653 | - | 1,860 | - | 1,912 | - |
| -Taiwan Province only | 812 | 106 | 992 | 57 | 1,256 | 48 |
| Denmark | 2,382 | 221 | 704 | 156 | 1,517 | 206 |
| Germany, Federal Republic of | 5,465 | 619 | 3,342 | 540 | 3,718 | 756 |
| Greece | 9,780 | 132 | 9,598 | 101 | 9,830 | 187 |
| Hong Kong | 618 | 41 | 1,656 | 140 | 1,850 | 163 |
| India | 3,590 | 74 | 2,417 | 73 | 5,060 | 62 |
| Japan | 64,576 | 1,830 | 67,783 | 1,571 | 74,506 | 1,544 |
| Korea, Republic of | 367 | 18 | 714 | 7 | 1,077 | 6 |
| Liberia | 28,018 | 288 | 29,042 | 311 | 31,903 | 519 |
| Norway | 18,399 | 538 | 12,950 | 419 | 11,188 | 420 |
| Panama | 6,021 | 245 | 6,619 | 333 | 7,802 | 456 |
| Singapore, Republic of | 1,719 | 406 | 2,061 | 366 | 1,928 | 510 |
| Sweden | 3,121 | 465 | 1,982 | 580 | 1,694 | 462 |
| United Kingdom | 23,845 | 2,995 | 19,452 | 2,593 | 16,272 | 2,481 |
| U.S.S.R. | 1,031 | 126 | 1,988 | 189 | 1,305 | 178 |
| Other | 11,862 | 2,259 | 10,140 | 1,567 | 8,196 | 1,232 |
| Grand total | 186,769 | 10,945 | 175,851 | 9,658 | 185,453 | 9,994 |

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 30 June 1978, 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, 30 JUNE 1977(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 |
| 1973 and earlier | 50 | 590,984 | 20 | 178,972 | 48 | 549,380 | 22 | 220,576 | 70 | 769,956 |
| 1974 | 5 | 107,666 | - | - | 4 | 101,394 | 1 | 6,272 | 5 | 107,666 |
| 1975 | 6 | 78,227 | 2 | 570 | 5 | 30,906 | 3 | 47,891 | 8 | 78,797 |
| 1976 | 4 | 149,995 | - | - | 2 | 10,562 | 2 | 139,433 | 4 | 149,995 |
| 1977 | 6 | 226,318 | 1 | 2,851 | 2 | 29,286 | 5 | 199,883 | 7 | 229,169 |
| 1978 to date(b) | 3 | 26,568 | - | - | - | - | 3 | 26,568 | 3 | 26,568 |
| Total registered in Australia | 74 | 1,179,758 | 23 | 182,393 | 61 | 721,528 | 36 | 640,623 | 97 | 1,362,151 |

(a) Excludes vessels of 200 net tons and under. (b) To 30 June.

Miscellaneous**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.

RAILWAYS

Government railways

Government railways in Australia operate in all States and Territories and provide an important means of transportation. In 1976-77 a total of 109.9 million tonnes of freight was carried, an increase of 128.0 per cent over the 48.2 million tonnes carried in 1956-57. However, in the same twenty-year period, the number of passengers carried (mostly within the suburban areas of Sydney and Melbourne) declined by 33.5 per cent from 499 million in 1956-57 to 332 million in 1976-77 (excluding Perth metropolitan passenger journeys). The number of train-kilometres run during 1976-77 (151 million) was a decrease of 1.3 per cent since 1956-57 (153 million), 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 1977 there were 1,480 throughout Australia. Diesel-electric locomotives during 1976-77 hauled 98 million train-kilometres, while electric and other locomotives hauled 5 million train-kilometres.

Railway development

Details outlining railway development in Australia are given in Year Book No. 61, page 380. The following table sets out the route-kilometres of government railways in each State and Territory from 1972 to 1977. Details prior to 1972 can be found in Year Book No. 61, page 381.

GOVERNMENT RAILWAYS: ROUTE-KILOMETRES OPEN, 1972 TO 1977
(Kilometres)

| 30 June— | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | A.C.T. | Aust. |
|------------|--------|-------|-------|-------|-------|------|------|--------|--------|
| 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 |
| 1974 . . . | 10,130 | 6,329 | 9,472 | 5,905 | 6,922 | 851 | 789 | 8 | 40,406 |
| 1975 . . . | 10,131 | 6,331 | 9,780 | 5,909 | 6,805 | 851 | 789 | 8 | 40,604 |
| 1976 . . . | 10,130 | 6,325 | 9,844 | 5,915 | 6,893 | 849 | 789 | 8 | 40,753 |
| 1977 . . . | 10,130 | 6,251 | 9,796 | 5,911 | 6,895 | 864 | 278 | 8 | 40,133 |

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 1977 according to gauge.

GOVERNMENT RAILWAYS: ROUTE-KILOMETRES OPEN, BY GAUGE, 30 JUNE 1977
(Kilometres)

| Gauge | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | A.C.T. | Aust. |
|--------------------------------------|---------------|--------------|--------------|--------------|--------------|------------|------------|----------|---------------|
| 1600 mm | (a)328 | (b)5,912 | .. | 2,533 | .. | .. | .. | .. | 8,773 |
| 1435 mm | (c)9,802 | 325 | 111 | (d)1,824 | (e)2,108 | .. | .. | (f)8 | 14,178 |
| 1067 mm | .. | .. | 9,685 | (g)1,554 | (h)4,787 | 864 | 278 | .. | 17,168 |
| 762 mm | .. | 14 | .. | .. | .. | .. | .. | .. | 14 |
| 610mm | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Total | 10,130 | 6,251 | 9,796 | 5,911 | 6,895 | 864 | 278 | 8 | 40,133 |
| Per 1,000 of population | 2.05 | 1.65 | 4.58 | 4.63 | 5.76 | 2.10 | 2.64 | 0.04 | 2.85 |
| Per 1,000 square kilometre | 12.65 | 27.46 | 5.67 | 6.01 | 2.73 | 12.74 | 0.21 | 3.33 | 5.23 |

(a) Portion of Victorian System. (b) Excludes 325 kilometres of 1600 mm gauge line which almost parallels the 1435 mm gauge line between Melbourne and the New South Wales border. (c) Includes 47 kilometres of 1435 mm gauge line from Broken Hill to Cockburn. (d) Comprises 1,123 kilometres of Trans-Australian and 350 kilometres of the Central Australia Railway Systems, and includes 351 kilometres from Port Pirie to Cockburn. (e) Includes 730 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 141 kilometres of 1435 mm/1067 mm dual gauge line which is included in the 1435 mm gauge line.

Government railway systems

Prior to 1 July 1975 there were six separate State Government railway systems and the Commonwealth Railways system. In 1975, however, Commonwealth and State Government legislation was enacted for the transfer to the Commonwealth Government of the Tasmanian Government Railways and the non-metropolitan South Australian railways. These transfers took effect from 1 July 1975 and the Australian National Railways Commission came into existence on that date to control the two transferred systems and the former Commonwealth Railways. As the former Commonwealth Railways included routes in South Australia and Western Australia, and the Victorian system extended 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 1977 is shown in the following table.

GOVERNMENT RAILWAYS: ROUTE-KILOMETRES OPEN, BY GAUGE AND SYSTEM 30 JUNE 1977
(Kilometres)

| System | Gauge | | | | | Total |
|-----------------------------|--------------|---------------|---------------|-----------|-----------|---------------|
| | 1600 mm | 1435 mm | 1067 mm | 762 mm | 610 mm | |
| New South Wales | .. | (a)9,755 | .. | .. | .. | 9,755 |
| Victoria | (b)6,240 | 325 | .. | 14 | .. | 6,579 |
| Queensland | .. | (c)111 | 9,685 | .. | .. | 9,796 |
| South Australia | 2,533 | 398 | 963 | .. | .. | 3,894 |
| Western Australia | .. | 1,378 | (d)4,787 | .. | .. | 6,165 |
| Tasmania | .. | .. | 864 | .. | .. | 864 |
| National | .. | 2,211 | 869 | .. | .. | 3,080 |
| Australia | 8,773 | 14,178 | 17,168 | 14 | .. | 40,133 |

(a) Includes 446 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 421 route-kilometres which are electrified. (c) Operated by the Public Transport Commission of New South Wales which is recouped for the cost of the operation. (d) Excludes 141 kilometres of 1435 mm/1067 mm dual gauge line which is included in the 1435 mm gauge line.

The six government owned railway systems are operated by the Public Transport Commission of New South Wales (PTC), Queensland Government Railways (QR), Victorian Railways (VR), Western Australian Government Railways (WAGR), the State Transport Authority of South Australia (STA), and Australian National Railways (ANR).

The PTC (1435 mm gauge) operates lines radiating southwest and west from Sydney, northwest from Newcastle, and north from Sydney to Brisbane. QR (1067 mm gauge) operates a coastal line from Brisbane to Cairns, with long branches inland from the major ports. VR (1600 mm gauge, with the 1435 mm gauge Albury to Melbourne line) operates a network throughout Victoria and extending into New South Wales. WAGR (1067 mm gauge) operates in south-western West Australia, and also operates standard gauge (1435 mm) from Perth to Kalgoorlie, Esperance and Leonora. The STA (1600 mm gauge) operates railways in the Adelaide metropolitan area only. ANR operates the non-metropolitan railways in South Australia (1600 mm and 1067 mm gauge), including the isolated Eyre Peninsula system (1067 mm gauge), the Tasmanian main line from Hobart to Launceston, with its branches (1067 mm gauge) and the railways (1435 mm gauge) from Kalgoorlie to Broken Hill, Queanbeyan to Canberra, Port Augusta to Marree, and (1067 mm gauge) Marree to Alice Springs. The Darwin to Larrimah line (1067 mm gauge), remains open, but no services have been operated since 1 July 1976.

See also details in the annual publication *Rail, Bus and Air Transport* (9201.0), and Year Book No. 58, page 348.

Developments in standardisation

The Commonwealth Government has enacted legislation for the construction of a standard gauge connection between Adelaide and the Trans-Australian Railway. Work on this project has commenced and, when the link is completed, all mainland State capital cities will be connected to the standard gauge network.

The Commonwealth Government has also enacted legislation for the construction of a reliable, all-weather standard gauge railway between Tarcoola, on the Trans-Australian Railway, and Alice Springs to replace the existing flood-prone narrow gauge section of the Central Australia Railway between Marree and Alice Springs. The line is expected to be completed in 1981-82.

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, 1976-77

| | <i>N.S.W.</i> | <i>Vic.</i> | <i>Qld</i> | <i>S.A.</i> | <i>W.A.</i> | <i>Tas.</i> | <i>National</i> | <i>Aust.</i> |
|------------------------------|----------------|------------------|---------------|---------------|---------------|---------------|-----------------|----------------|
| Train-kilometres | | | | | | | | |
| ('000)(a)— | | | | | | | | |
| Suburban passenger | 20,489 | 14,423 | 3,320 | 3,957 | 2,154 | .. | .. | 44,342 |
| Country passenger | 9,950 | 7,654 | 4,033 | 2,009 | 1,207 | 237 | 1,284 | 26,374 |
| Goods(b) | 26,601 | 11,412 | 22,853 | 4,777 | 9,485 | 1,430 | 3,850 | 80,407 |
| Total | 57,039 | 33,489 | 30,206 | 10,742 | 12,846 | 1,667 | 5,134 | 151,125 |
| Passenger journeys | | | | | | | | |
| ('000)(c)— | | | | | | | | |
| Suburban | 181,115 | 98,252 | 29,296 | 12,230 | n.a. | 16 | .. | n.a. |
| Country(d) | 3,306 | 4,402 | 1,758 | 636 | 248 | 124 | 187 | 10,659 |
| Total | 184,421 | 102,654 | 31,054 | 12,866 | n.a. | 140 | (e)187 | n.a. |
| Passenger-kilometres | | | | | | | | |
| ('000)(f)— | | | | | | | | |
| Suburban | n.a. | 1,601,885 | n.a. | n.a. | n.a. | 129 | .. | n.a. |
| Country | n.a. | 627,125 | n.a. | 150,904 | 108,470 | 15,484 | n.a. | n.a. |
| Total | n.a. | 2,229,010 | n.a. | n.a. | n.a. | 15,613 | n.a. | n.a. |
| Freight— | | | | | | | | |
| Tonnes carried | | | | | | | | |
| ('000)(d) | 33,777 | 10,971 | 34,237 | 6,402 | 19,003 | 1,644 | 3,909 | 109,943 |
| Net tonne-kilometres | | | | | | | | |
| (million)(g) | 9,320.2 | 3,042.2 | 10,286.6 | 1,834.0 | 4,532.5 | 247.5 | 2,732.4 | 31,995.4 |

(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 1976-77 these numbered 4,583. (f) One passenger travelling one kilometre. (g) One tonne carried one kilometre.

Rolling stock

GOVERNMENT RAILWAYS: ROLLING STOCK INCLUDED IN CAPITAL ACCOUNT

(Number)

| <i>System and date</i> | <i>Locomotives</i> | | | | <i>Coaching stock(b)</i> | <i>Goods stock</i> | <i>Service stock</i> |
|-----------------------------|------------------------|-----------------|-----------------|--------------|--------------------------|--------------------|----------------------|
| | <i>Diesel-electric</i> | <i>Electric</i> | <i>Other(a)</i> | <i>Total</i> | | | |
| 30 June 1977 | | | | | | | |
| New South Wales | 470 | 39 | 31 | 540 | 2,675 | 14,933 | 1,614 |
| Victoria | 258 | 35 | 99 | 392 | 2,582 | 16,841 | 1,034 |
| Queensland | 429 | — | 86 | 515 | 1,158 | 20,899 | 2,253 |
| South Australia | 151 | — | 4 | 155 | 393 | 7,035 | 542 |
| Western Australia | 184 | — | 21 | 205 | 372 | 10,747 | 446 |
| Tasmania | 50 | — | 21 | 71 | 55 | 1,925 | 169 |
| National | 104 | — | — | 104 | 142 | 3,305 | 545 |
| Australia | 1,646 | 74 | 262 | 1,982 | (c)7,615 | (c)75,694 | (c)6,604 |
| 30 June— | | | | | | | |
| 1976 | 1,590 | 75 | 326 | 1,991 | 7,592 | 78,405 | 7,256 |
| 1975 | 1,573 | 75 | 332 | 1,980 | 7,624 | 78,810 | 7,614 |
| 1974 | 1,563 | 76 | 372 | 2,011 | 7,870 | 79,086 | 7,723 |
| 1973 | 1,539 | 76 | 378 | 1,993 | 7,982 | 79,913 | 7,800 |
| 1972 | 1,489 | 76 | 435 | 2,000 | 8,178 | 81,135 | 8,033 |

(a) Includes non-passenger-carrying diesel power vans and steam locomotives. (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 1976-77**

('000 kilometres)

| | <i>N.S.W.</i> | <i>Vic.</i> | <i>Qld</i> | <i>S.A.</i> | <i>W.A.</i> | <i>Tas.</i> | <i>National</i> | <i>Aust.</i> |
|---|---------------|---------------|---------------|---------------|---------------|--------------|-----------------|----------------|
| Type of service— | | | | | | | | |
| Passenger—suburban | 20,489 | 14,423 | 3320 | 3957 | 2154 | .. | .. | 44,342 |
| Passenger—country | 9,950 | 7,654 | 4,033 | 2,009 | 1,207 | 237 | 1,284 | 26,374 |
| Goods(a) | 26,601 | 11,412 | 22,853 | 4,777 | 9,485 | 1,430 | 3,850 | 80,407 |
| <i>Total</i> | <i>57,039</i> | <i>33,489</i> | <i>30,206</i> | <i>10,742</i> | <i>12,846</i> | <i>1,667</i> | <i>5,134</i> | <i>151,125</i> |
| Type of motive power— | | | | | | | | |
| Hauled by diesel-electric locomotives | 31,783 | 15,701 | 27,443 | 5,900 | 10,319 | 1,662 | 5,125 | 97,932 |
| Hauled by electric and other locomotives(b) | 3,146 | 1,475 | 443 | 6 | 1 | — | — | 5,070 |
| Powered coaching stock | 22,111 | 16,314 | 2,320 | 4,836 | 2,526 | 5 | 9 | 48,121 |
| <i>Total</i> | <i>57,039</i> | <i>33,489</i> | <i>30,206</i> | <i>10,742</i> | <i>12,846</i> | <i>1,667</i> | <i>5,134</i> | <i>151,125</i> |

(a) Includes mixed train-kilometres. (b) Includes steam locomotives.

*Total train-kilometres***TRAIN-KILOMETRES**

('000 kilometres)

| <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>National</i> | <i>Aust.</i> |
|-------------------|---------------|-------------|------------|-------------|-------------|-------------|-----------------|--------------|
| 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 |
| 1973-74 | 58,255 | 33,345 | 28,542 | 10,313 | 12,617 | 2,154 | 5,966 | 151,192 |
| 1974-75 | 55,661 | 33,876 | 30,114 | 10,189 | 12,866 | 1,983 | 5,936 | 150,624 |
| 1975-76 | 54,943 | 33,818 | 30,813 | 10,304 | 12,856 | 1,748 | 5,595 | 150,078 |
| 1976-77 | 57,039 | 33,489 | 30,206 | 10,742 | 12,846 | 1,667 | 5,134 | 151,125 |

Freight traffic*Freight carried***GOVERNMENT RAILWAYS: FREIGHT CARRIED(a), SYSTEMS**

('000 tonnes)

| <i>Commodity 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>National</i> | <i>Aust.</i> |
|--------------------------------------|---------------|---------------|---------------|--------------|---------------|--------------|-----------------|----------------|
| 1976-77— | | | | | | | | |
| Grain | 5,217 | 2,456 | 1,657 | 863 | 3,454 | 8 | — | 13,655 |
| Other agricultural produce | 925 | 435 | 2,423 | 100 | 236 | 7 | 23 | 4,150 |
| Coal, coke and briquettes | 16,126 | 837 | 21,769 | 6 | 1,179 | 159 | 1,942 | 42,017 |
| Other minerals(b) | 2,999 | 512 | 3,939 | 1,716 | 10,247 | 22 | 80 | 19,514 |
| Iron and steel | 1,867 | 675 | — | 412 | — | 7 | — | 2,961 |
| Fertilisers | 291 | 593 | 173 | 298 | 525 | 62 | 3 | 1,945 |
| Cement | 444 | 903 | 161 | 67 | 92 | 273 | 49 | 1,989 |
| Timber | 104 | 247 | 97 | 55 | 271 | 305 | 23 | 1,102 |
| Containers | 2,662 | 669 | 834 | 721 | — | 108 | — | 4,994 |
| Livestock | 181 | 310 | 761 | 298 | 71 | 2 | 123 | 1,747 |
| All other commodities | 2,959 | 3,337 | 2,422 | 1,866 | 2,928 | 692 | 1,666 | 15,871 |
| <i>Total</i> | <i>33,777</i> | <i>10,971</i> | <i>34,237</i> | <i>6,402</i> | <i>19,003</i> | <i>1,644</i> | <i>3,909</i> | <i>109,943</i> |
| 1975-76 | 31,234 | 10,803 | 33,118 | 6,139 | 17,647 | 1,610 | 3,804 | 104,355 |
| 1974-75 | 33,476 | 11,057 | 30,208 | 6,738 | 16,153 | 1,731 | 4,102 | 103,465 |
| 1973-74 | 32,651 | 11,370 | 25,401 | 6,607 | 14,839 | 1,828 | 4,270 | 96,966 |
| 1972-73 | 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 |

(a) Inter-system traffic is included in the total for each system (including each National railway) over which it passes. (b) Includes sand and gravel.

*Freight net tonne-kilometres***GOVERNMENT RAILWAYS: FREIGHT NET TONNE-KILOMETRES, SYSTEMS**

(Million)

| <i>Commodity 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>National</i> | <i>Aust.</i> |
|--------------------------------------|----------------|----------------|-----------------|----------------|----------------|--------------|-----------------|-----------------|
| 1976-77— | | | | | | | | |
| Grain | 2,049.9 | 731.4 | (a) | 148.5 | 901.3 | 1.5 | — | (a) |
| Other agricultural produce | 494.3 | 135.8 | (a) | 27.1 | 96.5 | 1.6 | 32.6 | (a) |
| Coal, coke and briquettes | 1,380.6 | 138.8 | (a) | 3.0 | 179.4 | 31.0 | 495.7 | (a) |
| Other minerals(b) | 623.1 | 100.3 | (a) | 366.3 | 1,773.7 | 3.7 | 20.2 | (a) |
| Iron and steel | 1,248.4 | 213.8 | (a) | 173.2 | — | 1.2 | — | (a) |
| Fertilisers | 173.0 | 154.3 | (a) | 92.9 | 194.2 | 19.0 | 3.9 | (a) |
| Cement | 149.5 | 113.5 | (a) | 23.9 | 43.6 | 23.1 | 19.0 | (a) |
| Timber | 91.6 | 79.5 | (a) | 17.8 | 91.3 | 26.0 | 32.6 | (a) |
| Containers | 1,385.6 | 282.0 | (a) | 258.3 | — | 25.5 | — | (a) |
| Livestock | 100.3 | 94.8 | 413.0 | 73.7 | 23.4 | — | 62.6 | 767.8 |
| All other commodities | 1,624.0 | 997.8 | 9,873.6 | 649.3 | 1,229.0 | 114.9 | 2,065.7 | 16,554.3 |
| Total | 9,320.2 | 3,042.2 | 10,286.6 | 1,834.0 | 4,532.5 | 247.5 | 2,732.4 | 31,995.4 |
| 1975-76 | 8,566.9 | 3,071.4 | 10,101.2 | 1,686.6 | 4,542.4 | 231.8 | 2,609.0 | 30,809.3 |
| 1974-75 | 8,782.3 | 3,091.4 | 9,118.0 | 1,756.9 | 4,262.4 | 273.3 | 2,507.4 | 29,791.7 |
| 1973-74 | 8,642.5 | 3,126.2 | 7,855.1 | 1,753.1 | 4,142.5 | 277.9 | 2,532.0 | 28,329.3 |
| 1972-73 | 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 |

(a) Not available separately, included with 'All other commodities'. (b) Includes sand and gravel.

Finance**GOVERNMENT RAILWAYS: GROSS EARNINGS(a), SYSTEMS, 1976-77**

(\$'000)

| | <i>N.S.W.(b)</i> | <i>Vic.</i> | <i>Qld</i> | <i>S.A.</i> | <i>W.A.</i> | <i>Tas.</i> | <i>National</i> | <i>Aust.</i> |
|--------------------------------------|------------------|----------------|----------------|---------------|----------------|--------------|-----------------|----------------|
| Coaching— | | | | | | | | |
| Suburban passenger | 52,677 | 38,151 | 6,607 | 3,207 | .. | .. | .. | n.a. |
| Country passenger | 19,513 | 14,182 | 5,962 | 3,138 | 3,451 | n.a. | 6,461 | n.a. |
| Other | 9,699 | 9,265 | 4,367 | 1,574 | 2,834 | n.a. | 820 | n.a. |
| Total coaching | 81,889 | 61,598 | 16,936 | 7,919 | 6,285 | 516 | 7,281 | 182,423 |
| Freight (goods and livestock)— | | | | | | | | |
| Grain | (c) | 20,165 | 17,435 | 5,133 | 26,394 | 58 | — | n.a. |
| Other agricultural produce | (c) | 4,267 | 14,358 | 678 | 4,382 | 77 | 440 | n.a. |
| Coal, coke and briquettes | (c) | 5,081 | 97,970 | 51 | 6,625 | 857 | 4,915 | n.a. |
| Other minerals(d) | (c) | 2,458 | 29,406 | 8,169 | 29,378 | 179 | 336 | n.a. |
| Iron and steel | (c) | 4,404 | — | 2,639 | — | 96 | — | n.a. |
| Fertilisers | (c) | 3,311 | 3,219 | 1,398 | 4,194 | 619 | 47 | n.a. |
| Cement | (c) | 4,944 | 2,532 | 449 | 1,298 | 1,159 | 326 | n.a. |
| Timber | (c) | 2,857 | 1,752 | 364 | 3,100 | 920 | 403 | n.a. |
| Containers | (c) | 4,056 | 6,818 | 4,353 | — | 643 | — | n.a. |
| Livestock | (c) | 2,260 | 16,248 | 2,704 | 819 | 51 | 1,395 | n.a. |
| All other commodities | (c) | 35,351 | 50,207 | 14,837 | 36,887 | 3,506 | 39,419 | n.a. |
| Total freight | 244,746 | 89,157 | 239,945 | 40,775 | 113,077 | 8,164 | 47,282 | 783,146 |
| Miscellaneous | 25,240 | 12,757 | 5,679 | 5,591 | 17,960 | 100 | n.y.a. | n.y.a. |
| Grand total | 351,875 | 163,512 | 262,561 | 54,284 | 137,323 | 8,780 | n.y.a. | n.y.a. |

(a) Excludes Government grants. (b) Includes State Co-ordination Tax Contribution. (c) Not available separately. (d) Includes sand and gravel.

GOVERNMENT RAILWAYS: WORKING EXPENSES, SYSTEMS, 1976-77

(\$'000)

| | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas.(a) | National | Aust. |
|--|---------|---------|---------|------------|------------|---------|----------|---------|
| Maintenance of way and works | 84,903 | (b) | 82,803 | (a)24,737 | (a)30,868 | 6,448 | 12,722 | 242,481 |
| Motive power(c) | 182,445 | (b) | 109,632 | (a)31,584 | (a)32,618 | 7,978 | 18,502 | 382,759 |
| Traffic | 132,184 | 261,504 | 80,831 | (a)30,114 | 51,968 | 5,830 | 12,469 | 574,900 |
| Other charges | 170,741 | 39,728 | 25,778 | 17,194 | 16,569 | 3,084 | n.y.a. | n.y.a. |
| Total | 570,272 | 301,232 | 299,044 | (a)103,629 | (a)132,024 | 23,340 | n.y.a. | n.y.a. |

(a) Includes provision of reserves for depreciation. (b) Not available separately; included with traffic. (c) 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. | National | Aust. |
|-------------------|----------|----------|---------|-----------|-----------|-----------|-----------|-----------|
| GROSS EARNINGS | | | | | | | | |
| 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 |
| 1973-74 | 262,691 | 115,613 | 149,844 | 39,531 | 78,480 | 7,674 | 37,217 | 691,050 |
| 1974-75 | 291,373 | 129,942 | 183,687 | 47,950 | 106,844 | 8,266 | 41,367 | 809,429 |
| 1975-76 | 318,763 | 147,292 | 230,492 | 49,688 | 130,850 | 8,048 | 54,618 | 939,751 |
| 1976-77 | 351,875 | 163,512 | 262,561 | 54,284 | 137,323 | 8,780 | n.y.a. | n.y.a. |
| WORKING EXPENSES | | | | | | | | |
| 1971-72 | 263,484 | 138,722 | 119,743 | (a)46,521 | (a)63,748 | (a)10,391 | (a)31,540 | 674,149 |
| 1972-73 | 298,180 | 156,120 | 133,384 | 52,320 | 68,223 | 11,829 | 34,487 | 754,543 |
| 1973-74 | 349,897 | 188,599 | 162,101 | 60,747 | 81,916 | 15,598 | 44,423 | 903,281 |
| 1974-75 | 415,234 | 243,393 | 227,925 | 80,466 | 103,696 | 19,973 | 55,847 | 1,146,534 |
| 1975-76 | 472,188 | 271,940 | 265,662 | 91,352 | 118,607 | 22,087 | 64,279 | 1,306,115 |
| 1976-77 | 570,272 | 301,232 | 299,044 | 103,629 | 132,024 | 23,340 | n.y.a. | n.y.a. |
| NET EARNINGS(b) | | | | | | | | |
| 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 |
| 1973-74 | -87,206 | -72,986 | -12,257 | -21,216 | -3,436 | -7,924 | -7,206 | -212,231 |
| 1974-75 | -123,861 | -113,451 | -44,238 | -32,516 | 3,148 | -11,707 | -14,479 | -337,104 |
| 1975-76 | -153,425 | -124,648 | -35,170 | -41,664 | 12,243 | -14,039 | -9,661 | -366,364 |
| 1976-77 | -218,397 | -137,720 | -36,483 | -49,345 | 5,299 | -14,560 | n.y.a. | n.y.a. |

(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 1977

(\$'000)

| System | Net earnings Plus grants and other earnings—excess of gross earnings payable to railways | | | | | Less other expenses charged to railways | | | | Surplus (+) or deficit (-) |
|-----------------------------|--|---------------------|-------|-------|------------------------|---|-------------------------|-------|----------|----------------------------|
| | State Government grants | Road motor earnings | Other | Total | Interest and ex-change | Sinking fund | Road motor expenses (a) | Other | Total | |
| New South Wales | -218,397 | (b)6,411 | - | - | 6,411 | 53,265 | 7,897 | - | (c)1,479 | 62,641 -274,627 |
| Victoria | -137,720 | (d)74 | 92 | - | 166 | - | 522 | - | - | 522 -138,077 |
| Queensland | -36,483 | - | - | - | - | 53,448 | - | - | (e)1,111 | 54,559 -91,042 |
| South Australia | -49,345 | - | 401 | - | 401 | 1,323 | 659 | 186 | 2,168 | 2,168 -51,113 |
| Western Australia | 5,299 | - | 988 | - | 988 | 14,885 | - | 2,495 | (f)35 | 17,416 -11,129 |
| Tasmania | -14,560 | - | - | 20 | 20 | - | - | - | - | - -14,539 |
| National | n.y.a. | - | - | - | - | - | - | - | - | n.y.a. |
| Australia | n.y.a. | 6,485 | 1,481 | 20 | 7,986 | 122,921 | 7,897 | 3,676 | 2,811 | 137,306 n.y.a. |

(a) Includes interest and exchange. (b) Grants to meet losses on country developmental lines, and the employer liability to the Government Railways Superannuation Account. (c) Loan management and loan flotation expenses. (d) Kerang-Koondrook tramway recoup from Treasury. (e) Demolished assets written off. (f) Australian currency revaluation adjustment.

Employment, salaries and wages**GOVERNMENT RAILWAYS: AVERAGE NUMBER OF EMPLOYEES (EXCLUDING CONSTRUCTION STAFF) AND SALARIES AND WAGES PAID(a), 1976-77**

| | <i>N.S.W.</i> | <i>Vic.(b)</i> | <i>Qld</i> | <i>S.A.</i> | <i>W.A.</i> | <i>Tas.</i> | <i>National</i> | <i>Aust.</i> |
|--|---------------|----------------|---------------|--------------|--------------|--------------|-----------------|----------------|
| Salaried staff | 8,972 | 5,299 | 4,085 | 1,707 | 2,168 | 350 | 725 | 23,306 |
| Wages staff | 31,001 | 19,110 | 20,435 | 5,634 | 7,610 | 1,489 | 3,098 | 88,377 |
| Total staff | 39,973 | 24,409 | 24,520 | 7,341 | 9,778 | 1,839 | 3,823 | 111,683 |
| Salaries and wages paid \$'000 | 404,610 | 233,137 | 238,206 | 77,722 | 91,419 | 16,343 | 36,259 | 1,097,697 |

(a) Excludes salaries and wages paid to road motor staff. (b) Includes construction staff.

Non-government railways

The Australian non-government railways covered in this section are those which operate outside industrial estates, harbour precincts, mines and quarries with a route distance exceeding two kilometres.

The figures in the following table have been compiled from information supplied to the Bureau of Transport Economics by the various railway operators. All operators provided details of tonnes consigned and most provided details of tonne-kilometres performed. In a few cases the tonne-kilometre figures have been estimated by the Bureau of Transport Economics using the advised average length of haul.

TRAFFIC TASK PERFORMED BY AUSTRALIAN NON-GOVERNMENT RAILWAYS 1971-72 TO 1976-77

| <i>Year</i> | <i>Iron ore railways</i> | <i>Sugar tramways</i> | <i>Other non-government railways</i> | <i>Total non-government railways</i> | <i>Non-government as a percentage of total tonnes consigned/tonne-kilometres performed</i> | |
|-----------------------------------|--------------------------|-----------------------|--------------------------------------|--------------------------------------|--|-----------------|
| | | | | | <i>TONNES CONSIGNED ('000)</i> | <i>Per cent</i> |
| 1971-72 | 54,865 | 16,189 | 13,742 | 84,796 | | 51 |
| 1972-73 | 67,723 | 16,060 | 16,990 | 100,773 | | 55 |
| 1973-74 | 84,867 | 16,442 | 19,970 | 121,279 | | 58 |
| 1974-75 | 95,666 | 17,163 | 21,180 | 134,009 | | 59 |
| 1975-76 | 83,837 | 18,844 | 17,847 | 120,528 | | 56 |
| 1976-77 | 86,622 | 20,066 | 20,271 | 126,959 | | 54 |
| <i>TONNE-KILOMETRES (million)</i> | | | | | | |
| 1971-72 | 16,121 | 261 | 214 | 16,596 | | 40 |
| 1972-73 | 19,501 | 259 | 272 | 20,032 | | 43 |
| 1973-74 | 25,890 | 264 | 336 | 26,490 | | 48 |
| 1974-75 | 29,559 | 275 | 341 | 30,175 | | 50 |
| 1975-76 | 25,748 | 302 | 298 | 26,348 | | 46 |
| 1976-77 | 26,646 | 322 | 369 | 27,337 | | 46 |

TRAM, BUS, AND FERRY SERVICES**Systems in operation**

Trams and trolley-buses. At 30 June 1977 tram 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 its replacement by buses in Perth, Western Australia, on 29 August 1969. Regular tram services ceased to operate in Ballarat on 19 September 1971 and in Bendigo on 16 April 1972. However services are operated in both cities, on an irregular basis, but generally at holiday periods, as a tourist attraction.

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 tram used for the conveyance of passengers.

Buses. 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 bus services under the control of private operators for the States of New South Wales, Victoria, Queensland, South Australia and Western Australia are given in the annual bulletin *Rail, Bus and Air Transport* (9201.0) for years prior to 1976-77.

Ferries. Ferry passenger services are operated in the following States: New South Wales, at Sydney and Newcastle; Western Australia, on the Swan River at Perth; and Tasmania, on the Mersey River at Devonport and on the Derwent River at Hobart. 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 *Rail, Bus and Air Transport* (9201.0). In Victoria and Queensland the services operated are not extensive. There are no ferry passenger services in South Australia.

Government and municipal tram 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 tram services by bus services, it is not possible to obtain separate statistics for all phases of the activities of each form of transport, particularly financial operations.

TRAM AND BUS SERVICES: GOVERNMENT AND MUNICIPAL STATES AND TERRITORIES, 1976-77

| | | 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 | .. | .. | .. | .. | 228 |
| Bus | " | 1,049 | 249 | 676 | 830 | 8,377 | 454 | 85 | 740 | 12,460 |
| Vehicle-kilometres— | | | | | | | | | | |
| Tram | '000 | .. | 24,166 | .. | 774 | .. | .. | .. | .. | 24,940 |
| Bus | " | 63,028 | 12,762 | 19,303 | 33,772 | 41,800 | 9,617 | 920 | 11,400 | 192,603 |
| Rolling stock at 30 June— | | | | | | | | | | |
| Tram | number | .. | 739 | .. | 26 | .. | .. | .. | .. | 765 |
| Bus | " | 1,708 | 279 | 565 | 723 | 903 | 304 | 31 | 384 | 4,897 |
| Passenger journeys— | | | | | | | | | | |
| Tram | '000 | .. | 102,886 | .. | 1,302 | .. | .. | .. | .. | 104,188 |
| Bus | " | 186,744 | 20,073 | 49,433 | 56,827 | 58,362 | 19,773 | 661 | 14,183 | 406,056 |
| Gross revenue(b)— | | | | | | | | | | |
| Tram and bus | \$'000 | 39,913 | 32,373 | 11,633 | 16,782 | 16,471 | 2,862 | 354 | 3,581 | 123,970 |
| Working expenses(c)— | | | | | | | | | | |
| Tram and bus | \$'000 | 91,981 | 53,887 | 18,781 | 27,711 | 28,292 | 8,663 | 1,029 | 8,767 | 239,112 |
| Net revenue— | | | | | | | | | | |
| Tram and bus | \$'000 | -52,069 | -21,514 | -7,148 | -10,929 | -11,821 | -5,801 | -674 | -5,186 | -115,142 |
| Employees at 30 June— | | | | | | | | | | |
| Tram and bus | number | 6,791 | 4,624 | 1,463 | 1,837 | 2,169 | 627 | 112 | 653 | 18,276 |
| Accidents— | | | | | | | | | | |
| Tram and bus(d)— | | | | | | | | | | |
| Persons killed | number | 6 | 11 | 2 | 3 | 3 | - | - | - | 25 |
| Persons injured | " | n.a. | 656 | 277 | 206 | 388 | 45 | - | 37 | (e)1,609 |

(a) Gauge 1435 mm throughout. (b) Excludes government grants. (c) Includes provision of reserves for depreciation, etc., where possible. (d) Excludes accidents to employees. (e) Excludes New South Wales. Minus sign (-) denotes deficit.

TRAM AND BUS SERVICES: GOVERNMENT AND MUNICIPAL

| | | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|------------------------------|------------|---------|---------|---------|------------|----------|----------|
| Route-kilometres at 30 June— | | | | | | | |
| Tram | kilometres | 225 | 228 | 227 | 228 | 228 | 228 |
| Bus | " | 10,495 | 10,890 | 11,780 | 11,859 | 11,217 | 12,460 |
| Vehicle kilometres— | | | | | | | |
| Tram | '000 | 24,889 | 25,119 | 24,555 | 24,516 | 24,945 | 24,940 |
| Bus | " | 170,769 | 172,866 | 179,702 | 188,062 | 190,131 | 192,603 |
| Rolling stock at 30 June— | | | | | | | |
| Tram | number | 722 | 734 | 734 | 729 | 765 | 765 |
| Bus | " | 4,437 | 4,442 | 4,761 | 4,967 | 5,007 | 4,897 |
| Passenger journeys— | | | | | | | |
| Tram | '000 | 104,558 | 106,333 | 110,791 | 112,329 | 107,375 | 104,188 |
| Bus | " | 398,421 | 410,139 | 417,513 | (a)416,160 | 406,163 | 406,056 |
| Gross revenue(b)— | | | | | | | |
| Tram and bus | \$'000 | 91,015 | 95,171 | 105,149 | 112,690 | 121,420 | 123,970 |
| Working expenses(c)— | | | | | | | |
| Tram and bus | \$'000 | 103,274 | 117,598 | 146,655 | 187,787 | 208,241 | 239,112 |
| Net revenue— | | | | | | | |
| Tram and bus | \$'000 | -12,260 | -22,426 | -41,506 | -75,098 | -86,821 | -115,142 |
| Employees at 30 June— | | | | | | | |
| Tram and bus | number | 17,545 | 17,256 | 17,549 | 17,829 | 17,846 | 18,276 |
| Accidents— | | | | | | | |
| Tram and bus(d)— | | | | | | | |
| Persons killed | number | 22 | 30 | 10 | 14 | 22 | 25 |
| Persons injured | " | 2,275 | 2,732 | 2,587 | (e)1,245 | (e)1,535 | (e)1,609 |

(a) Excludes Northern Territory. (b) Excludes government grants. (c) Includes provision of reserve for depreciation, etc., where possible. (d) Excludes accidents to employees. (e) Excludes New South Wales. Minus sign (-) denotes deficit.

MOTOR VEHICLES

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 registrations, licences, fees payable, etc., in each State and Territory at 30 June 1977 are shown in *Motor Vehicle Registrations 1976-77*, (9304.0).

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 1976 by the Australian Bureau of Statistics for the purpose of gathering information on the usage of motor vehicles. Previous surveys were conducted in 1963 and 1971. The owners of approximately 53,000 vehicles other than buses were approached for information relating to the usage of their vehicles over the twelve months ended 30 September 1976. 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' recollection of their usage of the selected vehicles 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) main type of operation; (v) fuel consumption; (vi) occupant-kilometres; and (vii) driver characteristics.

The following table shows, for Australia, total annual kilometres travelled for the twelve months ended 30 September 1976 classified by vehicle type 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 BY VEHICLE TYPE AND PURPOSE OF TRAVEL, TWELVE MONTHS ENDED 30 SEPTEMBER 1976 (FINAL)

| Type of vehicle | Laden business | | Unladen business | | Total business (a) | | Paid to and from work | | 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. % |
| Cars and station wagons | .. | .. | .. | .. | 15,584.3 | 3.8 | 2,434.5 | 6.4 | 16,196.7 | 2.7 | 44,304.0 | 1.4 | 78,531.0 | 1.2 |
| Motor cycles | .. | .. | .. | .. | 171.8 | 13.9 | 46.7 | 21.1 | 610.8 | 7.9 | 811.9 | 8.1 | 1,641.3 | 5.4 |
| Utilities and panel vans | 4,097.9 | 5.2 | 1,919.9 | 8.1 | 6,368.5 | 4.5 | 335.7 | 19.4 | 1,730.8 | 7.1 | 3,854.8 | 6.2 | 12,289.9 | 2.6 |
| Rigid trucks | 3,769.2 | 1.5 | 1,731.8 | 2.1 | 5,505.6 | 1.5 | 51.2 | 10.1 | 195.1 | 6.3 | 278.7 | 7.4 | 6,031.8 | 1.4 |
| Articulated trucks | 1,395.6 | 0.9 | 577.6 | 1.1 | 1,974.7 | 0.8 | 4.9 | 11.2 | 21.0 | 4.9 | 4.3 | 14.4 | 2,005.0 | 0.8 |
| Other truck type vehicles | .. | .. | .. | .. | 223.5 | 15.1 | 2.6 | 32.3 | 29.6 | 12.6 | 164.5 | 9.4 | 420.2 | 8.7 |
| Total | 9,262.7 | 2.4 | 4,229.3 | 3.8 | 29,828.5 | 2.2 | 2,875.6 | 5.9 | 18,783.9 | 2.4 | 49,418.2 | 1.4 | 100,919.2 | 1.0 |

(a) Includes the total kilometres travelled for business purposes of cars, station wagons, motor cycles and utilities and panel vans predominantly used for private purposes. The dissection of business travel into laden/unladen was not sought for these vehicles.

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 and 1962, and 30 September 1971 and 1976. At these census dates considerably greater information concerning the particulars shown in the tables following is available. Final detailed results of the 1976 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 July 1976. The principal difference between this classification and that which it replaces involves the categories utilities, panel vans, trucks and other truck type vehicles. The principle of accepting vehicle-type data as recorded by the registration authority has also been accepted. Consequently, figures shown from July 1976 for these categories are not strictly comparable with data for previous periods.

MOTOR VEHICLE CENSUS: 30 SEPTEMBER 1976 (FINAL)
(*000)

| State or Territory | Motor cars and station wagons | | Panel vans | Trucks | | Other truck type vehicles | Buses | Motor cycles | Total (a) |
|------------------------------|-------------------------------|--------------|--------------|--------------|-------------|---------------------------|-------------|--------------|----------------|
| | Utilities | | | Rigid | Articulated | | | | |
| New South Wales | 1,712.9 | 131.8 | 108.0 | 115.7 | 13.1 | 7.8 | 11.2 | 95.5 | 2,196.0 |
| Victoria | 1,456.2 | 104.5 | 47.0 | 117.8 | 9.8 | 4.9 | 7.3 | 51.9 | 1,799.4 |
| Queensland | 723.4 | 129.4 | 42.1 | 43.8 | 5.9 | 3.2 | 3.6 | 72.8 | 1,024.0 |
| South Australia | 509.2 | 41.4 | 19.6 | 36.3 | 5.2 | 4.1 | 3.2 | 31.8 | 650.7 |
| Western Australia | 442.6 | 55.5 | 34.2 | 43.8 | 3.4 | 3.8 | 3.3 | 28.5 | 615.2 |
| Tasmania | 158.7 | 17.0 | 8.3 | 10.4 | 1.2 | 1.1 | 1.7 | 6.5 | 204.8 |
| Northern Territory | 19.3 | 8.0 | 2.0 | 2.0 | 0.3 | 0.2 | 0.2 | 2.7 | 34.8 |
| Australian Capital Territory | 79.9 | 4.6 | 4.7 | 2.5 | 0.1 | 0.1 | 0.9 | 3.7 | 96.6 |
| Total | 5,102.2 | 492.3 | 265.9 | 372.2 | 39.0 | 25.1 | 31.4 | 293.4 | 6,621.5 |

(a) Excludes tractors, plant and equipment, caravans and trailers.

MOTOR VEHICLES ON REGISTER, BY TYPE OF VEHICLE AUSTRALIA
(*000)

| 30 June | Motor cars and station wagons | Utilities, trucks, panel vans, other truck type vehicles and buses | | Total (excludes motor cycles) | Motor cycles |
|---------|-------------------------------|--|---------|-------------------------------|--------------|
| | | | | | |
| 1972 | 4,141.3 | | 995.7 | 5,137.0 | 180.1 |
| 1973 | 4,361.6 | | 1,041.1 | 5,402.7 | 210.4 |
| 1974 | 4,604.0 | | 1,090.1 | 5,694.1 | 258.6 |
| 1975 | 4,858.5 | | 1,140.2 | 5,998.7 | 277.7 |
| 1976 | 5,072.8 | | 1,215.0 | 6,287.8 | 293.0 |
| 1977 | 5,243.0 | | 1,279.6 | 6,522.6 | 295.5 |

MOTOR VEHICLES(a) ON REGISTER PER 1,000 OF POPULATION STATES AND TERRITORIES

| 30 June | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | A.C.T. | Aust. |
|----------------|--------|-------|-------|-------|-------|-------|-------|--------|-------|
| 1972 | 374.4 | 394.1 | 384.6 | 413.3 | 421.0 | 418.2 | 310.6 | 413.3 | 389.8 |
| 1973 | 389.7 | 408.3 | 396.1 | 428.1 | 432.9 | 429.6 | 321.0 | 421.8 | 403.8 |
| 1974 | 402.9 | 427.4 | 408.7 | 442.4 | 449.3 | 442.0 | 329.5 | 427.6 | 418.7 |
| 1975 | 419.8 | 447.2 | 413.1 | 467.1 | 470.7 | 461.8 | 334.5 | 433.7 | 435.6 |
| 1976 | 426.8 | 466.6 | 445.4 | 482.2 | 493.4 | 481.1 | 315.6 | 436.8 | 451.9 |
| 1977 | 435.1 | 470.1 | 463.9 | 498.7 | 523.7 | 494.9 | 328.0 | 456.3 | 463.4 |

(a) Excludes motor cycles, tractors, plant and equipment, caravans and trailers.

Registrations of new motor vehicles

Particulars of registrations of new motor vehicles are shown by type of vehicle in monthly bulletins, and by type and make of vehicle in quarterly and annual bulletins of Motor Vehicle Registrations.

In these statistics 'registrations' mean 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 July 1976. The principal difference between this classification and that which it replaces involves the categories utilities, panel vans, trucks and other truck type vehicles. The principle of accepting vehicle-type data as recorded by the registration authority has also been accepted. Consequently, figures shown from July 1976 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 | Utilities | Panel vans | Trucks | | Other truck type vehicles | Buses | Total (excludes motor cycles) | Motor cycles |
|--|----------------|-------------------|---------------|---------------|---------------|--------------|------------------------------------|--------------|--|-----------------|
| | | | | | Rigid | Articulated | | | | |
| 1977-78— | | | | | | | | | | |
| New South Wales | 127,199 | 26,086 | 13,197 | 15,808 | 12,118 | 1,135 | 835 | 1149 | 197,527 | 12,984 |
| Victoria | 97,220 | 18,148 | 8,405 | 7,167 | 10,034 | 1,008 | 743 | 891 | 143,616 | 6,469 |
| Queensland | 49,391 | 10,799 | 13,310 | 6,192 | 2,975 | 566 | 145 | 571 | 83,949 | 8,729 |
| South Australia | 32,976 | 5,998 | 2,916 | 2,917 | 2,969 | 674 | 282 | 432 | 49,164 | 4,313 |
| Western Australia | 33,094 | 7,896 | 4,725 | 6,094 | 4,739 | 353 | 221 | 406 | 57,528 | 3,339 |
| Tasmania | 11,671 | 2,213 | 1,301 | 1,203 | 1,178 | 139 | 219 | 130 | 18,054 | 972 |
| Northern Territory | 1,554 | 784 | 1,525 | 428 | 541 | 43 | 9 | 34 | 4,918 | 646 |
| Australian Capital Territory | 6,367 | 1,043 | 567 | 503 | 480 | 82 | 20 | 99 | 9,161 | 597 |
| Australia | 359,472 | 72,967 | 45,946 | 40,312 | 35,034 | 4,000 | 2,474 | 3,712 | 563,917 | 38,049 |
| 1976-77 | 365,624 | 81,478 | (a)48,420 | (a)39,532 | (a)36,051 | (a)4,752 | (a)2,749 | 3,205 | 581,811 | 50,321 |
| 1975-76 | 380,713 | 73,924 | 43,500 | 38,296 | 39,574 | 4,139 | 474 | 3,743 | 584,363 | 60,017 |
| 1974-75 | 433,244 | 69,476 | 45,151 | 36,647 | 32,675 | 3,545 | 409 | 3,040 | 624,187 | 67,563 |
| 1973-74 | 407,983 | 57,007 | 41,848 | 29,352 | 29,878 | 3,753 | 398 | 2,465 | 572,684 | 85,249 |
| 1972-73 | 373,876 | 55,863 | 41,144 | 28,136 | 29,176 | 3,364 | 365 | 2,215 | 534,139 | 65,551 |

(a) Not directly comparable with previous figures.

Drivers' and riders' licences

At 30 June 1978, the numbers of licences in force to drive or ride motor vehicles were: New South Wales, 2,848,996; Victoria, 2,016,063; South Australia, 718,607; Western Australia, 654,949; Tasmania, 214,007; Northern Territory, 67,389; Australian Capital Territory, 135,921. Particulars are not available for Queensland.

ROAD TRAFFIC ACCIDENTS

Compulsory fitting and use of seat belts and protective helmets in Australia

Information on the compulsory fitting and use of seat belts and protective helmets in Australia is given in Year Book No. 61, page 395.

Accidents involving casualties, persons killed, persons injured

ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a): NUMBER OF ACCIDENTS, PERSONS KILLED OR INJURED, 1977

| State or Territory | Number of accidents | Persons killed | Persons injured | Per 100,000 of mean population | | | Per 10,000 motor vehicles registered(b) | | |
|------------------------------|---------------------|----------------|-----------------|--------------------------------|----------------|-----------------|---|----------------|-----------------|
| | | | | Number of accidents | Persons killed | Persons injured | Number of accidents | Persons killed | Persons injured |
| New South Wales | 27,943 | 1,268 | 38,407 | 564 | 26 | 775 | 124 | 6 | 170 |
| Victoria | 14,659 | 954 | 19,672 | 388 | 25 | 520 | 80 | 5 | 107 |
| Queensland | 7,696 | 572 | 10,002 | 360 | 27 | 468 | 72 | 5 | 93 |
| South Australia | 7,922 | 306 | 10,781 | 621 | 24 | 844 | 119 | 5 | 161 |
| Western Australia | 6,224 | 290 | 8,353 | 520 | 24 | 698 | 95 | 4 | 128 |
| Tasmania | 1,603 | 112 | 2,343 | 390 | 27 | 571 | 76 | 5 | 112 |
| Northern Territory | 634 | 47 | 882 | 596 | 44 | 829 | 163 | 12 | 226 |
| Australian Capital Territory | 868 | 29 | 1,176 | 416 | 14 | 563 | 88 | 3 | 119 |
| Australia | 67,549 | 3,578 | 91,616 | 480 | 25 | 651 | 99 | 5 | 134 |

(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 | | |
|---------------------------------|--------|--------|--------|--------|-------|-------|-------|--------|-------------|--|--|
| | | | | | | | | | Num- ber | Per 100,000 of mean popu- lation | Per 10,000 motor vehicles regis- tered(b) |
| | | | | | | | | | | | |
| Accidents involving casualties— | | | | | | | | | | | |
| 1972 | 27,365 | 14,757 | 7,863 | 8,116 | 4,909 | 1,371 | 592 | 777 | 65,750 | 499 | 123 |
| 1973 | 29,308 | 14,485 | 8,643 | 9,267 | 5,404 | 1,479 | 711 | 854 | 70,151 | 524 | 125 |
| 1974 | 29,853 | 12,542 | 8,086 | 9,469 | 4,742 | 1,393 | 575 | 813 | 67,473 | 496 | 113 |
| 1975 | 28,217 | 12,514 | 8,241 | 8,793 | 5,104 | 1,496 | 554 | 869 | 65,788 | 478 | 105 |
| 1976 | 27,393 | 12,680 | 7,814 | 8,090 | 5,287 | 1,603 | 582 | 833 | 64,282 | 462 | 98 |
| 1977 | 27,943 | 14,659 | 7,696 | 7,922 | 6,224 | 1,603 | 634 | 868 | 67,549 | 480 | 99 |
| Persons killed— | | | | | | | | | | | |
| 1972 | 1,092 | 915 | 572 | 312 | 340 | 106 | 53 | 32 | 3,422 | 26 | 6 |
| 1973 | 1,230 | 935 | 638 | 329 | 358 | 105 | 55 | 29 | 3,679 | 27 | 7 |
| 1974 | 1,275 | 806 | 589 | 382 | 334 | 111 | 44 | 31 | 3,572 | 26 | 6 |
| 1975 | 1,288 | 910 | 635 | 339 | 304 | 122 | 64 | 32 | 3,694 | 27 | 6 |
| 1976 | 1,264 | 938 | 569 | 307 | 308 | 108 | 51 | 38 | 3,583 | 26 | 5 |
| 1977 | 1,268 | 954 | 572 | 306 | 290 | 112 | 47 | 29 | 3,578 | 25 | 5 |
| Persons injured— | | | | | | | | | | | |
| 1972 | 36,814 | 20,646 | 10,788 | 10,997 | 6,751 | 1,968 | 795 | 1,007 | 89,766 | 681 | 168 |
| 1973 | 39,294 | 20,011 | 11,660 | 12,625 | 7,377 | 2,103 | 1,012 | 1,122 | 95,204 | 712 | 169 |
| 1974 | 40,429 | 17,539 | 10,627 | 12,725 | 6,277 | 1,911 | 788 | 1,042 | 91,338 | 672 | 153 |
| 1975 | 38,141 | 17,437 | 11,019 | 12,020 | 6,832 | 2,137 | 789 | 1,124 | 89,499 | 650 | 142 |
| 1976 | 37,327 | 17,653 | 10,405 | 11,082 | 7,059 | 2,323 | 814 | 1,145 | 87,808 | 631 | 134 |
| 1977 | 38,407 | 19,672 | 10,002 | 10,781 | 8,353 | 2,343 | 882 | 1,176 | 91,616 | 651 | 134 |

(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, 1977

| <i>Type of road user</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> |
|---------------------------|---------------|---------------|---------------|---------------|--------------|--------------|-------------|---------------|---------------|
| PERSONS KILLED | | | | | | | | | |
| Drivers of motor vehicles | 489 | 353 | 215 | 108 | 93 | 49 | 12 | 9 | 1,328 |
| Motor cyclists | 125 | 78 | 97 | 42 | 27 | 10 | 5 | 2 | 386 |
| Pedal cyclists | 22 | 27 | 27 | 9 | 10 | 3 | 1 | 2 | 101 |
| Passengers (all types)(b) | 363 | 276 | 141 | 96 | 101 | 32 | 20 | 12 | 1,041 |
| Pedestrians | 266 | 217 | 92 | 51 | 58 | 18 | 9 | 4 | 715 |
| Other classes(c) | 3 | 3 | - | - | 1 | - | - | - | 7 |
| Total | 1,268 | 954 | 572 | 306 | 290 | 112 | 47 | 29 | 3,578 |
| PERSONS INJURED | | | | | | | | | |
| Drivers of motor vehicles | 14,744 | 8,079 | 3,712 | 4,140 | 3,746 | 992 | 326 | 457 | 36,196 |
| Motor cyclists | 4,055 | 1,673 | 1,670 | 1,625 | 778 | 210 | 126 | 168 | 10,305 |
| Pedal cyclists | 1,067 | 883 | 349 | 554 | 268 | 46 | 27 | 103 | 3,297 |
| Passengers (all types)(b) | 14,149 | 6,931 | 3,511 | 3,646 | 2,877 | 908 | 336 | 367 | 32,725 |
| Pedestrians | 4,349 | 2,074 | 756 | 810 | 655 | 187 | 67 | 81 | 8,979 |
| Other classes(c) | 43 | 32 | 4 | 6 | 29 | - | - | - | 114 |
| Total | 38,407 | 19,672 | 10,002 | 10,781 | 8,353 | 2,343 | 882 | 1,176 | 91,616 |

(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, 1977**

| <i>Age group (years)</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> |
|--------------------------|---------------|---------------|---------------|---------------|--------------|--------------|-------------|---------------|---------------|
| PERSONS KILLED | | | | | | | | | |
| Under 5 | 36 | 29 | 14 | 10 | 13 | 1 | 2 | 1 | 106 |
| 5 and under 7 | 24 | 13 | 10 | 7 | 4 | 1 | 1 | 1 | 61 |
| 7 " " 17 | 110 | 72 | 69 | 34 | 30 | 11 | 5 | 2 | 333 |
| 17 " " 21 | 220 | 178 | 130 | 78 | 47 | 38 | 6 | 7 | 704 |
| 21 " " 30 | 281 | 213 | 140 | 71 | 75 | 24 | 18 | 6 | 828 |
| 30 " " 40 | 135 | 107 | 47 | 21 | 27 | 7 | 7 | 2 | 353 |
| 40 " " 50 | 107 | 75 | 43 | 16 | 24 | 6 | 5 | 5 | 281 |
| 50 " " 60 | 120 | 82 | 47 | 22 | 24 | 7 | 1 | 2 | 305 |
| 60 and over | 233 | 166 | 72 | 47 | 44 | 16 | 2 | 3 | 583 |
| Not stated | 2 | 19 | - | - | 2 | 1 | - | - | 24 |
| Total | 1,268 | 954 | 572 | 306 | 290 | 112 | 47 | 29 | 3,578 |
| PERSONS INJURED | | | | | | | | | |
| Under 5 | 1,253 | 571 | 283 | 240 | 218 | 65 | 29 | 32 | 2,691 |
| 5 and under 7 | 761 | 344 | 146 | 150 | 133 | 33 | 18 | 21 | 1,606 |
| 7 " " 17 | 4,493 | 2,144 | 1,215 | 1,618 | 847 | 351 | 77 | 158 | 10,903 |
| 17 " " 21 | 8,727 | 4,170 | 2,713 | 2,608 | 1,929 | 626 | 166 | 336 | 21,275 |
| 21 " " 30 | 9,233 | 4,802 | 2,349 | 2,141 | 2,006 | 548 | 308 | 312 | 21,699 |
| 30 " " 40 | 4,572 | 2,175 | 1,025 | 997 | 900 | 212 | 123 | 150 | 10,154 |
| 40 " " 50 | 3,190 | 1,507 | 675 | 668 | 624 | 145 | 63 | 68 | 6,940 |
| 50 " " 60 | 2,754 | 1,410 | 618 | 623 | 490 | 162 | 47 | 46 | 6,150 |
| 60 and over | 3,006 | 1,385 | 705 | 630 | 513 | 178 | 16 | 53 | 6,486 |
| Not stated | 418 | 1,164 | 273 | 1,106 | 693 | 23 | 35 | - | 3,712 |
| Total | 38,407 | 19,672 | 10,002 | 10,781 | 8,353 | 2,343 | 882 | 1,176 | 91,616 |

(a) See footnote (a) to previous table.

ROADS*

An article dealing with the development of roads in Australia is given in Year Book, No. 60, pages 385-93.

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 1977. 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), 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 1977

(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 | 10,478 | (b)7,280 | 10,138 | 13,652 | 7,717 | 1,960 | 108,083 |
| Trunk roads | 7,075 | 14,548 | 135 | | 7,602 | — | |
| Ordinary main roads | 18,305 | | 8,130 | | | 1,063 | |
| <i>Total main roads</i> | 35,857 | 21,828 | 18,403 | 13,652 | 15,319 | 3,023 | 108,083 |
| Secondary roads | (c)287 | — | (d)13,774 | — | 8,772 | 290 | 23,123 |
| Development roads | 3,618 | — | 7,063 | — | — | 181 | 10,862 |
| Tourist roads | 403 | 797 | — | — | — | 150 | 1,350 |
| Other roads | 2,606 | (e)1,032 | — | — | — | — | 3,638 |
| <i>Total other roads</i> | 6,914 | 1,829 | 20,837 | — | 8,772 | 621 | |
| Grand total | 42,772 | 23,657 | 39,240 | 13,652 | 24,091 | 3,644 | 147,056 |

(a) As from 1 July 1974 the Country Roads Board acquired the road making powers, roads and relevant staff of the Melbourne and Metropolitan Board of Works. (b) Includes 231 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 1977

(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.(b)</i> | <i>A.C.T.</i> | <i>(a)Total</i> |
|---|------------------|----------------|----------------|----------------|----------------|---------------|----------------|---------------|-----------------|
| Bitumen or concrete | 66,878 | 57,538 | 42,648 | 18,088 | 32,593 | 7,308 | 4,907 | 1,680 | 231,640 |
| Gravel, crushed stone or other improved surface | 65,499 | 45,785 | 28,969 | 21,192 | 32,367 | 13,825 | 1,750 | 360 | 209,747 |
| Formed only | 41,920 | 27,825 | 62,558 | 24,225 | 46,276 | 702 | 5,476 | 42 | 400,742 |
| Cleared only | 14,689 | 28,537 | 51,373 | 37,024 | 52,077 | | 8,018 | - | |
| Total | 188,985 | 159,685 | 185,548 | 100,529 | 163,313 | 21,835 | 20,151 | 2,082 | 842,128 |

(a) Excludes 20,286 kilometres of road dedicated but not trafficable. (b) Figures as at 30 June 1976. Figures as at 30 June 1977 are not available.

Expenditure on roads and bridges

Primary responsibility for the construction and maintenance of roads and bridges rests with State and local authorities. For detailed information see the individual State Year Books.

* Includes bridges.

National Association of Australian State Road Authorities

The National Association of Australian State Road Authorities (NAASRA) was established in 1934. 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 Main Roads, Tasmania; Commonwealth Department of Construction.

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. National standards for road and bridge construction and maintenance and improved administrative and financial control methods are developed by committees of experienced staff from the authorities, with secretarial services provided by a small staff located in Sydney.

This Secretariat arranges publication of the policies and standards which are widely used by road authorities, local government and universities; co-operates with the Standards Association of Australia on the preparation of national codes of practice; and acts as an Australian centre for contact with overseas road bodies and for the circulation of standards published by them.

Road research is a continuing concern, and in 1959 the Association decided to set up and finance a separate national centre to conduct road research on behalf of its members. The Australian Road Research Board (ARRB) was duly established in 1960 as a company controlled by a Board consisting of the NAASRA members.

The Association regularly confers with the Commonwealth Department of Transport, the Bureau of Transport Economics and the Australian Transport Advisory Council on major road policies. As part of the Commonwealth 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 Association is a member of the Permanent International Association of Road Congresses (PIARC) and of the Road Engineering Association of Asia and Australasia (REAAA).

Australian Road Research Board

The Australian Road Research Board (ARRB) is a non-profit-making company founded in 1960 by the National Association of Australian State Road Authorities (NAASRA), and now located at Vermont in Victoria. It is financed by Federal and State Government Road Authorities whose permanent heads form ARRB's Board of Directors. The Executive Director, a full-time employee of the Board, is responsible for administering the Directors' policies.

ARRB regularly undertakes and arranges road and road transport research over a comprehensive range of subjects and disseminates results to appropriate organisations, engineers and scientists involved in the design, location, construction, upkeep and use of roads. The Board also relies on advice from its Technical Committees in Bituminous Surfacing, Road Pavements, Human Factors, Local Government Engineering, Traffic Engineering and Transport Planning, and its Steering Committee of senior advisors.

ARRB disseminates road research information through its biennial conference, first held in 1962, and regular symposia, and through its publications which include the *Conference Proceedings*, a quarterly journal *Australian Road Research* and various reports arising out of its many research projects. The Board also maintains a unique library of road literature and operates an expanding computer-based information service called *Australian Road Index* which collects and collates all Australian road research findings. It also operates the International Road Research Documentation (IRRD) data base of OECD in Australia.

The Commonwealth Bureau of Roads

In June 1977, the Commonwealth Bureau of Roads was officially amalgamated with the Bureau of Transport Economics. (See section on the Bureau of Transport Economics at the beginning of this chapter.)

AIR TRANSPORT

Department of Transport

Control of air transport in Australia is exercised by the Department of Transport. The Department'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. Further details about air transport control and operations are given in the annual reports to the Commonwealth 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 Commonwealth Government-owned Trans-Australia Airlines (TAA). All principal routes are competitive, with both airlines providing equal capacities in accordance with legislation passed by the Commonwealth Parliament. The two principal Acts which establish the legislative basis of this controlled competition are the *Airlines Agreements Act* 1952 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 TAA and Ansett Airlines of Australia, and was 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 non-competitive intrastate routes in Australia.

At 30 June 1978, the Ansett Airlines of Australia fleet included twelve Boeing 727s, twelve DC-9s, twelve Friendships, three Electra freighters and three helicopters. At the same date, Trans-Australia Airlines operated a fleet of eleven Boeing 727s, twelve DC-9s, thirteen Friendships and four Twin Otter DHC-6s.

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 Darwin (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 their respective capital cities. Except for 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 and Friendships. Connair uses DC3s and Herons.

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. Many provide regular air links between many centres, towns and country areas which are not served by the major airlines. 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 1978 forty-five 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)

| | | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|--------------------------------|--------|-----------|-----------|-----------|-----------|-----------|-----------|
| Hours flown | number | 248,774 | 256,435 | 281,611 | 282,706 | 270,928 | 258,151 |
| Kilometres flown | '000 | 113,033 | 118,566 | 131,829 | 135,455 | 130,100 | 122,933 |
| Passengers— | | | | | | | |
| Embarkations | number | 6,629,316 | 7,502,892 | 8,857,654 | 9,393,104 | 9,315,141 | 9,348,697 |
| Passenger-kilometres | '000 | 5,134,058 | 5,684,791 | 6,812,300 | 7,374,126 | 7,280,993 | 7,329,665 |
| Freight— | | | | | | | |
| Tonnes uplifted | tonnes | 89,883 | 94,425 | 112,654 | 107,813 | 106,061 | 108,108 |
| Tonne-kilometres | '000 | 74,179 | 81,519 | 98,294 | 97,914 | 97,499 | 96,315 |
| Mail— | | | | | | | |
| Tonnes uplifted | tonnes | 10,137 | 10,114 | 9,916 | 9,613 | 9,708 | 9,636 |
| Tonne-kilometres | '000 | 9,292 | 9,787 | 9,272 | 9,023 | 9,113 | 9,148 |

(a) Includes flights of all Australian-owned airlines, with the exception of those of Qantas Airways Limited, between airports located within Australia. The domestic carrier, East-West Airlines, commenced services between Australia and Norfolk Island in March 1977 and particulars of these flights are included from that time. Prior to March 1977, Australia-Norfolk Island flights were serviced by Qantas and details of those flights were included with statistics of regular overseas services.

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 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> | <i>1971-72</i> | <i>1972-73</i> | <i>1973-74</i> | <i>1974-75</i> | <i>1975-76</i> | <i>1976-77</i> |
|-----------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Sydney | 3,694,498 | 4,162,659 | 4,679,513 | 4,953,051 | 4,788,086 | 4,846,610 |
| Melbourne | 2,861,896 | 3,226,294 | 3,876,877 | 4,037,585 | 4,125,932 | 4,149,390 |
| Brisbane | 1,448,920 | 1,658,043 | 2,078,812 | 2,218,780 | 2,119,538 | 2,075,381 |
| Adelaide | 1,046,840 | 1,154,384 | 1,374,645 | 1,494,675 | 1,454,917 | 1,618,299 |
| Canberra | 670,608 | 813,712 | 934,069 | 981,815 | 901,837 | 881,668 |
| Perth | 545,890 | 536,057 | 646,699 | 696,527 | 629,530 | 704,041 |
| Hobart | 227,016 | 282,676 | 382,636 | 375,769 | 403,759 | 403,069 |
| Townsville | 202,160 | 231,665 | 315,782 | 320,153 | 329,831 | 322,498 |
| Coolangatta | 188,917 | 243,994 | 278,044 | 300,854 | 314,780 | 320,606 |
| Launceston | 208,090 | 244,982 | 294,694 | 287,741 | 304,784 | 309,341 |
| Cairns | 182,300 | 204,414 | 251,847 | 266,620 | 275,439 | 270,147 |
| Mackay | 133,806 | 159,408 | 196,951 | 213,972 | 249,196 | 244,025 |
| Darwin | 131,703 | 141,696 | 182,319 | 241,003 | 208,806 | 200,833 |

International activity

International organisations. The International Civil Aviation Organization had a membership of 129 nations in June 1977. Australia has continued its position as a member of the Council, which it has held since ICAO 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-five countries at 30 June 1977. 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 six other countries at 30 June 1977.

International air services. At 30 June 1978, twenty-two overseas international airlines were operating regular scheduled air services to Australia. These were: Air-India (India), Air Nauru (Nauru), Air New Zealand (New Zealand), Air Niugini (New Guinea), Air Pacific (Fiji), Alitalia (Italy), British Airways Overseas Division (Britain), Canadian Pacific Air Lines (Canada), Cathay Pacific (Hong Kong), Deutsche Lufthansa (Federal Republic of Germany), Garuda (Indonesia), Japan Air Lines (Japan), JAT (Yugoslavia), KLM Royal Dutch Airlines (Netherlands), Singapore International Airlines (Singapore), Merpati Nusantara Airlines (Indonesia), Pan American World Airways (United States of America), Philippines Air Lines (Philippines), South African Airways (Republic of South Africa), Thai International (Thailand), Malaysian Airways (Malaysia), and Union de Transport Aeriens (France). Qantas, Australia's international airline, operates a fleet of nineteen aircraft of which one is a Hawker Siddeley, three are Boeing 707-338C jet aircraft and fifteen are Boeing 747B jet aircraft. All the shares in Qantas Airways Limited are owned by the Commonwealth Government.

International operations. The table following shows particulars of international airline traffic during 1976-77 moving into and out of an area which embraces Australia and Norfolk Island. These figures do not include traffic between Australia and Norfolk Island.

AIR TRANSPORT: INTERNATIONAL AIRLINE TRAFFIC TO AND FROM AUSTRALIA(a), 1976-77

| <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 | 3,722 | 677,394 | 16,593 | 1,028 |
| Other airlines | 7,255 | 806,685 | 32,769 | 4,053 |
| All airlines | 10,977 | 1,484,079 | 49,362 | 5,081 |
| Traffic from Australia— | | | | |
| Qantas Airways Limited | 3,736 | 637,886 | 12,160 | 2,021 |
| Other airlines | 7,224 | 773,000 | 16,936 | 946 |
| All airlines | 10,960 | 1,410,886 | 29,095 | 2,968 |

(a) Australian mainland 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 overseas countries.

AIR TRANSPORT: OPERATIONS OF AUSTRALIA'S REGULAR OVERSEAS SERVICES

| | | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|--------------------------------|--------|-----------|-----------|-----------|-----------|------------|------------|
| Hours flown | number | 91,357 | 87,548 | 90,293 | 86,231 | 85,839 | 79,499 |
| Kilometres flown | '000 | 66,270 | 64,823 | 69,062 | 65,045 | 65,221 | 61,586 |
| Passengers— | | | | | | | |
| Embarkations | number | 885,548 | 1,054,929 | 1,295,457 | 1,418,541 | 1,488,858 | 1,551,679 |
| Passenger-kilometres | '000 | 4,892,044 | 6,775,195 | 8,653,357 | 9,434,345 | 10,541,870 | 11,318,928 |
| Freight— | | | | | | | |
| Tonnes uplifted | tonnes | 20,961 | 23,239 | 27,328 | 29,974 | 33,417 | 34,380 |
| Tonne-kilometres | '000 | 143,514 | 150,342 | 195,078 | 213,748 | 243,911 | 258,748 |
| Mail— | | | | | | | |
| Tonnes uplifted | tonnes | 2,841 | 2,791 | 2,912 | 2,950 | 2,997 | 3,205 |
| Tonne-kilometres | '000 | 24,627 | 22,891 | 25,071 | 24,043 | 26,217 | 27,788 |

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. Hours flown by general aviation during 1977-78 were estimated at 1.420 million, approximately 3.6 per cent more than the previous year.

Aerodromes

The number of aerodromes throughout Australia and its external territories at 30 June 1978 was 453. Eighty-two were owned by the Commonwealth Government and 371 by local authorities and private interests. Capital expenditure on aerodrome and building construction was \$19.3 million in 1977-78. Maintenance expenditure on Commonwealth Government-owned aerodromes during 1977-78 was \$5.0 million, and development and maintenance grants to licensed aerodromes participating in the Local Ownership Plan totalled \$1,847,920.

Airways facilities

A total of 416 navigational aids were in service at 30 June 1977. The total includes 224 non-directional beacons (NDB), 102 distance measuring equipment (DME), 9 international distance measuring equipment (DMEI), 9 visual-aural ranges (VAR), 55 VHF omni-directional ranges (VOR), 16 instrument landing systems (ILS) and one twin locator approach system.

One hundred and forty-two aerodromes are now equipped with night landing facilities. Eighty-one Australian-designed 'T' systems (T-VASIS) are operating. Seven long-range surveillance radars, two short range and nine secondary surveillance radars (seven civil, two military) are also in operation. There are twenty-seven fully-equipped Air Traffic Control Centres and fifty-three flight service units.

Air transport registrations, licences, etc., in force in Australia

At 30 June 1978 there were 5,387 aircraft registered in Australia. At 30 June 1978 there were also 41,820 pilots' licences in force, of which 19,062 were private pilots' licences, 3,531 commercial pilots' licences, and 17,719 student pilots' licences. Flight radio-telephone operators' licences numbered 27,606.

Accidents and casualties

AIR TRANSPORT: ACCIDENTS INVOLVING CASUALTIES(a) AUSTRALIA(b)

| | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|-------------------------------------|---------|---------|---------|---------|---------|---------|
| Number | 30 | 34 | 24 | 32 | 33 | 45 |
| Persons killed | 41 | 46 | 25 | 54 | 39 | 54 |
| Persons seriously injured | 8 | 19 | 16 | 24 | 24 | 24 |

(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; includes all accidents to overseas registered aircraft that occur in Australia.

POSTAL, TELECOMMUNICATION AND RADIOCOMMUNICATION SERVICES

In this section, 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 Offices of the Postal and Telecommunications Department are located in Canberra, Melbourne and Sydney.

Postal and Telecommunications Department—General

Early in 1975, legislation was passed to establish two statutory authorities—the Australian Telecommunications Commission and the Australian Postal Commission—to take over the postal and telecommunications responsibility of the former Postmaster-General's Department from 1 July 1975. The residual functions of the former department remain with the Postal and Telecommunications Department, which was created from that date. These mainly involve the administration of the *Wireless Telegraphy Act* 1905 which concerns the licensing and management of the radio frequency spectrum. The new Department also took over (from the former Department of the Media) the responsibility for policy matters concerned with broadcasting.

The principal functions of the Department are to provide policy advice to the Minister on postal, telegraphic, telephonic, broadcasting, and other like services which are subject to legislation for which the Minister for Post and Telecommunications is responsible.

Since its establishment the Department has assumed other responsibilities, some of which are currently reflected in the *Wireless Telegraphy Act* 1905 and the *Broadcasting and Television Act* 1942.

The authorities responsible to the Minister for Post and Telecommunications have been established to provide within Australia a network or 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;
- 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 470–472); and
- to provide agency services for Australian and State Government Departments and other instrumentalities.

Australian Postal Commission

The Australian Postal Commission was established under the *Postal Services Act* 1975. It commenced operations on 1 July 1975 and trades under the name Australia Post.

The establishment of the Australian Postal Commission was accompanied by a complete reorganisation of the management of postal services in Australia. The Commission was given a charter to improve postal services whilst avoiding the large financial losses of previous years. The Postal Services Act sets specific financial objectives for the Commission, which are designed to enable postal services to be operated on a business-oriented basis.

In accordance with the *Postal Services Act* 1975, the Australian Postal Commission is required to pursue, as far as practicable, a financial policy to secure revenue sufficient to meet all expenditure chargeable to revenue and provide at least half of its capital expenditure.

Since 1 July 1975, Australia Post has taken a number of initiatives to develop new services and maintain existing ones while at the same time maintaining competitive pricing. The initiatives include:

- the introduction of Australia Post Courier services
- the introduction of a concessional rate for domestic Christmas greeting cards
- the introduction of a new postal Money Order Service
- the revision of the Registered Publications Service and
- the introduction of an overnight parcels service between all capital cities.

In order to improve services further, the Commission has undertaken a program to decentralise the mail sorting and distribution network. The program involves the establishment of regional mail sorting centres in country and suburban areas in each State. A number have already been established.

The following tables indicate Australia Post's financial results, services and operations for 1977–78. Selected tables also show figures from 1972–73 to 1977–78.

AUSTRALIAN POSTAL COMMISSION: REVENUE AND EXPENDITURE, 1973 TO 1978
(S'000)

| <i>Year ended 30 June—</i> | <i>1973</i> | <i>1974</i> | <i>1975</i> | <i>1976(a)</i> | <i>1977(a)</i> | <i>1978(a)</i> |
|--|----------------|----------------|----------------|----------------|----------------|----------------|
| Revenue— | | | | | | |
| Mail services | 207,277 | 224,246 | 274,073 | 402,221 | 435,790 | 456,739 |
| Money order, postal order services | 4,778 | 4,944 | 5,653 | 7,481 | 6,881 | 6,242 |
| Commission on agency services | 10,055 | 11,863 | 13,207 | 85,892 | 101,739 | 95,636 |
| Other revenue | 4,386 | 3,943 | 9,055 | 10,044 | 17,186 | 20,110 |
| Total | 26,496 | 244,996 | 301,988 | 505,638 | 561,596 | 578,727 |
| Expenditure— | | | | | | |
| Operating and general | 173,265 | 203,185 | 262,006 | 354,995 | 395,675 | 426,100 |
| Transportation | 35,404 | 36,638 | 42,214 | 46,723 | 50,168 | 55,343 |
| Depreciation, superannuation, long-service leave, interest | 38,719 | 59,691 | 62,364 | 72,258 | 86,854 | 95,217 |
| Total | 247,388 | 299,514 | 366,584 | 473,976 | 532,697 | 576,660 |

(a) Figures not comparable with years prior to 1976 due mainly to changes in accounting for work done at post offices for Telecom Australia.

NOTE: Prior to 1976, postal services were operated by the Postmaster-General's Department.

AUSTRALIAN POSTAL COMMISSION: STATEMENT OF REVENUE AND EXPENDITURE FOR THE YEAR ENDED 30 JUNE 1978
(S'000)

| | |
|---|----------------|
| Revenue— | |
| Mail services | 456,739 |
| Postal order and money order services | 6,242 |
| Commission on agency services | 95,636 |
| Other revenue | 20,110 |
| Total | 578,727 |
| Expenditure— | |
| Operating and general | 426,100 |
| Transportation | 55,343 |
| Depreciation | 11,786 |
| Superannuation | 60,250 |
| Long Service Leave | 17,083 |
| Interest | 6,098 |
| Total | 576,660 |
| Accumulated surplus available for appropriation— | |
| Operating surplus | 2,067 |
| Accumulated surplus brought forward | 21,234 |
| Total | 23,301 |
| Appropriation— | |
| Transfer to fixed assets reserve | — |
| Total | — |
| Accumulated surplus carried forward | 23,301 |

AUSTRALIAN POSTAL COMMISSION: SUMMARY OF TRANSACTIONS AFFECTING FIXED ASSETS, 1977-1978
(S)

| <i>Class of asset</i> | <i>Value at 1 July 1977</i> | <i>Additions in the year</i> | <i>Asset expenditure written out</i> | <i>Value at 30 June 1978 (a)</i> |
|---|-----------------------------|------------------------------|--------------------------------------|----------------------------------|
| Land | 22,972,796 | 1,918,347 | 109,384 | 24,781,759 |
| Buildings | 159,216,549 | 12,072,646 | 4,954,948 | 166,334,247 |
| Motor vehicles | 11,384,112 | 3,167,191 | 2,112,028 | 12,439,275 |
| Plant | 36,726,942 | 1,878,798 | 1,730,454 | 35,513,478 |
| Equipment | 14,028,685 | 2,405,832 | 450,768 | 15,983,749 |
| Total value of fixed assets | 244,329,084 | 21,442,814 | 9,357,582 | 255,052,508 |
| Less depreciation | | | | 51,424,282 |
| Net book value of fixed assets | | | | 203,628,226 |

(a) At cost.

TRANSPORT AND COMMUNICATION

**AUSTRALIAN POSTAL COMMISSION: ANALYSIS OF TRANSACTIONS
AFFECTING THE PROVISION FOR DEPRECIATION, 1977-78**
(**\$**)

| <i>Class of asset</i> | <i>Balance of provision at 1 July 1977</i> | <i>Depreciation provided for in 1977-78</i> | <i>Asset expenditure written out</i> | <i>Balance of provision at 30 June 1978</i> |
|---|--|---|--------------------------------------|---|
| Buildings | 29,859,499 | 3,624,004 | 4,954,948 | 28,528,555 |
| Motor vehicles | 2,740,121 | 3,794,702 | 2,112,028 | 4,422,795 |
| Plant | 13,078,105 | 3,355,356 | 1,730,454 | 13,341,199 |
| Equipment | 4,570,212 | 1,012,289 | 450,768 | 5,131,733 |
| Total value of provision | 50,247,937 | 11,786,351 | 9,248,198 | 51,424,282 |

**AUSTRALIAN POSTAL COMMISSION: PERSONS ENGAGED IN PROVIDING POSTAL SERVICES AT
30 JUNE 1978**

| | <i>H.Q.</i> | <i>N.S.W. (Incl. A.C.T.)</i> | <i>Vic.</i> | <i>Qld</i> | <i>S.A. (Incl. N.T.)</i> | <i>W.A.</i> | <i>Tas.</i> | <i>Aust. 1978</i> | <i>Aust. 1977</i> |
|-------------------------------|-------------|--------------------------------------|---------------|--------------|----------------------------------|--------------|--------------|-----------------------|-----------------------|
| Full time official staff (a)— | | | | | | | | | |
| Permanent | 520 | 9,268 | 6,105 | 3,431 | 2,535 | 2,037 | 669 | 24,565 | 23,729 |
| Temporary | 17 | 3,411 | 2,252 | 665 | 289 | 321 | 131 | 7,086 | 7,735 |
| Other staff (b) | 1 | 4,633 | 2,496 | 2,057 | 1,221 | 986 | 461 | 11,855 | 12,002 |
| Total | 538 | 17,312 | 10,853 | 6,153 | 4,045 | 3,344 | 1,261 | 43,506 | 43,466 |

(a) 'Official Staff' are those whose employment is governed by the Postal Services Act 1975. (b) Includes persons who are not employed under the Postal Services Act, but who are employed on the basis of business transacted. Also included are persons or organisations who hold road mail service contracts with the Australian Postal Commission.

AUSTRALIAN POSTAL COMMISSION: MAIL DELIVERY NETWORK AND POST OFFICES AT 30 JUNE 1978

| | <i>N.S.W</i> | <i>Vic.</i> | <i>Qld</i> | <i>S.A.</i> | <i>W.A.</i> | <i>Tas.</i> | <i>Aust. 1978</i> | <i>Aust. 1977</i> |
|-------------------------------------|--------------|--------------|------------|-------------|-------------|-------------|-----------------------|-----------------------|
| Contract road services | 1,818 | 832 | 1,081 | 314 | 376 | 187 | 4,608 | 4,692 |
| Households receiving mail | 1,676,296 | 1,238,996 | 646,032 | 452,047 | 385,339 | 129,261 | 4,527,971 | 4,434,784 |
| Businesses receiving mail | 144,053 | 111,322 | 63,593 | 37,243 | 34,708 | 10,248 | 401,167 | 388,323 |
| Post Offices— | | | | | | | | |
| Official— | | | | | | | | |
| At 1 July 1977 | 515 | 335 | 218 | 171 | 164 | 42 | 1,445 | .. |
| At 30 June 1978 | 513 | 336 | 224 | 169 | 163 | 42 | 1,447 | .. |
| Non-official— | | | | | | | | |
| At 1 July 1977 | 1,373 | 1,048 | 699 | 556 | 376 | 220 | 4,272 | .. |
| At 30 June 1978 | 1,339 | 1,003 | 639 | 552 | 376 | 215 | 4,124 | .. |
| Total post offices | 1,852 | 1,339 | 863 | 721 | 539 | 257 | 5,571 | .. |

AUSTRALIAN POSTAL COMMISSION: TOTAL POSTAL ARTICLES HANDLED
(**'000**)

| <i>Year ended 30 June</i> | <i>Posted for delivery within Australia</i> | <i>Posted for places abroad</i> | <i>Received from abroad</i> | <i>Total postal articles handled</i> | <i>Mail carried on domestic air services (included in total)(a)</i> | <i>Gross weight</i> |
|---------------------------|---|---------------------------------|-----------------------------|--------------------------------------|---|---------------------|
| | | | | | <i>Articles</i> | <i>kilograms</i> |
| 1973 | 2,425,799 | 108,306 | 156,520 | 2,690,625 | 523,762 | 6,794,426 |
| 1974 | 2,411,355 | 97,833 | 147,053 | 2,656,241 | 499,767 | 6,483,148 |
| 1975 | 2,281,898 | 93,898 | 140,176 | 2,515,972 | 495,725 | 6,430,717 |
| 1976 | 1,989,575 | 82,577 | 136,394 | 2,208,546 | 431,328 | 5,594,724 |
| 1977 | 1,972,570 | 85,005 | 140,802 | 2,198,377 | 496,470 | 6,448,310 |
| 1978 | 2,069,153 | 84,993 | 149,393 | 2,303,539 | 516,330 | 6,706,242 |

(a) Postings within Australia and Territories for delivery therein.

AUSTRALIAN POSTAL COMMISSION: ORDINARY POSTAL ARTICLES(a)
(^{'000})

| Year ended 30 June | Standard letters | | | Total articles | Non-standard articles | | | Total articles |
|--------------------|--------------------------------------|--------------------------|----------------------|----------------|--------------------------------------|--------------------------|----------------------|----------------|
| | Posted for delivery within Australia | Posted for places abroad | Received from abroad | | Posted for delivery within Australia | Posted for places abroad | Received from abroad | |
| 1976 | 1,711,812 | 67,880 | 99,028 | 1,878,720 | 258,586 | 12,114 | 32,609 | 303,309 |
| 1977 | 1,697,798 | 70,102 | 103,115 | 1,871,015 | 254,502 | 12,498 | 33,021 | 300,021 |
| 1978 | 1,774,608 | 67,610 | 110,222 | 1,952,440 | 273,189 | 14,893 | 34,379 | 322,461 |

STATES—YEAR ENDED 30 JUNE 1978

| | | | | | | | | |
|-----------------------------|---------|--------|--------|---------|---------|-------|--------|---------|
| New South Wales | 682,010 | 27,509 | 46,333 | 755,852 | 117,384 | 7,772 | 16,972 | 142,128 |
| Victoria | 477,281 | 21,844 | 40,426 | 539,551 | 87,311 | 4,456 | 11,211 | 102,978 |
| Queensland | 268,258 | 5,568 | 10,144 | 283,970 | 28,194 | 1,229 | 2,178 | 31,601 |
| South Australia | 156,052 | 6,497 | 5,802 | 168,351 | 17,517 | 398 | 1,634 | 19,549 |
| Western Australia | 142,559 | 5,950 | 7,517 | 156,026 | 15,259 | 1,003 | 2,374 | 18,636 |
| Tasmania | 48,448 | 242 | .. | 48,690 | 7,524 | 35 | 10 | 7,569 |

(a) Includes certified messenger delivery and priority paid mail.

AUSTRALIAN POSTAL COMMISSION: REGISTERED ARTICLES(a) AND PARCELS(b)
(^{'000})

| Year ended 30 June | Registered articles | | | | Parcels | | | |
|--------------------|----------------------------------|--------------------------|----------------------|----------------|----------------------------------|--------------------------|----------------------|----------------|
| | Posted for delivery in Australia | Posted for places abroad | Received from abroad | Total articles | Posted for delivery in Australia | Posted for places abroad | Received from abroad | Total articles |
| 1973 | 7,071 | 1,846 | 2,455 | 11,372 | 22,483 | 1,137 | 1,824 | 25,444 |
| 1974 | 7,063 | 1,898 | 2,761 | 11,722 | 22,323 | 1,041 | 1,964 | 25,328 |
| 1975 | 6,256 | 2,113 | 2,797 | 11,166 | 20,419 | 1,002 | 1,939 | 23,360 |
| 1976 | 3,877 | 1,533 | 2,807 | 8,217 | 15,300 | 1,050 | 1,950 | 18,300 |
| 1977 | 3,370 | 1,375 | 2,696 | 7,441 | 16,900 | 1,030 | 1,970 | 19,900 |
| 1978 | 3,122 | 1,422 | 2,794 | 7,338 | 18,234 | 1,068 | 1,998 | 21,300 |

STATES—YEAR ENDED 30 JUNE 1978

| | | | | | | | | |
|-----------------------------|-------|-----|-------|-------|-------|-----|-----|-------|
| New South Wales | 1,031 | 707 | 1,670 | 3,408 | 6,848 | 460 | 722 | 8,030 |
| Victoria | 699 | 513 | 928 | 2,140 | 4,728 | 367 | 758 | 5,853 |
| Queensland | 580 | 60 | 51 | 691 | 3,130 | 88 | 256 | 3,474 |
| South Australia | 412 | 56 | 34 | 502 | 1,784 | 73 | 95 | 1,952 |
| Western Australia | 278 | 84 | 111 | 473 | 1,433 | 72 | 144 | 1,649 |
| Tasmania | 122 | 2 | .. | 124 | 311 | 8 | 23 | 342 |

(a) Totals include messenger delivery mail. (b) Totals include certified, messenger delivery and priority paid mail.

**AUSTRALIAN POSTAL COMMISSION: SPECIAL SERVICES:
ARTICLES HANDLED**
(^{'000})

| Year ended 30 June | Certified mail | Messenger delivery | Priority paid mail(a) |
|--------------------|----------------|--------------------|-----------------------|
| 1973 | 6,116 | 1,716 | 1,354 |
| 1974 | 6,241 | 1,794 | 1,623 |
| 1975 | 6,288 | 1,572 | 1,462 |
| 1976 | 5,424 | 1,129 | 1,386 |
| 1977 | 4,927 | 1,007 | 1,449 |
| 1978 | 5,473 | 1,013 | 1,783 |

STATES—YEAR ENDED 30 JUNE 1978

| | | | |
|-----------------------------|-------|-----|-----|
| New South Wales | 1,598 | 601 | 791 |
| Victoria | 1,518 | 208 | 475 |
| Queensland | 1,041 | 83 | 156 |
| South Australia | 514 | 62 | 202 |
| Western Australia | 505 | 49 | 109 |
| Tasmania | 297 | 10 | 50 |

TRANSPORT AND COMMUNICATION
**AUSTRALIAN POSTAL COMMISSION:
 MONEY ORDERS AND POSTAL ORDERS**

| Year ended 30 June | <i>Money orders issued(a)</i> | | | | | |
|--------------------|---------------------------------|--------------|-----------------------------|--------------|--------------------------------|--------------|
| | <i>For payment in Australia</i> | | <i>For payment overseas</i> | | <i>Postal orders issued(a)</i> | |
| | <i>Number</i> | <i>Value</i> | <i>Number</i> | <i>Value</i> | <i>Number</i> | <i>Value</i> |
| | '000 | \$'000 | '000 | \$'000 | '000 | \$'000 |
| 1973 | 4,705 | 139,665 | 447 | 5,231 | 16,787 | 57,475 |
| 1974 | 4,348 | 149,099 | 426 | 5,343 | 15,822 | 60,887 |
| 1975 | 4,161 | 177,023 | 361 | 5,645 | 14,547 | 60,566 |
| 1976 | 3,685 | 197,201 | 258 | 4,681 | 9,673 | 42,554 |
| 1977 | 3,610 | 218,513 | 198 | 4,162 | 7,100 | 33,075 |
| 1978(b) | 6,801 | 337,652 | 188 | 4,515 | 2,228 | 10,863 |

(a) Since 21 November 1977 a new Postal Money Order Service has replaced both the Money Order and Postal Order Services.
 (b) Money Orders issued includes Postal Money Orders issued since 21 November 1977.

**AUSTRALIAN POSTAL COMMISSION:
 SUMMARY OF AUSTRALIAN OVERSEAS AIRMAIL-ARTICLES
 ('000)**

| Year ended 30 June | <i>Despatched overseas</i> | | | <i>Received from overseas</i> | | | |
|--------------------|----------------------------|-----------------------|----------------|-------------------------------|----------------|-----------------------|-----------------------|
| | <i>Letters</i> | <i>Other articles</i> | <i>Parcels</i> | <i>Total articles</i> | <i>Letters</i> | <i>Other articles</i> | <i>Total articles</i> |
| 1973 | 63,818 | 6,762 | 202 | 70,782 | 91,950 | 8,598 | 632 |
| 1974 | 66,418 | 8,322 | 275 | 75,015 | 96,949 | 9,239 | 695 |
| 1975 | 66,097 | 8,508 | 301 | 74,906 | 96,615 | 9,557 | 741 |
| 1976 | 59,210 | 7,371 | 274 | 66,855 | 96,450 | 9,763 | 799 |
| 1977 | 59,103 | 7,433 | 337 | 66,873 | 97,885 | 11,013 | 851 |
| 1978 | 59,554 | 8,014 | 395 | 67,963 | 100,067 | 12,712 | 859 |

Telecommunications services within Australia

The Australian Telecommunications Commission commenced operations on 1 July 1975, taking over the telecommunications functions of the former Postmaster-General's Department.

The functions of the Commission as set out in the *Telecommunications Act 1975* are:

- to plan, establish, maintain and operate telecommunications services within Australia;
- to operate such other services as the Commission is authorised by this Act to operate;
- to provide, at the request of the Australian Government, technical assistance outside Australia in relation to the planning, establishment, maintenance and operation of telecommunications services in countries outside Australia; and
- to do anything incidental or conducive to the performance of any of the preceding functions.

Financial Results

The following tables show the earnings, expenses and funds situation for the first three years of the Commission's operations.

**AUSTRALIAN TELECOMMUNICATIONS COMMISSION: REVENUE
 (\$'000)**

| <i>Year ended 30 June—</i> | <i>1976</i> | <i>1977</i> | <i>1978</i> |
|--|------------------|------------------|------------------|
| Telephone rentals | 416,831 | 454,111 | 495,420 |
| Telephone calls | 839,580 | 967,331 | 1,078,830 |
| Telephone connections and rearrangements | 58,447 | 77,465 | 80,719 |
| Telegrams | 29,423 | 31,511 | 31,303 |
| Telex rentals | 14,090 | 16,219 | 18,655 |
| Telex calls | 17,417 | 20,021 | 26,081 |
| Other earnings(a) | 48,401 | 108,334 | 125,490 |
| Total | 1,424,189 | 1,674,991 | 1,856,499 |

(a) Major items within this classification are: Fees for advertisements in telephone directories, proceeds of sales of fixed assets, telephone service connection fees and telex call fees.

AUSTRALIAN TELECOMMUNICATIONS COMMISSION: EXPENDITURE
(S'000)

| <i>Year ended 30 June—</i> | <i>1976</i> | <i>1977</i> | <i>1978</i> |
|--------------------------------------|------------------|------------------|------------------|
| Maintenance of plant | 278,125 | 355,196 | 386,723 |
| Operating | 236,148 | 275,278 | 288,573 |
| General and administrative | 62,621 | 71,520 | 105,160 |
| Accommodation | 50,224 | 64,678 | 74,705 |
| Depreciation | 312,358 | 340,817 | 366,514 |
| Superannuation | 70,395 | 100,381 | 106,669 |
| Long service leave | 22,336 | 24,090 | 25,949 |
| Interest | 239,588 | 278,629 | 317,288 |
| Total | 1,271,795 | 1,510,589 | 1,671,580 |

AUSTRALIAN TELECOMMUNICATIONS COMMISSION:
FUNDS STATEMENT
(S million)

| <i>At 30 June—</i> | <i>1976</i> | <i>1977</i> | <i>1978</i> |
|---|--------------|--------------|--------------|
| Source of funds— | | | |
| From the Commonwealth | 392.0 | 215.0 | 65.0 |
| From the public | — | 193.7 | 200.3 |
| From trading activities— | | | |
| Net trading result | 152.4 | 164.4 | 184.9 |
| Plus non-cash charges— | | | |
| Depreciation | 312.4 | 340.8 | 372.3 |
| Excess of liability over long service leave | 10.0 | 7.1 | 10.3 |
| Total | 866.8 | 921.0 | 832.8 |
| Application of funds— | | | |
| Increase in fixed assets and stores holdings | 780.0 | 897.0 | 949.5 |
| Less non-cash charges capitalised— | | | |
| Depreciation | -8.4 | -9.2 | -10.9 |
| Long service leave liability | -13.0 | -15.6 | -17.1 |
| Increase in current assets over current liabilities | 108.2 | 48.8 | -88.7 |
| Total | 866.8 | 921.0 | 832.8 |

A brief history of the development of telecommunications in Australia is shown in Year Book No. 59, pages 378-82. Common internal telecommunication operations comprise telephone, telegram, telex and data services. The following tables give details of these services.

TELEPHONE SERVICES IN OPERATION AT 30 JUNE 1978

| | <i>N.S.W.</i> | <i>Vic.</i> | <i>Qld</i> | <i>S.A.</i> | <i>W.A.</i> | <i>Tas.</i> | <i>Australia</i> |
|---|------------------|------------------|----------------|----------------|----------------|----------------|------------------|
| Type of service— | | | | | | | |
| Ordinary exchange services | 1,415,185 | 1,107,015 | 480,962 | 346,211 | 289,958 | 100,850 | 3,740,181 |
| Party line services | 2,533 | 405 | 1,810 | 642 | 358 | 1 | 5,749 |
| Private branch exchange | 150,171 | 106,260 | 42,569 | 40,875 | 38,742 | 8,860 | 387,477 |
| Public telephones | 12,875 | 7,387 | 5,253 | 3,124 | 2,790 | 1,109 | 32,538 |
| Connected to— | | | | | | | |
| Automatic exchanges | 1,540,407 | 1,202,718 | 502,176 | 377,710 | 327,956 | 110,820 | 4,061,787 |
| Manual exchanges | 40,357 | 18,349 | 28,418 | 13,142 | 3,892 | — | 104,158 |
| Located in— | | | | | | | |
| Metropolitan local service area | 980,710 | 902,399 | 288,639 | 292,684 | 254,382 | 50,138 | 2,768,952 |
| Country areas | 600,054 | 318,668 | 241,955 | 98,168 | 77,466 | 60,682 | 1,396,993 |
| Total | 1,580,764 | 1,221,067 | 530,594 | 390,852 | 331,848 | 110,820 | 4,165,945 |

TELEPHONE INSTRUMENTS IN SERVICE

| <i>At 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>Australia</i> |
|--|---------------|-------------|------------|-------------|-------------|-------------|------------------|
| 1976 | 2,236,284 | 1,598,447 | 644,988 | 478,276 | 404,041 | 139,472 | 5,501,508 |
| 1977 | 2,376,900 | 1,701,769 | 688,024 | 487,469 | 436,033 | 144,711 | 5,834,906 |
| 1978 | 2,537,345 | 1,749,733 | 735,262 | 531,475 | 472,788 | 154,713 | 6,181,316 |
| Number per 100 population at 30 June | 48.7 | 45.9 | 34.0 | 38.0 | 38.8 | 37.5 | 43.5 |

TRANSPORT AND COMMUNICATION
LOCAL AND TRUNK LINE TELEPHONE CALLS

| <i>Year ended 30 June—</i> | <i>1976</i> | <i>1977</i> | <i>1978</i> |
|---|----------------------|----------------------|----------------------|
| Effective paid local calls | 3,720,000,000 | 3,924,000,000 | 4,186,000,000 |
| Local calls per service | 1,028 | 1,032 | 1,037 |
| Trunk line calls | 374,300,000 | 412,000,000 | 462,000,000 |
| Trunk lines calls per service | 103 | 108 | 114 |
| Total calls | 4,094,300,000 | 4,336,000,000 | 4,648,000,000 |

Subscriber Trunk Dialling (STD) facilities were introduced during the year 1961–62. For the year ended at 30 June 1978, 86.5 per cent of trunk calls were made by STD.

Telegrams

Telegrams can be lodged at any post office or telephone office or from any public telephone equipped for multi-coin operation. In addition, telegrams can be dispatched from any subscriber's telephone or telex service. The number of telegrams of various types transmitted within Australia is set out below.

TELEGRAM TRAFFIC

| <i>Year ended 30 June—</i> | <i>1976</i> | <i>1977</i> | <i>1978</i> |
|----------------------------------|-------------------|-------------------|------------------|
| Ordinary | 11,234,049 | 9,225,700 | 7,775,779 |
| Urgent | 292,018 | 172,149 | 164,497 |
| Lettergrams | 16,159 | 16,627 | 18,916 |
| Meteorological | 913,617 | 743,004 | 635,598 |
| Service | 474,449 | 240,289 | 371,252 |
| Total telegrams | 12,930,292 | 10,397,769 | 8,966,042 |

Telex

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

| <i>Year ended 30 June—</i> | <i>Number of services</i> | <i>Internal calls during the year</i> |
|----------------------------|-------------------------------|---|
| 1976 | 17,047 | 27,036,000 |
| 1977 | 19,601 | 29,435,000 |
| 1978 | 22,724 | 32,177,000 |

Further detailed statistics are contained in the Commission's Annual Reports.

Overseas telecommunications services

The Overseas Telecommunications Commission (Australia), which was established by the *Overseas Telecommunications Act 1946*, is the authority responsible for the establishment, maintenance, operation and development of telecommunication services between Australia and other countries, the external territories (mostly islands in the Pacific and Indian Oceans) and ships at sea.

Telephone (including International Subscriber Dialling), telex, public message telegram, photo-telegram, switched data and leased circuit services are provided to many countries and places throughout the world by means of submarine cables, communication satellites and, in a decreasing number of cases, high frequency radio. Television services are provided to those countries with access to satellite communication facilities.

OTC is directed by five Commissioners appointed by the Governor-General. The chief executive is the General Manager, who is appointed by the Commission.

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.

International consultation

OTC participates in the Commonwealth Telecommunications Organisation, the International Telecommunication Union and the International Telecommunications Satellite Organisation (INTELSAT) which has established a global communications satellite system. OTC is involved in

the establishment of the International Maritime Satellite Organisation (INMARSAT) which will provide a satellite system for high-grade telephone, telex and data communications with ships at sea on a global basis, including distress and search and rescue communications.

Establishments

The Commission's Head Office is in Sydney and it has offices in Melbourne and Brisbane. The Commission owns and operates International Gateway terminals at Paddington and Broadway in Sydney which interface with the national telecommunications network; cable stations at Ceduna (S.A.) Cairns (Qld) and at Guam in the Mariana Islands; satellite earth stations at Carnarvon (W.A.), Ceduna (S.A.) and Moree (N.S.W.) which provide more than half of Australia's telecommunications links; international radio stations at Doonside and Bringelly (N.S.W.) and at Gnangara (W.A.); and fourteen coast radio stations at points around the Australian coast and at Norfolk Island for communicating with ships at sea.

Submarine cables

OTC is a part owner of the following submarine cables (the year in which they opened for service is in brackets): COMPAC, Sydney-Auckland-Vancouver (1963); SEACOM, Sydney-Madang-Hong Kong-Singapore (1967); TRANSPAC II, Hawaii-Guam-Okinawa (1975); HAW III, Hawaii-U.S. Mainland (1975); TASMAR, Sydney-Auckland (1976); A-PNG, Cairns-Port Moresby (1976); OLUHO, Okinawa (Japan)-Luzon (the Philippines)-Hong Kong (1977) and ASEAN P-S, Philippines-Singapore (1978).

Satellites

OTC is a shareholder in INTELSAT which operates communication satellites over the Indian, Pacific and Atlantic Oceans.

1977-78 Statistics

As at March 1978 the OTC staff totalled 2,080, revenue for the previous twelve months was approximately \$121 million and profit after tax was \$13.836 million, the after tax return on capital and reserves being 15.9 per cent. Telephone service which is available to 216 overseas destinations provided about 57 per cent of revenue, telex about 22 per cent and telegraph about 8 per cent. A significant event on 1 April 1976 was the introduction of International Subscriber Dialling or ISD, by which the customer can dial his or her own overseas telephone calls to many destinations. Over 98 per cent of overseas telex calls from Australia are now automatically subscriber connected.

Facilities to match growth

The high growth in demand for the Commission's services requires that the capacity of its major transmission and switching plant be at least doubled every three years. OTC is applying computer techniques extensively in its telegraph, telephone and telex services.

Charges

The Commission made substantial reductions in charges for most international telecommunications services in 1977-78. Some other charges were increased to avoid excessive cross subsidisation.

Detailed information on OTC

The Commission reports on its operations to Parliament through its Minister about September each year. Traffic, financial and other information is contained in its Annual Report, copies of which are available on request to OTC.

International telecommunication traffic

The following table shows particulars of overseas telecommunication traffic between Australia and overseas countries for the years ended 31 March 1977 and 1978.

INTERNATIONAL TELECOMMUNICATION SERVICES: YEARS ENDED 31 MARCH 1977 AND 1978

| Service | | Transmissions | | | | | |
|---------------------|-------------------|----------------|---------|--------------|---------|---------|---------|
| | | From Australia | | To Australia | | Total | |
| | | 1976-77 | 1977-78 | 1976-77 | 1977-78 | 1976-77 | 1977-78 |
| Telephone | '000 paid minutes | 26,345 | 35,877 | 26,506 | 32,025 | 52,851 | 67,902 |
| Telex | '000 paid minutes | 11,453 | 12,964 | 10,981 | 12,203 | 22,434 | 25,167 |
| Television programs | paid minutes | 921 | 2,464 | 9,254 | 21,873 | 10,175 | 24,337 |
| Telegraph services | '000 words | 62,174 | 59,351 | 51,075 | 44,360 | 113,249 | 103,711 |

Coastal stations

The Overseas Telecommunications Commission operates fourteen coastal radio stations at points around the Australian coast, and one at Norfolk Island. During the year ended 31 March 1978 the coastal radio service handled 6,077,000 paid words to ships and 5,134,000 words from ships. Ship calls over the radiotelephone service extended over 246,000 paid minutes.

Radiocommunication stations authorised

At 30 June 1977 there were 266,403 civil radiocommunication stations authorised for operation in Australia and its Territories. Of these, 5,887 were stations established at fixed locations, 21,620 were land stations which were established at fixed locations for communication with mobile stations, 13 were space and broadcasting stations, 231,060 were mobile stations and 7,823 were amateur stations. Particulars of broadcasting stations are shown on page 472.

BROADCASTING AND TELEVISION

Radio and Television broadcasting falls within the jurisdiction of the Commonwealth Government and, pursuant to the *Broadcasting and Television Act 1942*, is one of the responsibilities of the Minister for Post and Telecommunications. Federal bodies which are directly involved include the Postal and Telecommunications Department, the Australian Broadcasting Commission, the Australian Broadcasting Tribunal, the Australian Telecommunications Commission and the Special Broadcasting Service.

Basically, the Australian broadcasting and television system is comprised of the following types of stations: national broadcasting and television stations funded by the Federal Government; commercial broadcasting and television stations operated by companies under licence; public broadcasting and television stations operated by corporations under licence on a non-profit basis; and stations operated under the aegis of the Special Broadcasting Service.

As from 1 January 1977 the Postal and Telecommunications Department assumed the responsibility for broadcasting planning, including all matters relating to the technical operation of stations, and for the investigation of interference to the transmission and reception of programs.

The Commercial Broadcasting and Television Service

Commercial broadcasting and television stations are operated by companies under licences granted by the Australian Broadcasting Tribunal and with technical operating conditions determined by the Postal and Telecommunications Department. The stations obtain income from the broadcasting of advertisements. At 30 June 1977 there were 123 commercial broadcasting stations in operation in Australia. Call signs for radio stations are prefixed by numerals indicating each State of Australia. (2—New South Wales, 3—Victoria, 4—Queensland, 5—South Australia, 6—Western Australia, 7—Tasmania, 8—Northern Territory). In addition there were fifty commercial television stations and sixty-six commercial television translator stations in operation in Australia. A television translator station is a station of low power designed to receive the signals of another station and re-transmit them by wireless telegraphy; it does not originate programs. There are ten repeater stations in Australia operated by mining companies which transmit programs recorded on magnetic tape over a limited area.

The fee for a licence to operate a commercial broadcasting or television station is \$200 plus an amount based on the gross earnings from advertising receipts during the preceding financial year, assessed on a sliding scale varying from 1 per cent for amounts up to \$0.5 million to 6.0 per cent on amounts exceeding \$5.0 million.

The Broadcasting and Television Act makes provision for the grant of licences for the operation of a broadcasting or a television station for special purposes. As at 9 November 1977 this section of the Act had not been proclaimed. However, fifteen stations have been licensed on an experimental basis and, of these, two are operated by music broadcasting societies in Sydney and Melbourne, while the remainder are associated with various tertiary educational institutions throughout Australia.

The Special Broadcasting Service

The *Broadcasting and Television Amendment Bill 1977*, which was passed by Parliament on 9 November 1977, makes provision for the establishment of the Special Broadcasting Service (SBS). The role of the new authority will be to produce special broadcasting programs which it would not be appropriate for the Australian Broadcasting Commission or other established broadcasters to undertake. Initially the SBS will be responsible for the ethnic broadcasting service through stations 2EA Sydney and 3EA Melbourne. It is envisaged that the SBS may, at a later stage, assume responsibility

for other special broadcasting and television services in Australia. New services by the SBS, however, may only be undertaken after parliamentary approval is given and the necessary regulations promulgated. The SBS will be empowered to fund its operations by the broadcasting of sponsored programs, by charging for the provision of services and facilities and by the sale of programs and rights or interests in programs. These avenues of funding are in addition to moneys appropriated annually from the Parliament to the SBS. The SBS will not, however, derive revenue by means of normal commercial advertising.

Broadcasting services

The Australian Broadcasting Tribunal

The Australian Broadcasting Tribunal came into being on 1 January 1977 and is responsible for certain of the functions previously performed by the Australian Broadcasting Control Board (abolished 31 December 1976), including the licensing and supervising of the operations (other than technical aspects) of all stations except national stations. The Tribunal is empowered to grant, renew, suspend or revoke licences and to determine program and advertising standards applicable to licensed stations. In particular, the Tribunal is required to conduct public inquiries into the grant of licences following the invitation of applications by the Minister, and into the renewal of licences, the setting of standards of broadcasting practices, alleged breaches of licence conditions and such other matters as the Minister may direct.

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 Australian Telecommunications Commission.

Technical facilities. At 30 June 1978 the National Broadcasting Service comprised 110 transmitting stations, of which eighty-nine were medium frequency, four frequency modulation and seven-teen high frequency (six internal and eleven Radio Australia).

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 using high-quality program transmission lines. A number of program channels are utilised to link national broadcasting stations in the capital cities of Australia. When necessary, this system is extended to connect both the national and commercial broadcasting stations.

At 30 June 1978 seventy-six 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 proportions of broadcasting time allocated on Radio 1 stations to the various types of program during 1977-78 were as follows: entertainment 57.3 per cent; news 8.0 per cent; sporting 13.1 per cent; spoken word 9.3 per cent; drama and features 1.2 per cent; parliament 8.5 per cent; religious 1.1 per cent; young people's programs 0.1 per cent; rural 0.5 per cent; and presentation 0.7 per cent. By contrast, the ABC's Radio 2 station's programming was: classical music 53.3 per cent; light music 0.9 per cent; entertainment 3.4 per cent; drama and features 5.6 per cent; young people's programs 0.5 per cent; education 6.0 per cent; spoken word 13.7 per cent; religious 3.5 per cent; news 8.5 per cent; rural 3.3 per cent; and presentation 1.1 per cent. Radio 3 (regional) stations feature a higher proportion of news and rural programs. 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-sixth Annual Report of the Australian Broadcasting Commission.

Overseas Broadcasting Service

There are seven high-frequency stations at Shepparton, two at Lyndhurst, Victoria and two at Carnarvon, Western Australia which provide the overseas service known as 'Radio Australia'. As is the case of the National Broadcasting Service, these stations are maintained and operated by the Australian Telecommunications Commission, and their programs are arranged by the A.B.C. The programs, which, as well as entertainment, give news and information about Australia presented objectively, are directed to most parts of the world but with special emphasis on Asia and the Pacific. They include 70 news bulletins a day. The overseas audience has grown very substantially in recent years, as evidenced by a large and increasing number of letters from listeners abroad (317,106 in 1977-78), Radio Australia broadcasts in nine languages—English, Indonesian, Japanese, Neo-Melanesian, Thai, French, Standard Chinese, Cantonese and Vietnamese.

TRANSPORT AND COMMUNICATION
BROADCASTING STATIONS: 30 JUNE 1978

| Type of station | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | A.C.T. | Aust. |
|--|--------|------|-----|------|------|------|------|--------|-------|
| National— | | | | | | | | | |
| Medium frequency | 22 | 6 | 20 | 10 | 18 | 6 | 5 | 2 | 89 |
| High frequency | 1 | 2 | 2 | — | 1 | — | — | — | 6 |
| Frequency modulation | 1 | 1 | — | 1 | — | — | — | 1 | 4 |
| Overseas— | | | | | | | | | |
| Short wave (Radio Australia) | — | 9 | — | — | 2 | — | — | — | 11 |
| Commercial— | | | | | | | | | |
| Medium frequency | 40 | 22 | 27 | 9 | 15 | 8 | 2 | 2 | 125 |
| Public community— | | | | | | | | | |
| Medium frequency | 1 | 1 | — | 1 | (a)2 | — | — | 1 | 6 |
| Frequency modulation | 5 | 3 | 1 | — | 1 | 1 | — | — | 11 |

(a) Includes one emergency broadcasting station.

Television services

The National Television Service

The National Television Service is provided by the Australian Broadcasting Commission through transmitters operated by the Australian Telecommunications Commission. The first national station (ABN Sydney) commenced regular transmission on 5 November 1956. At 30 June 1978, 159 stations were operating, including seventy-four translator stations.

The television programs provided by the Australian Broadcasting Commission cover a wide range of activities. The proportions of television time allocated among the ABC's various departments at 30 June 1978 were as follows: drama, 16.6 per cent; public interest, 16.2 per cent; sporting 17.1 per cent; news 6.4 per cent; variety and acts 5.3 per cent; education 26.1 per cent; musical performance 1.7 per cent; religious 0.9 per cent; rural 0.5 per cent; special arts and aesthetics 1.2 per cent; cartoons 1.4 per cent; panel and quiz games 0.3 per cent; and presentation 6.5 per cent. The average weekly transmission time for the 159 national television transmitters was eighty-seven hours during the year ended 30 June 1978.

During the year ended 30 June 1978, five new national translator channels went into operation at Mareeba, Babinda and Gordonvale in Queensland, St Helens in Tasmania and Pannawonica in Western Australia.

Twelve remote communities are now provided with ABC programs from material tape recorded at Townsville and Perth.

Colour television

Colour television (PAL) was introduced in Australia late in 1974 and services became fully effective in March 1975.

TELEVISION AND TRANSLATOR STATIONS: 30 JUNE 1978

| Type of station and location | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | A.C.T. | Total |
|------------------------------------|--------|------|-----|------|------|------|------|--------|-------|
| National— | | | | | | | | | |
| Metropolitan television | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 |
| Country television | 13 | 7 | 31 | 6 | 15 | 2 | 3 | — | 77 |
| Translator | 23 | 8 | 13 | 4 | 11 | 14 | 1 | — | 74 |
| <i>Total, National</i> | 37 | 16 | 45 | 11 | 27 | 17 | 5 | 1 | 159 |
| Commercial— | | | | | | | | | |
| Metropolitan television | 3 | 3 | 3 | 3 | 2 | 1 | 1 | 1 | 17 |
| Country television | 11 | 16 | 8 | 3 | 4 | 1 | — | — | 33 |
| Translator | 27 | 10 | 20 | 2 | 4 | 16 | — | 1 | 86 |
| <i>Total, Commercial</i> | 41 | 19 | 31 | 8 | 10 | 18 | 1 | 2 | 130 |

Related publications

More detailed figures and particulars for earlier years are included in the annual bulletins, *Rail, Bus and Air Transport* (9201.0), *Public Authority Finance—Federal Authorities* (5502.0), and in the annual mimeographed statement *Motor Vehicle Registrations* (9304.0). Current information on subjects dealt with in this chapter appears in the *Monthly Review of Business Statistics* (1304.0), the *Digest of Current Economic Statistics* (1305.0), *Overseas and Coastal Shipping* (annual) (9207.0),

Motor Vehicle Registrations (quarterly) (9303.0), one preliminary monthly statement *Registration of New Motor Vehicles* (9301.0), two quarterly bulletins *Road Traffic Accidents involving Casualties* (9403.0) and (9402.0), and the monthly bulletin, *Road Accident Fatalities* (9401.0).

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 Australian Postal Commission, the Australian Telecommunications Commission, and the Australian Broadcasting Commission.

CHAPTER 21

PRIVATE FINANCE

This chapter contains statistics on the activities and structure of financial institutions including banks, building societies, insurance companies, finance companies, credit unions and co-operative societies together with descriptions of their operations and relevant controlling legislation.

MONEY

Currency

Australia has a decimal system of currency, the unit being the dollar which is divided into 100 cents. Australian notes are issued in the denominations of \$1, \$2, \$5, \$10, \$20 and \$50 and coins in the denominations of 1c, 2c, 5c, 10c, 20c and 50c.

For additional information on note issues and coinage, refer to the List of Special Articles, etc. towards the back of this Year Book.

AUSTRALIAN NOTES IN CIRCULATION (\$ million)

| | <i>Last Wednesday in June</i> | | | | | |
|-----------------------------|-------------------------------|----------------|----------------|----------------|----------------|----------------|
| | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 |
| \$1 | 48.5 | 53.2 | 52.7 | 53.6 | 57.4 | 60.8 |
| \$2 | 123.7 | 130.2 | 129.1 | 127.8 | 133.0 | 136.0 |
| \$5 | 94.4 | 103.5 | 110.2 | 116.4 | 121.8 | 126.7 |
| \$10 | 639.9 | 701.1 | 675.2 | 655.2 | 628.8 | 604.5 |
| \$20 | 851.4 | 960.6 | 1,186.7 | 1,334.6 | 1,489.0 | 1,620.5 |
| \$50 | .. | 197.5 | 403.2 | 633.8 | 860.8 | 1,121.7 |
| Total | 1,757.8 | 2,146.1 | 2,557.1 | 2,921.4 | 3,290.8 | 3,670.2 |
| <i>Held by banks . . .</i> | <i>229.2</i> | <i>300.8</i> | <i>339.9</i> | <i>352.5</i> | <i>378.1</i> | <i>413.1</i> |
| <i>Held by public . . .</i> | <i>1,528.6</i> | <i>1,845.3</i> | <i>2,217.1</i> | <i>2,568.9</i> | <i>2,912.8</i> | <i>3,257.1</i> |

AUSTRALIAN DECIMAL COIN: VALUE OF COIN ISSUED (\$ million)

| | <i>Year ended 30 June</i> | | | | | |
|----------------------|---------------------------|-------------|-------------|-------------|-------------|-------------|
| | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 |
| 1c | 1.1 | 1.5 | 1.1 | 1.4 | 1.8 | 1.3 |
| 2c | 1.7 | 2.7 | 1.9 | 2.1 | 1.7 | 2.5 |
| 5c | 1.8 | 3.2 | 3.2 | 3.3 | 6.8 | 2.8 |
| 10c | 2.0 | 3.0 | 4.6 | 5.6 | 1.9 | 3.6 |
| 20c | 3.4 | 5.0 | 7.6 | 9.9 | 10.1 | 8.5 |
| 50c | 4.0 | 5.4 | 7.0 | 8.3 | 20.3 | 12.8 |
| Total | 14.0 | 20.8 | 25.4 | 30.5 | 42.6 | 31.4 |

Volume of money

Statistics of the volume of money in the following table include notes and coins in the hands of the public, deposits of the public with trading banks (including the Reserve Bank) and deposits with all savings banks.

Conceptually, the volume of money is a measure of specified financial assets held by the non-bank public and, consequently, should exclude deposits of the Commonwealth and State Governments and inter-bank deposits. It has not been possible, however, to exclude government and bank holdings of certificates of deposit or deposits with savings banks.

Financial assets included in the volume of money as defined above represent only part (albeit a major part) of the public's total holdings of liquid financial assets. An expanded view of the volume

of money would include the public's holdings of such other claims as finance company debentures, deposits and shares of building societies, loans to authorised dealers in the short-term money market, government securities, etc.

VOLUME OF MONEY

(Source: Reserve Bank of Australia)

(\$ million)

| Average of weekly figures for June | Notes and coins in the hands of public | Deposits of public with all trading banks | | Certificates of deposit(b) | Deposits with all savings banks(b)(c) | Total volume of money |
|--|--|--|----------|-------------------------------|---|-----------------------------|
| | | Current(a) | Fixed(b) | | | |
| 1973 | 1,653 | 5,577 | 4,087 | 447 | 10,090 | 21,856 |
| 1974 | 1,957 | 5,424 | 3,943 | 2,556 | 11,139 | 25,018 |
| 1975 | 2,356 | 5,971 | 6,739 | 1,145 | (d)12,656 | (d)28,867 |
| 1976 | 2,751 | 6,775 | 7,571 | 1,077 | 14,651 | 32,825 |
| 1977 | 3,111 | 7,225 | 8,778 | 978 | 16,197 | 36,290 |
| 1978 | 3,495 | 7,724 | 9,314 | 812 | 17,854 | 39,199 |

(a) Excludes deposits of the Commonwealth and State Governments and inter-bank deposits. (b) Includes holdings of the Commonwealth and State Governments and banks. (c) Interpolated 'weekly average' based on end-of-month figures. (d) Data from 1975 reflect a change in accounting procedures by one bank.

FINANCIAL REGULATION

Commonwealth legislation for economic management

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.

From 1911 to 1945 the functions of central banking became more and more the responsibility of the Commonwealth Bank and in 1945 the Commonwealth Parliament directed it to act as a central bank. In the ensuing period of economic growth and financial development, the need for effective regulatory control of finance through banks became increasingly recognised. During 1959 the Commonwealth Parliament enacted the following legislation:

- (a) The *Banking Act* 1959 which 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; and
 - (v) to provide machinery for the control of foreign exchange.
- (b) The *Reserve Bank Act* 1959 which provides for the constitution and management of the Reserve Bank of Australia, the administration of the *Banking Act* 1959 and the management of the Australian note issue.
- (c) The *Commonwealth Banks Act* 1959 which provides for the constitution and management of the Commonwealth Banking Corporation, Commonwealth Trading Bank of Australia, Commonwealth Savings Bank of Australia, and the Commonwealth Development Bank of Australia.

Information on more specific aspects of the growth and control of the banking industry is contained in earlier issues of the Year Book (Nos. 31, 37, 45, 46 and 61).

More recently, as a result of the further development of the financial market and the increasing significance in the market of the non-bank financial institutions such as finance companies, building societies, merchant banks and money market dealers, the *Financial Corporations Act* 1974 was introduced. The object of this Act is to assist the Government to achieve effective management of the Australian economy by providing a means for the examination and regulation of the activities of

non-bank financial institutions having regard to economic stability, the maintenance of full employment, the efficient allocation of productive resources, the ensuring of adequate levels of finance for housing and the economic prosperity and welfare of the people of Australia. Details of the operation and application of the Act are given in Year Book No. 62, page 541.

Statistics compiled from information collected from corporations registered under the Act are provided in the tables on page 490.

Other Commonwealth legislation directly affecting financial institutions

Insurance. 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 defining the limits of marine insurance and regulating the terms of contracts, etc.; the *Insurance (Deposits) Act* 1932 requiring the lodgment of deposits by insurance companies; the *Life Insurance Act* 1945 generally regulating life insurance business in Australia; and the *Insurance Act* 1973 generally regulating general (non-life) insurance business in Australia. The *Marine Insurance Act* 1909 and the *Insurance (Deposits) Act* 1932 have limited application.

Life Insurance Act 1945. 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 a Life 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; and
- (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 Life Insurance Commissioner issues an annual report which contains detailed information on the operations of life insurance companies.

Insurance Act 1973. The objects of this Act are:

- (a) to appoint an Insurance Commissioner to exercise active supervision of the activities of companies conducting general (non-life) insurance business, apart from State government insurance whether or not extending beyond the limits of the State concerned and other organisations specified in the Act, with a view to securing the greatest possible protection for policy holders; and
- (b) 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 19 June 1973. The Insurance Commissioner issues an annual report which contains detailed information on the operations of insurance companies.

State legislation

In each State there exists legislation designed to regulate the activities and monitor the solvency position of particular types of financial institutions which operate on a co-operative basis and lend predominantly to members or consumers. In general, they form the groups covered later in this chapter under the headings of Permanent Building Societies, Terminating Building Societies and Credit Unions.

In some States there is also legislation for the incorporation of State government bodies which operate as banks or insurance offices. Though the regulations in Commonwealth legislation do not directly apply to these bodies, details of their operations have been included in the relevant parts of this chapter because they have agreed to supply information consistent with regulatory reports on a voluntary basis.

BANKS

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*, 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'.

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* 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.

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.

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 is not to exceed one year.

RESERVE BANK OF AUSTRALIA: LIABILITIES AND ASSETS (\$ million)

LIABILITIES

| 30 June— | Capital and reserve funds | Special reserve— I.M.F. special drawing rights | Deposits of trading banks | | Other | Deposits of savings banks | All other liabilities | Total |
|--------------|---------------------------|--|---------------------------|------------------------------------|-------|---------------------------|-----------------------|---------|
| | | | Australian notes on issue | Statutory reserve deposit accounts | | | | |
| 1973 | 66.3 | 192.4 | 1,767.4 | 784.1 | 39.4 | 1,323.0 | 1,574.2 | 5,746.8 |
| 1974 | 67.1 | 183.4 | 2,163.8 | 912.8 | 13.9 | 1,052.7 | 2,100.9 | 6,494.5 |
| 1975 | 68.2 | 207.0 | 2,545.1 | 417.9 | 37.8 | 908.0 | 1,540.8 | 5,724.8 |
| 1976 | 69.3 | 200.6 | 2,921.4 | 779.7 | 74.7 | 1,053.9 | 1,271.1 | 6,370.8 |
| 1977 | 137.3 | 218.2 | 3,319.3 | 1,584.4 | 29.5 | 1,055.7 | 1,765.4 | 8,109.9 |
| 1978 | 1,189.3 | 218.3 | 3,688.1 | 726.7 | 10.7 | 1,122.6 | 1,723.0 | 8,678.8 |

ASSETS

| 30 June— | Gold and foreign exchange (a) | Australian Government securities (b) | Loans, advances, bills discounted | Bank premises (c) | All other assets | Total |
|--------------|--|---|--|-------------------------|---------------------|---------|
| 1973 | 4,104.4 | 608.4 | 252.5 | 51.6 | 730.0 | 5,746.8 |
| 1974 | 3,410.8 | 1,396.6 | 603.1 | 51.9 | 1,032.1 | 6,494.5 |
| 1975 | 3,337.3 | 1,227.7 | 440.3 | 52.7 | 666.8 | 5,724.8 |
| 1976 | 2,422.0 | 2,706.7 | 658.6 | 56.5 | 527.0 | 6,370.8 |
| 1977 | 2,466.6 | 4,205.2 | 975.0 | 65.6 | 397.5 | 8,109.9 |
| 1978 | 3,047.6 | 4,365.8 | 707.0 | 72.5 | 485.8 | 8,678.8 |

(a) Includes currency at short call and International Monetary Fund drawing rights. (b) Includes Treasury bills and Treasury notes. (c) At cost, less amounts written off.

Trading banks

Commercial banking in Australia is conducted 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; and The Rural and Industries Bank of Western Australia (Rural Department).

Liabilities and assets

Balance sheet information contained in the following table does not relate to uniform accounting periods but rather to the balance dates of banks within the years shown.

AUSTRALIAN TRADING BANKS(a): LIABILITIES AND ASSETS(b)

(\$ million)

LIABILITIES

| | Paid-up capital | Reserve funds (used in business of banks) | Final dividend proposed | Balance of profit and loss account | Total share- holders' funds | Balances due to other banks | Deposits, bills payable and other liabilities(c) | Total |
|--------------|--------------------|---|-------------------------------|---|--------------------------------------|--------------------------------------|--|----------|
| 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 |
| 1974 | 417.4 | 467.6 | 21.7 | 39.0 | 945.7 | 1,296.0 | 17,929.1 | 20,170.8 |
| 1975 | 426.4 | 494.8 | 22.4 | 48.7 | 992.4 | 1,122.4 | 21,274.6 | 23,389.4 |
| 1976 | 450.4 | 539.0 | 30.8 | 58.1 | 1,078.3 | 1,220.3 | 24,077.0 | 26,375.6 |
| 1977 | 529.7 | 663.3 | 37.1 | 72.9 | 1,303.0 | 1,741.9 | 26,286.1 | 29,331.1 |

ASSETS

| <i>Australian public securities</i> | | | | | | | | |
|-------------------------------------|--|-------------------------------------|---------------------------------|-------------------------|---|--------------------------------|-------------------------|---|
| | <i>Coin, bullion, notes and cash at Reserve Bank</i> | <i>Money at short call overseas</i> | <i>Australian Government</i> | | <i>Local and semi-government securities</i> | <i>Other public securities</i> | <i>Other securities</i> | <i>Loans to authorised dealers in short-term money market</i> |
| | | | <i>Treasury bills and notes</i> | <i>Other securities</i> | | | | |
| 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 |
| 1974 . . . | 313.7 | 96.4 | 203.0 | 2,059.0 | 71.3 | 114.1 | 423.4 | 303.7 |
| 1975 . . . | 378.9 | 46.0 | 1,044.0 | 2,720.9 | 77.6 | 167.0 | 456.9 | 327.0 |
| 1976 . . . | 345.8 | 58.4 | 313.5 | 3,737.4 | 90.0 | 220.6 | 509.1 | 543.8 |
| 1977 . . . | 338.2 | 82.4 | 93.3 | 3,531.5 | 117.3 | 197.1 | 630.8 | 368.5 |

| | <i>Statutory reserve deposit account with Reserve Bank</i> | <i>Cheques and bills of, and balances with and due from other banks</i> | <i>Loans, advances and bills discounted</i> | <i>Bank premises, furniture and sites</i> | <i>Bills receivable and remittances in transit</i> | <i>All other assets</i> | <i>Total</i> |
|------------|--|---|---|---|--|-------------------------|--------------|
| 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 |
| 1974 . . . | 626.4 | 962.8 | 11,611.7 | 248.3 | 2,139.8 | 997.2 | 20,170.8 |
| 1975 . . . | 641.9 | 996.6 | 13,158.3 | 311.7 | 1,911.2 | 1,151.6 | 23,389.4 |
| 1976 . . . | 791.3 | 982.1 | 14,817.6 | 369.7 | 2,147.0 | 1,449.1 | 26,375.6 |
| 1977 . . . | 1,293.2 | 1,444.9 | 17,182.8 | 445.2 | 1,896.7 | 1,709.0 | 29,331.1 |

(a) Excludes the overseas banks but includes the deposits and assets held against the 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.

Figures shown for averages of liabilities and assets in the table below are the average of liabilities and assets within Australia (including External Territories and, up to 1973, Papua New Guinea) of the banks on the weekly balance days (Wednesdays) during the period concerned.

ALL TRADING BANKS: AVERAGE LIABILITIES AND ASSETS(a) WITHIN AUSTRALIA(b)
(\$ million)

LIABILITIES(c)

| <i>Deposits repayable in Australia</i> | | | | | | | |
|--|----------------|-------------------------|-----------------------------|--------------|------------------------------------|--|--------------|
| <i>June</i> | <i>Current</i> | | | <i>Total</i> | <i>Balances due to other banks</i> | <i>Bills payable and all other liabilities to the public</i> | <i>Total</i> |
| | <i>Fixed</i> | <i>Bearing interest</i> | <i>Not bearing interest</i> | | | | |
| 1973 . . . | 5,152.2 | 648.6 | 5,271.7 | 11,072.5 | 351.0 | 726.3 | 12,149.7 |
| 1974 . . . | 6,985.9 | 660.1 | 5,068.0 | 12,714.0 | 669.2 | 1,196.9 | 14,580.0 |
| 1975 . . . | 8,635.0 | 842.6 | 5,458.0 | 14,935.7 | 588.0 | 1,695.2 | 17,218.9 |
| 1976 . . . | 9,778.0 | 927.4 | 6,249.4 | 16,954.8 | 603.7 | 2,079.0 | 19,637.6 |
| 1977 . . . | 11,464.7 | 990.2 | 6,639.4 | 19,094.2 | 607.9 | 2,358.0 | 22,060.1 |
| 1978 . . . | 11,596.0 | 1,045.0 | 7,105.3 | 19,746.2 | 682.8 | 2,907.5 | 23,336.6 |

ASSETS(d)

| <i>June</i> | <i>Coin, bullion, notes and cash at Reserve Bank</i> | <i>Australian Government securities</i> | <i>Local and semi-government securities</i> | <i>Loans to authorised dealers in short-term money market</i> | <i>Statutory reserve deposit account with Reserve Bank</i> | <i>Loans, advances and bills discounted</i> | <i>All other assets</i> | <i>Total</i> |
|-------------|--|---|---|---|--|---|-------------------------|--------------|
| 1973 . . . | 213.6 | 189.0 | 2,221.0 | 27.6 | 149.6 | 784.7 | 1,181.2 | 12,622.9 |
| 1974 . . . | 273.0 | 79.8 | 2,084.3 | 27.6 | 65.4 | 1,032.6 | 1,678.3 | 15,361.3 |
| 1975 . . . | 299.0 | 1,167.8 | 2,358.9 | 31.2 | 167.4 | 421.4 | 2,322.8 | 17,973.5 |
| 1976 . . . | 345.6 | 191.0 | 3,410.9 | 32.8 | 182.3 | 840.5 | 2,774.2 | 20,352.9 |
| 1977 . . . | 380.0 | 78.8 | 3,567.9 | 46.1 | 144.4 | 1,704.2 | 3,179.2 | 23,135.8 |
| 1978 . . . | 409.4 | 97.9 | 3,609.1 | 45.1 | 190.9 | 734.0 | 3,968.8 | 24,832.3 |

(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 External Territories and up to 1973 Papua New Guinea. (c) Excludes shareholders' funds, inter-branch accounts and contingencies. (d) Excludes inter-branch accounts and contingencies.

Major trading banks: classification of advances and deposits

In the classification of advances and deposits, borrowers and lenders are classified into two main groups:

Residents—comprising all institutions (including branches of overseas institutions) engaged in business in Australia and individuals permanently residing in Australia; and

Non-residents—comprising all other persons and institutions, including companies incorporated abroad, which, although represented, do not carry on business in Australia.

Residents are further classified into:

Businesses—partnerships, companies and other institutions engaged in business in Australia; individuals actively engaged in business or a profession on their own behalf; and 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.

Public authorities—local and semi-government authorities including separately constituted government business undertakings, but not the Australian and State governments.

Persons—individuals other than those carrying on a business or profession.

Non-profit organisations—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.

**MAJOR TRADING BANKS:
CLASSIFICATION OF ADVANCES AND DEPOSITS WITHIN AUSTRALIA**
(\$ million)

| | <i>Advances</i> | | | | <i>Deposits</i> | | | |
|---|--------------------------------|----------------------|-------------------------|----------------------|--------------------------------|----------------------|-------------------------|----------------------|
| | <i>At second Wednesday of:</i> | | | | <i>At second Wednesday of:</i> | | | |
| | <i>January 1977</i> | <i>July 1977</i> | <i>January 1978</i> | <i>July 1978</i> | <i>January 1977</i> | <i>July 1977</i> | <i>January 1978</i> | <i>July 1978</i> |
| <i>Residents—</i> | | | | | | | | |
| <i>Businesses</i> | | | | | | | | |
| Agriculture, grazing and dairy- ing | 1,285.7 | 1,397.4 | 1,359.8 | 1,559.3 | 1,457.5 | 1,227.6 | 1,449.1 | 1,162.6 |
| Manufacturing | 1,616.0 | 1,711.2 | 1,684.1 | 1,795.7 | 725.8 | 445.1 | 558.9 | 462.8 |
| Transport, storage and commun- ication | 206.0 | 208.7 | 219.4 | 229.1 | 180.1 | 211.9 | 216.4 | 193.4 |
| Finance | 670.1 | 627.6 | 623.0 | 818.5 | 1,464.0 | 1,226.1 | 1,087.9 | 1,104.6 |
| Commerce | 1,356.3 | 1,454.8 | 1,464.0 | 1,518.8 | 964.2 | 745.1 | 918.5 | 822.3 |
| Building and construction | 387.4 | 416.8 | 392.6 | 436.9 | 435.1 | 365.1 | 409.1 | 389.0 |
| Other businesses | 2,100.5 | 2,137.0 | 2,192.3 | 2,192.9 | 2,058.3 | 1,879.7 | 2,018.9 | 1,998.2 |
| Unclassified | 261.7 | 263.9 | 332.3 | 231.7 | 238.8 | 280.4 | 265.0 | 291.5 |
| <i>Total business</i> of which— | 7,883.7 | 8,217.4 | 8,267.6 | 8,782.9 | 7,523.8 | 6,380.9 | 6,923.8 | 6,424.5 |
| Companies | 5,082.0 | 5,025.2 | 5,063.0 | 5,357.7 | 3,572.6 | 2,943.5 | 3,144.8 | 2,873.2 |
| Other | 2,801.7 | 3,192.2 | 3,204.7 | 3,425.2 | 3,951.3 | 3,437.4 | 3,779.0 | 3,551.3 |
| Public authorities | 152.4 | 155.5 | 231.1 | 93.5 | 1,871.7 | 1,580.8 | 1,765.9 | 1,558.5 |
| Persons | 3,491.7 | 3,939.0 | 4,204.1 | 4,730.2 | 5,561.6 | 5,749.7 | 6,253.4 | 6,811.2 |
| Non-profit organisations | 135.8 | 128.3 | 136.9 | 137.0 | 756.2 | 848.2 | 789.4 | 849.1 |
| <i>Total residents</i> | 11,663.6 | 12,440.1 | 12,839.7 | 13,743.7 | 15,713.3 | 14,559.6 | 15,732.5 | 15,643.3 |
| <i>Total non-residents</i> | 12.3 | 14.4 | 11.8 | 11.8 | 229.1 | 210.3 | 208.1 | 223.9 |
| Total | 11,675.9 | 12,454.6 | 12,851.5 | 13,755.5 | 15,942.4 | 14,769.9 | 15,940.5 | 15,867.2 |

Interest rates

At 30 June 1978 the maximum rates of interest were: (i) on fixed deposits of less than \$50,000, for periods of 3 months and less than 6 months—7.50 per cent to 7.75 per cent, 6 months and less than 2 years—8.00 per cent to 9.00 per cent, 2 years and less than 4 years—8.00 per cent to 9.50 per cent; (ii) on fixed deposits of \$50,000 and over, 30 days to 4 years—10 per cent; (iii) on certificates of deposit of \$50,000 and over, 3 months to 4 years—not subject to maximum rate; (iv) on overdrafts under \$100,000—10.50 per cent; (v) on overdrafts over \$100,000—not subject to maximum rate; (vi) on personal loans—7.75 per cent.

Branches and agencies

At 30 June 1978 the major trading banks operated 4,693 branches, and the other trading banks 342 branches. Of the total 5,035 branches, 2,707 were located in metropolitan areas. Trading bank facilities were also available at 981 agencies throughout Australia.

Debits to customers' accounts

TRADING BANKS: AVERAGE WEEKLY DEBITS TO CUSTOMERS' ACCOUNTS(a)

(\$ million)

| June | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | A.C.T. | Aust. |
|------------|---------|---------|---------|-------|---------|-------|------|--------|----------|
| 1973 . . . | 3,440.7 | 2,551.9 | 725.6 | 382.2 | 391.7 | 95.6 | 16.5 | 109.5 | 7,713.7 |
| 1974 . . . | 3,772.6 | 2,932.5 | 799.2 | 438.9 | 502.9 | 113.3 | 21.4 | 70.5 | 8,651.2 |
| 1975 . . . | 4,052.6 | 3,334.9 | 870.1 | 494.1 | 579.3 | 131.2 | 23.9 | 95.4 | 9,581.5 |
| 1976 . . . | 5,079.1 | 4,442.3 | 1,209.5 | 676.9 | 756.5 | 173.8 | 32.8 | 152.4 | 12,523.2 |
| 1977 . . . | 5,443.8 | 5,209.3 | 1,421.8 | 789.7 | 875.5 | 184.0 | 36.3 | 150.7 | 14,111.2 |
| 1978 . . . | 7,316.5 | 5,552.6 | 1,528.1 | 846.8 | 1,079.7 | 190.9 | 35.7 | 246.0 | 16,796.3 |

(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.

Savings banks

Prior to 1956 savings bank 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.

For further 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*. Details of this Act and the special provisions applying to savings banks are given in Year Book No. 46.

Liabilities and assets

Balance sheet information contained in the following table does not relate to uniform accounting periods but rather to the balance dates of banks falling within the years shown.

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 share- holders' funds | Deposi- tors' balances | Balances due to other banks | Bills payable and all other liabilities (c) | Total |
|------------|--------------------|--|---|--------------------------------------|------------------------------|--------------------------------------|--|----------|
| 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 |
| 1974 . . . | 40.5 | 207.3 | 9.7 | 257.5 | 11,101.0 | 35.9 | 395.6 | 11,789.9 |
| 1975 . . . | 43.0 | 227.0 | 11.1 | 281.0 | 12,984.8 | 96.7 | 549.6 | 13,912.2 |
| 1976 . . . | 49.0 | 262.0 | 14.1 | 325.1 | 14,956.3 | 65.2 | 633.5 | 15,980.1 |
| 1977 . . . | 60.0 | 302.9 | 19.1 | 381.9 | 16,432.0 | 133.7 | 682.5 | 17,630.0 |

ASSETS

| <i>Australian public securities</i> | | | | | | | |
|-------------------------------------|---|---|--|---|---|-------------------------|--------------|
| | <i>Coin, bullion, notes and deposits with Reserve Bank</i> | <i>Deposits in Australia with trading banks</i> | <i>Australian and State Governments</i> | | <i>Local and semi-government securities</i> | <i>Other securities</i> | |
| | | | <i>Treasury bills and notes</i> | <i>Other securities</i> | | | |
| 1972 | 906.1 | 188.6 | 39.3 | 2,352.5 | 2,171.4 | 36.9 | |
| 1973 | 1,356.8 | 233.5 | 104.1 | 2,744.4 | 2,511.2 | 40.2 | |
| 1974 | 1,059.0 | 281.3 | 47.8 | 2,850.4 | 2,791.6 | 24.8 | |
| 1975 | 978.5 | 430.9 | 50.4 | 3,001.8 | 3,298.1 | 43.6 | |
| 1976 | 1,099.3 | 314.4 | 48.6 | 2,896.5 | 3,898.6 | 55.8 | |
| 1977 | 1,136.2 | 283.4 | 53.9 | 2,643.7 | 4,472.2 | 48.6 | |
| | <i>Loans to authorised dealers in short-term money market</i> | <i>Cheques and bills of, and balances with and due from other banks (d)</i> | <i>Loans advances and bills discounted</i> | <i>Bank premises, furniture and sites</i> | <i>Bills receivable and re-mittances in transit</i> | <i>All other assets</i> | <i>Total</i> |
| | | | | | | | |
| 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 | - | 129.4 | 11,004.4 |
| 1974 | 69.7 | 245.4 | 4,138.1 | 135.5 | - | 146.2 | 11,789.9 |
| 1975 | 79.5 | 279.1 | 5,381.8 | 173.3 | 0.1 | 195.3 | 13,912.2 |
| 1976 | 68.2 | 322.9 | 6,805.1 | 204.9 | 55.8 | 210.1 | 15,980.1 |
| 1977 | 67.9 | 300.1 | 8,056.5 | 240.6 | 81.3 | 245.6 | 17,630.0 |

(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.

Branches and agencies

At 30 June 1978 the savings banks operated 5,600 branches and 12,391 agencies, of which 3,089 branches and 6,048 agencies were in metropolitan areas.

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 of Australia. 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.

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.

The Primary Industry Bank of Australia Limited

The Primary Industry Bank of Australia Limited commenced operations on 22 September 1978 under the authority of the *Primary Industry Bank Act 1977*. The Bank has also been brought within the scope of the *Banking Act 1959* including those provisions relating to the protection of depositors, advances policy, control of interest rates, furnishing of statistics, and alterations in the structure and ownership of the Bank.

The main objective of the Bank is to facilitate the provision of loans to primary producers for longer terms than are otherwise generally available. The Bank's role is restricted to refinancing loans made by banks and other financial institutions with terms of eight years or more but not exceeding thirty years.

The initial equity capital of the Bank is \$5,625,000 consisting of nine shares of \$625,000. Eight shares are held by the Australian Government and the seven major trading banks while the ninth share is held equally by the four State banks.

REGISTERED BUILDING SOCIETIES

Permanent building societies

A permanent building society is defined as an organisation that; (i) is registered under relevant State or Territory legislation; (ii) has rules or regulations that do not specify that it is to terminate on a specific date or when a specific objective is achieved; and (iii) operates on a co-operative basis by borrowing predominantly from its members and providing finance to its members principally in the form of housing loans.

In 1976 a statistical collection was introduced covering the financial accounts of permanent building societies in all States and Territories of Australia. The statistics below summarise information collected from the 163 permanent building societies balancing in the 1976-77 financial year. More detailed descriptions and dissections of these statistics may be found in the annual bulletin *Permanent Building Societies: Assets, Liabilities, Income and Expenditure* (5632.0).

Information relating to the housing finance operations of permanent building societies is provided on pages 501-502. Detailed statistics on the operations generally of permanent building societies are available in the monthly bulletin *Housing Finance for Owner Occupation, Permanent Building Societies* (5610.0).

Summary statistics on the financial operations, assets and selected liabilities of permanent building societies registered under the *Financial Corporations Act 1974*, and which have assets in Australia exceeding \$5 million, are given on page 490.

PERMANENT BUILDING SOCIETIES: LIABILITIES AND ASSETS(a) (\$ million)

| Liabilities | 1976-77 | Assets | 1976-77 |
|-----------------------------|---------|-----------------------------------|---------|
| Share capital and reserves: | | Amount owing on loans | 4,907.0 |
| Non-withdrawable shares | 20.8 | Cash on hand | 4.7 |
| Withdrawable shares | 4,709.0 | Deposits with— | |
| Reserves— | | Banks | 762.3 |
| Statutory | 43.9 | Other | 206.2 |
| Other(b) | 49.5 | Bills, bonds and other securities | 338.8 |
| Deposits | 1,325.9 | Accounts receivable | 23.5 |
| Loans | 194.8 | Physical assets | 139.1 |
| Accounts payable | 24.4 | Other assets | 4.6 |
| Other liabilities | 18.0 | Total assets | 6,386.3 |
| Total liabilities | 6,386.3 | | |

(a) At the balance dates of societies within the financial year shown.

(b) Includes accumulated surpluses and deficits.

**PERMANENT BUILDING SOCIETIES:
INCOME AND EXPENDITURE**
(\$ million)

| <i>Expenditure</i> | <i>1976-77</i> | <i>Income</i> | <i>1976-77</i> |
|--------------------------------------|----------------|--|----------------|
| Interest on: | | Interest from: | |
| Shares | 380.2 | Loans | 519.6 |
| Deposits | 113.9 | Deposits | 84.1 |
| Loans | 13.8 | | |
| Wages and salaries | 32.6 | Income from holdings of securities | 26.5 |
| Management fees(a) | 17.9 | | |
| Administrative expenses(b) | 33.3 | Management fees | 9.5 |
| Insurance premiums paid | 1.2 | | |
| Other expenditure | 22.5 | Other income | 11.1 |
| Total expenditure | 615.5 | Total income | 650.8 |

(a) Represents payments made by societies to separate management companies. (b) Includes Permanent Building Society Association costs, advertising, bank charges and other administrative expenses.

Terminating building societies

A terminating building society is defined as an organisation that: (i) is registered under relevant State or Territory legislation; (ii) has rules or regulations that specify it is to terminate on a specific date or when a specific objective is achieved; and (iii) makes loans to members from funds obtained from lending institutions (usually government guaranteed), members' subscriptions, or from moneys provided under Federal-State Housing Agreements.

In 1977 a statistical collection was introduced covering the financial accounts of terminating building societies in all States and Territories of Australia. The statistics below summarise information collected from the 6,696 terminating building societies balancing within the 1976-77 financial year. More detailed descriptions and dissections of these statistics may be found in the annual bulletin *Terminating Building Societies: Assets, Liabilities, Income and Expenditure* (5633.0).

Information relating to the housing finance operations of terminating building societies is provided on pages 501 and 502.

**TERMINATING BUILDING SOCIETIES:
LIABILITIES AND ASSETS(a)**
(\$ million)

| <i>Liabilities</i> | <i>1976-77</i> | <i>Assets</i> | <i>1976-77</i> |
|--|----------------|---|----------------|
| Share capital(b) | 6.0 | Amount owing on loans(b) | 1,099.6 |
| Accumulated funds(c) | 26.6 | Cash on hand and current accounts at banks | 12.4 |
| Loans from: | | Deposits with: | |
| Banks | 329.4 | Banks | 2.8 |
| Commonwealth/State Home Builders' Fund(d) | 574.6 | Others | 8.6 |
| Others | 183.2 | Physical assets | 0.1 |
| Other liabilities | 7.5 | Other assets | 3.7 |
| Total liabilities | 1,127.2 | Total assets | 1,127.2 |

(a) At the balance dates of societies within the financial year shown. (b) Borrowing members' subscriptions have been offset against Amount owing on loans. (c) Includes accumulated surpluses and deficits. (d) Refers to loans made through the 1973-74 Commonwealth/State Housing Agreements.

**TERMINATING BUILDING SOCIETIES:
INCOME AND EXPENDITURE**
(\$ million)

| <i>Expenditure</i> | <i>1976-77</i> | <i>Income</i> | <i>1976-77</i> |
|--|----------------|-------------------------------|----------------|
| Interest paid on borrowing members' subscriptions | 6.1 | Interest on: | |
| Interest on loans from: | | Loans to members | 76.9 |
| Banks | 28.1 | Other | 0.9 |
| Other | 41.5 | | |
| Salaries and secretarial fees | 7.2 | Management fees | 8.2 |
| Other expenditure | 3.1 | Other income | 2.5 |
| Total expenditure | 86.0 | Total income | 88.5 |

CREDIT UNIONS

A credit union (or co-operative credit society) is defined as an organisation that: (i) is registered under relevant State or Territory legislation; and (ii) operates on a co-operative basis by borrowing predominantly from, and providing finance to, its own members.

Credit union annual financial account statistics were first collected on a national basis from all registered credit unions for the year 1974-75 when there were 738 credit unions with a total of 908,712 members. The numbers of credit unions for 1975-76 and 1976-77 were 721 and 707 with 1,028,125 and 1,115,607 members respectively. Comprehensive financial account statistics are provided in the annual bulletin *Credit Unions: Assets, Liabilities, Income and Expenditure* (5618.0).

Statistics on the housing finance operations of credit unions are provided on page 501, while on page 490 are summary statistics on the financial operations, assets and selected liabilities of credit unions registered under the *Financial Corporations Act 1974* which have assets in Australia exceeding \$5 million.

CREDIT UNIONS: LIABILITIES AND ASSETS^(a)
(\$ million)

| <i>Liabilities</i> | <i>1976-77</i> | <i>Assets</i> | <i>1976-77</i> |
|-----------------------------|----------------|--------------------------------------|----------------|
| Share capital and reserves: | | Amount owing on loans ^(c) | 893.3 |
| Paid up share capital | 9.4 | Cash on hand | 2.5 |
| Reserves— | | Deposits with— | |
| Statutory | 7.8 | Banks | 32.7 |
| Other ^(b) | 5.1 | Credit Union Leagues or Associations | 43.9 |
| Deposits | 987.5 | Other | 26.6 |
| Loans | 37.5 | Bills, bonds and other securities | 21.7 |
| Accounts payable | 5.2 | Accounts receivable | 5.1 |
| Other liabilities | 3.1 | Physical assets | 28.9 |
| | | Other assets | 0.9 |
| Total liabilities | 1,055.7 | Total assets | 1,055.7 |

(a) At the balance dates of credit unions within the financial year shown. (b) Includes accumulated surpluses and deficits. (c) These figures are net of unearned interest and allowance for doubtful debts.

CREDIT UNIONS: INCOME AND EXPENDITURE
(\$ million)

| <i>Expenditure</i> | <i>1976-77</i> | <i>Income</i> | <i>1976-77</i> |
|------------------------------|----------------|------------------------------------|----------------|
| Interest on: | | Interest from: | |
| Deposits | 70.0 | Loans | 116.4 |
| Loans | 2.4 | Deposits | 8.4 |
| Wages and salaries | 21.3 | | |
| Administrative expenses | 13.5 | Income from holdings of securities | 1.8 |
| Insurance premiums paid | 3.8 | Management fees | 1.4 |
| Allowance for doubtful debts | 3.5 | Bad debts recovered | 0.5 |
| Other expenditure | 7.1 | Other income | 2.2 |
| Total expenditure | 121.6 | Total income | 130.6 |

SHORT-TERM MONEY MARKET

Authorised Money Market Corporations

For some years prior to 1959 leading stockbrokers were actively engaged in operations which formed the basis of a short-term money market in Australia. The stockbrokers' operations involved the acceptance of short-term funds which were secured against government securities. These operations were severely limited by the lack of suitable short term securities and by liquidity constraints. In February 1959 the Central Bank established the Official Short-Term Money Market by making available to selected dealers lender of last resort facilities.

There are nine authorised money market dealers. They are required by the Reserve Bank to: (i) accept loans overnight, at call or for fixed periods, in minimum amounts of \$50,000 and invest these funds in Australian Government and other approved securities; (ii) at all times be willing traders in the buying and selling of approved securities; (iii) have a minimum paid-up capital of \$400,000 and adhere to a maximum limit on the ratio of loans to shareholders' funds; and (iv) consult regularly with the Reserve Bank on all market matters and furnish detailed information about their portfolios,

operations, interest rates, balance sheets and profit and loss accounts. Under the lender of last resort arrangements dealers may borrow from the Reserve Bank for a minimum of seven days and at a rate designed to discourage excessive recourse to the facility.

The following table contains details of selected liabilities and assets, and interest rates. Additional information on authorised dealers collected under the *Financial Corporations Act 1974* is provided on page 490.

SHORT-TERM MONEY MARKET: SELECTED LIABILITIES AND ASSETS AND INTEREST RATES OF AUTHORISED DEALERS

(Source: Reserve Bank of Australia)

| Month | Asset holdings (face value) | | | | | | Interest rates on loans accepted during month | | | | Weighted average interest rate on loans outstanding (c) per cent per annum |
|-------|--|---------------|---------|------------------------------|----------------------|---------------------------------|---|-----------------------------|-----------------------------|-----------------------------|---|
| | Liabilities to clients | | | C'wealth Govt securities (a) | Com-mercial bills(b) | Banks' certi-ficates of deposit | At call | | For fixed periods | | |
| | All trading banks | Other clients | Total | | | | 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— | | | | | | | | | | | |
| 1973 | 149.6 | 670.2 | 819.8 | 732.2 | 40.8 | 79.7 | 2.00 | 8.75 | 2.00 | 7.00 | 4.70 |
| 1974 | 65.4 | 322.0 | 387.4 | 285.9 | 79.2 | 42.2 | 0.50 | 13.00 | 1.00 | 13.00 | 6.82 |
| 1975 | 167.4 | 558.7 | 726.1 | 613.3 | 83.7 | 47.9 | 1.50 | 14.10 | 3.00 | 11.50 | 6.72 |
| 1976 | 182.3 | 636.1 | 818.4 | 749.7 | 129.2 | 61.3 | 2.00 | 14.00 | 4.50 | 9.50 | 8.03 |
| 1977 | 144.8 | 701.5 | 846.3 | 829.5 | 129.8 | 21.6 | 3.00 | 15.30 | 5.00 | 13.80 | 9.33 |
| 1978 | 190.9 | 1,088.5 | 1,279.4 | 1,143.5 | 153.5 | 15.8 | 0.50 | 18.86 | 3.00 | 11.50 | 9.05 |

(a) Within 5 years of maturity. (b) Accepted or endorsed by banks. (c) To June 1975 weighted average of rates on clients' loans outstanding on each Wednesday of the month. Thereafter weighted average of rates paid on all days of the four or five weeks ending on the last Wednesday of the month.

Money Market Corporations

There are also companies without Reserve Bank lender of last resort facilities which operate in a similar manner to authorised dealers. These companies are recognised under the *Financial Corporations Act 1974* in the category of money market corporations which consist of registered corporations whose short term borrowings are a substantial proportion of their total outstanding provision of finance, which is mainly in the form of loans to authorised dealers in the short term money market and other liquidity placements, business loans and investments in Government, commercial and corporate paper.

The category of money market corporations also includes registered corporations providing short term finance but which are themselves financed by related corporations with funds raised on a short term basis, as well as corporations which borrow principally short term and lend predominantly to related money market corporations.

Statistics on money market corporations registered under the *Financial Corporations Act 1974* are contained in the table on page 490.

FINANCE COMPANIES

Information presented on finance companies in Australia in the following tables has been compiled from returns collected under the *Census and Statistics Act 1905*. For the purpose of these statistics a finance company is defined as an incorporated company mainly engaged in providing to the general public (businesses as well as persons in their private capacity) credit facilities of the following types: instalment credit for retail sales, personal loans, wholesale finance, factoring, other consumer and commercial loans, financial leasing of business plant and equipment and bills of exchange. A company is mainly engaged in providing these credit facilities if 50 per cent or more of its assets consist of balances outstanding with respect to these types of financing, or if 50 per cent or more of its income is derived from such types of financing.

The statistics for any financial year relate only to those finance companies which individually or as a group of related finance companies had balances outstanding in the prescribed types of financial agreements of \$500,000 or more, on an Australia-wide basis, as at 30 June of the previous financial year. The 218 finance companies that met this criterion at the 1976-77 annual census of finance companies accounted for 99.3 per cent of the balances outstanding of all finance companies.

Comprehensive information on the transactions and financial structure of finance companies is available in the monthly bulletin *Finance Companies* (5614.0) and the annual bulletin *Finance Companies: Assets, Liabilities, Income and Expenditure* (5616.0) respectively. Information on foreign ownership and control of finance companies is given in Chapter 24, Overseas Transactions.

Although individual corporations in the *Financial Corporations Act 1974* categories of finance companies, general financiers and money market corporations may meet the above definition of a finance company, differences in definitions, scope and coverage generally mean that the statistics on page 490 for those categories are not comparable with the statistics for finance companies shown below.

FINANCE COMPANIES: ASSETS, LIABILITIES, INCOME AND EXPENDITURE(a)
(\$ million)

| | 1974-75 | 1975-76 | 1976-77 |
|---|----------------|-----------------|-----------------|
| Assets— | | | |
| Balances outstanding on finance agreements(b) | 9,004.8 | 9,954.6 | 11,742.7 |
| Cash on hand and bank deposits | 62.5 | 77.0 | 60.6 |
| Loans to authorised money market dealers | 40.5 | 22.0 | 28.4 |
| Investments in shares and securities | 299.8 | 342.7 | 286.4 |
| Physical assets | 154.1 | 228.6 | 215.0 |
| Other assets | 225.9 | 338.4 | 374.6 |
| Total assets | 9,787.6 | 10,963.3 | 12,707.7 |
| Liabilities— | | | |
| Paid-up capital | 583.6 | 666.1 | 751.3 |
| Reserves | 334.0 | 378.6 | 378.1 |
| Unappropriated profits | 152.5 | 228.4 | 270.1 |
| Borrowed funds— | | | |
| Bank loans and overdrafts | 280.9 | 270.9 | 294.8 |
| Debentures | 4,042.3 | 4,778.8 | 5,659.4 |
| Secured and unsecured loans | 3,477.6 | 3,652.0 | 4,175.8 |
| Other liabilities | 916.7 | 988.5 | 1,178.2 |
| Total liabilities | 9,787.6 | 10,963.3 | 12,707.7 |
| Income for year— | | | |
| Interest from finance agreements | 1,140.1 | 1,331.6 | 1,592.3 |
| Other income | 150.2 | 177.3 | 162.2 |
| Total income | 1,290.3 | 1,508.9 | 1,754.5 |
| Expenditure for year— | | | |
| Interest on borrowed funds | 761.0 | 845.3 | 1,017.1 |
| Wages, salaries and allowances, directors fees and emoluments | 108.7 | 132.3 | 159.6 |
| Other expenditure | 252.6 | 284.8 | 409.5 |
| Total expenditure | 1,122.3 | 1,262.4 | 1,586.2 |

(a) At the balance date of companies within the financial year shown.
\$1,654.9m in 1975-76 and \$2,236.0m in 1976-77.

(b) Excludes unmatured income of \$1,342.2m in 1974-75,

FINANCE COMPANIES: AMOUNT FINANCED AND BALANCES OUTSTANDING CLASSIFIED BY THE TYPE OF FINANCE AGREEMENT

(\$ million)

| | 1975-76 | 1976-77 | 1977-78 |
|--|-----------------|-----------------|-----------------|
| Amount financed during year— | | | |
| Instalment credit for retail sales and personal loans | 1,903.4 | 2,177.7 | 2,206.8 |
| Finance for housing | 989.9 | 1,195.5 | 1,069.8 |
| Wholesale finance | 2,873.6 | 3,883.1 | 4,089.1 |
| Factoring and other commercial loans | 1,882.5 | 2,260.3 | 2,826.7 |
| Leasing of business plant and equipment(a) | 1,016.4 | 1,410.0 | 1,789.2 |
| Bills of exchange(b) | 4,179.6 | 5,421.3 | 6,443.1 |
| Total amount financed on finance agreements(c) | 12,845.4 | 16,347.9 | 18,424.7 |
| Balances outstanding at 30 June— | | | |
| Instalment credit for retail sales and personal loans | 3,034.0 | 3,649.3 | 4,019.6 |
| Finance for housing | 2,390.1 | 2,700.8 | 2,718.8 |
| Wholesale finance | 589.3 | 925.9 | 1,078.4 |
| Factoring and other commercial loans | 3,235.7 | 3,828.9 | 4,003.6 |
| Leasing of business plant and equipment(d) | 1,923.8 | 2,736.7 | 3,785.5 |
| Bills of exchange | 658.6 | 718.2 | 842.6 |
| Liquidity placements and loans to non-finance companies in group | 593.7 | 575.4 | 617.0 |
| Total balances outstanding on finance agreements(e) | 12,425.2 | 15,135.4 | 17,065.5 |

(a) Refers to the value of goods newly leased. (b) Refers to amounts paid for bills acquired. (c) Excludes amounts for liquidity placements and loans to non-finance companies in group. (d) Refers to the value of leasing agreements. (e) Includes unmatured income.

FINANCIAL CORPORATION STATISTICS

The statistics provided in the following tables have been compiled from monthly returns supplied to the Australian Bureau of Statistics by corporations registered under the *Financial Corporations Act* 1974 and which have Australia-wide assets exceeding \$5 million. A summary of the objects and content of the *Financial Corporations Act* is given in Year Book No. 62, page 541. Information is also collected quarterly from registered corporations whose comparable asset figures exceed \$1 million but not \$5 million. Detailed statistics on all corporations registered under the Act are published in the monthly bulletin *Financial Corporations Statistics* (5617.0).

Descriptions of the categories *building societies*, *credit unions/co-operatives*, *authorised money market dealers* and *money market corporations* appear in the respective parts of this chapter. Descriptions of the other categories are as follows:

Pastoral Finance Companies—comprising corporations whose provision of finance is predominantly in the form of loans to rural producers largely associated with the provision of rural services.

Finance Companies—comprising corporations not included in the categories *building societies*, *credit co-operatives*, *authorised money market dealers*, *money market corporations* or *pastoral finance companies* which rely substantially on borrowings in financial markets in Australia and/or from abroad and whose provision of finance is predominantly in the form of business and commercial lending, instalment credit to finance retail sales by others and/or other loans to individuals.

General financiers—comprising corporations which lend predominantly for business and commercial purposes, instalment credit to finance retail sales by others and/or other loans to individuals but which do not rely substantially on borrowings in financial markets in Australia and from abroad.

Intra group financiers—comprising corporations not elsewhere categorised which predominantly borrow within a corporation group and/or provide finance by lending within their corporation group or by investing in financial markets.

Other financial corporations—comprising registered corporations not included in any other specific category.

**FINANCIAL CORPORATIONS WITH ASSETS IN AUSTRALIA EXCEEDING \$5 MILLION:
FINANCIAL OPERATIONS, SELECTED LIABILITIES AND ASSETS**
(\$ million)

FINANCIAL OPERATIONS AND SELECTED LIABILITIES AS AT 30 JUNE 1978

| Category | Financial operations | | | | | | |
|---|--------------------------------|---|---|-------------------|----------------------|------------------|-------------------|
| | Number of corpor- ations | Unused lending commit- ments (a) | Borrowing lines and standby facilities available and unused from—(b) | | Selected liabilities | | |
| | | | Residents | Non- residents | Paid up capital | Borrowings from— | |
| | | | | | | Residents | Non- residents |
| Building societies | 94 | 270.1 | 307.8 | 4.4 | (c) 18.6 | (c) 7,034.2 | 6.5 |
| Credit co-operatives | 56 | 3.3 | 6.7 | — | (c) — | (c) 746.8 | — |
| Authorised money market dealers | 9 | 15.7 | — | — | 27.5 | 1,395.0 | 0.1 |
| Money market corporations | 47 | 854.9 | 412.0 | 525.5 | 185.7 | 3,495.5 | 83.3 |
| Pastoral finance companies | 14 | — | 52.2 | — | 115.0 | 379.8 | 2.3 |
| Finance companies | 83 | 676.4 | 600.5 | 372.5 | 894.3 | 12,163.0 | 126.3 |
| General financiers | 62 | 49.3 | 100.0 | 14.5 | 85.0 | 638.5 | 35.0 |
| Intra group financiers | 9 | 2.0 | 0.3 | 6.4 | 50.8 | 228.2 | 36.9 |
| Other financial corporations | 5 | 1.0 | 10.2 | — | 1.3 | 72.1 | — |
| Total | 379 | 1,872.7 | 1,489.8 | 923.3 | 1,378.3 | 26,153.1 | 290.3 |

ASSETS IN AUSTRALIA AT 30 JUNE 1978

| Category | Assets in Australia | | | | | | | |
|--|------------------------------|---|--|---|--|---|-------------------------------------|---------------------------------|
| | Cash and bank deposits | Loans to author- ised dealers in the STMM and other short term place- ments (d) | Government and public authority securities | Bills of exchange and promis- sory notes dis- counted and held (e) | Other financial invest- ments | Other assets arising from the provision of finances (f) | All other assets in Australia | Total assets in Australia |
| Building societies | 690.2 | 117.9 | 153.8 | 301.7 | 21.8 | 5,798.0 | 219.9 | 7,303.1 |
| Credit co-operatives | 35.6 | 50.4 | 7.9 | 1.2 | 0.4 | 660.3 | 29.1 | 784.9 |
| Authorised money mar- ket dealers | 17.5 | 5.7 | 1,260.5 | 197.7 | 1.5 | 0.4 | 21.7 | 1,505.3 |
| Money market corpo- rations | 127.8 | 635.1 | 167.2 | 1,081.8 | 115.4 | 1,688.0 | 49.2 | 3,864.5 |
| Pastoral finance companies | 17.1 | 6.1 | 0.6 | 0.7 | 141.2 | 307.9 | 358.6 | 832.2 |
| Finance companies | 60.1 | 152.1 | 60.8 | 210.0 | 281.1 | 13,507.9 | 127.0 | 14,398.9 |
| General financiers | 5.7 | 10.4 | 0.5 | 13.4 | 19.4 | 764.7 | 33.6 | 847.6 |
| Intra group financiers | 8.0 | 27.5 | 0.6 | 4.5 | 42.8 | 208.3 | 10.3 | 301.9 |
| Other financial corpo- rations | 12.8 | 20.3 | 3.4 | 5.1 | 1.1 | 29.4 | 3.3 | 75.3 |
| Total | 974.6 | 1,025.3 | 1,655.5 | 1,815.9 | 624.8 | 22,964.9 | 852.7 | 29,913.7 |

(a) Includes all binding commitments to provide funds to residents of Australia other than those that are of a type which is usually completely disbursed within 30 days of approval; excludes commitments that do not have a quantifiable limit. (b) Includes all binding commitments (i.e. borrowing lines and standby facilities) to provide funds to reporting corporations; excludes standby facilities which do not have a quantifiable limit. (c) 'Paid-up capital' includes only fixed share capital; withdrawable share capital is included in 'Borrowings from residents'. (d) Includes short term placements that are repayable at call or within 90 days; excludes funds placed with banks and related corporations, and purchases of government securities and bills of exchange. (e) Excludes bills that have been drawn or accepted by reporting corporations. (f) Includes holdings of bills that have been drawn by reporting corporations and loans that have been re-financed by the sale of bills accepted by reporting corporations.

LIFE INSURANCE

Statistics in the following tables have been compiled from returns lodged under the *Life Insurance Act* 1945 (see page 477) and relate to the life insurance business of companies with head offices in Australia and the Australian business of companies with head offices overseas. Also included are the life business operations voluntarily reported by two State Government Insurance Offices.

Fifty life offices conducted life insurance business in Australia during 1976.

Summary information on foreign ownership and control of life insurance business is shown in Chapter 24 Overseas Transactions. More detailed statistics are available in *Foreign Control of Life Insurance Business* 1976 (5325.0) and *Foreign Ownership and Control of Life Insurance Business* 1973 (5311.0).

Information contained in the following two tables does not relate to uniform accounting periods but to the balance dates of organisations falling within the financial year shown.

LIFE INSURANCE OFFICES: LIABILITIES AND ASSETS
(**\$ million**)

| | 1974 | 1975 | 1976 |
|--|-----------------|-----------------|-----------------|
| Liabilities— | | | |
| Shareholders' capital— | | | |
| Authorised | 97.8 | 122.8 | 125.2 |
| Less: unissued | 60.1 | 73.8 | 73.7 |
| Subscribed capital | 37.7 | 49.0 | 51.5 |
| Paid-up— | | | |
| In money | 27.4 | 38.5 | 41.2 |
| Otherwise than money | 9.5 | 9.5 | 9.5 |
| Total paid-up capital | 36.9 | 48.0 | 50.8 |
| Life insurance statutory funds— | | | |
| Ordinary business | 7,050.3 | 7,264.4 | 7,768.5 |
| Industrial business | 547.3 | 551.3 | 562.8 |
| Superannuation business | 2,292.6 | 2,731.4 | 3,205.4 |
| Total statutory funds | 9,890.2 | 10,547.1 | 11,536.7 |
| Funds in respect of other classes of business | 55.3 | 75.4 | 51.7 |
| General reserves | 220.3 | 156.1 | 198.6 |
| Profit and loss account balance | 14.9 | 23.4 | 30.5 |
| <i>Total shareholders' capital, insurance funds and reserves</i> | <i>10,217.6</i> | <i>10,850.0</i> | <i>11,868.3</i> |
| Other liabilities— | | | |
| Deposits | 85.7 | 77.9 | 83.8 |
| Staff provident and superannuation funds | 8.7 | (a)18.2 | (a)23.7 |
| Claims admitted or intimated but not paid | 173.4 | 210.1 | 235.4 |
| Premiums paid in advance and in suspense | 8.0 | 9.1 | 9.4 |
| Sundry creditors | 65.4 | 82.8 | 92.3 |
| Bank overdraft | 48.1 | 78.8 | 88.2 |
| Reserves and provisions for taxation | 136.9 | 134.9 | 179.7 |
| All other liabilities | 25.6 | 76.9 | 68.4 |
| Total liabilities | 10,769.4 | 11,538.8 | 12,649.2 |
| Assets held in Australia— | | | |
| Fixed assets— | | | |
| Freehold and leasehold property, office premises | 1,664.6 | 1,979.3 | 2,275.3 |
| Furniture, etc | 17.4 | 19.8 | 21.2 |
| Loans— | | | |
| On mortgage | 1,338.8 | 1,341.8 | 1,330.0 |
| On policies | 283.2 | 282.1 | 278.8 |
| Other loans | 93.3 | 88.0 | 108.0 |
| Investments— | | | |
| Government securities— | | | |
| Australian | 1,889.1 | 2,069.4 | 2,251.5 |
| Overseas | 14.6 | 23.0 | 31.5 |
| Securities of local and semi-governmental bodies | 760.7 | 791.5 | 864.7 |
| Other investments | 2,287.3 | 2,554.1 | 2,875.4 |
| Cash on hand, deposit and current account | 101.1 | 142.6 | 122.6 |
| All other assets | 330.9 | 358.5 | 406.3 |
| <i>Total assets held in Australia</i> | <i>8,780.9</i> | <i>9,650.0</i> | <i>10,565.3</i> |
| <i>Total assets held overseas</i> | <i>1,988.5</i> | <i>1,888.8</i> | <i>2,083.9</i> |
| Total assets | 10,769.4 | 11,538.8 | 12,649.2 |

(a) Includes provisions for retirement, long service leave, etc.

LIFE INSURANCE OFFICES: REVENUE AND EXPENDITURE
(\$ million)

| | 1974 | 1975 | 1976 |
|---|----------|----------|----------|
| <i>Balance of account at beginning of year—Australia and Overseas</i> | 9,228.6 | 9,890.2 | 10,547.0 |
| Revenue—Australia | | | |
| Premium income— | | | |
| Ordinary business | 714.5 | 756.9 | 787.0 |
| Industrial business | 58.9 | 57.9 | 58.1 |
| Superannuation business | 433.4 | 560.5 | 654.4 |
| Consideration for annuities | 20.2 | 20.3 | 27.9 |
| Net interest dividends and rents | 459.8 | 525.5 | 588.4 |
| Other revenue | 161.6 | 205.4 | 173.3 |
| <i>Total revenue—Australia</i> | 1,848.5 | 2,126.6 | 2,289.1 |
| Revenue—Overseas | | | |
| Premium income | 227.5 | 204.9 | 232.6 |
| Net interest dividends and rents | 119.3 | 117.7 | 135.9 |
| Other revenue | 119.7 | 58.0 | 118.1 |
| <i>Total revenue—Overseas</i> | 466.3 | 380.6 | 486.6 |
| Total revenue | 2,314.8 | 2,507.2 | 2,775.7 |
| Total | 11,543.4 | 12,397.4 | 13,322.6 |
| Expenditure—Australia | | | |
| Payments on policies | | | |
| Claims | 406.8 | 454.9 | 497.8 |
| Surrenders | 297.1 | 383.1 | 457.1 |
| Annuities | 3.5 | 3.8 | 3.7 |
| Bonuses paid in cash | 4.8 | 9.4 | 8.6 |
| Expenses of management— | | | |
| Commission | 109.6 | 128.1 | 138.5 |
| Other | 160.2 | 191.2 | 216.4 |
| All other expenses | 353.4 | 188.2 | 177.2 |
| <i>Total expenditure—Australia</i> | 1,335.4 | 1,358.7 | 1,499.3 |
| Expenditure—Overseas | | | |
| Payments on policies | 136.5 | 143.4 | 150.8 |
| Expenses of management | 60.7 | 64.8 | 76.8 |
| All other expenditure | 120.8 | 283.5 | 59.0 |
| <i>Total expenditure—Overseas</i> | 317.8 | 491.7 | 286.6 |
| Total expenditure | 1,653.2 | 1,850.4 | 1,785.9 |
| <i>Balance of account at end of year—Australia and Overseas</i> | 9,890.2 | 10,547.0 | 11,536.7 |
| Total | 11,543.4 | 12,397.4 | 13,322.6 |

LIFE INSURANCE OFFICES: NEW LOANS PAID OVER^(a) BY CLASS OF SECURITY
(\$ million)

| <i>Class of security</i> | 1974 | 1975 | 1976 |
|--------------------------|-------|-------|-------|
| Mortgage of real estate | 199.0 | 120.3 | 155.8 |
| Companies policies | 75.1 | 56.7 | 57.4 |
| Other | 43.0 | 26.0 | 18.8 |

(a) Excludes advances on premiums.

LIFE INSURANCE: SUMMARY

| | <i>Insurance and endowment policies</i> | | | <i>Annuity policies</i> | |
|---|---|---|---|-------------------------------|---|
| | <i>Number of policies</i> | <i>Sum insured (\$ million)</i> | <i>Annual premiums (\$ million)</i> | <i>Number of policies</i> | <i>Annuities per annum (\$ million)</i> |
| ORDINARY BUSINESS | | | | | |
| New policies issued— | | | | | |
| 1971 | 569,370 | 4,882.6 | 91.5 | 66 | 0.1 |
| 1972 | 575,650 | 5,545.2 | 100.4 | 74 | 0.1 |
| 1973 | 552,422 | 6,504.8 | 96.6 | 78 | 0.1 |
| 1974 | 508,904 | 6,900.0 | 94.4 | 26 | 0.1 |
| 1975 | 488,429 | 7,917.6 | 100.7 | 13 | 0.1 |
| 1976 | 465,729 | 9,116.2 | 101.4 | 37 | 0.1 |
| Policies discontinued or reduced(a)— | | | | | |
| 1971 | 293,710 | 1,398.9 | 28.3 | 109 | — |
| 1972 | 324,372 | 1,777.0 | 34.0 | 91 | 0.1 |
| 1973 | 197,401 | 2,016.9 | 34.0 | 157 | 0.1 |
| 1974 | 424,767 | 2,613.7 | 50.0 | 173 | 0.1 |
| 1975 | 470,833 | 3,439.6 | 56.2 | 140 | 0.1 |
| 1976 | 514,780 | 4,455.0 | 73.5 | 101 | 0.1 |
| Policies existing at end of— | | | | | |
| 1971 | 5,182,672 | 22,914.5 | 525.7 | 1,906 | 1.1 |
| 1972 | 5,433,950 | 26,682.7 | 592.2 | 1,890 | 1.2 |
| 1973 | 5,788,971 | 31,170.6 | 654.7 | 1,811 | 1.2 |
| 1974 | 5,873,108 | 35,456.8 | 699.2 | 1,664 | 1.2 |
| 1975 | 5,890,704 | 39,934.8 | 743.6 | 1,537 | 1.2 |
| 1976 | 5,841,653 | 44,596.0 | 771.5 | 1,473 | 1.2 |
| INDUSTRIAL BUSINESS | | | | | |
| New policies issued— | | | | | |
| 1971 | 135,384 | 231.4 | 8.0 | .. | .. |
| 1972 | 133,700 | 255.3 | 8.7 | .. | .. |
| 1973 | 123,239 | 263.0 | 8.9 | .. | .. |
| 1974 | 85,675 | 216.4 | 7.1 | .. | .. |
| 1975 | 63,043 | 188.5 | 6.2 | .. | .. |
| 1976 | 57,896 | 198.2 | 6.5 | .. | .. |
| Policies discontinued or reduced(a)— | | | | | |
| 1971 | 165,067 | 115.0 | 4.5 | .. | .. |
| 1972 | 215,164 | 142.4 | 5.3 | .. | .. |
| 1973 | 193,159 | 153.7 | 5.2 | .. | .. |
| 1974 | 230,794 | 187.1 | 7.2 | .. | .. |
| 1975 | 207,109 | 166.1 | 6.1 | .. | .. |
| 1976 | 215,722 | 166.6 | 6.1 | .. | .. |
| Policies existing at end of— | | | | | |
| 1971 | 2,470,750 | 1,328.7 | 51.8 | .. | .. |
| 1972 | 2,389,286 | 1,441.5 | 55.2 | .. | .. |
| 1973 | 2,319,366 | 1,550.9 | 58.9 | .. | .. |
| 1974 | 2,174,247 | 1,580.1 | 58.9 | .. | .. |
| 1975 | 2,030,181 | 1,602.5 | 58.9 | .. | .. |
| 1976 | 1,872,355 | 1,634.2 | 59.4 | .. | .. |

LIFE INSURANCE: SUMMARY—continued

| | Insurance and endowment policies | | | Annuity policies | |
|--------------------------------------|----------------------------------|--------------------------|------------------------------|--------------------|----------------------------------|
| | Number of policies | Sum insured (\$ million) | Annual premiums (\$ million) | Number of policies | Annuities per annum (\$ million) |
| SUPERANNUATION BUSINESS | | | | | |
| New policies issued— | | | | | |
| 1971 | 78,005 | 2,785.3 | 72.4 | 45 | 12.9 |
| 1972 | 86,394 | 3,015.2 | 78.8 | 59 | 14.6 |
| 1973 | 72,424 | 3,768.6 | 94.1 | 42 | 14.3 |
| 1974 | 89,778 | 5,534.7 | 139.2 | 38 | 17.4 |
| 1975 | 115,937 | 6,919.4 | 176.7 | 27 | 27.7 |
| 1976 | 117,788 | 7,836.8 | 181.5 | 34 | 19.7 |
| Policies discontinued or reduced(a)— | | | | | |
| 1971 | 87,206 | 1,077.6 | 29.4 | 28 | 4.7 |
| 1972 | 67,694 | 1,324.0 | 32.9 | 43 | 7.1 |
| 1973 | 113,035 | 1,759.4 | 42.4 | 3 | 9.1 |
| 1974 | 94,932 | 1,948.8 | 48.8 | 60 | 14.0 |
| 1975 | 82,091 | 2,750.2 | 65.8 | 132 | 12.2 |
| 1976 | 135,512 | 3,428.3 | 87.8 | 238 | 14.9 |
| Policies existing at end of— | | | | | |
| 1971 | 690,451 | 9,505.6 | 254.5 | 980 | 39.6 |
| 1972 | 709,151 | 11,196.7 | 300.5 | 996 | 47.0 |
| 1973 | 668,540 | 13,205.9 | 352.1 | 1,035 | 52.3 |
| 1974 | 663,386 | 16,791.8 | 442.4 | 1,013 | 55.7 |
| 1975 | 697,232 | 20,961.0 | 553.3 | 908 | 71.2 |
| 1976 | 679,507 | 25,369.5 | 647.0 | 704 | 75.9 |

(a) Includes policies matured, surrendered, forfeited, transferred to overseas registers, converted to other classes of business, etc.

PENSION AND SUPERANNUATION SCHEMES

Private superannuation, pension and retiring allowance schemes

Since 1965 surveys of selected private pension funds have been made, but, as the sample has not been rebased in the intervening period, it is not known to what extent those currently included in the sample represent the whole field.

The statistics do not relate to uniform accounting periods but to the balance dates of funds falling within the financial years shown.

SELECTED SEPARATELY CONSTITUTED PRIVATE PENSION FUNDS: ASSETS(a)
(\$ million)

| | Cash in hand or in bank | Aust. Govt securities | Local and semi-government securities | Loans on mortgage | | Company debentures, notes, etc(b) | Shares in companies | Land and buildings | All other assets (c) | Total assets | Less sundry creditors, etc. | Amount of funds in Australia |
|-----------|-------------------------|-----------------------|--------------------------------------|-------------------|-------|-----------------------------------|---------------------|--------------------|----------------------|--------------|-----------------------------|------------------------------|
| | | | | To companies | Other | | | | | | | |
| 1971-72 . | 35.0 | 280.9 | 227.8 | 102.2 | 51.5 | 345.3 | 449.5 | 34.2 | 46.5 | 1,572.8 | 10.1 | 1,562.7 |
| 1972-73 . | 36.2 | 311.3 | 235.8 | 137.9 | 35.7 | 371.1 | 506.7 | 43.7 | 70.1 | 1,748.4 | 12.8 | 1,735.7 |
| 1973-74 . | 32.2 | 353.3 | 242.8 | 148.8 | 46.8 | 392.9 | 568.5 | 53.2 | 100.9 | 1,939.5 | 14.4 | 1,925.0 |
| 1974-75 . | 41.8 | 401.4 | 254.9 | 173.6 | 39.8 | 431.9 | 614.7 | 74.2 | 137.5 | 2,169.7 | 13.7 | 2,156.0 |
| 1975-76 . | 42.3 | 480.0 | 274.8 | 187.4 | 34.5 | 500.5 | 719.8 | 121.4 | 151.4 | 2,511.9 | 19.0 | 2,492.8 |
| 1976-77 . | 28.8 | 567.8 | 306.2 | 191.2 | 37.0 | 515.1 | 885.9 | 177.3 | 191.7 | 2,901.0 | 22.3 | 2,878.7 |

(a) Book values at balance dates.

(b) Includes other loans to companies.

(c) Includes loans to authorised dealers in the short-term money market and loans to building societies.

**SELECTED SEPARATELY CONSTITUTED PRIVATE PENSION FUNDS:
INCOME AND EXPENDITURE**
(\$ million)

| INCOME | | | | | | | | | |
|----------------------------|---------------------------------|---------------------------------|--|--|--|------------------------|--|------------------------------|--------------------------|
| | <i>Employees' contributions</i> | <i>Employers' contributions</i> | <i>Interest on Aust. Govt local and semi-government securities</i> | <i>Other interest dividends and rent</i> | <i>Profit from sale or revaluation of assets</i> | <i>Other income(a)</i> | <i>Total income</i> | | |
| 1971-72 | 48.0 | 91.7 | 30.6 | 56.0 | 16.2 | 9.0 | 251.5 | | |
| 1972-73 | 59.0 | 106.8 | 35.8 | 65.0 | 18.5 | 6.7 | 291.9 | | |
| 1973-74 | 68.0 | 146.4 | 33.6 | 79.9 | 8.8 | 5.1 | 341.8 | | |
| 1974-75 | 86.6 | 196.0 | 40.9 | 98.6 | 3.6 | 11.2 | 436.9 | | |
| 1975-76 | 102.1 | 245.8 | 48.1 | 116.2 | 15.6 | 35.6 | 563.4 | | |
| 1976-77 | 116.5 | 273.9 | 67.1 | 132.1 | 8.9 | 18.8 | 617.4 | | |
| EXPENDITURE | | | | | | | | | |
| <i>Lump sum payments</i> | | | | | | | | | |
| <i>To former employees</i> | | | | | | | | | |
| <i>Pensions paid</i> | | | | | | | | | <i>Total expenditure</i> |
| <i>Ex-employees</i> | <i>Widows or children</i> | <i>Total</i> | <i>On retirement</i> | <i>On resignation or dismissal</i> | <i>To widows or children</i> | <i>Total</i> | <i>Loss on sale or revaluation of assets</i> | <i>Other expenditure (b)</i> | |
| 1971-72 | 28.6 | 4.4 | 33.0 | 31.3 | 20.0 | 4.6 | 55.9 | 3.4 | 97.3 |
| 1972-73 | 31.7 | 4.9 | 36.6 | 43.1 | 23.0 | 5.9 | 72.0 | 2.0 | 120.7 |
| 1973-74 | 36.8 | 5.6 | 42.4 | 45.3 | 27.3 | 5.9 | 78.5 | 19.3 | 150.7 |
| 1974-75 | 42.6 | 6.5 | 49.1 | 52.4 | 31.0 | 6.6 | 90.0 | 21.3 | 199.2 |
| 1975-76 | 48.6 | 7.4 | 55.9 | 64.6 | 33.3 | 8.2 | 106.1 | 3.1 | 209.0 |
| 1976-77 | 55.5 | 11.4 | 66.9 | 82.6 | 38.8 | 9.2 | 130.6 | 6.3 | 228.4 |

(a) Includes receipts from life insurance offices, sub-underwriting commissions, etc.
funds, payments to life insurance offices, etc.

(b) Includes administrative expenses payable from

Public authority pension and superannuation schemes

The Australian Government 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.

The statistics below cover Parliamentary pension and superannuation schemes, coal and oil-shale mine workers' superannuation schemes and other schemes operated through separately constituted funds. For more detailed information on these schemes refer to the annual publication *Public Authority Pension and Superannuation Schemes* (5511.0).

**PUBLIC AUTHORITY PENSION AND SUPERANNUATION SCHEMES OPERATED THROUGH
SEPARATELY CONSTITUTED FUNDS**

| | 1973-74 | 1974-75 | 1975-76 |
|---|----------------|----------------|----------------|
| (\$ million) | | | |
| Income— | | | |
| Contributions— | | | |
| Employees | 249.7 | 323.1 | 400.8 |
| Employing authorities | 279.5 | 356.9 | 472.0 |
| Interest, dividends and rent | 157.0 | 196.9 | 245.8 |
| Transfers | 10.2 | 8.3 | 8.8 |
| Other income | 10.9 | 14.4 | 31.2 |
| Total income | 707.4 | 899.7 | 1,158.6 |
| Expenditure— | | | |
| Pensions | 239.8 | 297.5 | 371.3 |
| Lump sum payments— | | | |
| On retirement, death, resignation or dismissal(a) | 131.3 | 198.7 | 200.2 |
| Gratuities | 2.3 | 3.7 | 3.5 |
| Other expenditure | 23.3 | 53.0 | 35.5 |
| Total expenditure | 396.6 | 552.9 | 610.0 |
| Assets at end of year— | | | |
| Cash— | | | |
| Deposits with Treasury | 95.6 | 113.4 | 139.0 |
| Other deposits and cash | 92.0 | 88.9 | 163.0 |
| Australian Government securities | 177.1 | 204.6 | 255.4 |
| Local and semi-government securities | 1,289.6 | 1,369.5 | 1,508.8 |
| Mortgages— | | | |
| Housing | 62.6 | 70.5 | 89.5 |
| Other | 443.4 | 527.3 | 562.5 |
| Loans to building societies | 48.6 | 56.1 | 75.1 |
| Company shares, debentures and notes | 248.6 | 310.0 | 290.7 |
| Other assets | 174.7 | 244.2 | 467.3 |
| Total assets(b) | 2,632.2 | 2,984.6 | 3,551.2 |
| Less Sundry creditors, etc. | 64.7 | 63.8 | 68.9 |
| Accumulated funds(b) | 2,567.4 | 2,920.8 | 3,482.8 |
| (No.) | | | |
| Contributors at end of year | 669,305 | 722,680 | n.a. |
| Pensioners at end of year— | | | |
| Ex-employees | 68,689 | 63,019 | n.a. |
| Widows | 44,256 | 36,844 | n.a. |
| Children | 5,403 | 3,656 | n.a. |

(a) Includes refunds of contributions to continuing members. (b) Includes assets of the Voluntary Savings Scheme of the State Superannuation Fund in South Australia.

**PUBLIC AUTHORITY PENSION AND SUPERANNUATION SCHEMES OPERATED THROUGH LIFE
INSURANCE OFFICES**

| | 1973-74 | 1974-75 | 1975-76 |
|---------------------------------------|-----------------|---------|---------|
| Income— | | | |
| Contributions— | | | |
| Employees | \$ million 12.3 | 16.4 | 20.9 |
| Employing authorities | \$ million 16.6 | 26.0 | 33.9 |
| Contributors at end of year | No. 60,985 | 63,476 | 63,344 |

GENERAL INSURANCE

The following statistics have been compiled from returns collected under the *Census and Statistics Act 1905* and relate to the operations of:

- (a) *Bodies Corporate* authorised to carry on insurance business under the *Insurance Act 1973* (see page 477);
- (b) *Brokers* in respect of business placed with overseas insurers; and
- (c) *Government instrumentalities*, i.e. State Government Insurance Offices and Australian Government and State Government instrumentalities in respect of their general insurance business.

These statistics are based on the following definitions:

Premiums represent the full amount receivable in respect of policies issued or renewed during 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.

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.

Information contained in the following tables does not relate to uniform accounting periods but to the financial years of the organisations which ended during the years shown.

GENERAL INSURANCE: PREMIUMS(a) AND CLAIMS BY PRINCIPAL CLASS OF BUSINESS
(\$ million)

| <i>Class of business</i> | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|--|----------------|----------------|----------------|----------------|----------------|----------------|
| PREMIUMS | | | | | | |
| Fire(b) | 170.9 | 181.6 | 208.8 | 243.8 | 297.9 | 319.5 |
| House Owners' and House-holders' | 86.4 | 104.2 | 127.3 | 165.3 | 195.8 | 214.0 |
| Contractors' All Risks | 10.0 | 10.0 | 11.4 | 12.1 | 14.8 | 20.1 |
| Marine and Aviation | 67.3 | 64.5 | 69.1 | 81.0 | 86.9 | 108.9 |
| Motor Vehicle Comprehensive | 300.3 | 329.9 | 366.1 | 485.1 | 595.4 | 722.4 |
| Compulsory Third Party (Motor Vehicle) | 172.5 | 183.9 | 206.4 | 340.2 | 444.8 | 526.9 |
| Employers Liability(c) | 236.5 | 291.2 | 380.2 | 589.6 | 956.2 | 932.4 |
| Public Liability(d) | 33.3 | 36.5 | 41.5 | 46.6 | 57.2 | 74.3 |
| All other | 108.5 | 123.5 | 139.8 | 157.5 | 190.8 | 234.8 |
| Total | 1,185.8 | 1,325.4 | 1,550.7 | 2,121.3 | 2,840.0 | 3,153.3 |
| CLAIMS | | | | | | |
| Fire(a) | 77.5 | 83.7 | 113.6 | 198.0 | 129.9 | 137.1 |
| House Owners' and House-holders' | 35.0 | 41.1 | 52.6 | 175.9 | 97.9 | 123.5 |
| Contractors' All Risk | 5.2 | 5.4 | 6.9 | 16.7 | 11.3 | 11.0 |
| Marine and Aviation | 28.4 | 28.5 | 45.0 | 61.5 | 52.8 | 54.8 |
| Motor Vehicle Comprehensive | 217.9 | 223.4 | 268.9 | 364.1 | 386.2 | 444.8 |
| Compulsory Third Party (Motor Vehicle) | 181.9 | 211.2 | 284.7 | 370.3 | 423.2 | 485.1 |
| Employers Liability(c) | 165.0 | 245.0 | 353.8 | 503.1 | 583.4 | 639.3 |
| Public Liability(d) | 13.5 | 17.3 | 23.2 | 32.5 | 36.3 | 46.2 |
| All other | 49.9 | 50.5 | 59.4 | 78.0 | 80.3 | 99.7 |
| Total | 774.3 | 906.1 | 1,208.2 | 1,800.0 | 1,801.4 | 2,041.4 |

(a) Prior to 1974-75 includes stamp duty and prior to 1976-77, fire service charges. (b) Includes Sprinkler Leakage, Crop, Hailstone and Loss of Profits insurance. (c) Excludes workers' compensation in coal-mining industry. (d) Includes Product Liability and Professional Indemnity insurance.

GENERAL INSURANCE: SELECTED ITEMS OF EXPENDITURE

(\$ million)

| | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|-------------------------------------|---------|---------|---------|---------|---------|---------|
| Contributions to fire brigades etc. | 31.1 | 34.8 | 43.3 | 53.9 | 71.8 | 91.0 |
| Commission and agent charges | 97.3 | 105.4 | 120.3 | 136.7 | 158.9 | 175.3 |
| Expenses of management | 199.3 | 216.8 | 247.8 | 308.7 | 341.5 | 416.1 |
| Taxation | (a)37.2 | (a)38.2 | (a)46.3 | 27.3 | 17.5 | 23.6 |
| Other underwriting expenses | n.a. | n.a. | n.a. | 13.6 | 11.4 | 6.4 |

(a) Includes Income tax and stamp duty.

Summary information on foreign ownership and control of general insurance business is shown in Chapter 24. Overseas Transactions. More detailed statistics are available in *Foreign Control of General Insurance Business 1975-76* (5326.0) and *Foreign Ownership and Control of General Insurance Business 1972-73* (5309.0).

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)

| | Total market value at end of period (a) | Cash transactions—trust units and fund shares | | Purchases and sales of investments (b) | |
|-------------------|---|---|-----------------------|--|-----------|
| | | Total amount received (c) | Total amount paid (d) | Purchases (e) | Sales (f) |
| 1972-73 | 380.3 | 79.1 | 32.7 | 111.5 | 71.5 |
| 1973-74 | 368.6 | 68.8 | 38.6 | 96.1 | 50.6 |
| 1974-75 | 356.0 | 36.9 | 47.8 | 38.6 | 49.3 |
| 1975-76 | 407.6 | 50.0 | 30.8 | 85.3 | 60.7 |
| 1976-77 | 417.5 | 48.1 | 34.4 | 79.4 | 69.5 |
| 1977-78 | 488.3 | 83.9 | 38.3 | 91.2 | 69.1 |

(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) Includes re-issues and new issues. Includes fees and expenses. (d) 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 broker-age and stamp duty.

TRUSTS AND FUNDS: ANALYSIS OF PURCHASES AND SALES OF INVESTMENTS

(\$ million)

| | Shares (incl. preference shares) | Debentures, unsecured notes, deposits (a) | Land, buildings, mortgages | Other (b) | Total |
|-------------------|----------------------------------|---|----------------------------|-----------|-------|
| Purchases— | | | | | |
| 1972-73 | 22.1 | 18.2 | 71.0 | 0.1 | 111.5 |
| 1973-74 | 12.3 | 9.8 | 73.7 | 0.3 | 96.1 |
| 1974-75 | 14.8 | 8.5 | 15.3 | .. | 38.6 |
| 1975-76 | 21.2 | 15.4 | 39.9 | 8.8 | 85.3 |
| 1976-77 | 13.4 | 12.5 | 52.3 | 1.1 | 79.4 |
| 1977-78 | 14.3 | 10.4 | 65.7 | 0.8 | 91.2 |
| Sales— | | | | | |
| 1972-73 | 45.3 | 9.4 | 15.7 | 1.1 | 71.5 |
| 1973-74 | 22.4 | 10.9 | 17.1 | 0.3 | 50.6 |
| 1974-75 | 14.1 | 10.7 | 24.4 | 0.1 | 49.3 |
| 1975-76 | 22.3 | 10.0 | 26.6 | 1.8 | 60.7 |
| 1976-77 | 23.4 | 17.4 | 27.3 | 1.5 | 69.5 |
| 1977-78 | 26.2 | 9.4 | 33.2 | 0.2 | 69.1 |

(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.

AUSTRALIAN INDUSTRY DEVELOPMENT CORPORATION

The Australian Industry Development Corporation was established by the *Australian Industry Development Corporation Act 1970* 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 Commonwealth Government in instalments but the whole being available if required to meet obligations. The paid-up capital at 30 June 1978 was \$62.5 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 by borrowing both in Australia and overseas, for Australian firms (including local firms with foreign partners) engaged in industries concerned with the manufacture, processing, treatment, transportation or distribution of goods, or the development or use of natural resources (including the recovery of minerals), or technology and activities that are connected with or incidental to those 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.

A.I.D.C. provides development capital both for start-up situations and for going concerns. Although the greater part of its financing is by loans, it also makes equity investments in industry. Where a company's capital needs can best be met by loan finance, A.I.D.C. does not seek an equity position. It aims to avoid involvement in the management of companies to which it provides financing.

Project investments approved since operations commenced, totalled \$454 million at 30 June 1978, and operational loans and investments outstanding were \$213 million.

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 monthly bulletin *Instalment Credit for Retail Sales* (5631.0).

These statistics cover the operations of instalment credit schemes which relate primarily to the financing of retail sales of consumer commodities. In general, the term instalment credit is defined as relating to schemes in which repayment is made by regular predetermined instalments (predetermined by amount or by percentage of amount financed or balance outstanding). Types of instalment credit schemes covered include hire purchase, time payment, budget account and personal loans where these schemes relate to the financing of retail sales of consumer commodities.

Figures for amounts financed exclude interest, hiring charges, insurance, etc. Figures for balances outstanding and collections include interest, hiring charges, insurance, etc.

INSTALMENT CREDIT FOR RETAIL SALES BY TYPE OF BUSINESS: AMOUNT FINANCED BY COMMODITY GROUP, COLLECTIONS AND BALANCES OUTSTANDING, AUSTRALIA (\$ million)

| | Amount financed during year | | | | | Collections and other liquidations of balances during year | Balances outstanding at end of year |
|-----------------------|-------------------------------|-------|--------------------------|------------------------------|---------|--|-------------------------------------|
| | Motor cars and station wagons | | Other motor vehicles (a) | Household and personal goods | Total | | |
| | New | Used | | | | | |
| Finance companies— | | | | | | | |
| 1975-76 | 419.1 | 507.3 | 162.4 | 293.9 | 1,382.6 | 1,600.9 | 2,233.0 |
| 1976-77 | 420.0 | 591.3 | 182.4 | 336.6 | 1,530.3 | 1,825.5 | 2,601.1 |
| 1977-78 | 399.8 | 640.0 | 164.5 | 312.6 | 1,516.9 | 1,990.8 | 2,804.0 |
| Other businesses(b)— | | | | | | | |
| 1975-76 | 0.3 | 0.1 | 5.9 | 237.9 | 244.1 | 267.8 | 172.2 |
| 1976-77 | 0.5 | 0.3 | 3.5 | 254.3 | 258.7 | 293.5 | 161.8 |
| 1977-78 | 0.1 | 0.1 | 0.4 | 230.4 | 231.0 | 263.4 | 150.4 |
| Total all businesses— | | | | | | | |
| 1975-76 | 419.4 | 507.4 | 168.2 | 531.8 | 1,626.7 | 1,868.7 | 2,405.2 |
| 1976-77 | 420.6 | 591.6 | 185.9 | 591.0 | 1,789.0 | 2,119.0 | 2,762.9 |
| 1977-78 | 400.0 | 640.1 | 164.9 | 543.0 | 1,747.8 | 2,254.2 | 2,954.4 |

(a) Includes new and used motor cycles, boats, caravans, trailers and motor parts and accessories but excludes panel vans, utilities, trucks, tractors and other vehicles normally used for commercial purposes. (b) Businesses operating retail establishments, unincorporated finance businesses and businesses other than wholesalers and manufacturers.

**INSTALMENT CREDIT FOR RETAIL SALES BY TYPE OF CREDIT: AMOUNT
FINANCED BY COMMODITY GROUP, AUSTRALIA**

(\$ million)

| | <i>Motor cars and station wagons</i> | | <i>Other motor vehicles (a)</i> | <i>Household and personal goods</i> | <i>Total</i> |
|---------------------------------|--|-------------|---|---|--------------|
| | <i>New</i> | <i>Used</i> | | | |
| Hire purchase— | | | | | |
| 1975-76 | 306.9 | 366.3 | 123.8 | 138.4 | 935.3 |
| 1976-77 | 304.1 | 424.3 | 136.8 | 161.9 | 1,027.1 |
| 1977-78 | 306.5 | 481.1 | 124.4 | 141.1 | 1,053.1 |
| Other instalment credit— | | | | | |
| 1975-76 | 112.4 | 141.1 | 44.5 | 393.4 | 691.4 |
| 1976-77 | 116.5 | 167.3 | 49.2 | 429.0 | 761.9 |
| 1977-78 | 93.4 | 159.0 | 40.4 | 401.9 | 694.7 |
| Total instalment credit | | | | | |
| 1975-76 | 419.4 | 507.4 | 168.2 | 531.8 | 1,626.7 |
| 1976-77 | 420.6 | 591.6 | 185.9 | 591.0 | 1,789.0 |
| 1977-78 | 400.0 | 640.1 | 164.9 | 543.0 | 1,747.8 |

(a) Includes new and used motor cycles, boats, caravans, trailers and motor parts and accessories but excludes panel vans, utilities, trucks, tractors and other vehicles normally used for commercial purposes.

HOUSING FINANCE FOR OWNER OCCUPATION

A monthly statistical series was introduced in October 1975 to provide information on finance (secured by mortgage or other security, including secured personal loans and loans secured by contracts of sale) approved by significant lenders to individuals for the construction or purchase of dwellings for owner occupation. A lender is significant if over a financial year it approves loans to individuals for housing finance for owner occupation in excess of \$250,000 or if at the end of a financial year it has balances outstanding on such loans exceeding \$2 million.

The types of lenders considered in these statistics are trading and savings banks, permanent and terminating building societies, finance companies, government housing authorities and other government departments, insurance companies and credit unions.

The table on page 502 provides information classified by type of lender and the use for which approved housing loans are intended (e.g. construction or purchase).

Purchase of newly erected dwellings represents the purchase of dwellings which have been completed or will be completed within a period of twelve months preceding the date of purchase and where the purchaser is, or will be, the first occupant.

Purchase of established dwellings represents the purchase of dwellings which have been completed for a period of greater than twelve months preceding the date of purchase or, if completed within twelve months, where the purchaser is not the original occupant.

The term *dwelling* includes houses and other dwellings where the latter is defined as a self-contained dwelling unit other than a house. (Examples of *other dwellings* are flats, home units, semi-detached cottages, villa units, town houses, etc.).

The term *number of dwelling units* refers to the number of houses and other dwellings for which loans secured by contract of sale or first mortgage only have been approved.

Comprehensive statistics on housing finance for owner occupation are available in the monthly bulletin *Housing Finance for Owner Occupation* (5609.0).

The following table summarises the housing finance operations of the significant lenders.

HOUSING FINANCE FOR OWNER OCCUPATION

(\$ million)

| | <i>Loans approved for—</i> | | <i>Cancellations of loans previously approved</i> | <i>Loans advanced(a)</i> | <i>Loans approved but not advanced(a)</i> |
|--------------------------|--|--|---|------------------------------|---|
| | <i>Construction or purchase of dwellings</i> | <i>Alterations and additions</i> | | | |
| 1976-77 | 5,209.9 | 343.6 | 250.5 | 4,482.4 | 926.7 |
| 1977-78 | 5,530.7 | 379.4 | 258.4 | 4,767.7 | 955.9 |
| Quarter ended— | | | | | |
| March 1977 | 1,276.2 | 77.3 | 63.6 | 1,028.0 | 965.2 |
| June 1977 | 1,254.2 | 83.0 | 62.7 | 1,132.8 | 926.7 |
| September 1977 | 1,397.9 | 94.5 | 65.8 | 1,197.0 | 965.4 |
| December 1977 | 1,366.3 | 95.3 | 67.4 | 1,260.8 | 893.2 |
| March 1978 | 1,358.5 | 91.5 | 63.4 | 1,074.5 | 970.9 |
| June 1978 | 1,408.0 | 98.1 | 61.8 | 1,235.5 | 955.9 |

(a) Excludes Trading Banks; data not available.

HOUSING FINANCE FOR OWNER OCCUPATION: NUMBER OF DWELLING UNITS FOR WHICH
LOANS WERE APPROVED TO INDIVIDUALS BY THE TYPE OF LENDER

| | <i>Banks</i> | | <i>Building societies</i> | | <i>Finance companies</i> | <i>Government</i> | <i>Credit unions and insurance companies</i> | <i>Total</i> |
|-------------------------------------|----------------|----------------|---------------------------|--------------------------|--------------------------|-------------------|--|--------------|
| | <i>Savings</i> | <i>Trading</i> | <i>Per- manent</i> | <i>Ter- minating</i> | | | | |
| | | | | | | | | |
| CONSTRUCTION OF DWELLINGS | | | | | | | | |
| 1976-77 | 18,795 | 8,948 | 8,427 | 2,884 | 2,988 | 2,420 | 1,384 | 45,846 |
| 1977-78 | 18,726 | 7,564 | 8,883 | 2,710 | 2,388 | 1,861 | 1,147 | 43,279 |
| Quarter ended— | | | | | | | | |
| March 1977 | 4,303 | 2,010 | 2,012 | 517 | 734 | 517 | 179 | 10,272 |
| June 1977 | 4,315 | 1,897 | 2,185 | 510 | 749 | 632 | 238 | 10,526 |
| September 1977 | 5,007 | 1,987 | 2,614 | 606 | 552 | 661 | 281 | 11,708 |
| December 1977 | 4,698 | 1,862 | 2,065 | 1,142 | 622 | 577 | 317 | 11,283 |
| March 1978 | 4,117 | 1,837 | 1,959 | 559 | 534 | 296 | 241 | 9,543 |
| June 1978 | 4,904 | 1,878 | 2,245 | 403 | 680 | 327 | 308 | 10,745 |
| PURCHASE OF NEWLY ERECTED DWELLINGS | | | | | | | | |
| 1976-77 | 14,922 | 5,964 | 10,780 | 1,822 | 1,646 | 4,777 | 1,106 | 41,017 |
| 1977-78 | 12,845 | 5,945 | 10,421 | 3,113 | 1,969 | 5,652 | 1,008 | 40,953 |
| Quarter ended— | | | | | | | | |
| March 1977 | 3,423 | 1,329 | 2,585 | 332 | 415 | 1,273 | 190 | 9,547 |
| June 1977 | 3,425 | 1,554 | 2,458 | 391 | 436 | 1,188 | 185 | 9,637 |
| September 1977 | 3,443 | 1,594 | 3,111 | 545 | 465 | 1,568 | 216 | 10,942 |
| December 1977 | 3,318 | 1,411 | 2,628 | 714 | 516 | 1,481 | 251 | 10,319 |
| March 1978 | 3,085 | 1,455 | 2,203 | 736 | 516 | 1,411 | 233 | 9,639 |
| June 1978 | 2,999 | 1,485 | 2,479 | 1,118 | 472 | 1,192 | 308 | 10,053 |
| PURCHASE OF ESTABLISHED DWELLINGS | | | | | | | | |
| 1976-77 | 73,023 | 26,306 | 45,303 | 4,421 | 7,207 | 8,377 | 3,470 | 168,107 |
| 1977-78 | 72,436 | 24,854 | 46,116 | 4,501 | 5,914 | 6,985 | 4,119 | 164,925 |
| Quarter ended— | | | | | | | | |
| March 1977 | 17,920 | 6,486 | 11,507 | 857 | 1,821 | 1,951 | 841 | 41,383 |
| June 1977 | 17,110 | 5,642 | 11,736 | 666 | 1,602 | 1,352 | 849 | 38,957 |
| September 1977 | 17,330 | 5,439 | 13,886 | 1,068 | 1,326 | 1,928 | 963 | 41,940 |
| December 1977 | 17,812 | 6,070 | 10,840 | 1,714 | 1,316 | 1,800 | 1,007 | 40,559 |
| March 1978 | 18,817 | 6,901 | 10,451 | 937 | 1,396 | 1,671 | 978 | 41,151 |
| June 1978 | 18,477 | 6,444 | 10,939 | 782 | 1,876 | 1,586 | 1,171 | 41,275 |
| TOTAL | | | | | | | | |
| 1976-77 | 106,740 | 41,218 | 64,510 | 9,127 | 11,841 | 15,574 | 5,960 | 254,970 |
| 1977-78 | 104,007 | 38,363 | 65,420 | 10,324 | 10,271 | 14,498 | 6,274 | 249,157 |
| Quarter ended— | | | | | | | | |
| March 1977 | 25,646 | 9,825 | 16,104 | 1,706 | 2,970 | 3,741 | 1,210 | 61,202 |
| June 1977 | 24,850 | 9,093 | 16,379 | 1,567 | 2,787 | 3,172 | 1,272 | 59,120 |
| September 1977 | 25,780 | 9,020 | 19,611 | 2,219 | 2,343 | 4,157 | 1,460 | 64,590 |
| December 1977 | 25,828 | 9,343 | 15,533 | 3,570 | 2,454 | 3,858 | 1,575 | 62,161 |
| March 1978 | 26,019 | 10,193 | 14,613 | 2,232 | 2,446 | 3,378 | 1,452 | 60,333 |
| June 1978 | 26,380 | 9,807 | 15,663 | 2,303 | 3,028 | 3,105 | 1,787 | 62,073 |

**HOUSING FINANCE FOR OWNER OCCUPATION: VALUE OF LOANS APPROVED TO INDIVIDUALS
BY TYPE OF LENDER**
(\$ million)

| | <i>Banks</i> | | <i>Building societies</i> | | | <i>Government</i> | <i>Credit unions and insurance companies</i> | <i>Total</i> |
|-------------------------------------|----------------|----------------|---------------------------|--------------------------|------------------------------|-------------------|--|--------------|
| | <i>Savings</i> | <i>Trading</i> | <i>Per- manent</i> | <i>Ter- minating</i> | <i>Finance companies</i> | | | |
| CONSTRUCTION OF DWELLINGS | | | | | | | | |
| 1976-77 | 354.1 | 134.6 | 212.2 | 60.1 | 85.1 | 48.9 | 32.5 | 927.4 |
| 1977-78 | 381.2 | 123.8 | 243.8 | 64.1 | 65.5 | 36.4 | 28.1 | 943.0 |
| Quarter ended— | | | | | | | | |
| March 1977 | 83.5 | 30.0 | 51.7 | 11.1 | 20.5 | 10.5 | 4.3 | 211.6 |
| June 1977 | 82.8 | 29.5 | 57.1 | 11.6 | 22.1 | 13.5 | 5.9 | 222.4 |
| September 1977 | 97.4 | 30.4 | 72.0 | 14.4 | 17.3 | 12.9 | 6.7 | 251.2 |
| December 1977 | 95.4 | 29.8 | 56.4 | 26.0 | 17.4 | 11.1 | 7.3 | 243.4 |
| March 1978 | 85.2 | 31.1 | 53.1 | 13.7 | 13.9 | 5.8 | 6.5 | 209.3 |
| June 1978 | 103.1 | 32.5 | 62.3 | 10.0 | 16.9 | 6.6 | 7.6 | 239.0 |
| PURCHASE OF NEWLY ERECTED DWELLINGS | | | | | | | | |
| 1976-77 | 280.1 | 90.8 | 275.8 | 37.8 | 77.1 | 94.7 | 27.1 | 883.3 |
| 1977-78 | 271.6 | 102.1 | 288.9 | 72.6 | 71.4 | 121.2 | 24.7 | 952.4 |
| Quarter ended— | | | | | | | | |
| March 1977 | 66.5 | 19.8 | 68.0 | 7.0 | 18.5 | 25.1 | 5.6 | 210.5 |
| June 1977 | 65.3 | 22.0 | 65.2 | 8.4 | 19.6 | 25.3 | 4.9 | 210.8 |
| September 1977 | 69.6 | 26.4 | 86.2 | 12.0 | 18.1 | 33.6 | 5.7 | 251.6 |
| December 1977 | 69.8 | 22.8 | 72.1 | 15.8 | 19.0 | 32.1 | 5.9 | 237.5 |
| March 1978 | 66.8 | 26.7 | 62.3 | 17.8 | 16.1 | 30.4 | 5.4 | 225.5 |
| June 1978 | 65.4 | 26.2 | 68.4 | 26.9 | 18.1 | 25.1 | 7.8 | 237.9 |
| PURCHASE OF ESTABLISHED DWELLINGS | | | | | | | | |
| 1976-77 | 1,362.9 | 419.2 | 1,064.9 | 92.4 | 213.9 | 154.2 | 91.6 | 3,399.1 |
| 1977-78 | 1,486.9 | 449.1 | 1,163.5 | 104.4 | 185.2 | 138.6 | 107.6 | 3,635.3 |
| Quarter ended— | | | | | | | | |
| March 1977 | 343.4 | 103.3 | 275.2 | 18.8 | 54.2 | 36.7 | 22.4 | 854.1 |
| June 1977 | 327.6 | 91.1 | 285.8 | 14.4 | 52.1 | 27.4 | 22.7 | 821.1 |
| September 1977 | 340.5 | 89.9 | 337.5 | 24.8 | 42.0 | 36.2 | 24.2 | 895.1 |
| December 1977 | 356.8 | 108.2 | 276.3 | 38.5 | 42.2 | 37.3 | 26.1 | 885.3 |
| March 1978 | 395.7 | 130.3 | 269.2 | 22.3 | 45.3 | 34.4 | 26.6 | 923.7 |
| June 1978 | 394.0 | 120.7 | 280.4 | 18.9 | 55.6 | 30.7 | 30.7 | 931.1 |
| TOTAL | | | | | | | | |
| 1976-77 | 1,997.0 | 644.6 | 1,552.9 | 190.3 | 376.1 | 297.8 | 151.1 | 5,209.9 |
| 1977-78 | 2,139.8 | 675.0 | 1,696.2 | 241.0 | 322.0 | 296.2 | 160.4 | 5,530.7 |
| Quarter ended— | | | | | | | | |
| March 1977 | 493.4 | 153.1 | 394.9 | 36.9 | 93.3 | 72.4 | 32.3 | 1,276.2 |
| June 1977 | 475.7 | 142.6 | 408.1 | 34.4 | 93.8 | 66.1 | 33.5 | 1,254.2 |
| September 1977 | 507.5 | 146.7 | 495.8 | 51.1 | 77.5 | 82.7 | 36.6 | 1,397.9 |
| December 1977 | 522.0 | 160.8 | 404.8 | 80.3 | 78.6 | 80.5 | 39.3 | 1,366.3 |
| March 1978 | 547.8 | 188.1 | 384.6 | 53.8 | 75.3 | 70.6 | 38.4 | 1,358.5 |
| June 1978 | 562.5 | 179.4 | 411.0 | 55.8 | 90.7 | 62.4 | 46.1 | 1,408.0 |

**NEW CAPITAL RAISINGS BY COMPANIES LISTED ON AUSTRALIAN
STOCK EXCHANGES**

Information relating to capital raised by companies listed on Australian Stock Exchanges is given in the following tables.

These statistics cover capital raised through share and debenture subscriptions and by way of deposits, unsecured notes and loans secured over the entire assets of the company. The following funds are excluded from the collection: (i) all capital raised from Australian banks (other than direct equity investment), i.e. overdrafts, mortgage loans, term loans or debentures; (ii) temporary advances or short-term deposits from any source; and (iii) complete or partial issues by Australian companies on overseas markets taken up through overseas brokers.

Listed companies are companies incorporated in Australia whose shares, debentures or other securities are listed on one or more of the Australian Stock Exchanges. (Prior to September 1973 quarter the statistics for listed companies also included such companies incorporated in Papua New Guinea, but the change did not significantly affect comparability.) For such companies new capital includes: (a) all issues of ordinary shares if any ordinary shares are listed; (b) all issues of preference shares if any preference shares are listed; and (c) all issues of debentures, unsecured notes, secured and unsecured loans and deposits if any shares or other securities are listed.

The following notes relate to specific items 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, Australian government and private superannuation funds and banks. In practice, it is necessary to include in *new money* most subscriptions by companies holding less than 5 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 5 per cent of the ordinary shares in the issuing company are identified they are not included in *new money*. Subscriptions by Australian life insurance companies and Australian government and private superannuation funds are included in *new money* irrespective of their holdings of ordinary shares in the issuing company.

Amount not involving new money

This amount includes cash subscriptions received by issuing companies from associated companies. 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, and therefore do not represent a net transfer of cash from the 'investing public' to the companies. 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(a) AND THROUGH DEBENTURES, REGISTERED NOTES, LOANS AND DEPOSITS

(\$ million)

| <i>Share capital</i> | | | | | | | | | |
|---|------------------------------|-------------|-------|---------------------------------------|-------|-------|---|---------------------------------------|------------------|
| <i>Total amount of issues commenced</i> | | | | <i>Cash raised during period</i> | | | <i>Debentures, registered notes, etc.</i> | | |
| <i>Total amount including premiums etc.</i> | <i>Type of consideration</i> | | | <i>Amount not involving new money</i> | | | <i>Total amount raised</i> | <i>Amount not involving new money</i> | <i>New money</i> |
| | <i>Other than cash(b)</i> | <i>Cash</i> | | <i>Total(c)</i> | | | <i>(d)</i> | <i>(d)</i> | |
| 1972-73(e) | 712.5 | 405.0 | 307.5 | 362.5 | 159.3 | 203.2 | 3,629.6 | 3,026.0 | 603.6 |
| 1973-74 | 973.8 | 610.3 | 363.4 | 382.0 | 116.5 | 265.6 | 6,794.5 | 5,505.6 | 1,288.9 |
| 1974-75 | 399.4 | 122.3 | 277.1 | 296.7 | 125.6 | 171.1 | 6,310.6 | 5,362.0 | 948.6 |
| 1975-76 | 513.3 | 129.8 | 383.5 | 387.7 | 55.3 | 332.3 | 5,046.7 | 3,952.0 | 1,094.4 |
| 1976-77 | 832.5 | 278.9 | 553.6 | 524.3 | 53.0 | 471.3 | 7,488.7 | 6,279.0 | 1,209.6 |
| 1977-78 | 793.3 | 295.1 | 498.0 | 539.3 | 189.7 | 349.6 | 6,811.1 | 5,680.9 | 1,130.4 |

(a) Includes share subscriptions by overseas investors to issues in Australia. (b) Includes bonus issues, conversion issues, issues in exchange for existing shares, etc. (c) Includes calls on issues commenced in earlier years. (d) Includes conversions, renewals, etc. (e) Prior to July 1973 includes details of companies incorporated in Papua New Guinea.

LISTED COMPANIES: NEW MONEY RAISED IN SHARE CAPITAL AND DEBENTURES, REGISTERED NOTES, LOANS AND DEPOSITS—INDUSTRY GROUPS

(\$ million)

| | | 1972-73(e) | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|-------------------------|------------------|------------|---------|---------|---------|---------|---------|
| Manufacturing(a) | <i>Total</i> | 90.6 | 112.4 | 452.2 | 257.1 | 329.1 | 288.3 |
| Raised through | Shares | 66.6 | 82.9 | 84.3 | 115.0 | 181.7 | 142.3 |
| | Debentures, etc. | 23.9 | 29.5 | 368.1 | 142.1 | 147.4 | 146.0 |
| Finance and Property(b) | <i>Total</i> | 558.9 | 1,344.8 | 439.6 | 921.8 | 1,151.9 | 1,008.2 |
| Raised through | Shares | 26.7 | 119.9 | 18.1 | 68.5 | 212.2 | 100.9 |
| | Debentures, etc. | 532.2 | 1,224.8 | 421.6 | 853.3 | 939.7 | 907.3 |
| Commerce(c) | <i>Total</i> | 27.0 | 35.6 | 125.2 | 78.3 | 40.8 | 92.1 |
| Raised through | Shares | 10.5 | 20.6 | 36.0 | 57.5 | 9.5 | 41.9 |
| | Debentures, etc. | 16.6 | 15.0 | 89.2 | 20.8 | 31.3 | 50.2 |
| Other Industries(d) | <i>Total</i> | 130.2 | 62.0 | 102.5 | 169.5 | 159.1 | 91.1 |
| Raised through | Shares | 99.5 | 42.4 | 32.7 | 91.3 | 68.1 | 64.5 |
| | Debentures, etc. | 30.7 | 19.5 | 69.8 | 78.2 | 91.0 | 26.6 |
| All Industries | <i>Total</i> | 806.9 | 1,554.5 | 1,119.7 | 1,426.7 | 1,680.9 | 1,480.0 |
| | Shares | 203.2 | 265.6 | 171.1 | 332.3 | 471.3 | 349.6 |
| | Debentures, etc. | 603.7 | 1,288.9 | 948.6 | 1,094.4 | 1,209.6 | 1,130.4 |

(a) Includes extracting, refining, founding, engineering, metalworking, electrical equipment, etc., vehicles, aircraft and ships, parts and accessories, assembly and repairs. (b) Includes share capital raised by banks and insurance companies. (c) Includes oil distribution and primary produce dealing. (d) Includes primary production, mining and quarrying. (e) Prior to July 1973 includes details of companies incorporated in Papua New Guinea.

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 operate 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

(\$ million)

| | <i>Ticket sales</i> | <i>Prizes allotted</i> | <i>Taxes and other net contributions to State Government revenues(a)</i> |
|-------------------|---------------------|------------------------|--|
| 1976-77 | | | |
| New South Wales | 96.0 | 61.3 | 34.1 |
| Victoria | 192.9 | 115.8 | 60.2 |
| Queensland | 36.3 | 23.0 | 8.5 |
| South Australia | 18.7 | 11.5 | 5.5 |
| Western Australia | 20.9 | 12.9 | 5.6 |
| Total | 364.8 | 224.5 | 113.7 |
| 1975-76 | 289.5 | 176.9 | 90.9 |
| 1974-75 | 227.2 | 140.2 | 60.4 |
| 1973-74 | 159.7 | 98.4 | 40.7 |
| 1972-73 | 130.0 | 79.7 | 32.1 |
| 1971-72 | 117.9 | 72.5 | 29.1 |
| 1970-71 | 110.2 | 67.9 | 27.7 |

(a) Includes grants to Tasmanian and New Zealand Governments by Tattersalls Sweep Consultations, Victoria.

Betting**TOTALISATOR INVESTMENTS AND INVESTMENTS WITH LICENSED BOOKMAKERS**
(**\$ million**)

| | 1974-75 | | 1975-76 | | 1976-77 | |
|--|----------------|--------------------|----------------|--------------------|----------------|--------------------|
| | <i>T.A.B.</i> | <i>Book-makers</i> | <i>T.A.B.</i> | <i>Book-makers</i> | <i>T.A.B.</i> | <i>Book-makers</i> |
| New South Wales | 678.8 | 549.9 | 741.0 | 590.0 | 796.2 | 601.7 |
| Victoria | 534.4 | 339.0 | 571.6 | 396.0 | 636.8 | 450.2 |
| Queensland | 201.3 | 269.9 | 218.4 | 293.0 | 229.5 | 340.5 |
| South Australia | 91.8 | 124.4 | 104.7 | 152.7 | 116.9 | 174.4 |
| Western Australia | 143.0 | 60.1 | 173.7 | 71.2 | 188.3 | 73.3 |
| Tasmania | 11.4 | 60.7 | 27.4 | 42.0 | 35.3 | 47.7 |
| Australian Capital Territory | 24.4 | 15.9 | 25.6 | 18.9 | 25.3 | 20.4 |
| Total | 1,685.2 | 1,419.8 | 1,862.3 | 1,563.9 | 2,028.4 | 1,708.0 |

RELATED PUBLICATIONS

Current and more detailed information on the subjects dealt with in this chapter is contained in the following bulletins:

Monthly Review of Business Statistics (1304.0) *Public Authority Pensions and Superannuation Schemes* (5511.0) (annual) *Savings Banks* (5602.0) (monthly) *Major Trading Banks* (5603.0) (monthly) *Banking* (5605.0) (quarterly) *Housing Finance for Owner Occupation, Savings Banks and Trading Banks* (5608.0) (monthly) *Housing Finance for Owner Occupation* (5609.0) (monthly) *Housing Finance for Owner Occupation, Permanent Building Societies* (5610.0) (monthly) *Finance Companies, Australia* (5614.0) (monthly) *Finance Companies: Assets, Liabilities, Income and Expenditure* (5616.0) (annual) *Financial Corporation Statistics* (5617.0) (monthly) *Credit Unions: Assets, Liabilities, Income and Expenditure* (5618.0) (annual) *General Insurance* (5620.0) (annual) *Life Insurance* (5621.0) (monthly) *Life Insurance* (5622.0) (annual) *Survey of Selected Private Pension Funds* (5623.0) (annual) *Unit Trusts, Land Trusts and Mutual Funds* (5624.0) (quarterly) *New Capital Raisings by Companies Listed on Australian Stock Exchanges* (5628.0) (quarterly) *Installment Credit for Retail Sales* (5631.0) (monthly) *Permanent Building Societies: Assets, Liabilities, Income and Expenditure* (5632.0) (annual) *Terminating Building Societies: Assets, Liabilities, Income and Expenditure* (5633.0) (annual).

CHAPTER 22

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. An account is given of the activities of each level of government, with particular emphasis being given to Federal authorities. Tables are then presented which bring together the transactions of all public authorities to highlight the role in the Australian economy of the public sector as a whole. Then follows a section on government borrowing activities at all levels.

COMMONWEALTH 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 18–21 of Year Book No. 62).

Two other sections which have a most important bearing on questions of Commonwealth 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 of the Constitution 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); and details of current provisions for financial assistance to the States are given on pages 517–521 of this Year Book.

The *Audit Act* 1901 lays down the procedure which must be followed in accounting for the receipt and disbursement of public funds. The general administration of Commonwealth Government finances is the responsibility of the Commonwealth Minister for Finance.

Commonwealth Government Budget

The Commonwealth Government Budget records the transactions of those authorities of the Commonwealth Government whose receipts and payments are summarised in the statements of Public Account balances. In 1977–78 the change in cash balances was represented by the following—

| | \$'000 |
|---|------------|
| Cash receipts of the Consolidated Revenue Fund | 23,454,531 |
| <i>plus</i> cash receipts of Loan Fund | 16,508,367 |
| <i>plus</i> cash receipts of Trust Fund | 10,055,108 |
| <i>Total</i> | 50,018,006 |
| <i>less</i> cash payments from Consolidated Revenue Fund | 23,454,531 |
| <i>less</i> cash payments from Loan Fund | 16,508,330 |
| <i>less</i> cash payments from Trust Fund (including increase in investments of the Trust Fund) | 10,158,043 |
| <i>Total</i> | 50,120,904 |
| <i>equals</i> decrease in cash balances | 102,898 |

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 Commonwealth Government at some future time. The Loan Fund receives its funds from the sale of Commonwealth 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 Commonwealth Government on their behalf and by capital assistance grants, the remaining disbursements being mainly for Commonwealth Government purposes.

The receipts and outlay of the Budget for 1978-79 are set out in the table which follows, together with figures for the years 1974-75 to 1977-78. 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 Budget Paper No. 10, *National Accounting Estimates of Receipts and Outlays of Commonwealth Government Authorities*.

RECEIPTS AND OUTLAY OF THE COMMONWEALTH BUDGET

(\$ million)

(Source: 1978-79 Budget Paper No. 10 *National Accounting Estimates of Receipts and Outlays of Commonwealth Government Authorities*)

| | 1974-75 | 1975-76 | 1976-77 | 1977-78 | 1978-79 Budget Estimates |
|---|--------------|--------------|--------------|--------------|--------------------------------|
| Outlay— | | | | | |
| Net expenditure on goods and services— | | | | | |
| Current | 3,474 | 4,057 | 4,631 | 5,167 | 5,548 |
| Capital(a) | 404 | 564 | 521 | 454 | 345 |
| Total | 3,878 | 4,621 | 5,152 | 5,621 | 5,893 |
| Transfer payments— | | | | | |
| Cash benefits to persons | 4,320 | 6,089 | 7,388 | 8,279 | 8,956 |
| Unfunded employee retirement benefits | 88 | 106 | 121 | 139 | 157 |
| Grants to States and local government authorities | 5,178 | 7,091 | 7,661 | 8,738 | 9,381 |
| Grants to the Northern Territory | — | — | — | 53 | 287 |
| Interest paid | 888 | 968 | 1,412 | 1,649 | 1,906 |
| Transfers overseas | 349 | 370 | 388 | 418 | 468 |
| Subsidies | 228 | 254 | 220 | 325 | 382 |
| Grants for private capital purposes | 121 | 173 | 101 | 123 | 124 |
| Purchase of existing assets | 121 | 26 | 16 | 15 | 25 |
| Total | 11,293 | 15,077 | 17,307 | 19,741 | 21,686 |
| Total expenditure | 15,171 | 19,698 | 22,459 | 25,361 | 27,580 |
| Net advances— | | | | | |
| States | 1,225 | 1,372 | 1,278 | 1,261 | 1,131 |
| Federal authorities | 1,165 | 708 | 303 | 103 | 116 |
| Other sectors | 278 | 81 | 82 | 77 | 43 |
| Total | 2,669 | 2,161 | 1,663 | 1,441 | 1,290 |
| Total outlay | 17,839 | 21,860 | 24,123 | 26,802 | 28,870 |
| Receipts— | | | | | |
| Taxation— | | | | | |
| Indirect taxes | 3,792 | 4,877 | 5,523 | 5,834 | 7,346 |
| Income tax on companies | 2,447 | 2,618 | 2,921 | 3,218 | 3,342 |
| Income tax on persons | 7,714 | 9,220 | 11,054 | 12,125 | 12,940 |
| Estate and gift duties | 80 | 86 | 87 | 102 | 72 |
| Other direct taxes, fees, fines, etc. | 23 | 11 | 14 | 15 | 18 |
| Unfunded employee retirement contributions | 35 | 40 | 52 | 61 | 60 |
| Less remissions | 7 | 8 | 8 | 8 | 8 |
| Total | 14,085 | 16,843 | 19,642 | 21,346 | 23,769 |
| Other receipts— | | | | | |
| Interest, rent and dividends | 1,175 | 1,405 | 1,627 | 1,813 | 1,922 |
| Gross income of public enterprises | —5 | —4 | 85 | 224 | 299 |
| Net sales of existing assets(b) | 18 | 30 | 30 | 86 | 67 |
| Total | 1,188 | 1,432 | 1,741 | 2,123 | 2,288 |
| Total receipts | 15,273 | 18,274 | 21,383 | 23,469 | 26,057 |
| Deficit | 2,567 | 3,585 | 2,740 | 3,333 | 2,813 |

(a) Expenditure on new fixed assets plus increase in stocks less sales of previously rented houses. (b) Excludes sales of previously rented houses. Includes sales from the Commonwealth's uranium stockpile in 1977-78 (\$63.6m) and 1978-79 (\$34.0m).

Financing of the Commonwealth 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 1978-79 represents the Commonwealth Government budget sector's 'financing requirements'. Most such transactions involve the issue, repurchase, redemption or acquisition of Commonwealth Government securities, but some involve or are represented by changes in other assets or liabilities of the Commonwealth Government.

Specifically the deficit is financed as follows:

Net sales of Commonwealth Government securities (new issues *less* redemptions *less* net purchases from Commonwealth Government balances in the Trust Fund);

less net purchases of other investments from Commonwealth 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.

A table summarising the financial transactions of the Commonwealth Government budget sector for recent years is given on page 215 of Statement No. 6 attached to the *Budget Speech* 1978-79.

FEDERAL AUTHORITIES

In addition to the group of authorities of the Commonwealth Government whose transactions are covered by the Budget (i.e. itemised in the Consolidated Revenue Fund, the Loan Fund, or recorded in a Trust Fund), there are a number of organisations owned or controlled by the Commonwealth Government whose transactions do not, for the most part, pass through the Public Account. This category includes public enterprises such as the Australian Postal Commission, Australian Telecommunications Commission, Overseas Telecommunications Commission, Qantas, Trans-Australia Airlines, the Australian 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 last 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 Commonwealth 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 Federal authorities. The remaining tables in this section have been prepared on that basis.

Public financial enterprises have been omitted from the consolidated accounts presented here largely on the ground that combining the income and outlay and capital financing transactions of the Reserve Bank, the publicly owned trading and savings banks, government insurance offices and other public financial institutions with the equivalent transactions of public trading enterprises and general government seems to provide a less meaningful account of public sector activity. For example, omission of the borrowing and lending activities of the government banks and the Reserve Bank allows attention to be centred on the borrowing and lending activities of general government and public trading enterprises, which are quite different in nature and economic effect from the financing activities of the banking system. However, the expenditure on new fixed assets of public financial enterprises is shown in the table on page 514 to provide a measure of the gross fixed capital formation of all publicly owned and/or controlled organisations.

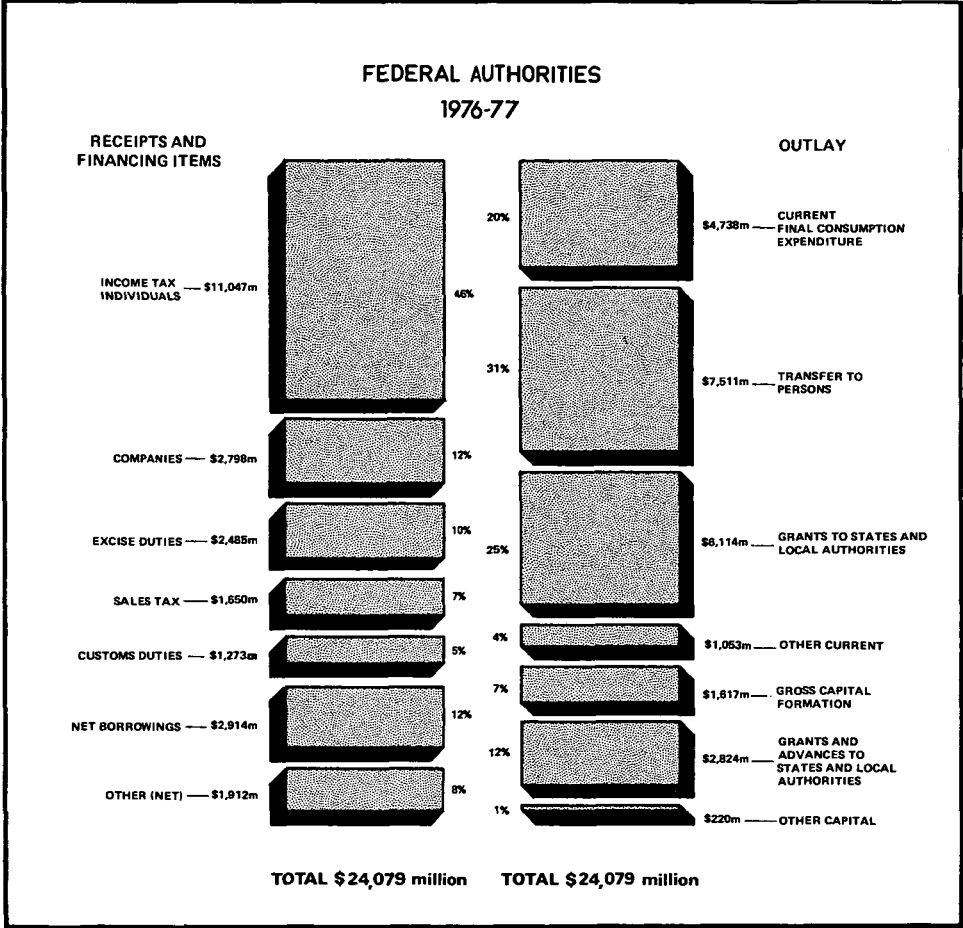


PLATE 36

Summary of receipts and outlay

The receipts and outlay, and outlay classified by purpose, of all Federal authorities for the latest five-year period are given in the following tables.

FEDERAL AUTHORITIES(a): RECEIPTS AND OUTLAY

(\$ million)

| | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|--|--------------|---------------|---------------|---------------|---------------|
| RECEIPTS AND FINANCING ITEMS | | | | | |
| Receipts— | | | | | |
| Taxes, fees, fines, etc. | 8,471 | 10,917 | 14,212 | 16,938 | 19,770 |
| Income from public enterprises | 308 | 284 | 246 | 433 | 656 |
| Interest, etc., received | 77 | 87 | 88 | 119 | 156 |
| <i>Total receipts</i> | <i>8,856</i> | <i>11,288</i> | <i>14,545</i> | <i>17,489</i> | <i>20,582</i> |
| Financing items— | | | | | |
| Depreciation allowances | 230 | 255 | 279 | 406 | 442 |
| Net sale of securities— | | | | | |
| Treasury bills and notes | 165 | -38 | 1,689 | -770 | 363 |
| Commonwealth government securities | 666 | 801 | 554 | 3,166 | 2,098 |
| Public corporations securities | 27 | 26 | 22 | 22 | 453 |
| Net receipts of private trust funds | 116 | -90 | 83 | 216 | 60 |
| Reduction in cash and bank balances | -265 | -527 | 577 | 269 | -290 |
| Reduction in securities holdings | -87 | -68 | -510 | 569 | 213 |
| Other funds available (including errors and omissions) | 35 | 262 | 120 | 74 | 157 |
| <i>Total financing items</i> | <i>886</i> | <i>620</i> | <i>2,815</i> | <i>3,952</i> | <i>3,496</i> |
| Total funds available | 9,742 | 11,908 | 17,360 | 21,441 | 24,079 |
| OUTLAY | | | | | |
| Current outlay— | | | | | |
| Final consumption expenditure | 2,370 | 2,736 | 3,552 | 4,157 | 4,738 |
| Interest, etc., paid | 15 | 7 | 108 | 117 | 419 |
| Transfers to persons— | | | | | |
| Cash benefits | 2,533 | 3,078 | 4,322 | 6,091 | 7,390 |
| Unfunded employee retirement benefits | .. | 65 | 88 | 106 | 121 |
| Subsidies | 323 | 300 | 284 | 271 | 246 |
| Transfers overseas | 252 | 288 | 349 | 370 | 388 |
| Grants to States and local government authorities | 2,077 | 2,534 | 3,780 | 5,524 | 6,114 |
| <i>Total current outlay</i> | <i>7,568</i> | <i>9,008</i> | <i>12,484</i> | <i>16,637</i> | <i>19,417</i> |
| Capital outlay— | | | | | |
| Expenditure on new fixed assets | 808 | 1,002 | 1,353 | 1,577 | 1,667 |
| Expenditure on existing assets | -19 | 20 | 110 | 7 | 3 |
| Increase in stocks | -45 | 38 | 315 | -75 | -53 |
| Grants for private capital purposes | 59 | 70 | 122 | 179 | 110 |
| Grants to States and local government authorities | 707 | 900 | 1,414 | 1,567 | 1,546 |
| Advances to States and local government authorities | 668 | 749 | 1,225 | 1,372 | 1,278 |
| Advances to other sectors | -5 | 123 | 337 | 179 | 110 |
| <i>Total capital outlay</i> | <i>2,174</i> | <i>2,900</i> | <i>4,876</i> | <i>4,805</i> | <i>4,662</i> |
| Total outlay | 9,742 | 11,908 | 17,360 | 21,441 | 24,079 |

(a) Excludes financial enterprises.

FEDERAL AUTHORITIES: OUTLAY, CLASSIFIED BY PURPOSE

(\$ million)

| Purpose | 1974-75 | 1975-76 | 1976-77 |
|---|-----------------|-----------------|-----------------|
| General public services— | | | |
| General administration, n.e.c. | 632.7 | 732.0 | 787.4 |
| External affairs | 453.9 | 470.3 | 517.4 |
| Law, order and public safety | 82.3 | 109.8 | 124.8 |
| General research | 140.2 | 169.4 | 188.0 |
| <i>Total general public services</i> | <i>1,309.1</i> | <i>1,481.4</i> | <i>1,617.6</i> |
| Defence | 1,610.1 | 1,852.4 | 2,181.3 |
| Education— | | | |
| General administration, regulation and research | 20.6 | 25.8 | 28.3 |
| Transportation of students | 1.5 | 2.3 | 2.7 |
| Primary and secondary education | 543.5 | 615.7 | 708.7 |
| Vocational training | 70.1 | 101.5 | 123.2 |
| University education | 553.0 | 598.4 | 719.1 |
| Other higher education | 393.4 | 436.0 | 519.5 |
| Other education programs | 91.6 | 126.8 | 128.8 |
| <i>Total education</i> | <i>1,673.6</i> | <i>1,906.6</i> | <i>2,230.3</i> |
| Health— | | | |
| General administration, regulation and research | 56.5 | 106.8 | 118.5 |
| Hospital and clinical services | 580.3 | 1,658.5 | 1,445.4 |
| Other health services | 639.4 | 1,178.5 | 973.6 |
| <i>Total health</i> | <i>1,276.3</i> | <i>2,943.7</i> | <i>2,537.4</i> |
| Social security and welfare— | | | |
| General administration regulation and research | 80.5 | 107.6 | 115.7 |
| Care of and assistance to— | | | |
| Aged persons | 1,683.1 | 2,247.4 | 2,575.8 |
| Incapacitated and handicapped persons | 337.9 | 473.8 | 589.9 |
| Unemployed and sick persons | 477.0 | 776.0 | 745.8 |
| Ex-servicemen | 504.7 | 598.6 | 694.4 |
| Widowed and deserted spouses | 248.3 | 335.0 | 383.6 |
| Families and children | 312.7 | 406.6 | 1,196.5 |
| Other social security and welfare services | 54.7 | 67.4 | 55.6 |
| <i>Total social security, etc.</i> | <i>3,699.0</i> | <i>5,012.4</i> | <i>6,357.3</i> |
| Housing and community amenities— | | | |
| Housing | 652.2 | 538.7 | 501.2 |
| Community and regional development | 231.2 | 244.9 | 158.2 |
| Protection of the environment | 143.7 | 154.9 | 87.2 |
| Community amenities, n.e.c. | 0.3 | 0.3 | 0.4 |
| <i>Total housing, etc.</i> | <i>1,027.3</i> | <i>938.7</i> | <i>747.0</i> |
| Recreation and culture— | | | |
| General administration, regulation and research | 0.4 | 0.2 | 0.2 |
| Cultural facilities | 24.6 | 24.0 | 27.7 |
| Support of the creative and performing arts | 19.9 | 20.9 | 21.8 |
| Broadcasting services and film production | 154.4 | 174.7 | 173.8 |
| Recreational facilities and services | 19.2 | 24.3 | 26.1 |
| Other programs | 14.4 | 8.3 | 6.5 |
| <i>Total recreation, etc.</i> | <i>232.9</i> | <i>252.4</i> | <i>256.1</i> |
| Economic services— | | | |
| General administration, regulation and research | 237.2 | 293.9 | 331.9 |
| Agriculture, forestry and fishing | 565.8 | 209.6 | 212.7 |
| Mining, manufacturing and construction | 206.1 | 192.7 | 121.1 |
| Electricity and water supply | 64.7 | 76.6 | 82.0 |
| Transport and communication | 1,530.7 | 1,699.4 | 1,806.9 |
| Other economic services | 103.8 | 28.1 | 55.4 |
| <i>Total economic services</i> | <i>2,708.3</i> | <i>2,500.3</i> | <i>2,609.9</i> |
| Other purposes— | | | |
| General purpose inter-authority transfers | 3,601.5 | 4,377.8 | 5,096.1 |
| Natural disaster relief | 113.5 | 58.7 | 26.5 |
| Interest | 108.4 | 116.8 | 419.1 |
| <i>Total other purposes</i> | <i>3,823.3</i> | <i>4,553.3</i> | <i>5,541.7</i> |
| Total outlay, all purposes | 17,359.9 | 21,441.2 | 24,078.7 |
| Of which— | | | |
| Current outlay | 12,484.2 | 16,636.2 | 19,417.0 |
| Capital outlay | 4,875.7 | 4,805.0 | 4,661.7 |

Main components of outlay

The following tables give details of the main components of the outlay of Federal authorities, i.e. final consumption expenditure, expenditure on new fixed assets, cash benefits, subsidies and payments to the States. More detailed information relating to outlay classified by economic type and purpose, and outlay under specific purpose headings such as education, social security and welfare, is given in *Public Authority Finance: Federal Authorities* (5502.0). Additional details of public authorities' transactions engaged in particular fields of activity, e.g. health, may be found in the relevant chapters of this Year Book.

Final consumption expenditure and expenditure on new fixed assets

Final consumption expenditure consists of current expenditure on goods and services by public authorities other than those classified as enterprises, *less* any charges made for goods and services which they themselves provide. Expenditure on new fixed assets consists of purchases of new durable assets *less* sales of previously rented dwellings. Purchases of defence equipment are treated as current expenditure and all expenditure on road systems and ancillary facilities is treated as capital. The following tables show dissections by purpose of final consumption expenditure and expenditure on new fixed assets for the five years ended 1976-77.

FEDERAL AUTHORITIES: FINAL CONSUMPTION EXPENDITURE CLASSIFIED BY PURPOSE

| | (\$ million) | | | | |
|---|--------------|--------------|--------------|--------------|--------------|
| Purpose | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
| General public services— | | | | | |
| General administration | 333 | 430 | 556 | 667 | 732 |
| External affairs | 50 | 58 | 84 | 92 | 98 |
| Law, order and public safety | 36 | 48 | 73 | 98 | 112 |
| General research | 75 | 91 | 112 | 131 | 152 |
| <i>Total general public services</i> | <i>494</i> | <i>627</i> | <i>824</i> | <i>988</i> | <i>1,094</i> |
| Defence | 1,178 | 1,223 | 1,444 | 1,680 | 1,999 |
| Education | 79 | 109 | 167 | 199 | 241 |
| Health | 157 | 206 | 303 | 416 | 464 |
| Social security and welfare | 72 | 99 | 153 | 202 | 219 |
| Housing and community amenities | 16 | 28 | 43 | 54 | 40 |
| Recreation and culture | 99 | 135 | 180 | 203 | 213 |
| Economic services— | | | | | |
| General administration, regulation and research | 102 | 122 | 166 | 167 | 206 |
| Agriculture, forestry, fishing | 82 | 83 | 101 | 114 | 125 |
| Mining, manufacturing and construction | 12 | 14 | 18 | 17 | 21 |
| Transport and communication | 62 | 75 | 90 | 93 | 95 |
| Other | 16 | 15 | 19 | 19 | 21 |
| <i>Total economic services</i> | <i>273</i> | <i>309</i> | <i>393</i> | <i>410</i> | <i>470</i> |
| Other purposes | — | 1 | 43 | 5 | — |
| <i>Grand total</i> | <i>2,370</i> | <i>2,736</i> | <i>3,552</i> | <i>4,157</i> | <i>4,738</i> |

FEDERAL AUTHORITIES: EXPENDITURE ON NEW FIXED ASSETS, CLASSIFIED BY PURPOSE

I. GENERAL GOVERNMENT

(\$ million)

| Purpose | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|---|--------------|--------------|--------------|--------------|--------------|
| General public services— | | | | | |
| General administration | 35.8 | 43.7 | 56.9 | 62.2 | 59.9 |
| External affairs | 15.4 | 12.3 | 15.9 | 20.3 | 25.5 |
| Law, order and public safety | 2.9 | 3.2 | 7.2 | 9.4 | 10.9 |
| General research | 9.4 | 15.1 | 20.6 | 32.1 | 23.6 |
| <i>Total general public services</i> | <i>63.5</i> | <i>74.2</i> | <i>100.5</i> | <i>124.0</i> | <i>120.1</i> |
| Education | 30.1 | 32.1 | 45.1 | 73.4 | 62.2 |
| Health | 19.4 | 22.0 | 40.3 | 57.7 | 58.3 |
| Social Security and welfare | 2.5 | 10.7 | 8.7 | 12.9 | 8.5 |
| Housing and community amenities | 26.4 | 38.9 | 68.8 | 131.1 | 112.1 |
| Recreation and culture | 13.6 | 21.8 | 31.3 | 32.1 | 29.7 |
| Economic services— | | | | | |
| General administration, regulation and research | 4.6 | 3.3 | 3.9 | 6.4 | 8.8 |
| Agriculture, forestry, fishing | 16.4 | 9.3 | 12.6 | 10.6 | 8.1 |
| Mining, manufacturing and construction | 0.5 | 0.8 | 1.9 | 1.8 | 1.0 |
| Transport and communication | 45.2 | 43.9 | 56.7 | 57.5 | 46.0 |
| Other economic services | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| <i>Total economic services</i> | <i>66.8</i> | <i>57.4</i> | <i>75.3</i> | <i>76.3</i> | <i>63.9</i> |
| Other purposes | — | — | 6.5 | 5.1 | — |
| <i>Total general government</i> | <i>222.3</i> | <i>257.2</i> | <i>376.5</i> | <i>512.7</i> | <i>454.7</i> |

II. PUBLIC ENTERPRISES

(\$ million)

| Purpose | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|---|--------------|--------------|----------------|----------------|----------------|
| Public trading enterprises— | | | | | |
| General public services | 1.6 | 0.7 | 1.5 | 1.5 | 0.9 |
| Housing and community amenities— | | | | | |
| Housing | 3.9 | 0.1 | 8.6 | 16.8 | 22.3 |
| Sewerage and drainage | 5.4 | 8.0 | 15.6 | 24.8 | 28.8 |
| Economic services— | | | | | |
| Technical services, n.e.c. | 0.4 | 0.4 | 0.6 | 0.2 | 0.2 |
| Manufacturing activities | 1.9 | 1.6 | 4.9 | 11.6 | 5.5 |
| Electricity, water supply | 26.9 | 28.8 | 26.1 | 31.6 | 48.5 |
| Transport and communication— | | | | | |
| Air transport | 41.8 | 69.5 | 70.5 | 67.5 | 41.3 |
| Rail transport | 10.6 | 7.5 | 13.6 | 45.5 | 35.9 |
| Sea transport | 20.9 | 10.6 | 55.9 | 46.8 | 137.5 |
| Urban transit systems | 2.0 | 2.7 | 3.3 | 5.7 | 1.6 |
| Pipelines | 10.4 | 56.0 | 56.5 | 51.3 | 18.2 |
| Communications services | 460.1 | 558.8 | 717.7 | 756.3 | 855.1 |
| <i>Total</i> | <i>545.7</i> | <i>704.9</i> | <i>917.5</i> | <i>973.2</i> | <i>1,089.8</i> |
| Other economic services | 0.3 | 0.1 | 1.8 | 4.5 | 16.0 |
| <i>Total public trading enterprises</i> | <i>586.0</i> | <i>744.6</i> | <i>976.7</i> | <i>1,064.1</i> | <i>1,212.0</i> |
| Public financial enterprises | 28.3 | 21.8 | 31.1 | 38.5 | 57.1 |
| <i>Total public enterprises</i> | <i>614.3</i> | <i>766.4</i> | <i>1,007.8</i> | <i>1,102.6</i> | <i>1,269.0</i> |

Cash benefits to persons

Total payments of cash benefits to persons during the latest six years are shown in the next table. Further information relating to items in this table is given in the appropriate chapters of this Year Book.

FEDERAL AUTHORITIES: CASH BENEFITS TO PERSONS
(S'000)

| | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|
| General public services— | | | | | | |
| General research— | | | | | | |
| Queen Elizabeth fellowships | 282 | 330 | 451 | 473 | 584 | 528 |
| Assistance to inventors | - | - | - | - | 20 | 32 |
| Defence— | | | | | | |
| Special pensions to ex-servicemen | 5 | 2 | 2 | - | - | - |
| Education | 54,694 | 74,036 | 93,764 | 124,273 | 162,455 | 193,732 |
| Health | 508,133 | 581,283 | 659,003 | 817,015 | 1,369,405 | 1,140,399 |
| Social security and welfare | 1,471,092 | 1,869,973 | 2,316,407 | 3,354,893 | 4,506,592 | 6,031,946 |
| Recreation— | | | | | | |
| Overseas study fellowships | - | - | - | - | 193 | 190 |
| Economic services— | | | | | | |
| General administration, regulation and research— | | | | | | |
| Hostel tariffs of unemployed migrants | 602 | 252 | 290 | 289 | 148 | 195 |
| Maintenance of migrant families | 4,298 | 4,385 | 4,425 | 6,029 | 6,498 | 6,035 |
| Stevedoring industry—attendance money, etc. | 1,207 | 1,362 | 1,606 | 2,126 | 2,692 | 2,305 |
| Widows' training scheme | 656 | 516 | 875 | 863 | 47 | 21 |
| Tertiary education assistance to ex-servicemen | 725 | 814 | 820 | 421 | - | - |
| National employment training scheme | - | - | - | 10,590 | 31,056 | 12,809 |
| Apprenticeship training | - | - | - | - | 8,662 | 1,738 |
| Other | 9 | 10 | 12 | 3 | - | - |
| Total | 7,497 | 7,338 | 8,027 | 20,321 | 49,103 | 23,103 |
| Agriculture, forestry, fishing— | | | | | | |
| War service land settlement—rent remissions, etc. | 30 | 50 | 13 | 12 | 6 | 1 |
| Allowances to agricultural trainees | - | - | 66 | 49 | - | - |
| Total | 30 | 50 | 79 | 61 | 6 | 1 |
| Mining, manufacturing and construction— | | | | | | |
| Joint Coal Board—Welfare fund | 43 | 40 | 36 | 4 | 4 | 4 |
| Total economic services | 7,570 | 7,428 | 8,142 | 20,387 | 49,113 | 23,108 |
| Other purposes | - | - | - | 5,217 | 2,882 | 201 |
| Total | 2,041,776 | 2,533,052 | 3,077,769 | 4,322,258 | 6,091,244 | 7,390,136 |

Subsidies

The following table shows details of Commonwealth 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 13, Rural Industry.

FEDERAL AUTHORITIES: SUBSIDIES
(S'000)

| | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|--|---------|---------|---------|---------|---------|
| General public services— | | | | | |
| Departmental cafeteria compensation | - | 189 | 179 | 125 | - |
| Health— | | | | | |
| Serum laboratories | 607 | 681 | 1,542 | 1,242 | 250 |
| Health insurance organisations subsidy | - | - | - | - | 1,748 |
| Total | 607 | 681 | 1,542 | 1,242 | 1,998 |
| Housing and community amenities— | | | | | |
| N.T. Housing Commission assistance | 113 | 76 | 64 | 50 | 96 |
| Recreation and related cultural services— | | | | | |
| Canberra Theatre Trust subsidy | 38 | 67 | 120 | 143 | 167 |
| Economic services— | | | | | |
| Assistance to employers— | | | | | |
| Stevedoring industry assistance | 12,792 | 14,480 | 22,330 | 28,571 | 27,066 |
| Apprenticeship training | 1,209 | 6,130 | 16,551 | 26,215 | 37,750 |
| Adjustment assistance for tariff reduction | - | 131 | - | - | - |
| Total | 14,001 | 20,741 | 38,881 | 54,786 | 64,816 |

FEDERAL AUTHORITIES SUBSIDIES—continued

| | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|---|----------------|----------------|----------------|----------------|----------------|
| Assistance to agricultural and pastoral enterprises— | | | | | |
| Dairy products subsidy | 28,500 | 18,000 | 9,000 | 1,275 | — |
| Wheat prices stabilisation payments | 41,371 | 12,360 | — | — | — |
| Reimbursement by wheat board | — | — | — | — | 810 |
| Phosphate fertilisers bounty | 56,568 | 66,962 | 29,508 | 20,133 | 38,733 |
| Nitrogenous fertilisers bounty | 13,138 | 13,573 | 13,983 | 13,044 | 15,180 |
| Processed milk products bounty | 884 | 476 | 633 | 167 | — |
| Poultry industry assistance | 12,910 | 11,522 | 12,735 | 11,401 | 11,128 |
| Dried vine fruits stabilisation payments | 856 | 389 | — | — | 658 |
| Wool marketing assistance | 2,481 | 404 | — | — | — |
| Apple and pear stabilisation payments | 3,119 | 2,758 | 3,119 | 2,705 | 4,168 |
| Apple, pear and canning fruit emergency assistance | 679 | 2,590 | 14 | — | — |
| Meat exports to U.S.S.R. | — | — | — | 1,240 | — |
| Beef cattle freight subsidy | — | — | — | — | 296 |
| N.T. transport of stud stock | 69 | 108 | — | 7 | — |
| Other | -258 | -57 | 1 | 1 | — |
| Total | 160,317 | 129,199 | 68,993 | 49,973 | 70,973 |
| Assistance to mining enterprises— | | | | | |
| Oil search subsidy | 8,084 | 10,000 | 5,858 | 186 | — |
| Gold mining industry assistance | 248 | 17 | — | — | — |
| Australian National Railways—transport iron ore in N.T. | — | 1,000 | — | — | — |
| Revaluation adjustment assistance, etc. | — | 470 | 84 | — | — |
| Mary Kathleen Uranium Ltd—Costs concerning borrowing of uranium | — | — | — | — | 168 |
| Pyrites bounty | 273 | — | — | — | — |
| Total | 8,605 | 11,487 | 5,942 | 186 | 168 |
| Assistance to manufacturing enterprises— | | | | | |
| Agricultural tractor bounty | 2,800 | 3,707 | 4,442 | 3,628 | 4,880 |
| Cellulose acetate flake bounty | 171 | 206 | 136 | 109 | — |
| Book bounty | 2,984 | 3,409 | 5,936 | 6,749 | 8,034 |
| Printed sheeting subsidy | — | — | — | — | 300 |
| Industrial research and development grants | 14,000 | 15,000 | 17,500 | 19,300 | 15,400 |
| Ship construction subsidy | 30,633 | 20,925 | 31,153 | 40,966 | 21,301 |
| Shipbuilding bounty | — | — | — | 1,553 | 7,674 |
| Export incentive grants | 58,340 | 68,142 | 93,151 | 62,825 | 973 |
| Export market development grants | — | — | — | 17,076 | 24,079 |
| Metal-working machine tools bounty | 657 | 974 | 1,711 | 1,585 | 2,350 |
| Structural adjustment assistance | — | 109 | 5,304 | 1,120 | 637 |
| Refrigeration compressors bounty | — | — | 3,877 | 1,367 | — |
| Electronic components assistance | — | — | 385 | 973 | 776 |
| Other | 1,577 | — | 368 | 26 | — |
| Total | 111,163 | 112,472 | 163,963 | 157,277 | 86,404 |
| Assistance to air transport services— | | | | | |
| Air services subsidy | 2,000 | 1,870 | 926 | 768 | 675 |
| Assistance to sea transport services— | | | | | |
| Tasmania shipping service subsidy | — | 1,000 | 1,000 | 5,488 | 4,109 |
| Tasmanian freight equalisation scheme | — | — | — | — | 16,409 |
| Other | 24 | 24 | 40 | 48 | 48 |
| Total | 24 | 1,024 | 1,040 | 5,536 | 20,566 |
| Assistance to communications services— | | | | | |
| Newspaper postage subsidy | — | — | — | 1,000 | — |
| Other assistance to enterprises— | | | | | |
| Petrol prices equalisation | 23,305 | 19,336 | 1,708 | — | — |
| N.T. petrol prices equalisation | 2,393 | 2,483 | 626 | — | — |
| Export finance insurance subsidy | — | — | — | 70 | 298 |
| Total | 25,698 | 21,819 | 2,334 | 70 | 298 |
| Natural disaster relief— | | | | | |
| N.T. freight subsidies | 27 | 69 | 48 | — | 15 |
| Total | 322,593 | 299,694 | 284,032 | 271,156 | 246,176 |

Grants and advances to the States

Commonwealth Government financial assistance to the States takes two main forms: (i) grants for general and specific purposes, and (ii) assistance for Developmental and other specific purposes in the form of repayable advances. Some information about these forms of financial assistance is given below, but for more complete information reference should be made to the Commonwealth Government Budget Paper No. 7 *Payments to or for the States, the Northern Territory and Local Government Authorities*. 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: Federal Authorities* (5502.0).

FEDERAL AUTHORITIES: GRANTS TO THE STATES, 1976-77
(S'000)

| | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | Total |
|--|------------------|------------------|------------------|----------------|----------------|----------------|------------------|
| FOR CURRENT PURPOSES | | | | | | | |
| General public services | 4,454 | 3,330 | 1,417 | 2,014 | 1,649 | 275 | 13,140 |
| Defence | 355 | 260 | 302 | 5 | 208 | 69 | 1,199 |
| Education | 468,120 | 433,186 | 187,008 | 135,674 | 131,200 | 38,689 | 1,393,876 |
| Health | 268,186 | 169,315 | 94,251 | 78,795 | 86,495 | 23,283 | 720,325 |
| Social security and welfare | 5,731 | 5,042 | 4,535 | 3,109 | 2,344 | 965 | 21,726 |
| Housing and community amenities | 2,047 | 2,011 | 957 | 1,040 | 855 | 515 | 7,425 |
| Recreation and culture | 117 | 117 | 94 | 94 | 94 | 84 | 600 |
| Economic services | 12,374 | 10,589 | 8,227 | 3,052 | 3,339 | 2,958 | 40,539 |
| Other purposes— | | | | | | | |
| Financial assistance grants | 1,133,400 | 841,700 | 660,200 | 433,200 | 440,800 | 186,294 | 3,695,594 |
| Special grants | — | — | 27,000 | — | — | — | 27,000 |
| Interest on States' debt | 5,835 | 4,254 | 2,192 | 1,408 | 947 | 534 | 15,170 |
| Sinking fund on States debt | 10,506 | 8,003 | 4,165 | 3,911 | 2,981 | 2,069 | 31,635 |
| Natural disaster relief | 1,233 | 452 | 45 | — | 195 | — | 1,925 |
| Local government assistance | 51,289 | 35,398 | 24,222 | 11,925 | 13,162 | 4,004 | 140,000 |
| Total other purposes | 1,202,263 | 889,807 | 717,824 | 450,444 | 458,085 | 192,901 | 3,911,324 |
| Total grants for current purposes | 1,963,647 | 1,513,657 | 1,014,615 | 674,227 | 684,269 | 259,739 | 6,110,154 |
| FOR CAPITAL PURPOSES | | | | | | | |
| Education | 112,292 | 94,984 | 59,118 | 28,119 | 25,848 | 7,401 | 327,763 |
| Health | 41,864 | 32,473 | 22,999 | 14,974 | 16,448 | 3,699 | 132,457 |
| Social security and welfare | 3,243 | 4,990 | 2,939 | 1,685 | 1,699 | 677 | 15,233 |
| Housing and community amenities | 13,525 | 6,191 | 6,200 | 3,261 | 7,362 | 632 | 37,170 |
| Recreation and culture | 1,570 | 1,923 | 1,173 | 2,268 | 1,132 | 910 | 8,976 |
| Economic services— | | | | | | | |
| General administration, regulation and research | — | — | — | — | — | — | — |
| Soil and water resources management | 2,630 | 1,174 | 4,405 | 1,198 | 2,073 | 156 | 11,636 |
| Assistance to agricultural and pastoral industries | 1,622 | 2,892 | 1,660 | 838 | 1,232 | 305 | 8,549 |
| Electricity, gas, water supply | — | — | 1,158 | 2,752 | — | — | 3,910 |
| Rail transport | — | — | — | 490 | — | — | 490 |
| Sea transport | 15 | — | — | — | — | — | 15 |
| Road systems and regulation | 138,161 | 93,293 | 91,884 | 39,739 | 58,053 | 35,085 | 456,215 |
| Urban transit systems | 24,596 | 15,885 | 11,380 | 4,420 | 1,869 | 253 | 58,403 |
| Other | 74 | 59 | 147 | 311 | 50 | 191 | 832 |
| Total economic services | 167,098 | 113,303 | 110,634 | 49,748 | 63,277 | 35,990 | 540,050 |
| Other purposes— | | | | | | | |
| Capital assistance | 143,958 | 114,354 | 60,352 | 59,318 | 42,117 | 31,901 | 452,000 |
| Natural disaster relief | 10,006 | 1,540 | 10,645 | — | 1,506 | — | 23,697 |
| Total grants for capital purposes | 493,556 | 369,758 | 274,060 | 159,373 | 159,389 | 81,210 | 1,537,346 |
| TOTAL GRANTS | | | | | | | |
| Total grants to the States | 2,457,203 | 1,883,415 | 1,288,675 | 833,600 | 843,658 | 340,949 | 7,647,500 |

FEDERAL AUTHORITIES: GRANTS TO THE STATES

(\$'000)

| | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|---|------------------|------------------|------------------|------------------|------------------|------------------|
| FOR CURRENT PURPOSES | | | | | | |
| General public services | 4,490 | 5,917 | 8,051 | 8,955 | 7,910 | 13,140 |
| Defence | - | - | - | 325 | 897 | 1,199 |
| Education | 118,923 | 153,858 | 433,470 | 910,815 | 1,135,548 | 1,393,876 |
| Health | 11,908 | 13,836 | 26,734 | 47,281 | 942,674 | 720,325 |
| Social security and welfare | 34,112 | 118,686 | 22,258 | 60,786 | 62,396 | 21,726 |
| Housing and community amenities | 4,151 | 6,892 | 7,437 | 9,494 | 9,863 | 7,425 |
| Recreation and culture | - | - | 218 | 70 | 789 | 600 |
| Economic services | 9,876 | 13,076 | 17,121 | 22,713 | 28,008 | 40,539 |
| Other purposes— | | | | | | |
| State's Personal Income Tax sharing entitlements(a) | 1,440,878 | 1,647,293 | 1,859,905 | 2,373,811 | 3,072,780 | 3,695,594 |
| Special grants | 23,800 | 38,600 | 38,550 | 64,684 | 38,800 | 27,000 |
| Special revenue assistance | 55,000 | - | 25,000 | 75,000 | - | - |
| Interest on State's debt | 15,170 | 15,170 | 15,053 | 15,287 | 15,170 | 15,170 |
| Sinking fund on State's debt | 26,323 | 27,979 | 29,509 | 30,805 | 30,200 | 31,635 |
| Debt charges assistance | 23,008 | 34,512 | 46,016 | 57,520 | - | - |
| Natural disaster payments | 1,143 | 72 | 4,031 | 1,090 | 807 | 1,925 |
| Local government assistance | - | - | - | 56,345 | 79,908 | 140,000 |
| Other | - | - | - | - | 1,968 | - |
| Total other purposes | 1,585,323 | 1,763,626 | 2,018,064 | 2,674,542 | 3,239,633 | 3,911,324 |
| Total grants for current purposes | 1,768,783 | 2,075,891 | 2,533,353 | 3,734,981 | 5,427,719 | 6,110,154 |
| FOR CAPITAL PURPOSES | | | | | | |
| Education | 85,969 | 105,569 | 189,064 | 415,474 | 319,244 | 327,763 |
| Health | 6,076 | 7,150 | 25,099 | 60,734 | 140,238 | 132,457 |
| Social security and welfare | 8,600 | 7,683 | 7,261 | 7,795 | 17,187 | 15,233 |
| Housing and community amenities | 5,276 | 11,651 | 25,011 | 70,182 | 79,297 | 37,170 |
| Recreation and culture | - | - | 1,562 | 12,623 | 11,036 | 8,976 |
| Economic services— | | | | | | |
| General administration, regulation and research | 372 | 24 | 24 | 180 | 60 | - |
| Soil and water resources management | 22,843 | 17,646 | 13,571 | 15,193 | 14,343 | 11,636 |
| Assistance to agricultural and pastoral industries | 13,796 | 14,523 | 11,204 | 10,316 | 12,535 | 8,549 |
| Electricity, gas, water supply | - | 1,500 | - | - | 4,081 | 3,910 |
| Rail transport | 2,845 | 1,416 | 468 | 734 | 3,472 | 490 |
| Sea transport | - | 3,057 | 1,000 | 2,018 | 1,285 | 15 |
| Road systems and regulation | 255,464 | 287,439 | 325,657 | 373,860 | 458,439 | 456,215 |
| Urban transit systems | - | - | - | 45,259 | 34,096 | 58,403 |
| Other | - | 50 | 98 | 1,081 | 1,829 | 832 |
| Total economic services | 295,320 | 325,655 | 352,020 | 448,641 | 530,140 | 540,050 |
| Other purposes— | | | | | | |
| Natural disaster relief | 5,430 | -77 | 20,275 | 48,446 | 29,150 | 23,697 |
| Capital assistance | 219,100 | 248,539 | 278,307 | 345,878 | 430,333 | 452,000 |
| Total grants for capital purposes | 625,771 | 706,169 | 898,600 | 1,409,774 | 1,556,627 | 1,537,346 |
| TOTAL GRANTS | | | | | | |
| Total grants to the States | 2,394,554 | 2,782,060 | 3,431,953 | 5,144,755 | 6,984,346 | 7,647,500 |

(a) Prior to 1976-77 'Financial assistance grants'.

General purposes grants

The Financial Assistance Grants. Details of the financial assistance grants arrangements existing in 1972-73 and previous years are given in earlier issues of the Year Book (see No. 60, page 578.)

Arrangements for the years 1973-74 to 1975-76 are embodied in the *States Grants Act 1973*. Under these arrangements the financial assistance grants 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 State's population in the year ending 31 December in the year of payment, and by a betterment factor of 1.8 per cent. Adjustments were made to these arrangements to

reduce the grants when the Commonwealth assumed full responsibility for financing tertiary education from 1 January 1974 and on account of transfers of railways from South Australia and Tasmania to the Commonwealth. Financial assistance grants additional to the grants determined by the formula were paid to Western Australia in 1973-74 and 1974-75 and to Tasmania in 1974-75. In 1975-76 \$220 million was paid to the States in addition to the amounts otherwise payable in that year and in the same proportion.

These arrangements were replaced by the *Personal Income Tax Sharing Entitlements* between the Commonwealth and the State and local governments which came into operation in 1976-77. A comprehensive description of this scheme is given in the Commonwealth Budget Paper *Payments to or for the States, the Northern Territory and Local Government Authorities* 1978-79.

The following table shows the calculations underlying the States' tax sharing entitlements in 1976-77 together with amounts actually paid in that year.

**DISTRIBUTION OF STATES' PERSONAL INCOME TAX SHARING
ENTITLEMENTS IN 1976-77**

| | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | Total |
|--|-----------|----------|----------|----------|----------|---------|-----------|
| <i>Data relating to 1975-76</i> | | | | | | | |
| (1) Financial Assistance Grants \$'000(a) | 946,660 | 706,389 | 536,792 | 363,091 | 363,031 | 156,816 | 3,072,780 |
| (2) Population as at 31 December 1975 ('000 persons)(b) | 4,810.9 | 3,688.2 | 2,015.1 | 1,241.7 | 1,138.3 | 409.0 | 13,303.2 |
| (3) Financial Assistance Grants per head of population \$(c) | 196.774 | 191.527 | 266.385 | 292.415 | 318.923 | 383.414 | 230.980 |
| (4) Row (3) expressed as Multiple of Figure for Victoria(d) | 1.02740 | 1.00000 | 1.39085 | 1.52676 | 1.66516 | 2.00188 | — |
| <i>Data relating to 1976-77</i> | | | | | | | |
| (5) Population as at 31 December 1976 ('000 persons)(e) | 4,933.0 | 3,764.9 | 2,121.6 | 1,268.8 | 1,183.7 | 409.3 | 13,681.3 |
| (6) Row (5) Weighted by Row (4) ('000 persons) | 5,068.2 | 3,764.9 | 2,950.8 | 1,937.2 | 1,971.1 | 819.4 | 16,511.5 |
| (7) Percentage Distribution of Row (6) between States (per cent) | 30.69482 | 22.80174 | 17.87138 | 11.73217 | 11.93746 | 4.96243 | 100.00000 |
| (8) Share of 33.6 per cent of \$10,876.8 million(f)—Distributed According to Row (7) \$'000 | 1,121,779 | 833,317 | 653,131 | 428,766 | 436,269 | 181,358 | 3,654,620 |
| (9) Amount Guaranteed under Section 8 of the Act (Financial Assistance Grants formula) \$'000(g) | 1,125,866 | 840,724 | 640,283 | 432,455 | 437,515 | 186,294 | 3,663,137 |
| (10) States' Entitlements under the Act (\$'000)(h) | 1,125,866 | 840,724 | 653,131 | 432,455 | 437,515 | 186,294 | 3,675,985 |
| (11) Actual Payments made in 1976-77 (\$'000) | 1,133,400 | 841,700 | 660,200 | 433,200 | 440,800 | 186,294 | 3,695,594 |
| (12) Overpayments (\$'000)(i) | 7,534 | 976 | 7,069 | 745 | 3,285 | — | 19,609 |

(a) As calculated by the Statistician in accordance with the provisions of the *States Grants Act* 1973. (b) Estimates of population used by the Australian Statistician in calculating the financial assistance grants for 1975-76. (c) (1) divided by (2). (d) These are the relativities specified in Section 4 (1) of the *States (Personal Income Tax Sharing) Act* 1976. (e) Determined by the Australian Statistician in accordance with Section 9 of the Act. (f) Net personal income tax collections in 1976-77 excluding revenue from Medibank levy; determined by Commissioner of Taxation in accordance with Section 6 of the Act. (g) Determined by the Australian Statistician in accordance with Section 8 of the Act. Calculated by applying to the 1975-76 financial assistance grants the estimated increases in State populations in the year ended 31 December 1976 (New South Wales 0.75 per cent, Victoria 0.83 per cent, Queensland 1.05 per cent, South Australia 0.90 per cent, Western Australia 2.10 per cent and Tasmania 0.64 per cent), the estimated increase in average wages for Australia as a whole in the year ended 31 March 1977 of 14.60 per cent and the betterment factor of 3.0 per cent. (h) For all States except Queensland, amounts in row (9); for Queensland, amount in row (8). (i) Difference between rows (10) and (11); 1977-78 payments will be reduced by these amounts.

Special Grants. These grants are paid to the financially weaker States as supplements to the financial assistance grants. They are paid on the recommendation of the Grants Commission. The recommendation by the Commission for payment of a special grant consists of two parts: 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); and the other part represents the final adjustment to the advance payment made two year earlier and is known as the completion payment. The following table shows special grants paid in recent years.

GRANTS COMMISSION: SPECIAL GRANTS
(\$'000)

| | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|--------------------------------|---------------|---------------|---------------|---------------|------------|------------|
| Queensland— | | | | | | |
| Advance payment | 10,000 | 10,000 | 15,000 | 25,000 | 18,000 | 14,000 |
| Completion payment (a) | 9,750 | 11,300 | 9,000 | 10,800 | 5,700 | (b) |
| Total | 19,750 | 21,300 | 24,000 | 35,800 | 23,700 | (b) |
| South Australia | | | | | | |
| Advance payment | 13,500 | 15,000 | 15,000 | — | — | — |
| Completion payment (a) | 8,500 | 2,500 | (c) 10,000 | — | — | — |
| Total | 22,000 | 17,500 | 25,000 | — | — | — |
| Tasmania— | | | | | | |
| Advance payment | 10,000 | 10,000 | — | — | — | — |
| Completion payment (a) | — | — | — | — | — | — |
| Total | 10,000 | 10,000 | — | — | — | — |
| Grand total | 51,750 | 48,800 | 49,000 | 35,800 | (b) | (b) |

(a) Actually paid two years subsequent to year shown. (b) Not yet determined. (c) Represents agreed estimate of completion grant which could have been expected to be recommended by the Grants Commission if the State had remained claimant.

Capital assistance grants. Since 1970-71 the Commonwealth Government has provided a portion of the State's Loan Council programs in the form of interest-free capital grants. 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) Acts*, totalled \$278.3 million in 1973-74, \$345.9 million in 1974-75, \$430.3 million in 1975-76, \$452.0 million in 1976-77 and \$477.9 million in 1977-78.

Specific purpose grants

The Commonwealth Government has provided financial assistance for certain specific types of expenditure by the States for many years. Unlike the general purpose grants, these current and capital grants are 'tied', that is, they are subject to conditions as to the purposes for which they may be spent. Purposes for which such grants have been made include educational programs, hospital development programs, welfare services for the aged, road construction, natural disaster relief and, since 1974-75, assistance to local government authorities. Specific purpose grants amounted to \$3,442.2 million in 1975-76, \$3,472.9 million in 1976-77, and \$3,904.9 million in 1977-78.

For details of the various specific purpose programs reference should be made to the Commonwealth Budget Paper *Payments to or for the States, the Northern Territory and Local Government Authorities 1978-79*.

Advances to the States

The Commonwealth is also providing financial assistance for State projects by way of repayable advances. Borrowings of the Loan Council which are advanced to the States for their work programs and advances for State housing projects represent the largest proportion of the total funds advanced. Full descriptions of the various programs for which funds have been advanced in recent years are given in *Payments to or for the States, the Northern Territory and Local Government Authorities*.

The following tables show figures of advances to the States and repayments of advances. More detailed figures appear in *Public Authority Finance: Federal Authorities (5502.0)*.

FEDERAL AUTHORITIES: NET ADVANCES TO THE STATES 1976-77
(S'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> |
|--|----------------|----------------|----------------|----------------|----------------|---------------|------------------|
| Defence | 15,010 | 3,967 | 12,123 | 2,092 | 1,185 | 3 | 34,380 |
| Housing and community amenities | 158,330 | 123,361 | 35,877 | 65,157 | 43,374 | 23,450 | 449,550 |
| Economic services— | | | | | | | |
| Soil and water resources management | 308 | 1,700 | 951 | 1,875 | -138 | - | 4,696 |
| Forest resources management | 2,497 | 1,686 | 1,547 | - | 776 | 1,427 | 7,934 |
| Assistance to agricultural and pastoral industries | 5,205 | 7,480 | 5,169 | 1,815 | 3,342 | 422 | 23,433 |
| Electricity, gas, water supply | - | - | 26,349 | 6,391 | - | -2,989 | 29,751 |
| Rail transport | 226 | -96 | -1,865 | 208 | -2,263 | - | -3,789 |
| Sea transport | - | - | -90 | - | -151 | -132 | -373 |
| Other transport | - | - | -570 | -1,875 | - | - | -2,445 |
| <i>Total economic services</i> | <i>8,236</i> | <i>10,770</i> | <i>31,491</i> | <i>8,414</i> | <i>1,566</i> | <i>-1,272</i> | <i>59,207</i> |
| Other purposes— | | | | | | | |
| State works programs | 233,336 | 189,532 | 99,487 | 98,999 | 68,473 | 54,849 | 744,677 |
| Special resource assistance | -10,000 | - | - | - | - | - | -10,000 |
| Natural disaster relief | 37 | 48 | -1,596 | -69 | 2,001 | -178 | 243 |
| Other | - | -4 | - | - | - | - | -4 |
| <i>Total other purposes</i> | <i>223,373</i> | <i>189,576</i> | <i>97,891</i> | <i>98,930</i> | <i>70,474</i> | <i>54,671</i> | <i>734,916</i> |
| <i>Total net advances</i> | <i>404,949</i> | <i>327,674</i> | <i>177,382</i> | <i>174,593</i> | <i>116,599</i> | <i>76,852</i> | <i>1,278,051</i> |

Minus sign (-) denotes excess of repayments.

FEDERAL AUTHORITIES: ADVANCES TO THE STATES
(S'000)

| | <i>1972-73</i> | <i>1973-74</i> | <i>1974-75</i> | <i>1975-76</i> | <i>1976-77</i> |
|--|----------------|----------------|------------------|------------------|------------------|
| GROSS | | | | | |
| Defence | 6,163 | 7,766 | 26,805 | 34,170 | 35,114 |
| Housing and community amenities | (a)6,610 | 263,633 | 565,507 | 558,808 | 474,742 |
| Economic services— | | | | | |
| Assistance to agricultural and pastoral industries | 41,501 | 27,363 | 28,477 | 50,328 | 31,981 |
| Other | 29,636 | 37,316 | 57,119 | 65,609 | 48,890 |
| Other purposes— | | | | | |
| State works programs | (a)733,461 | 588,693 | 741,541 | 860,667 | 904,000 |
| Other | 15,000 | 3,872 | 3,663 | 1,098 | 4,828 |
| <i>Total gross advances</i> | <i>832,371</i> | <i>928,643</i> | <i>1,423,112</i> | <i>1,570,678</i> | <i>1,499,553</i> |
| REPAYMENTS | | | | | |
| Defence | 555 | 592 | 631 | 681 | 734 |
| Housing and community amenities | 16,735 | 17,380 | 19,172 | 22,060 | 25,192 |
| Economic services— | | | | | |
| Assistance to agricultural and pastoral industries | 2,052 | 3,970 | 3,391 | 5,401 | 8,548 |
| Other | 7,904 | 11,089 | 9,373 | 11,999 | 13,116 |
| Other purposes— | | | | | |
| State works programs | 132,195 | 140,783 | 149,400 | 151,999 | 159,323 |
| Other | 5,317 | 6,274 | 16,245 | 6,096 | 14,589 |
| <i>Total repayments</i> | <i>164,758</i> | <i>180,091</i> | <i>198,211</i> | <i>198,237</i> | <i>221,502</i> |
| NET | | | | | |
| Defence | 5,608 | 7,174 | 26,174 | 33,490 | 34,380 |
| Housing and community amenities | (a)-10,125 | 246,251 | 546,335 | 536,748 | 449,550 |
| Economic services— | | | | | |
| Assistance to agricultural and pastoral industries | 39,449 | 23,393 | 25,087 | 44,927 | 23,433 |
| Other | 21,732 | 26,227 | 47,745 | 53,610 | 35,774 |
| Other purposes— | | | | | |
| State works programs | 601,266 | 447,910 | 592,141 | 708,668 | 744,677 |
| Other | 9,683 | -2,402 | -12,582 | -4,999 | -9,761 |
| <i>Total net advances</i> | <i>667,613</i> | <i>748,551</i> | <i>1,224,901</i> | <i>1,372,441</i> | <i>1,278,051</i> |

(a) In 1972-73 funds for housing were provided under the State loan works program.

Minus sign (-) denotes excess of repayments.

Main components of receipts

The main components of the receipts of Federal 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. In recent years, however, borrowing has become an increasingly significant source of funds for Federal authorities.

In what follows, an account is given of the system of Commonwealth Government taxation, and some details are given of the current operations of Federal public enterprises. Borrowings and other financing activities of Federal authorities are dealt with for convenience in a later section relating to the debt of all public authorities.

Commonwealth Government taxation—summary

The following tables show Commonwealth Government taxation receipts classified by type of tax for the past six years, and the proportion of each type to total collections.

FEDERAL AUTHORITIES: TAXATION BY TYPE OF TAX
(\$'000)

| Type of tax | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|--|------------------|------------------|-------------------|-------------------|-------------------|-------------------|
| Taxes— | | | | | | |
| Income taxes— | | | | | | |
| Individuals (a) | 3,764,686 | 4,084,492 | 5,485,143 | 7,708,552 | 9,212,652 | 11,046,664 |
| Companies (b) | 1,462,012 | 1,544,612 | 1,933,870 | 2,343,943 | 2,505,173 | 2,797,665 |
| Dividend (withholding) | 42,002 | 51,197 | 56,648 | 59,818 | 62,674 | 71,969 |
| Interest (withholding) | 15,650 | 21,406 | 22,588 | 28,298 | 32,344 | 24,408 |
| Total income taxes | 5,284,350 | 5,701,707 | 7,498,249 | 10,140,611 | 11,812,843 | 13,940,706 |
| Estate duty | 67,258 | 66,408 | 66,018 | 63,787 | 76,391 | 76,189 |
| Gift duty | 8,530 | 6,941 | 9,725 | 16,204 | 10,454 | 11,486 |
| Rates on land | 5,403 | 6,271 | 7,657 | 9,207 | 12,993 | 15,503 |
| Customs duty on coal exports | — | — | — | — | 111,640 | 121,329 |
| Customs duties on imports | 468,732 | 513,381 | 604,443 | 840,515 | 932,066 | 1,152,016 |
| Excise duties | 1,213,056 | 1,268,289 | 1,554,581 | 1,728,620 | 2,331,325 | 2,485,420 |
| Sales tax | 680,772 | 764,868 | 968,724 | 1,154,266 | 1,408,286 | 1,650,256 |
| Primary production taxes | 28,445 | 34,845 | 64,442 | 143,428 | 115,594 | 159,006 |
| Broadcasting listeners' and television viewers' licences (c) | 61,785 | 67,050 | 68,458 | 18,816 | — | — |
| Broadcast station licences | 474 | 491 | 591 | 713 | 827 | 1,200 |
| Television station licences | 1,967 | 2,024 | 2,410 | 2,819 | 3,393 | 6,028 |
| Stevedoring industry charge | 15,987 | 16,979 | 19,389 | 21,921 | 37,150 | 46,884 |
| Payroll tax | 91,037 | 6,291 | 6,950 | 14,351 | 17,347 | 18,644 |
| Other taxes | 5,285 | 7,005 | 9,312 | 10,153 | 13,087 | 14,970 |
| Total taxes | 7,933,081 | 8,462,550 | 10,880,950 | 14,165,411 | 16,883,396 | 19,699,637 |
| Fees from regulatory services | 3,206 | 4,409 | 5,189 | 8,177 | 11,809 | 15,252 |
| Fines | 1,914 | 2,510 | 2,712 | 2,620 | 2,515 | 3,121 |
| Unfunded employee retirement contribution | — | 945 | 27,248 | 34,513 | 39,889 | 51,680 |
| Other current transfers n.e.c. | 386 | 180 | 761 | 785 | 209 | 678 |
| Total taxation | 7,938,587 | 8,470,594 | 10,916,860 | 14,211,506 | 16,937,818 | 19,770,368 |
| of which— | | | | | | |
| Taxation levied in the Territories only | 15,696 | 19,826 | 24,735 | 33,910 | 44,249 | 49,672 |

(a) Includes Medibank levy payable from 1 October 1976. (b) Excludes income tax paid by public enterprises: 1971-72, \$15.5m; 1972-73, \$16.7m; 1973-74, \$20.1m; 1974-75, \$14.9m; 1975-76, \$17.7m; 1976-77, \$26.3m. (c) Abolished in September 1974.

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 Commonwealth 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 1 January 1979 were—*Income Tax Assessment Act 1936* (later referred to as 'the Assessment Act'); Acts declaring rates of tax—*Income Tax (Rates) Act 1976*, *Income Tax (Individuals) Act 1976*, *Income Tax (Companies and Superannuation Funds) Act 1976*, *Income Tax (Dividends and Interest Withholding Tax) Act 1974*, *Income Tax (Drought Bonds) Act 1969*, *Income Tax (Withholding Tax Recoupment) Act 1971*, *Income Tax (Bearer Debentures) Act 1971*; *Income Tax (Film Royalties) Act 1977*; and *Income Tax Regulations*.

The *Income Tax Assessment Act* under provisions inserted by the *Health Insurance Levy Assessment Act* 1976 and the *Health Insurance Levy Assessment Act (No. 2)* 1976, provided for the payment of a health insurance levy at rates declared by the *Health Insurance Levy Act (No. 2)* 1976 and *Health Insurance Levy Act* 1977. The Health Insurance Levy, however, was abolished from 1 November 1978.

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 *Assessment Act* is affected by other Acts, the more important of which are:

- (a) *Taxation Administration Act* 1953, which provides for the administration of certain Acts relating to taxation and the screening for taxation purposes of applications for exchange control approval.
- (b) *Income Tax (International Agreements) Act* 1953, which gives the force of law to agreements with other countries for the avoidance of double taxation. Australia has concluded comprehensive agreements for the avoidance of double taxation with the United Kingdom, the United States of America, Canada, New Zealand, Singapore, Japan, the Federal Republic of Germany, the Netherlands, France and Belgium, and limited agreements dealing with airline profits have been concluded with France, Italy and Greece. The agreements with Belgium and Greece have not yet entered into force.
- (c) *The States (Personal Income Tax Sharing) Act* 1976, which provides for the States to receive a specified proportion of net personal income tax collections.
- (d) *International Organizations (Privileges and Immunities) Act* 1963, and Regulations made under that Act, which provide for the exemption from income tax of certain income of international organizations and their officials.
- (e) *Diplomatic Privileges and Immunities Act* 1967, which provides for the exemption from income tax of certain income of diplomatic representatives, their staff and families.
- (f) *The Loan (Income Equalization Deposits) Act* 1976, which provides for the making of interest bearing income equalization deposits by primary producers with the Commissioner of Taxation.
- (g) *Consular Privileges and Immunities Act* 1972, which provides for the exemption from income tax of certain income of consular representatives, their staff and families.
- (h) *Loan (Drought Bonds) Act* 1969, which authorizes the issue of drought bonds and empowers the Commissioner of Taxation to declare when drought bonds have become redeemable.

Any resident individual whose total income is in excess of \$3,798 in 1978–79 is required to lodge a return of income. A non-resident individual is required to lodge a return of income when his total income (other than dividends or interest upon which withholding tax has been paid) from all sources in Australia is in excess of \$3,893 in 1978–79.

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 is 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 prescribed scales which show the amount to be deducted according to income. Under the group employer scheme (covering employers of more than ten persons), the amount deducted is required to be regularly remitted to the Australian Taxation Office.

Not later than 14 July each year, employers are required to supply each employee with a group certificate showing the amount earned and deductions made during the year ended 30 June.

Under the tax stamp scheme for employers other than group employers, a tax deduction sheet in two parts is used. Every four weeks the employer purchases tax stamps for the amount of deductions made each pay day and attaches the tax stamps to the tax stamps sheet in the space provided and the tax checks (attached to the stamps) in the space provided on the tax check sheet. At the end of the year the employer gives the employee the tax stamp sheet and sends the tax check sheet to the Taxation Office. The tax stamp sheet is then used in the same way as a group certificate.

Individuals with taxable income other than salary or wages of \$400 or more may be required to pay provisional tax in respect of that income. 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. The amount of provisional tax for any year is, in the first place, determined by the tax assessed on income of the previous year. The assessment notice shows the tax assessed on income from the previous year less any provisional tax already paid for that year and provisional tax payable for the current year.

Assessable income—individuals

Assessable income (from which deductions are made to arrive at taxable income) basically includes all receipts within the ordinary meaning of the word 'income', but excludes items of income that are specified as exempt. Assessable income specifically includes certain receipts such as casual profits arising from the sale of property held less than one year and profits arising from the sale of property acquired for the purpose of profit-making by sale regardless of the period the property is held before sale. The value to employees of allowances and benefits given by employers for services rendered is also specifically included in the assessable income of the employees. Receipts such as gifts (other than gratuities received by an employee in the course of employment), legacies, lottery wins and other receipts of capital generally do not form part of the assessable income.

Exemption from tax is provided by the *Assessment Act* in respect of a number of specified classes of income—for example, certain war pensions; invalid pensions; family allowances; income received from a scholarship, bursary or other educational allowance; the income of charitable institutions and public hospitals and certain foreign income where it has been taxed overseas.

Deductions

The taxable income to which the rates of tax are applied is arrived at by deducting from the assessable income any allowable deductions. Allowable deductions include:

General Deductions. Deductions from assessable income are authorised for all losses and outgoings incurred in gaining or producing assessable income or necessarily incurred in carrying on a business for that purpose, except to the extent that they are of a capital, private or domestic nature, or are incurred in gaining or producing exempt income.

In addition, certain other deductions are specifically authorised by the *Assessment Act*. Deductions allowable include trading losses incurred in previous years, bad debts, depreciation, rates and land taxes paid and gifts to various institutions. Expenditure of a capital nature incurred in relation to mining operations is generally deductible over the lesser of 5 years or the life of the mine or oil field or, in the case of plant, over the life of the plant. Exploration or prospecting expenses incurred by mining companies are generally allowable as a deduction against income of a mining business in the year in which the expenditure is incurred, while exploration and prospecting expenses incurred on petroleum mining is deductible against any income calculated by reference to the life of the field with a minimum deduction of one-fifth of the undeducted expenditure. Certain expenditure of a capital nature incurred by primary producers in carrying out improvements to their land is deductible over 10 years.

Deductions may also be allowed in respect of expenditure on certain plant and machinery incurred after 1 January 1976 (investment allowance). The investment allowance amounts to 40 per cent of the expenditure in respect of eligible expenditure incurred up to 30 June 1978 and 20 per cent for plant ordered between 1 July 1978 and 30 June 1985. Deductions are also allowed by way of a stock valuation adjustment in respect of most classes of trading stock including livestock. The deduction allowable is obtained by applying a prescribed percentage equal to half of the percentage increase in the goods component of the Consumer Price Index between the June quarter prior to the year of income and the June quarter of the year of income. Deductions are also allowable in respect of cash deposits made by primary producers (income equalisation deposits) which fall for inclusion in assessable income on withdrawal or conversion.

Living-away-from-home allowance. Where an allowance is paid to an employee under any award, industrial agreement, etc.—

- (a) if it is received in cash and does not exceed \$7 per week, a deduction is allowable of the amount of the allowance, up to \$5 per week;
- (b) if it is received otherwise than in cash and exceeds a value of \$2 per week but does not exceed a value of \$5 per week, a deduction is allowable of the excess of that value over \$2 per week.

In any other case the deduction allowable is the amount which the Commissioner deems reasonable but may not exceed the total amount received less \$2 per week.

Subscriptions. When they are paid in respect of membership of any trade, business or professional association or union. (Deductions may be limited to \$42 in respect of subscriptions to any union, association, etc.)

Interest Payments on Housing Loans. A deduction is allowable for interest accrued to 31 October 1978 and paid by a resident on a housing loan, during the first five years of the loan, which is connected with a dwelling being a first home owned by the taxpayer or spouse and used during the whole or part of the period 1-7-1978 to 31-10-1978 as the taxpayer's sole or principal residence. Where a loan is used to acquire vacant land the concession is not available for interest paid before the year of income in which a dwelling erected on the land is occupied by the taxpayer.

In allowing the concession the combined net income of a husband and wife for the whole year of income is taken into account. Net income means total income from all sources less the expenses incurred in earning it, and includes exempt income other than family allowances or benefits paid by the Commonwealth Government for domiciliary nursing care. Taxpayers with combined net income of \$4,000 or less in a year of income may claim the whole of home loan interest payments accrued to 31-10-1978. Where the combined net income is greater than \$4,000 the deduction is reduced by 1 per cent for each \$100 of the excess. No deduction is allowable where the combined net income is \$14,000 or more.

Gifts. Those of \$2 and upwards made to specified funds, authorities and institutions including public benevolent institutions, approved research institutions for scientific research, building funds for schools conducted by non-profit organisations, etc.

Rebates of Tax

From the gross amount of tax calculated by applying the relevant rate to the taxpayer's taxable income, a deduction is made for any rebates allowable to the taxpayer.

Dependant, housekeeper and sole parent rebates. A concessional rebate of the relevant amount specified below for each *dependant* is allowable to a resident taxpayer if, during the whole of the year of income, the taxpayer is the sole contributor to the dependant's maintenance and that dependant does not have a separate net income in excess of \$203.

| <i>Dependant</i> | <i>Maximum rebate 1978-79</i> |
|--|---------------------------------------|
| | \$ |
| Spouse, daughter-housekeeper | 597 |
| Parent or parent-in-law | 539 |
| Invalid relative | 270 |

If a person in one or other of these dependant categories is a dependant during part only of the year of income (such a person residing with the taxpayer is ordinarily regarded as a dependant throughout the period of residence), the maximum rebate is proportionately reduced. Rebates allowable for a parent, parent-in-law or invalid relative who reside outside Australia were abolished from 1 November 1978. Accordingly, for the year ended 30 June 1979 the maximum amounts allowable for these dependants are \$180, \$180 and \$90 respectively.

Where a person has a separate net income in excess of \$203 while a dependant of a taxpayer, the rebate otherwise allowable is reduced by \$1 for every \$4 by which the separate net income exceeds \$203, irrespective of the period over which the person has derived the income. When two or more people contribute to the maintenance of a person who is a dependant of both of them, the rebate allowable is apportioned between the contributing taxpayers.

A concessional rebate of \$597 is allowable to a resident taxpayer in respect of a *housekeeper* who, during the whole of the year of income, is wholly engaged in keeping house in Australia for the taxpayer and has the care of (a) a child or step-child of the taxpayer, less than 16 years of age; (b) an invalid relative in respect of whom the taxpayer is entitled to a rebate or any child under 16 years classed as a dependant for this purpose; or (c) the taxpayer's spouse if in receipt of an invalid pension under the *Social Services Act*.

If these conditions apply for only part of the year, a proportionate rebate may be allowed. Where the taxpayer is married, a rebate may be allowable for a housekeeper if the housekeeper is engaged in caring for an invalid spouse (*see* (c) above) or the Commissioner is of the opinion that, because of special circumstances, it is just to allow a rebate. The rebate is not allowable in respect of any period during which the taxpayer is entitled to a deduction for a daughter-housekeeper.

A concessional rebate of \$417 is allowable to a *sole parent* i.e., a resident single, widowed or divorced person who has the sole care of a child under sixteen years of age or a student (up to 25

years of age, receiving full-time education at a school, college or university), whose separate net income is ordinarily less than \$1,283. The sole parent rebate is not allowable where the taxpayer is entitled to a rebate for a housekeeper or daughter-housekeeper or is living in a de-facto relationship.

Concessional rebates

Resident taxpayers may be allowed a concessional rebate in respect of certain expenses listed below amounting in total to more than \$1,590. The amount of the rebate for 1978-79 is 33.5 per cent of the excess of the total expenditure over \$1,590, but the rebate cannot exceed the tax otherwise payable.

Medical, dental, optical, etc. expenses. Rebates are allowable in respect of medical, dental, optical and therapeutic treatment expenses paid by the taxpayer, less any amounts in respect of those expenses which are received or receivable by the taxpayer or any other person from a Government or friendly society or medical benefit fund. Included are amounts paid in respect of artificial limbs and eyes, hearing aids and medical and surgical appliances and the remuneration of an attendant of a person who is blind or permanently confined to a bed or invalid chair. Domiciliary nursing care benefits are to be disregarded in calculating the rebatable amount in respect of medical expenses.

Rebates in respect of the above medical, etc. expenses are allowable only for expenditure in respect of a resident taxpayer, spouse, children under 21 years of age or any other 'dependant' resident in Australia, but not a 'housekeeper'.

Funeral, burial or cremation expenses. Rebates are allowable only in respect of the taxpayer's spouse, children under 21 years of age or any other 'dependant', but not a 'housekeeper', provided the dependant was a resident of Australia at the time of death. The amount of expenses allowable in respect of any one dependant is limited to \$100.

Adopted children. Legal expenses and court costs of the kind normally incurred by a taxpayer in adopting a child.

Payments of life, sickness and accident insurance premiums and payments to a Friendly Society, Superannuation, Sustentation or similar Fund. Amounts subject to rebate are limited to a total of \$1,200 in respect of such payments made on behalf of the taxpayer, his spouse or children. Where policies are taken out on or after 1 January 1973 or where the first premium of a policy was paid on or after that date, rebates for premiums of such policies are *not* allowable if the benefits, other than death benefits, are payable within a period of 10 years of commencement of risk.

Education expenses. An amount not exceeding \$250 is allowed in respect of each child of the taxpayer or 'dependant' under 25 years of age receiving full-time education. Education expenses include expenditure for recognised school uniforms, on school fees, board and accommodation, text books, stationery, equipment and fares.

Self-education expenses. These are allowable where they are paid by the taxpayer for or in connexion with a course of education undertaken by him for the purpose of gaining qualifications for use in carrying on a profession, business or trade or in the course of employment. The maximum amount subject to rebate is \$250.

Calls. One-third of the amount of calls paid by the taxpayer in the year of income on shares owned by him in a company carrying on as its principal business afforestation in Australia.

Rates and land taxes. These are allowable when they are paid by a taxpayer who is personally liable. The maximum amount rebatable is \$300 and must be in respect of a sole or principal place of residence.

Other rebates

Zone allowance rebate. A separate rebate is allowable to resident taxpayers who have resided in Zone A or B (prescribed isolated areas) for more than one half of the income year. The rebates are as follows.

- (a) Zone A: a rebate equal to the sum of \$216 and 25 per cent of certain amounts in respect of dependants, sole parent and housekeeper;
- (b) Zone B: a rebate equal to the sum of \$36 and 4 per cent of those amounts stipulated under Zone A.

The amount in respect of dependants, sole parent and housekeeper that may be the subject of a 25 per cent (Zone A) or 4 per cent (Zone B) increment to the basic zone allowance are:

| | 1978-79 |
|--|---------|
| Sole parent | 417 |
| Housekeeper | 597 |
| Spouse, daughter-housekeeper | 597* |
| Parent or parent-in-law | 539* |
| One child under 16 years, not being a student | 270* |
| Each other child under 16 years, not being a student | 203* |
| Student | 270* |
| Invalid relative | 270* |

* Where one of these persons has a separate net income in excess of \$203 while a dependant of a taxpayer, the amount to be taken into account is reduced by \$1 for every \$4 by which that income exceeds \$203, irrespective of the period over which it was derived. Where two or more people contribute to the maintenance of a person who is a dependant of both of them, the amount to be taken into account is apportioned between the contributing taxpayers.

Amounts for a parent, parent-in-law or invalid relative who reside outside Australia are not allowable from 1 November 1978. The maximum amounts allowable for these dependants during the year ending 30 June 1979 are \$180, \$180 and \$90 respectively.

'Child' or 'children' includes a legally adopted child, a step-child or ex-nuptial child of the taxpayer. 'Student' means a person less than 25 years of age who is receiving full-time education at a school, college or university.

Overseas service rebate. Separate rebates are also allowable to certain members of the Defence Force serving in prescribed overseas localities. Where the period of service is more than one-half of the year of income, the rebate is equal to the Zone A rebate. Where the period is less than one-half of the year of income, a proportionate part of the Zone A rebate is allowable.

Rebate for government and other loan interest. A rebate of tax may be allowed in respect of certain Government and other loan interest included in an individual's taxable income. Particulars are given on page 528.

Special rebate. As a consequence of the adoption of half indexation of the standard rate scale for income year 1978-79, taxpayers with taxable incomes in the range \$6,601 to \$6,978 would have been liable for more tax than would have been the case had the 1977-78 pre-Budget rates, fully indexed, applied. To prevent this situation a special rebate calculated in accordance with the following table is allowable for income year 1978-79.

| Total taxable income | | | |
|----------------------|---------------|------------------|--------------------------------------|
| Not less than | Not more than | Rebate allowable | |
| \$ | \$ | \$ | \$ |
| 0 | 6,600 | Nil | |
| 6,600 | 6,742 | Nil | + 5c for each \$1 in excess of 6,600 |
| 6,742 | 6,978 | 7.10 | - 3c for each \$1 in excess of 6,742 |
| 6,979 | .. | Nil | |

Capital subscription rebate. Section 160ACA of the Income Tax Assessment Act provides for a rebate of tax to shareholders in respect of capital subscribed to certain petroleum exploration and mining companies. The rebate allowable is 30 cents for each \$1 of amounts paid on shares after 24 August 1977 by way of application and allotment moneys and calls which are applied by a company towards the paid-up value of its shares. The allowance of the rebate is conditional upon the company lodging a declaration satisfying the Commissioner that the share monies will be, or have been, spent on outgoings for off-shore exploration for petroleum and the development of off-shore petroleum fields and also includes expenditure on facilities located on-shore that are directly related to the off-shore petroleum operations. It is also conditional upon the company forgoing any right to a deduction under Division 10AA for the expenditure.

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 it did not exceed \$416. For years 1972-73 to 1974-75 inclusive the income of a taxpayer without dependants was exempt from income tax if it did not

exceed \$1,040. In 1975-76 and 1976-77 after the application of the general concessional rebate of \$540 and \$610 respectively to resident taxpayers, the corresponding figures were \$2,518 and \$2,845. In 1977-78, with the composite tax scale applying, the figure was \$3,402. For 1978-79 no tax is payable unless taxable income exceeds \$3,893. The effect of deductions or rebates for dependants was to exempt resident taxpayers up to the incomes shown in the samples hereunder.

RESIDENT TAXPAYERS: EFFECTIVE EXEMPTIONS FROM INCOME TAX
(**\$**)

| Income years ended June— | Taxpayer with— | | Wife and— | | | |
|-----------------------------|------------------|--------------|--------------|-------------------|-------------------|----------------|
| | No dependants | Wife only | | | | Sole parent |
| | | | one child | two children | three children | |
| 1973 and 1974 | 1,040 | 1,404 | 1,664 | 1,872 | 2,080 | .. |
| 1975 | 1,040 | 2,468 | 3,148 | 3,564 | 3,980 | .. |
| 1976 | 2,518 | 4,000 | 4,740 | (a)5,228 (b)5,800 | 2,740 | 2,740 |
| 1977 | 2,845 | 4,697 | 4,697 | 4,697 | 4,697 | 4,141 |
| 1978 | 3,402 | 5,335 | 5,335 | 5,335 | 5,335 | 4,761 |
| 1979 | 3,893 | 5,675 | 5,675 | 5,675 | 5,675 | 5,137 |

(a) Neither of whom is a student child. (b) Including one student child.

Rates of income tax on individuals

The table on page 529 shows the rates of income tax for the income year 1978-79. Rates for income years 1954-55 to 1973-74 were published in Year Book No. 60, page 590, for income years 1974-75 and 1975-76 they were published in Year Book No. 61, page 586 and for income years 1976-77 and 1977-78 they were published in Year Book No. 62, pages 593 and 594.

For primary producers, a rebate is allowable in respect of taxable income derived from primary production and in respect of other taxable income where it does not exceed \$5,000. Where non-primary production income exceeds \$5,000, the amount deemed to be derived from primary production is the amount, if any, that remains after deducting from \$5,000 the excess of that income over \$5,000. In determining the rebate, an averaging benefit is calculated by subtracting from the tax on the taxable income, the tax that would be payable if an average rate appropriate to the average on the taxable incomes of the current and four previous years had applied (where the latter amount is less than the former). The rebate is that proportion of the averaging benefit that the deemed primary production taxable income bears to the total taxable income.

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.

Interest derived from bonds, etc., issued between 1 January 1940 and 31 October 1968 by the Commonwealth 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.

Indexation of the Personal Income Tax System

For explanation of tax indexation see Year Book No. 61, page 584.

Health Insurance Levy

The Health Insurance Levy that was introduced on 1 October 1976 was abolished from 1 November 1978. For 1978-79, a person is liable to the Health Insurance Levy if appropriate private health insurance cover was not taken out for the period 1 July 1978 to 31 October 1978. The rate of levy payable is 0.833 per cent of a person's total taxable income to a maximum of \$100 for a person with dependants and \$50 for a person without dependants. The income levels below which no levy is payable in 1978-79 are \$3,799 for a single taxpayer, \$5,538 for a taxpayer with dependants and \$5,014 for a sole parent taxpayer.

Rates of tax—individuals

The rates of tax on taxable incomes derived by individuals during the year ending 30 June 1979 (or substituted accounting period) are set out below. They represent the rates which applied notionally from 1 February 1978 to 30 June 1978 indexed by a factor of 1.038 and adjusted to reflect an increase in the standard rate from 32 per cent to 33.5 per cent.

GENERAL RATES OF TAX—INDIVIDUALS
1978-79 FINANCIAL YEAR, 1978-79 INCOME YEAR

| <i>Total taxable income</i> | | | |
|-----------------------------|-----------------------|---|--|
| <i>Not less than—</i> | <i>Not more than—</i> | <i>Tax at general rates on total taxable income</i> | |
| \$ | \$ | \$ | \$ |
| 0 | 3,893 | Nil | |
| 3,893 | 16,608 | Nil | + 33.5c for each \$1 in excess of 3,893 |
| 16,608 | 33,216 | 4,259.525 | + 47.5c for each \$1 in excess of 16,608 |
| 33,216 | .. | 12,148.325 | + 61.5c for each \$1 in excess of 33,216 |

Income tax payable on specified incomes

The following table shows, for the income years 1972-73 to 1978-79, the actual income tax payable by taxpayers with various incomes and numbers of dependants. For 1974-75 allowance has been made for the low income family rebate, and in 1975-76 and 1976-77, the general concessional rebates of \$540 and \$610 respectively have been applied. For 1977-78 the composite rate scale has been used, which incorporates the general concessional rebate. Prior to 1975-76 a concessional deduction system operated for dependants; this was replaced by a system of rebates.

FEDERAL INCOME TAX PAYABLE ON SPECIFIED INDIVIDUAL INCOMES 1972-73 TO 1978-79
INCOME YEARS
(\$)

| <i>Net Income(a)</i> | <i>1972-73 and 1973-74</i> | <i>1974-75</i> | <i>1975-76</i> | <i>1976-77(c)</i> | <i>1977-78(c)</i> | <i>1978-79(c)</i> |
|---|----------------------------|----------------|----------------|-------------------|-------------------|-------------------|
| TAXPAYER WITH NO DEPENDANTS | | | | | | |
| \$ | | | | | | |
| 1,000 | .. | .. | .. | .. | .. | .. |
| 3,000 | 359.50 | 220.00 | 130.00 | 41.80 | .. | .. |
| 5,000 | 917.30 | 680.00 | 670.00 | 581.80 | 457.52 | 370.84 |
| 7,000 | 1,630.10 | 1,380.00 | 1,370.00 | 1,229.80 | 1,073.45 | 1,040.84 |
| 10,000 | 2,888.70 | 2,780.00 | 2,420.00 | 2,279.80 | 2,085.92 | 2,045.84 |
| 15,000 | 5,490.70 | 5,470.00 | 4,670.00 | 4,399.80 | 3,917.26 | 3,720.84 |
| 20,000 | 8,448.70 | 8,420.00 | 7,420.00 | 6,954.80 | 6,199.80 | 5,870.72 |
| TAXPAYER WITH DEPENDANT WIFE | | | | | | |
| 1,000 | .. | .. | .. | .. | .. | .. |
| 3,000 | 283.35 | 74.40 | .. | .. | .. | .. |
| 5,000 | 801.00 | 534.40 | 270.00 | 81.80 | .. | .. |
| 7,000 | 1,492.14 | 1,234.40 | 970.00 | 729.80 | 518.45 | 443.84 |
| 10,000 | 2,728.17 | 2,605.28 | 2,020.00 | 1,779.80 | 1,530.92 | 1,448.84 |
| 15,000 | 5,291.95 | 5,269.80 | 4,270.00 | 3,899.80 | 3,362.26 | 3,123.84 |
| 20,000 | 8,229.20 | 8,201.60 | 7,020.00 | 6,454.80 | 5,644.80 | 5,273.72 |
| TAXPAYER WITH DEPENDANT WIFE AND ONE CHILD | | | | | | |
| 1,000 | .. | .. | .. | .. | .. | .. |
| 3,000 | 232.97 | .. | .. | .. | .. | .. |
| 5,000 | 722.22 | 430.40 | 70.00 | 81.80 | .. | .. |
| 7,000 | 1,394.13 | 1,130.40 | 770.00 | 729.80 | 518.45 | 443.84 |
| 10,000 | 2,613.51 | 2,480.48 | 1,820.00 | 1,779.80 | 1,530.92 | 1,448.84 |
| 15,000 | 5,149.99 | 5,126.80 | 4,070.00 | 3,899.80 | 3,362.26 | 3,123.84 |
| 20,000 | 8,072.42 | 8,045.60 | 6,820.00 | 6,454.80 | 5,644.80 | 5,273.72 |
| TAXPAYER WITH DEPENDANT WIFE AND TWO CHILDREN(b) | | | | | | |
| 1,000 | .. | .. | .. | .. | .. | .. |
| 3,000 | 197.19 | .. | .. | .. | .. | .. |
| 5,000 | 659.20 | 347.20 | .. | 81.80 | .. | .. |
| 7,000 | 1,319.87 | 1,047.20 | 620.00 | 729.80 | 518.45 | 443.84 |
| 10,000 | 2,521.78 | 2,380.64 | 1,670.00 | 1,779.80 | 1,530.92 | 1,448.84 |
| 15,000 | 5,036.42 | 5,012.40 | 3,920.00 | 3,899.80 | 3,362.26 | 3,123.84 |
| 20,000 | 7,947.00 | 7,920.80 | 6,670.00 | 6,454.80 | 5,644.80 | 5,273.72 |

(a) Income remaining after allowing all deductions other than concessional deductions and deductions for dependants. (b) Neither of whom is a student. (c) For 1976-77, 1977-78 and 1978-79 rebates for children and students are replaced by family allowances (formerly child endowment).

Income tax assessments—Individuals

The following table shows for the 1975–76 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 1975–76)

| 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 |
| Under 3,000 | 79,515 | 146,859 | 226,374 | 604,659 | 600,358 | 17,358 |
| 3,000–3,499 | 89,951 | 148,440 | 238,391 | 774,629 | 765,780 | 43,414 |
| 3,500–3,999 | 92,788 | 144,098 | 236,886 | 887,859 | 875,668 | 70,784 |
| 4,000–4,499 | 100,935 | 142,448 | 243,383 | 1,034,045 | 1,018,830 | 99,705 |
| 4,500–4,999 | 106,750 | 139,690 | 246,440 | 1,171,031 | 1,153,011 | 130,038 |
| 5,000–5,499 | 116,303 | 146,370 | 262,673 | 1,379,632 | 1,357,395 | 172,643 |
| 5,500–5,999 | 130,878 | 149,246 | 280,124 | 1,611,556 | 1,584,454 | 224,332 |
| 6,000–6,499 | 164,560 | 160,614 | 325,174 | 2,033,751 | 1,998,950 | 307,163 |
| 6,500–6,999 | 196,440 | 157,065 | 353,505 | 2,386,233 | 2,342,303 | 381,303 |
| 7,000–7,499 | 221,061 | 125,358 | 346,419 | 2,510,552 | 2,459,629 | 416,483 |
| 7,500–7,999 | 234,688 | 91,741 | 326,429 | 2,529,053 | 2,472,674 | 432,951 |
| 8,000–8,499 | 233,306 | 68,814 | 302,120 | 2,491,577 | 2,431,423 | 438,836 |
| 8,500–8,999 | 214,893 | 53,355 | 268,248 | 2,345,874 | 2,286,784 | 427,614 |
| 9,000–9,499 | 193,562 | 42,268 | 235,830 | 2,179,666 | 2,122,520 | 408,911 |
| 9,500–9,999 | 167,352 | 33,341 | 200,693 | 1,955,309 | 1,903,571 | 377,081 |
| 10,000–10,999 | 274,244 | 47,829 | 322,073 | 3,372,055 | 3,283,052 | 681,577 |
| 11,000–11,999 | 199,738 | 33,108 | 232,846 | 2,670,859 | 2,603,096 | 583,361 |
| 12,000–12,999 | 144,655 | 21,733 | 166,388 | 2,075,198 | 2,023,726 | 482,868 |
| 13,000–13,999 | 103,844 | 15,325 | 119,169 | 1,605,529 | 1,566,659 | 394,491 |
| 14,000–14,999 | 78,646 | 11,792 | 90,438 | 1,309,151 | 1,278,182 | 336,801 |
| 15,000–19,999 | 173,109 | 25,748 | 198,857 | 3,365,652 | 3,277,425 | 972,319 |
| 20,000–24,999 | 49,491 | 7,972 | 57,463 | 1,268,801 | 1,229,794 | 442,294 |
| 25,000–29,999 | 21,127 | 3,505 | 24,632 | 668,900 | 648,508 | 265,242 |
| 30,000–49,999 | 20,332 | 3,288 | 23,620 | 863,009 | 843,786 | 393,194 |
| 50,000 and over | 5,912 | 731 | 6,643 | 487,887 | 476,338 | 262,215 |
| Office— | | | | | | |
| New South Wales | 1,184,873 | 679,546 | 1,864,419 | 15,274,630 | 14,932,095 | 3,079,010 |
| Victoria | 932,578 | 549,231 | 1,481,809 | 12,161,918 | 11,876,693 | 2,477,305 |
| Queensland | 479,314 | 247,510 | 726,824 | 5,908,481 | 5,771,015 | 1,174,382 |
| South Australia | 333,884 | 185,074 | 518,958 | 4,063,467 | 3,978,767 | 785,715 |
| Western Australia | 300,215 | 161,007 | 461,222 | 3,734,520 | 3,651,880 | 740,276 |
| Tasmania | 102,881 | 50,044 | 152,925 | 1,230,210 | 1,206,314 | 242,312 |
| Northern Territory | 17,704 | 8,931 | 26,635 | 245,105 | 241,239 | 48,387 |
| Australian Capital Territory | 62,631 | 39,395 | 102,026 | 964,141 | 945,915 | 220,595 |
| Total | 3,414,080 | 1,920,738 | 5,334,818 | 43,582,470 | 42,603,920 | 8,767,981 |

(a) Assessments in respect of 1975–76 incomes. 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 1974-75 and 1975-76 are shown in the following table.

FEDERAL INCOME TAX ASSESSMENTS: TAXABLE INDIVIDUALS, BY GRADE OF INCOME(a)
(INCOME YEARS 1974-75 AND 1975-76)

| 1974-75 | | | | 1975-76 | | | |
|------------------------|----|------------------|-------------------------|------------------------|----|------------------|-------------------------|
| Grade of net income(a) | | Tax-payers | Net income tax assessed | Grade of net income(a) | | Tax-payers | Net income tax assessed |
| \$ | \$ | No. | \$'000 | \$ | \$ | No. | \$'000 |
| Under 1,200 | | 50,233 | 925 | Under 3,000 | | 226,374 | 17,358 |
| 1,200- 1,999 | | 324,169 | 14,790 | 3,000- 3,499 | | 238,391 | 43,414 |
| 2,000- 2,499 | | 210,217 | 19,772 | 3,500- 3,999 | | 236,886 | 70,784 |
| 2,500- 2,999 | | 260,523 | 35,812 | 4,000- 4,499 | | 243,383 | 99,705 |
| 3,000- 3,499 | | 271,067 | 54,629 | 4,500- 4,999 | | 246,440 | 130,038 |
| 3,500- 3,999 | | 270,822 | 77,668 | 5,000- 5,499 | | 262,673 | 172,643 |
| 4,000- 4,499 | | 283,658 | 107,760 | 5,500- 5,999 | | 280,124 | 224,332 |
| 4,500- 4,999 | | 303,629 | 146,517 | 6,000- 6,499 | | 325,174 | 307,163 |
| 5,000- 5,499 | | 342,337 | 202,544 | 6,500- 6,999 | | 353,505 | 381,303 |
| 5,500- 5,999 | | 365,504 | 255,389 | 7,000- 7,499 | | 346,419 | 416,483 |
| 6,000- 6,499 | | 355,230 | 285,162 | 7,500- 7,999 | | 326,429 | 432,951 |
| 6,500- 6,999 | | 335,813 | 307,434 | 8,000- 8,499 | | 302,120 | 438,836 |
| 7,000- 7,499 | | 317,104 | 330,903 | 8,500- 8,999 | | 268,248 | 427,614 |
| 7,500- 7,999 | | 285,352 | 338,198 | 9,000- 9,499 | | 235,830 | 408,911 |
| 8,000- 8,499 | | 248,572 | 333,401 | 9,500- 9,999 | | 200,693 | 377,081 |
| 8,500- 8,999 | | 206,015 | 310,426 | 10,000-10,999 | | 322,073 | 681,577 |
| 9,000- 9,499 | | 175,404 | 293,470 | 11,000-11,999 | | 232,846 | 583,361 |
| 9,500- 9,999 | | 147,248 | 273,311 | 12,000-12,999 | | 166,388 | 482,868 |
| 10,000-10,999 | | 223,501 | 475,885 | 13,000-13,999 | | 119,169 | 394,491 |
| 11,000-11,999 | | 153,624 | 389,639 | 14,000-14,999 | | 90,438 | 336,801 |
| 12,000-12,999 | | 105,976 | 313,813 | 15,000-19,999 | | 198,857 | 972,319 |
| 13,000-13,999 | | 71,436 | 244,246 | 20,000-24,999 | | 57,463 | 442,294 |
| 14,000-14,999 | | 51,846 | 200,790 | 25,000-29,999 | | 24,632 | 265,242 |
| 15,000-19,999 | | 117,121 | 598,090 | 30,000-49,999 | | 23,620 | 398,194 |
| 20,000-29,999 | | 53,140 | 486,237 | 50,000 and over | | 6,643 | 262,215 |
| 30,000-49,999 | | 17,756 | 310,864 | | | | |
| 50,000-99,999 | | 3,603 | 127,107 | | | | |
| 100,000 and over | | 422 | 35,983 | | | | |
| Total | | 5,551,322 | 6,570,765 | Total | | 5,334,818 | 8,767,981 |

(a) 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 1975-76 income year numbers, total business income and net income of partnerships and trusts. Greater detail is published in the statistical supplement to the annual report of the Commissioner of Taxation and in the report itself.

PARTNERSHIPS AND TRUSTS—INCOME YEAR 1975-76

| Item | Partnerships | Trusts | Total |
|-----------------------|-------------------|---------|------------|
| Number | 471,871 | 144,488 | 616,359 |
| Total business income | \$'000 13,358,551 | 967,081 | 14,325,632 |
| Net income(a) | \$'000 4,400,094 | 710,383 | 5,110,477 |

(a) Total net income adjusted by subtraction of loss.

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 which 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; however, while resident companies receive a rebate at the average rate on the amount of dividends included in the taxable income, 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 1969-70 to 1977-78 are shown in the following table.

RATES OF INCOME TAX: COMPANIES, 1969-70 TO 1977-78 INCOME YEARS
(Cents per \$)

| Income years ended 30 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 |
| 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 |
| 1974 | 45.0 | 45.0 | 50 | 45.0 | 45.0 | 45.0 | 45.0 | 45.0 | 45.0 |
| 1975 and 1976 | 42.5 | 42.5 | 50 | 42.5 | 42.5 | 42.5 | 42.5 | 42.5 | 42.5 |
| 1977-78 | 46.0 | 46.0 | 50 | 46.0 | 46.0 | 46.0 | 46.0 | 46.0 | 46.0 |

(a) Excludes co-operative, non-profit and life insurance companies.

For the income year ended 30 June 1974 the rate for companies other than friendly society dispensaries was 45 per cent, except that for the first \$10,000 of taxable income of co-operative and non-profit companies (other than friendly society dispensaries) the rate was 42.5 per cent. The rate for friendly society dispensaries was 37.5 per cent.

For the income years ended 30 June 1975 and 1976 the rate for companies other than friendly society dispensaries was 42.5 per cent and for friendly society dispensaries it was 37.5 per cent.

For the income years ended 30 June 1977 and 30 June 1978 the rates were 46 per cent and 41 per cent respectively. Tax exemption levels for years ended 30 June 1977 and 1978 are set out below.

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 \$2,311 the maximum amount payable is 50 per cent 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 \$2,542, 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 1975-76 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 1975-76)

| Grades 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 | - | - | - | 67,297 | - | 755,067 |
| Nil | - | - | - | 39,571 | - | - |
| 1- 1,999 | 34,190 | 19,215 | 7,663 | 4,908 | 3,735 | - |
| 2,000- 9,999 | 26,241 | 136,740 | 52,607 | 5,756 | 29,572 | - |
| 10,000- 19,999 | 12,331 | 176,588 | 67,214 | 2,182 | 30,950 | - |
| 20,000- 39,999 | 9,937 | 282,059 | 106,905 | 1,423 | 39,902 | - |
| 40,000- 99,999 | 8,025 | 498,249 | 187,880 | 860 | 53,099 | - |
| 100,000- 199,999 | 3,104 | 430,713 | 161,599 | 272 | 37,693 | - |
| 200,000- 399,999 | 1,743 | 488,476 | 181,565 | 142 | 38,718 | - |
| 400,000- 999,999 | 1,278 | 789,596 | 278,944 | 85 | 51,872 | - |
| 1,000,000- 1,999,999 | 493 | 690,641 | 237,645 | 24 | 34,615 | - |
| 2,000,000 and over | 556 | 4,544,571 | 1,513,314 | 15 | 60,615 | - |
| Total | 97,898 | 8,056,849 | 2,795,338 | 122,535 | 380,770 | 755,067 |
| New South Wales | 43,254 | 2,648,081 | 895,503 | 57,553 | 175,804 | 382,648 |
| Victoria | 25,171 | 3,558,701 | 1,212,388 | 29,553 | 125,175 | 229,353 |
| Queensland | 10,154 | 898,358 | 340,912 | 11,679 | 25,476 | 55,772 |
| South Australia | 8,953 | 431,995 | 149,050 | 10,104 | 23,682 | 33,618 |
| Western Australia | 6,526 | 381,954 | 149,020 | 8,151 | 10,937 | 36,042 |
| Tasmania | 1,886 | 83,087 | 29,048 | 2,074 | 4,026 | 6,325 |
| Northern Territory | 595 | 17,709 | 7,340 | 614 | 931 | 3,662 |
| Australian Capital Territory | 1,359 | 36,965 | 12,078 | 2,807 | 14,740 | 7,647 |

(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 1972-73 TO 1977-78

| Source of income tax | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|------------------------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|
| NET AMOUNTS COLLECTED (\$'000) | | | | | | |
| Individuals— | | | | | | |
| Instalments—salaries and wages | 3,160,681 | 4,238,391 | 6,071,293 | 7,019,706 | 8,528,863 | 9,638,786 |
| Other payments | 928,797 | 1,251,872 | 1,642,726 | 2,199,685 | 2,524,781 | 2,490,216 |
| Companies | 1,561,287 | 1,953,927 | 2,358,809 | 2,522,837 | 2,824,459 | 3,095,321 |
| Withholding tax—Dividend | 51,197 | 56,648 | 59,818 | 62,674 | 71,969 | 107,770 |
| Interest | 21,406 | 22,588 | 28,298 | 32,344 | 24,408 | 10,082 |
| Total | 5,723,369 | 7,523,426 | 10,160,944 | 11,837,246 | 13,974,480 | 15,342,175 |
| PERCENTAGES | | | | | | |
| Individuals— | | | | | | |
| Instalments—salaries and wages | 55.22 | 56.34 | 59.75 | 59.30 | 61.03 | 62.83 |
| Other payments | 16.23 | 16.64 | 16.17 | 18.58 | 18.07 | 16.23 |
| Companies | 27.28 | 25.97 | 23.21 | 21.31 | 20.21 | 20.18 |
| Withholding tax—Dividend | 0.89 | 0.75 | 0.59 | 0.53 | 0.52 | 0.70 |
| Interest | 0.37 | 0.30 | 0.28 | 0.27 | 0.17 | 0.06 |
| Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

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 1973-74 to 1977-78 were: 1973-74, \$862,760,000; 1974-75, \$967,924,000; 1975-76, \$1,535,935,000; 1976-77, \$1,501,555,000 and 1977-78, \$1,218,225,000.

Estate duty

Estate duty is levied under the *Estate Duty Assessment Act* 1914 and is assessed on the net value of the estate less a statutory exemption. In respect of estates of persons who die after 21 November 1977 no duty is payable on that part of the estate which passes to or for the benefit of the deceased persons's widow or widower, children, grandchildren, parents or grandparents. Duty will not be payable on estates of any person dying on or after 1 July 1979. For estates of persons dying before 1 July 1979, where no part of the estate passes to the relatives mentioned above, duty is payable on the net value less statutory exemption as follows:

- for qualifying estates of deceased primary producers—\$24,000

- 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.

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 1972-73 to 1976-77 are given in the following table.

FEDERAL ESTATE DUTY ASSESSMENTS

| | | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|--|--------|---------|---------|-----------|-----------|-----------|
| Estates | No. | 16,734 | 12,052 | 13,621 | 13,447 | 13,793 |
| Gross value as assessed | \$'000 | 969,778 | 964,804 | 1,183,913 | 1,223,732 | 1,208,236 |
| Deductions (a) | " | 176,324 | 194,159 | 242,912 | 274,953 | 296,738 |
| Statutory exemptions | " | 202,793 | 238,212 | 318,706 | 317,087 | 335,596 |
| Dutiable value | " | 590,660 | 532,433 | 622,295 | 631,693 | 611,702 |
| Net duty assessed | " | 64,366 | 65,981 | 80,560 | 83,663 | 73,512 |
| Average dutiable value | \$ | 35,297 | 44,178 | 45,686 | 46,976 | 44,349 |
| Average duty assessed per estate | \$ | 3,846 | 5,475 | 5,914 | 6,222 | 5,330 |

(a) Debts, Exempt Estate and State Probate Succession Duties.

Gift duty

The *Gift Duty Act 1941* and the *Gift Duty Assessment Act 1941* 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. Under the *Gift Duty Assessment Act 1978*, gifts to the donor's spouse, children, grandchildren, parents or grandparents made after 21 November 1977 are not subject to duty. Gift duty will not be levied on any gifts made on or after 1 July 1979.

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 Commonwealth 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) \$10,001 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

| | | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|-----------------------------|--------|---------|---------|---------|---------|---------|---------|
| Assessments | No. | 10,425 | 7,199 | 6,976 | 7,514 | 6,564 | 7,480 |
| Value as assessed | \$'000 | 172,244 | 130,875 | 199,454 | 297,020 | 164,259 | 187,085 |
| Duty assessed | " | 9,878 | 7,158 | 18,037 | 36,077 | 10,344 | 11,711 |

Customs duties

A description of the Australian Customs Tariff System is given in Chapter 24, Overseas Transactions. Details of duties collected on the import of commodities classified in accordance with the 'Brussels Nomenclature' are given in the following table.

GROSS CUSTOMS DUTIES ON IMPORTS ACCORDING TO BRUSSELS TARIFF DIVISIONS
(S'000)

| <i>Brussels Tariff Division</i> | <i>Source of receipts</i> | <i>1973-74</i> | <i>1974-75</i> | <i>1975-76</i> | <i>1976-77</i> | <i>1977-78</i> |
|---|---|----------------|----------------|----------------|------------------|------------------|
| 1 | Live animals; animal products | 1,017 | 916 | 1,198 | 1,091 | 1,002 |
| 2 | Vegetable products | 2,493 | 2,159 | 1,459 | 1,430 | 1,167 |
| 3 | Animal and vegetable fats and oils and their cleavage products; prepared edible fats; animal and vegetable waxes | 1,677 | 972 | 2,410 | 2,723 | 3,137 |
| 4 | Prepared foodstuffs; beverages, spirits and vinegar; tobacco | 101,770 | 134,897 | 154,044 | 176,125 | 182,297 |
| 5 | Mineral products | 10,375 | 10,274 | 10,862 | 13,103 | 5,581 |
| 6 | Products of the chemical industry and allied industries | 13,901 | 15,517 | 15,769 | 19,729 | 20,056 |
| 7 | Artificial resins and plastic materials, cellulose esters and ethers, and articles thereof; rubber, synthetic rubbers, factice and articles thereof | 28,384 | 35,955 | 40,696 | 53,513 | 62,689 |
| 8 | Raw hides and skins, leather, furskins and articles thereof; saddlery and harness; travel goods, handbags and similar containers; articles of gut (other than silkworm gut) | 5,689 | 6,621 | 9,233 | 12,882 | 13,826 |
| 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 | 12,739 | 12,316 | 15,644 | 18,936 | 16,167 |
| 10 | Paper-making material; paper and paperboard and articles thereof | 13,990 | 14,529 | 13,611 | 18,426 | 21,955 |
| 11 | Textiles and textile articles | 99,878 | 114,877 | 128,032 | 143,320 | 146,236 |
| 12 | Footwear, headgear, umbrellas, sunshades, whips, riding-crops and parts therefor; prepared feathers and articles made therewith; artificial flowers; articles of human hair; fans | 15,057 | 18,426 | 20,930 | 26,491 | 30,926 |
| 13 | Articles of stone, of plaster, of cement, of asbestos, of mica and of similar materials; ceramic products; glass and glassware | 13,629 | 16,312 | 18,063 | 23,152 | 22,584 |
| 14 | Pearls, precious and semi-precious stones, precious metals, rolled precious metals, and articles thereof; imitation jewellery; coin | 3,310 | 5,043 | 6,578 | 8,721 | 9,275 |
| 15 | Base metals and articles of base metal | 32,902 | 43,119 | 44,833 | 59,740 | 60,241 |
| 16 | Machinery and mechanical appliances; electrical equipment; parts therefor | 120,408 | 201,782 | 211,572 | 243,851 | 223,354 |
| 17 | Vehicles, aircraft, and parts therefor; vessels and certain associated transport equipment | 104,636 | 179,538 | 204,062 | 281,690 | 259,041 |
| 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 reproducers, magnetic; parts therefor | 19,515 | 21,503 | 23,231 | 28,677 | 25,740 |
| 19 | Arms and ammunition; parts therefor | 392 | 481 | 510 | 489 | 505 |
| 20 | Miscellaneous manufactured articles | 18,122 | 21,838 | 26,757 | 37,722 | 39,082 |
| 21 | Works of art, collectors' pieces and antiques | 2,849 | 496 | 662 | 442 | 336 |
| | Primage | 3,137 | 6,670 | 8,458 | 9,506 | 10,431 |
| | Total customs duties and primage | 625,870 | 864,241 | 958,608 | 1,181,758 | 1,155,626 |

The *net* customs duties on imports for these years are 1975-76, \$932,066,000; 1976-77, \$1,152,016; and 1977-78, \$1,131,817.

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 GROSS RECEIPTS

(\$'000)

| <i>Source of revenue</i> | <i>1975-76</i> | <i>1976-77</i> | <i>1977-78</i> |
|--|------------------|------------------|------------------|
| Beer | 694,742 | 745,170 | 757,815 |
| Spirits, including liqueurs, etc. | 67,022 | 71,670 | 75,951 |
| Tobacco (manufactured), snuff | 21,729 | 20,665 | 19,149 |
| Cigars and cigarettes | 519,808 | 540,645 | 540,866 |
| Aviation gasoline—by-law | 2,484 | 2,427 | 2,902 |
| Aviation gasoline—other | — | 5 | — |
| Other gasoline | 637,894 | 675,651 | 727,579 |
| Mineral turpentine | — | — | — |
| Coal tar and coke oven distillates, etc. | — | 1 | 1 |
| Aviation turbine kerosene | 38,080 | 37,140 | 42,376 |
| Kerosene, n.e.i. | — | 197 | — |
| Diesel fuel—by-law | 66,446 | 76,133 | 85,533 |
| Playing cards | 141 | 127 | 132 |
| Cigarette tubes, paper and papers | 948 | 896 | 761 |
| Matches | 2,198 | 1,999 | 1,930 |
| Wine—other than table wine (excise item 16) | — | 1 | — |
| Petroleum and liquid petroleum gas (excise item 17) | 264,240 | 344,359 | 476,048 |
| Coal | 2,415 | 2,751 | 8,426 |
| Canned fruit | 323 | 277 | 294 |
| Other and undistributed excise revenue | 3 | — | — |
| Total Gross Excise Duties | 2,318,473 | 2,520,118 | 2,739,766 |
| Total Gross Customs, Primage and Excise Duties | 3,277,081 | 3,701,876 | 3,895,392 |
| Total Customs, Primage and Excise Refunds and Drawbacks | 47,249 | 57,082 | 52,556 |

Statistics of the value of duty included in the price of petroleum products purchased by Commonwealth Government departments and subsequently credited to those departments by the Department of Finance are not available. The net Federal excise revenue for these years is: 1975-76, \$2,331,325,000; 1976-77, \$2,485,420,000; 1977-78, \$2,733,490,000. The quantities of commodities on which excise duty was paid are given in Chapter 24, Overseas Transactions, page 599.

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* 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 1976-77 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, 1976-77

| <i>State</i> | <i>Gross sales of goods taxable at various rates (a)</i> | | | | |
|------------------------------------|--|------------------|------------------|---------------|-------------------|
| | <i>2½%</i> | <i>15%</i> | <i>27½%</i> | <i>Other</i> | <i>Total</i> |
| | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| New South Wales and A.C.T. | 870,158 | 2,242,191 | 1,238,770 | 27,336 | 4,378,462 |
| Victoria | 797,846 | 1,802,895 | 924,641 | 39,998 | 3,565,379 |
| Queensland | 181,029 | 659,260 | 263,506 | 7,209 | 1,110,996 |
| South Australia | 202,363 | 444,618 | 204,829 | 2,252 | 854,046 |
| Western Australia | 123,034 | 354,887 | 175,215 | 707 | 653,849 |
| Tasmania | 32,274 | 83,578 | 51,836 | 588 | 168,277 |
| Northern Territory | 2,427 | 15,610 | 3,158 | 168 | 21,363 |
| Australia—1976-77 | 2,209,131 | 5,603,039 | 2,861,956 | 78,257 | 10,752,372 |
| 1975-76 | 2,012,769 | 4,512,942 | 2,297,963 | 228,387 | 9,052,061 |
| 1974-75 | 1,664,497 | 4,268,996 | 1,589,119 | 216,655 | 7,739,267 |

(a) Estimated

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 522 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
(S'000)

| Year of sale | Gross taxable sales | Estimated net taxable sales (a) | Net collections | | Total |
|-------------------|---------------------|---------------------------------|-----------------|-------------------|----------|
| | | | Taxation Office | Bureau of Customs | |
| | (b) | (b) | | | |
| 1972-73 | 4,996 | 4,798 | 741 | 24 | 765 |
| 1973-74 | (d)6,606 | 6,293 | 935 | 34 | 969 |
| 1974-75 | (d)7,739 | 7,345 | 1,103 | 51 | 1,154 |
| 1975-76 | (d)9,044 | 8,586 | 1,360 | 49 | 1,408 |
| 1976-77 | (d)10,752 | 10,220 | (c)1,589 | 61 | (c)1,650 |
| 1977-78 | (d)10,841 | 10,252 | 1,695 | 63 | 1,758 |

(a) Represents gross taxable sales less discounts, goods returned, bad debts and other adjustments. (b) Statistics obtained from returns lodged at Taxation Office. (c) Adjusted. (d) Estimated.

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*. 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 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 on, and receipts from, primary production and other charges. Further information relating to primary production charges is given in Chapter 13, Rural Industry.

Wheat export charge and wheat tax. For details see Chapter 13, Rural Industry.

Wool tax. The rate of wool tax applicable to transactions in wool in the period 2 September 1974 to 18 August 1975 was 7.75 per cent. From 19 August 1975 the rate has been 8 per cent.

Dairy industry stabilization levy. The *Dairy Industry Stabilization Levy Act* imposes a levy on the production of butter, ghee, various milk powders, casein, caseinates etc. and certain varieties of cheese. The levy is on products sold on the domestic market. Basically, the rate of levy is fixed at the difference between the domestic market return and the assessed average export return.

Miscellaneous export charges. These consist of charges levied on exports of canned fruits (*Canned Fruits Export Charges Act 1926*), dried fruits (*Dried Fruits Export Charges Act 1924-70*) and honey (*Honey Export Charges Act 1973*).

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) 1.1 cents per kilogram of leaf where the manufacturer grows nine-tenths of the Australian tobacco leaf used by him, and
 - (ii) 2.2 cents per kilogram of leaf in other cases.

(See also Chapter 13, Rural Industry.)

Dairying Research and Promotion Levy. The *Dairying Industry Research and Promotion Levy Act 1972* provides for the imposition of, a levy on dairy produce. The Act provides for the imposition of the levy on either whole milk or butter fat content at rates prescribed by Regulation. The purpose of the Act is to provide for a more equitable and effective form of financing the administration and promotion activities of the Australian Dairy Corporation and the research programme recommended by the Dairying Research Committee. The Dairying Industry Research and Promotion Levy Regulations prescribe levies of either 6.3 cents per 100 litres of whole milk or 157.25 cents per 100 kilograms of butter fat.

Canning-fruit charge. The rate of charge from 1 December 1973 until 1 December 1976 was \$1 per tonne and then \$0.70 per tonne until 6 January 1978, when it was increased to \$1 per tonne.

Honey levy. The current rate of levy on honey sold for domestic consumption in Australia is 1.5 cents per kilogram.

Livestock slaughter levy. The present operative rate of levy for cattle is \$1.56 per head, of which \$1 is for eradication of cattle disease, 25 cents is for beef research, 1 cent is for the financing of investigation activities by the CSIRO and 30 cents is for market development. For sheep and lambs the levy is 4.85 cents per head and the components are 1.75 cents for sheep meat research, 0.10 cents for research into the meat processing industry and 3.00 cents for market development.

Poultry industry levy. The *Poultry Industry Levy Act 1965* imposes a levy at a maximum rate of \$1.00 per hen per annum on domesticated fowls kept for commercial purposes. The levy is payable fortnightly on the number of hens kept on each prescribed day, which is every second Thursday. The levy is designed to provide assistance to the poultry industry.

Meat chicken levy. The purpose of this Revenue item is to receive the collection of a levy imposed on meat chickens hatched. The levy is imposed by the *Meat Chicken Levy Act 1969* and is payable by the proprietors of hatcheries. The operative rate of levy is 0.1 cent per chicken.

Pig slaughter levy. The present operative rate of levy is 13 cents for each pig slaughtered for human consumption.

Wine grapes charges. The *Wine Grapes Charges Act 1929* 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. The operative rate of charge is \$2.40 per tonne of fresh 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 tonne that constitutes the base price for that season, with a maximum of \$20 per tonne.

Apple and pear levy. The *Apple and Pear Levy Act 1976* imposes a levy on the production and sale of apples and pears excluding those delivered for the manufacture of canned fruit or for export. The rates of the levy are: Fresh market, 5 cents per box; juicing, 50 cents per tonne; processing, \$1.00 per tonne.

Apple and pear export charge. The *Apple and Pear Export Charge Act 1976* provides for the imposition of a charge on apples and pears exported from Australia. The rates of the charge are: Fresh market and export, 5 cents per box; juicing, 50 cents per tonne; processing, \$1.00 per tonne.

Dried fruits levy. The *Dried Fruits Levy Act 1971* imposes a levy on dried fruits of a season received for packing. In 1977–78 the rate of levy was in the case of dried vine fruits 50 cents per tonne and in the case of dried tree fruits \$2.50 per tonne. In 1978–79 the rate of levy is for dried vine fruits \$1.00 per tonne, dried tree fruits, \$5.00 per tonne and prunes, \$2.50 per tonne.

FEDERAL PRIMARY PRODUCTION TAXES AND CHARGES RECEIPTS
(S'000)

| | 1975-76 | 1976-77 | 1977-78 |
|--------------------------------------|----------------|----------------|----------------|
| Apple and pear export charge | 271 | 121 | 162 |
| Apple and pear levy | — | 159 | 621 |
| Butterfat levy | 1,549 | 85 | — |
| Canned fruit export charge | 153 | 195 | 131 |
| Canning fruit charge | 113 | 107 | 67 |
| Dairy industry stabilization levy | — | — | 53,085 |
| Dairying research and promotion levy | 506 | 3,077 | 3,360 |
| Dried fruits export charge | 197 | 197 | 147 |
| Dried fruits levy | 45 | 49 | 86 |
| Dried vine fruits levy | — | — | — |
| Egg export charge | — | — | — |
| Honey export charge | — | 22 | 13 |
| Honey levy | 181 | 158 | 158 |
| Livestock slaughter levy— | | | |
| Cattle | 4,786 | 5,389 | 5,928 |
| Pigs | 313 | 360 | 483 |
| Sheep and lambs | 1,491 | 1,546 | 1,377 |
| Eradication of disease | — | 8,562 | 10,498 |
| Meat export charge— | | | |
| Cattle meat | 16,478 | 69 | 98 |
| Other meat | 3,266 | 6 | 56 |
| Oil seeds research levy | — | — | 89 |
| Meat chicken levy | 154 | 160 | 183 |
| Poultry industry levy | 11,390 | 11,414 | 10,807 |
| Tobacco charge | 547 | 496 | 495 |
| Wheat export charge | — | 30,065 | — |
| Wheat tax | 1,684 | 1,641 | 1,286 |
| Wine grapes charges | 1,103 | 1,035 | 1,109 |
| Wool tax | 71,368 | 94,093 | 89,129 |
| Total | 115,594 | 159,006 | 179,368 |

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 not changed after 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 Commonwealth Government and the States following the June 1971 Premiers' Conference, the Commonwealth 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*.

From 1 December 1974 the rate of tax payable in the Territories has been 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.

The *Pay-roll Tax (Territories) Assessment Act 1976* raised the level of the general exemption from pay-roll tax in the Territories from \$20,800 to \$48,000 per annum with effect from 1 January 1977. Federal pay-roll tax in the Northern Territory was terminated from 1 July 1978 by the *Pay-roll Tax (Territories) Assessment Amendment Act (No. 2) 1978* giving the Territory the right to levy its own payroll tax.

On vacating the pay-roll tax field in favour of the States the Commonwealth 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 expired on 30 June 1974. The export incentive grant scheme has now been replaced by a new system of export incentive grants administered by the Department of Trade and Resources.

Gross collections of pay-roll tax in 1976-77 and 1977-78 amounted to \$21,297,503 and \$22,577,960 respectively. Refunds of pay-roll tax during 1976-77 and 1977-78 under the pay-roll

tax rebate scheme amounted to \$3,403 and \$192,965 respectively. For details of the pay-roll tax rebate scheme, see Year Book No. 57, page 553.

Stevedoring Industry Charge

The rates in operation from 13 February 1976 have been as follows:

| <i>Class of Waterside Worker</i> | <i>Rate</i> \$ |
|--------------------------------------|-------------------|
| A | 4.00 per man-hour |
| B | 4.75 per man-hour |
| C | 2.85 per man-hour |

Class A waterside workers are permanent waterside workers in permanent and continuous ports; Class B are regular casual waterside workers in continuous ports; and Class C are regular casual waterside workers in non-continuous and seasonal ports and irregular workers in all ports.

From 5 December 1977 the Stevedoring Industry Charge was replaced by a stevedoring industry levy which is based on man-hours and tonnage handled.

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.

FEDERAL AUTHORITIES: PUBLIC TRADING ENTERPRISES: REVENUE, WORKING EXPENSES AND GROSS OPERATING SURPLUS, CLASSIFIED BY INDUSTRY

| (\$ million) | | | | | |
|---|----------------|----------------|----------------|----------------|----------------|
| Industry | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
| REVENUE | | | | | |
| Manufacturing | 23.4 | 28.5 | 34.0 | 48.9 | 54.8 |
| Electricity | 61.1 | 66.8 | 76.0 | 84.1 | 96.2 |
| Water supply, sewerage and drainage | 4.3 | 5.0 | 5.0 | 7.6 | 9.6 |
| Transport and communication— | | | | | |
| Air transport | 391.1 | 483.3 | 592.5 | 704.7 | 808.7 |
| Rail transport | 31.2 | 37.2 | 41.4 | 108.2 | 122.9 |
| Sea transport | 93.0 | 113.4 | 145.4 | 204.2 | 282.5 |
| Urban transit systems | 7.7 | 8.9 | 9.3 | 14.0 | 16.8 |
| Pipelines | — | — | — | — | 2.8 |
| Communication | 983.3 | 1,162.7 | 1,444.0 | 2,008.7 | 2,316.6 |
| <i>Total transport, etc.</i> | <i>1,506.3</i> | <i>1,805.6</i> | <i>2,232.7</i> | <i>3,039.7</i> | <i>3,550.2</i> |
| Commerce | 64.5 | 52.2 | 43.4 | 208.3 | 147.0 |
| Property and business services— | | | | | |
| Housing | 15.8 | 20.9 | 21.9 | 22.8 | 22.5 |
| Other | 9.1 | 11.8 | 18.7 | 25.5 | 25.7 |
| <i>Total property, etc.</i> | <i>24.9</i> | <i>32.7</i> | <i>40.6</i> | <i>48.3</i> | <i>48.1</i> |
| Community, social and personal services | 10.4 | 11.9 | 16.9 | 22.8 | 21.9 |
| Total revenue | 1,695.0 | 2,002.6 | 2,448.5 | 3,459.7 | 3,927.9 |
| WORKING EXPENSES(a) | | | | | |
| Manufacturing | 21.9 | 28.5 | 35.0 | 46.9 | 52.6 |
| Electricity | 14.3 | 18.6 | 29.3 | 37.3 | 48.3 |
| Water supply, sewerage and drainage | 2.6 | 3.1 | 3.9 | 4.9 | 6.1 |
| Transport and communication— | | | | | |
| Air transport | 329.6 | 413.3 | 550.7 | 647.6 | 722.7 |
| Rail transport | 29.2 | 38.8 | 50.6 | 154.3 | 170.1 |
| Sea transport | 75.1 | 95.5 | 136.8 | 183.9 | 231.2 |
| Urban transit systems | 7.0 | 9.8 | 12.3 | 16.7 | 19.1 |
| Pipelines | — | — | — | — | 1.4 |
| Communication | 608.5 | 778.0 | 986.1 | 1,219.8 | 1,456.4 |
| <i>Total transport, etc.</i> | <i>1,049.4</i> | <i>1,335.3</i> | <i>1,736.4</i> | <i>2,222.3</i> | <i>2,600.9</i> |
| Commerce | 69.3 | 54.1 | 68.6 | 248.3 | 160.7 |
| Property and business services— | | | | | |
| Housing | 14.1 | 19.3 | 23.9 | 25.7 | 24.3 |
| Other | 8.4 | 11.0 | 18.2 | 24.3 | 23.8 |
| <i>Total property, etc.</i> | <i>22.5</i> | <i>30.3</i> | <i>42.1</i> | <i>50.0</i> | <i>48.2</i> |
| Community, social and personal services | 7.8 | 9.1 | 14.1 | 19.7 | 18.3 |
| Total working expenses | 1,187.9 | 1,479.1 | 1,929.3 | 2,629.4 | 2,935.1 |
| GROSS OPERATING SURPLUS | | | | | |
| Manufacturing | 1.5 | -0.1 | -1.0 | 2.0 | 2.2 |
| Electricity | 46.8 | 48.2 | 46.7 | 46.8 | 47.9 |
| Water supply, sewerage and drainage | 1.7 | 1.9 | 1.1 | 2.6 | 3.5 |
| Transport and communication— | | | | | |
| Air transport | 61.5 | 70.0 | 41.8 | 57.1 | 86.0 |
| Rail transport | 2.1 | -1.6 | -9.2 | -46.1 | -47.2 |
| Sea transport | 17.9 | 18.0 | 8.7 | 20.2 | 51.3 |
| Urban transit systems | 0.7 | -0.8 | -3.0 | -2.7 | -2.4 |
| Pipelines | — | — | — | — | 1.4 |
| Communication | 374.8 | 384.7 | 458.0 | 788.9 | 860.1 |
| <i>Total transport, etc.</i> | <i>456.9</i> | <i>470.3</i> | <i>496.3</i> | <i>817.4</i> | <i>949.3</i> |
| Commerce | -4.9 | -1.9 | -25.1 | -40.0 | -13.7 |
| Property and business services— | | | | | |
| Housing | 1.8 | 1.6 | -2.1 | -2.9 | -1.9 |
| Other | 0.7 | 0.7 | 0.5 | 1.2 | 1.8 |
| <i>Total property, etc.</i> | <i>2.5</i> | <i>2.3</i> | <i>-1.6</i> | <i>-1.7</i> | <i>—</i> |
| Community, social and personal services | 2.6 | 2.8 | 2.9 | 3.2 | 3.6 |
| Total gross operating surplus | 507.1 | 523.5 | 519.2 | 830.3 | 992.8 |

(a) Exclude 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 indirect 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, nor 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 such fields as construction and maintenance of roads and bridges, provision of water supply and sewerage services, harbour facilities, transport, electricity and gas, housing and banking may be found in chapters relevant to those subjects and in State Year Books.

Details of the transactions of State authorities are given in the tables which follow. Reference should be made to the introduction of *Public Authority Finance, State and Local Authorities*, 1976-77 (5504.0) for definitions and descriptions of items appearing in these tables, and also for further details of the organisations covered by the figures. 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 1976-77 are given in the following table.

STATE AUTHORITIES(a): RECEIPTS AND OUTLAY

(\$ million)

| | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|---|----------------|----------------|-----------------|-----------------|-----------------|
| OUTLAY | | | | | |
| Final consumption expenditure | 2,826.8 | 3,628.2 | 5,221.8 | 6,783.7 | 8,105.2 |
| Gross capital formation— | | | | | |
| Increase in stocks | 1.6 | 16.0 | 55.2 | 30.8 | 30.0 |
| Expenditure on new fixed assets | 2,023.5 | 2,285.8 | 3,326.1 | 3,898.9 | 4,192.2 |
| Expenditure on existing assets (net) | 84.2 | 182.3 | 233.8 | 199.9 | 161.5 |
| <i>Total gross capital formation</i> | <i>2,109.3</i> | <i>2,484.0</i> | <i>3,615.0</i> | <i>4,129.6</i> | <i>4,383.7</i> |
| Transfer payments— | | | | | |
| Interest | 889.3 | 949.6 | 1,053.0 | 1,194.0 | 1,428.6 |
| Transfers to persons | 173.4 | 189.1 | 220.9 | 270.9 | 314.3 |
| Subsidies | 28.6 | 32.4 | 41.1 | 45.0 | 56.6 |
| Transfers overseas | .. | .. | 0.1 | 0.1 | 0.1 |
| Grants for private capital purposes | 20.7 | 30.5 | 54.6 | 60.9 | 52.3 |
| Grants to local authorities | 149.8 | 127.5 | 246.8 | 308.7 | 362.2 |
| <i>Total transfer payments</i> | <i>1,261.9</i> | <i>1,329.0</i> | <i>1,616.6</i> | <i>1,879.5</i> | <i>2,214.1</i> |
| Net advances— | | | | | |
| To the private sector | 53.2 | 37.7 | 145.8 | 164.4 | 185.4 |
| To public financial enterprises | 48.6 | 57.0 | 82.1 | 82.7 | 80.2 |
| To local authorities | 3.0 | 8.5 | 19.4 | 20.7 | 23.4 |
| <i>Total net advances</i> | <i>104.8</i> | <i>103.2</i> | <i>247.4</i> | <i>267.8</i> | <i>289.0</i> |
| Total outlay | 6,302.8 | 7,544.4 | 10,700.8 | 13,060.6 | 14,992.0 |
| <i>of which—</i> | | | | | |
| current outlay | 4,068.0 | 4,926.7 | 6,783.7 | 8,602.3 | 10,267.1 |
| capital outlay | 2,234.8 | 2,617.7 | 3,917.0 | 4,458.3 | 4,724.9 |
| RECEIPTS AND FINANCING ITEMS | | | | | |
| Receipts— | | | | | |
| Taxes, fees, fines, etc. | 1,780.3 | 2,205.7 | 2,791.2 | 3,467.3 | 3,972.7 |
| Income from public enterprises | 366.8 | 293.7 | 201.6 | 324.4 | 352.7 |
| Interest, etc., received | 256.0 | 317.7 | 423.2 | 441.7 | 586.1 |
| Grants from the Commonwealth Government— | | | | | |
| for current purposes | 2,075.9 | 2,533.4 | 3,735.0 | 5,427.7 | 6,110.2 |
| for capital purposes | 706.2 | 898.6 | 1,409.7 | 1,556.6 | 1,537.3 |
| <i>Total receipts</i> | <i>5,185.2</i> | <i>6,249.1</i> | <i>8,560.7</i> | <i>11,217.5</i> | <i>12,559.0</i> |
| Financing items— | | | | | |
| Net borrowing— | | | | | |
| Public corporation securities | 303.8 | 337.6 | 401.6 | 559.5 | 663.2 |
| Other general government securities | 39.1 | 60.8 | 74.7 | 112.8 | 126.4 |
| Advances from the Commonwealth Government (net)— | | | | | |
| For loan works purposes | 601.3 | 447.9 | 592.1 | 708.7 | 744.7 |
| Other | 66.3 | 300.2 | 632.8 | 663.8 | 533.4 |
| Net receipts of private trust funds | 92.9 | 102.6 | 153.6 | 33.2 | 242.9 |
| Reduction in cash and bank balances | -231.7 | -260.8 | -40.6 | -747.5 | -392.2 |
| Reduction in security holdings | -70.7 | -87.5 | -43.0 | 30.9 | -125.9 |
| Other funds available (including errors and omissions)— | | | | | |
| Depreciation allowances | 269.2 | 289.2 | 271.3 | 312.8 | 347.9 |
| Other | 47.4 | 105.3 | 97.6 | 168.9 | 292.7 |
| <i>Total financing items</i> | <i>1,117.6</i> | <i>1,295.3</i> | <i>2,140.1</i> | <i>1,843.1</i> | <i>2,433.0</i> |
| Total funds available | 6,302.8 | 7,544.4 | 10,700.8 | 13,060.6 | 14,992.0 |

(a) Excludes financial enterprises.

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, 1976-77

(\$ million)

| | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | Total |
|---|---------|---------|---------|---------|---------|-------|----------|
| OUTLAY | | | | | | | |
| Final consumption expenditure | 2,768.2 | 2,166.0 | 1,168.3 | 837.3 | 841.2 | 324.1 | 8,105.2 |
| Gross capital formation— | | | | | | | |
| Increase in stocks | 13.0 | 8.9 | 1.1 | 3.9 | 1.7 | 1.4 | 30.0 |
| Expenditure on new fixed assets | 1,319.1 | 1,161.0 | 679.3 | 406.8 | 446.9 | 179.1 | 4,192.2 |
| Expenditure on existing assets (net) | 39.4 | 80.1 | -1.0 | 36.8 | 2.0 | 4.2 | 161.5 |
| Total gross capital formation | 1,371.5 | 1,250.0 | 679.5 | 447.5 | 450.6 | 184.8 | 4,383.7 |
| Transfer payments— | | | | | | | |
| Interest | 427.5 | 452.0 | 197.2 | 157.1 | 123.9 | 70.9 | 1,428.6 |
| Transfers to persons | 137.2 | 78.7 | 51.1 | 17.4 | 20.7 | 9.2 | 314.3 |
| Subsidies | 23.2 | 18.2 | 8.7 | 1.7 | 3.0 | 1.9 | 56.6 |
| Transfers overseas | 0.1 | 0.1 | — | — | — | — | 0.1 |
| Grants for private capital purposes | 16.2 | 13.3 | 7.2 | 13.0 | 2.3 | 0.3 | 52.3 |
| Grants to local authorities | 105.5 | 105.8 | 85.5 | 28.3 | 32.7 | 4.4 | 362.2 |
| Total transfer payments | 709.7 | 668.0 | 349.5 | 217.5 | 182.6 | 86.8 | 2,214.1 |
| Net advances— | | | | | | | |
| To the private sector | -1.5 | 103.0 | 47.2 | 11.6 | 17.4 | 7.6 | 185.4 |
| To public financial enterprises | 44.6 | 4.9 | — | 30.9 | -0.2 | — | 80.2 |
| To local authorities | 4.7 | 1.0 | 14.6 | -0.2 | 3.0 | 0.4 | 23.4 |
| Total net advances | 47.8 | 108.9 | 61.8 | 42.3 | 20.2 | 8.0 | 289.0 |
| Total outlay | 4,897.1 | 4,192.9 | 2,259.1 | 1,544.7 | 1,494.6 | 603.7 | 14,992.0 |
| of which— | | | | | | | |
| current outlay | 3,461.6 | 2,820.7 | 1,510.6 | 1,041.8 | 1,021.6 | 410.6 | 10,267.1 |
| capital outlay | 1,435.5 | 1,372.2 | 748.4 | 502.9 | 473.0 | 193.1 | 4,724.9 |
| RECEIPTS AND FINANCING ITEMS | | | | | | | |
| Receipts— | | | | | | | |
| Taxes, fees, fines, etc. | 1,568.0 | 1,193.6 | 473.3 | 344.7 | 300.2 | 92.9 | 3,972.7 |
| Income from public enterprises | 39.9 | 168.3 | 43.7 | 49.6 | 25.2 | 26.0 | 352.7 |
| Interest, etc., received | 181.0 | 122.1 | 122.9 | 56.0 | 84.2 | 19.9 | 586.1 |
| Grants from the Australian Government— | | | | | | | |
| for current purposes | 1,963.6 | 1,513.6 | 1,014.6 | 674.2 | 684.3 | 259.7 | 6,110.2 |
| for capital purposes | 493.6 | 369.7 | 274.1 | 159.4 | 159.4 | 81.2 | 1,537.3 |
| Total receipts | 4,246.1 | 3,367.3 | 1,928.6 | 1,283.9 | 1,253.3 | 479.7 | 12,559.0 |
| Financing items— | | | | | | | |
| Net borrowing— | | | | | | | |
| Public corporation securities | 214.6 | 319.7 | 31.4 | 38.1 | 41.2 | 18.3 | 663.2 |
| Other general government securities | 43.1 | 2.0 | 68.5 | 6.5 | 5.6 | 0.7 | 126.4 |
| Advances from the Australian Government (net)— | | | | | | | |
| For loan works purposes | 233.3 | 189.5 | 99.5 | 99.0 | 68.5 | 54.8 | 744.7 |
| Other | 171.6 | 138.1 | 77.9 | 75.6 | 48.1 | 22.0 | 533.4 |
| Net receipts of private trusts funds | 2.8 | 79.0 | 115.3 | 9.9 | 25.9 | 10.1 | 242.9 |
| Reduction in cash and bank balances | -212.7 | -3.6 | -125.0 | -20.3 | -32.6 | 2.0 | -392.2 |
| Reduction in security holdings | -36.7 | -56.8 | -13.0 | 2.9 | -18.4 | -3.9 | -125.9 |
| Other funds available (including errors and omissions)— | | | | | | | |
| Depreciation allowances | 141.6 | 100.6 | 34.4 | 29.7 | 32.8 | 8.7 | 347.9 |
| Other | 93.4 | 57.1 | 41.5 | 19.4 | 70.2 | 11.3 | 292.7 |
| Total financing items | 651.0 | 825.6 | 330.5 | 260.8 | 241.3 | 124.0 | 2,433.0 |
| Total funds available | 4,897.1 | 4,192.9 | 2,259.1 | 1,544.7 | 1,494.6 | 603.7 | 14,992.0 |

(a) Excludes financial enterprises.

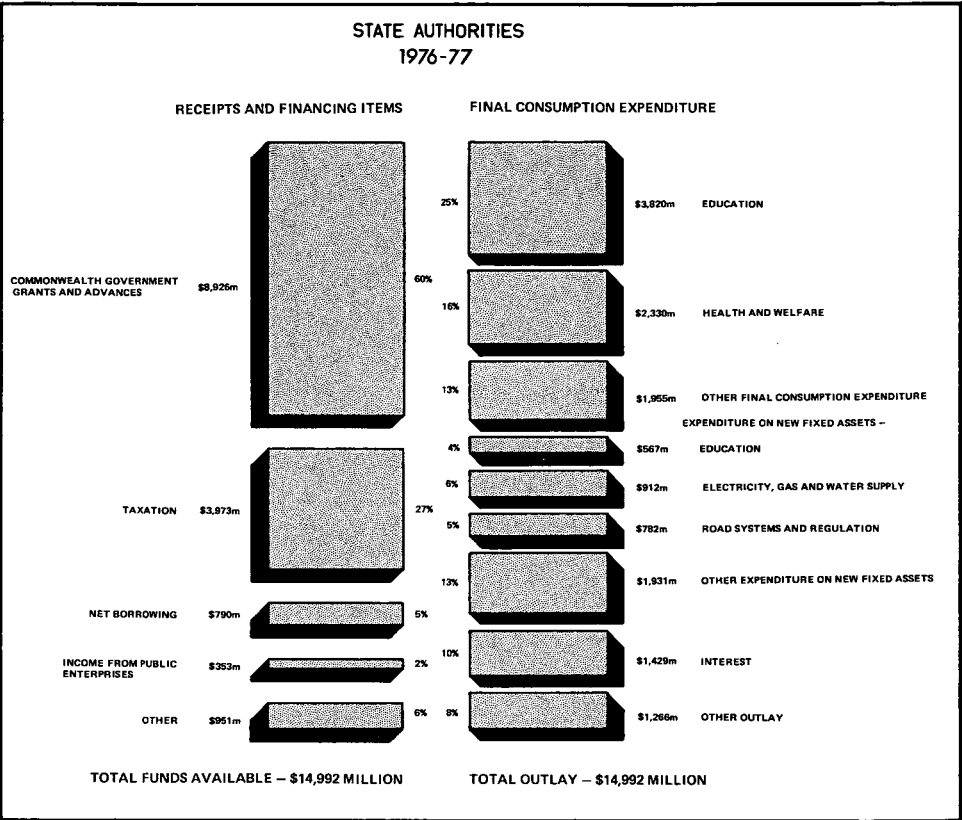


PLATE 37

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 Commonwealth Government, this expenditure consists mainly of final consumption expenditure and expenditure on new fixed assets. 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 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|--|----------------|----------------|----------------|----------------|----------------|
| General public services— | | | | | |
| Law, order and public safety | 321.8 | 396.2 | 545.6 | 663.1 | 778.7 |
| General administration, n.e.c. | 204.4 | 236.3 | 329.3 | 408.8 | 519.9 |
| Education | 1,365.2 | 1,777.7 | 2,568.3 | 3,180.5 | 3,820.1 |
| Health | 576.5 | 791.7 | 1,206.2 | 1,830.2 | 2,202.3 |
| Social security and welfare | 59.9 | 64.0 | 91.6 | 110.8 | 127.6 |
| Housing and community amenities— | | | | | |
| Housing | 1.7 | 2.1 | 2.9 | 4.1 | 5.7 |
| Community and regional development | 7.0 | 9.2 | 16.5 | 20.3 | 22.3 |
| Protection of the environment, and community amenities | 3.9 | 6.4 | 11.6 | 17.2 | 21.3 |
| Recreation and culture | 34.4 | 42.5 | 58.5 | 78.8 | 95.8 |
| Economic services— | | | | | |
| Agriculture, forestry, fishing | 153.9 | 181.7 | 229.5 | 270.7 | 300.6 |
| Mining, manufacturing and construction | 26.2 | 28.9 | 37.3 | 45.5 | 49.4 |
| Electricity, gas and water supply | 1.7 | 1.0 | 4.5 | 7.7 | 6.1 |
| Rail transport (a) | 1.5 | — | 1.1 | 1.2 | 0.8 |
| Sea transport | 0.2 | 3.8 | 3.9 | 4.1 | 4.5 |
| Road systems and regulation | 11.0 | 12.1 | 13.3 | 15.6 | 17.8 |
| Other transport services, n.e.c. | 1.2 | 1.8 | 2.3 | 3.7 | 3.2 |
| Other economic services(b) | 55.9 | 72.5 | 98.8 | 121.2 | 129.0 |
| Other purposes | 0.4 | 0.5 | 0.7 | — | 0.3 |
| Total | 2,826.8 | 3,628.2 | 5,221.8 | 6,783.7 | 8,105.2 |

(a) Includes suburban rail transport systems.

(b) Includes general administration, regulation and research.

STATE AUTHORITIES: FINAL CONSUMPTION EXPENDITURE CLASSIFIED BY PURPOSE 1976-77
(\$ million)

| | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | Total |
|--|----------------|----------------|----------------|--------------|--------------|--------------|----------------|
| General public services— | | | | | | | |
| Law, order and public safety | 278.2 | 173.3 | 137.4 | 73.6 | 84.4 | 31.8 | 778.7 |
| General administration, n.e.c. | 205.4 | 108.5 | 84.5 | 45.3 | 39.2 | 37.0 | 519.9 |
| Education | 1,273.4 | 1,136.1 | 504.3 | 413.5 | 363.8 | 129.1 | 3,820.1 |
| Health | 799.6 | 559.0 | 281.9 | 221.7 | 263.1 | 77.1 | 2,202.3 |
| Social security and welfare | 23.3 | 37.1 | 33.8 | 15.4 | 14.7 | 3.3 | 127.6 |
| Housing and community amenities— | | | | | | | |
| Housing | 1.4 | 1.2 | 0.1 | 1.0 | 1.0 | 0.9 | 5.7 |
| Community and regional development | 8.0 | 9.5 | — | 3.2 | 1.0 | 0.6 | 22.3 |
| Protection of the environment, and community amenities | 5.1 | 8.7 | 2.0 | 2.9 | 1.4 | 1.3 | 21.2 |
| Recreation and culture | 25.0 | 23.1 | 12.4 | 13.9 | 11.3 | 10.0 | 95.8 |
| Economic services— | | | | | | | |
| Agriculture, forestry, fishing | 82.7 | 65.6 | 85.0 | 20.4 | 25.1 | 21.8 | 300.6 |
| Mining, manufacturing and construction | 16.8 | 5.4 | 6.4 | 7.2 | 10.9 | 2.7 | 49.4 |
| Electricity, gas and water supply | 1.4 | -1.9 | 1.1 | 0.1 | 4.7 | 0.6 | 6.1 |
| Rail transport (a) | — | — | — | — | 0.8 | — | 0.8 |
| Sea transport | 5.5 | — | -1.8 | 0.9 | — | — | 4.5 |
| Road systems and regulation | 1.8 | 9.0 | 4.6 | 0.5 | 1.2 | 0.7 | 17.8 |
| Other transport services, n.e.c. | 1.1 | 0.4 | 0.7 | 0.5 | 0.6 | — | 3.2 |
| Other economic services(b) | 40.0 | 30.7 | 15.9 | 17.0 | 18.1 | 7.2 | 129.0 |
| Other purposes | -0.4 | 0.4 | — | 0.2 | — | — | 0.3 |
| Total | 2,768.2 | 2,166.0 | 1,168.3 | 837.3 | 841.2 | 324.1 | 8,105.2 |

(a) Includes suburban rail transport systems.

(b) Includes general administration, regulation and research.

STATE AUTHORITIES: EXPENDITURE ON NEW FIXED ASSETS CLASSIFIED BY PURPOSE

(\$ million)

| | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|--|----------------|----------------|----------------|----------------|----------------|
| General public services— | | | | | |
| Law, order and public safety | 34.6 | 39.3 | 47.4 | 64.0 | 76.4 |
| General administration, n.e.c. | 28.4 | 37.9 | 60.3 | 81.4 | 79.6 |
| Education | 297.6 | 348.9 | 609.4 | 618.6 | 566.8 |
| Health | 97.5 | 123.9 | 202.9 | 321.1 | 332.8 |
| Social security and welfare | 6.0 | 8.1 | 8.3 | 8.8 | 11.6 |
| Housing and community amenities— | | | | | |
| Housing | 75.0 | 115.7 | 278.7 | 250.5 | 240.0 |
| Community and regional development | 1.4 | 2.4 | 12.2 | 34.6 | 40.3 |
| Protection of the environment, and community amenities | 203.9 | 236.6 | 298.2 | 330.8 | 346.3 |
| Recreation and culture | 30.0 | 20.6 | 18.6 | 25.3 | 33.4 |
| Economic services— | | | | | |
| Agriculture, forestry, fishing | 102.8 | 109.1 | 147.3 | 175.4 | 209.7 |
| Mining, manufacturing and construction | 29.3 | 42.8 | 59.7 | 61.7 | 63.4 |
| Electricity and gas | 317.2 | 338.9 | 436.4 | 538.2 | 652.0 |
| Water supply | 141.1 | 153.3 | 198.8 | 238.2 | 260.3 |
| Rail transport(a) | 139.9 | 139.5 | 217.8 | 276.9 | 310.8 |
| Sea transport | 60.9 | 62.9 | 76.2 | 84.9 | 90.7 |
| Road systems and regulation | 422.7 | 466.9 | 585.8 | 696.0 | 782.1 |
| Other transport services, n.e.c. | 8.2 | 6.5 | 18.0 | 30.4 | 29.9 |
| Other economic services(b) | 51.8 | 58.2 | 87.9 | 100.0 | 108.6 |
| Other purposes | -0.1 | 1.8 | -0.3 | 0.1 | 1.1 |
| Total | 2,048.2 | 2,313.3 | 3,363.6 | 3,936.9 | 4,235.8 |
| of which— | | | | | |
| Public financial enterprises | 24.6 | 27.5 | 37.5 | 38.0 | 43.9 |

(a) Includes suburban rail transport systems. (b) Includes general administration, regulation and research.

STATE AUTHORITIES: EXPENDITURE ON NEW FIXED ASSETS CLASSIFIED BY PURPOSE 1976-77

(\$ million)

| | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | Total |
|--|----------------|----------------|--------------|--------------|--------------|--------------|----------------|
| General public services— | | | | | | | |
| Law, order and public safety | 15.1 | 21.7 | 17.6 | 9.6 | 8.0 | 4.4 | 76.4 |
| General administration, n.e.c. | 22.3 | 12.8 | 25.8 | 9.1 | 7.1 | 2.5 | 79.6 |
| Education | 166.6 | 157.3 | 99.8 | 65.7 | 48.7 | 28.9 | 566.8 |
| Health | 91.0 | 79.5 | 59.8 | 45.5 | 45.9 | 11.2 | 332.8 |
| Social security and welfare | 3.1 | 2.1 | 3.9 | 1.1 | 1.3 | 0.1 | 11.6 |
| Housing and community amenities— | | | | | | | |
| Housing | 80.4 | 28.6 | 37.9 | 29.1 | 42.0 | 22.0 | 240.0 |
| Community and regional development | 20.7 | 7.3 | 0.1 | 10.9 | 1.3 | - | 40.3 |
| Protection of the environment, and community amenities | 165.8 | 120.9 | 0.2 | 18.9 | 40.6 | - | 346.3 |
| Recreation and culture | 5.0 | 12.6 | 5.3 | 6.3 | 2.6 | 1.6 | 33.4 |
| Economic services— | | | | | | | |
| Agriculture, forestry, fishing | 60.8 | 57.9 | 42.5 | 21.5 | 18.0 | 8.9 | 209.7 |
| Mining, manufacturing and construction | 14.9 | 26.7 | 9.8 | 8.0 | 3.7 | 0.2 | 63.4 |
| Electricity and gas | 143.1 | 229.2 | 130.5 | 37.2 | 65.2 | 46.8 | 652.0 |
| Water supply | 70.9 | 102.1 | 7.6 | 38.9 | 40.1 | 0.7 | 260.3 |
| Rail transport(a) | 132.2 | 90.4 | 62.4 | 2.5 | 22.7 | 0.7 | 310.8 |
| Sea transport | 27.1 | 18.6 | 23.4 | 9.0 | 10.4 | 2.3 | 90.7 |
| Road systems and regulation | 262.5 | 165.6 | 150.0 | 74.0 | 82.9 | 47.1 | 782.1 |
| Other transport services, n.e.c. | 0.4 | 9.7 | - | 14.9 | 4.5 | 0.3 | 29.9 |
| Other economic services(b) | 43.5 | 33.4 | 15.8 | 10.0 | 4.1 | 1.9 | 108.6 |
| Other purposes | - | 1.1 | - | - | - | - | 1.1 |
| Total | 1,325.4 | 1,177.7 | 692.3 | 412.1 | 449.1 | 179.5 | 4,235.8 |
| of which— | | | | | | | |
| Public financial enterprises | 6.5 | 16.7 | 13.0 | 5.3 | 2.0 | 0.3 | 43.9 |

(a) Includes suburban rail transport systems. (b) Includes general administration, regulation and research.

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 Commonwealth Government. Taxation is also an important source of revenue, and central government borrowing by way of Commonwealth 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.

Details of Commonwealth Government financial assistance to the States have already been given in the section dealing with Commonwealth 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, 1976-77* (5506.0).

STATE AUTHORITIES: TAXATION BY TYPE OF TAX

(\$ million)

| | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|--|----------------|----------------|----------------|----------------|----------------|
| Estate, gift, probate and succession duties | 163.3 | 185.6 | 198.1 | 226.9 | 251.5 |
| Property taxes— | | | | | |
| Land tax | 112.9 | 122.1 | 168.6 | 200.1 | 218.1 |
| Metropolitan improvement rates | 9.6 | 12.2 | 12.8 | 15.1 | 15.8 |
| Other | 1.1 | 1.6 | 1.7 | 1.7 | 1.6 |
| <i>Total property</i> | <i>123.6</i> | <i>135.9</i> | <i>183.1</i> | <i>216.9</i> | <i>235.5</i> |
| Liquor taxes | 52.1 | 57.5 | 75.6 | 95.8 | 120.9 |
| Taxes on gambling— | | | | | |
| Lotteries | 37.5 | 48.3 | 67.6 | 85.9 | 109.6 |
| Poker machines | 42.6 | 50.8 | 71.9 | 83.4 | 92.0 |
| Racing | 91.4 | 107.4 | 138.4 | 164.5 | 180.6 |
| Other | 0.5 | 1.6 | 3.3 | 8.2 | 12.0 |
| <i>Total gambling</i> | <i>172.0</i> | <i>208.2</i> | <i>281.2</i> | <i>342.0</i> | <i>394.2</i> |
| Taxes on ownership and operation of motor vehicles— | | | | | |
| Vehicle registration fees and taxes | 223.6 | 240.2 | 284.1 | 334.3 | 396.7 |
| Drivers', etc., licences and fees | 27.8 | 29.2 | 43.1 | 54.3 | 60.1 |
| Stamp duty on vehicle registration | 30.9 | 39.7 | 51.5 | 84.2 | 116.5 |
| Road transport taxes | 17.6 | 17.2 | 15.2 | 15.6 | 15.9 |
| Road maintenance contributions | 40.1 | 43.3 | 44.4 | 44.4 | 44.7 |
| Motor car third party insurance surcharge and duties | 6.9 | 7.4 | 9.8 | 12.5 | 12.9 |
| <i>Total motor vehicles</i> | <i>346.8</i> | <i>377.0</i> | <i>448.0</i> | <i>545.2</i> | <i>646.8</i> |
| Pay-roll tax | 449.0 | 666.6 | 998.0 | 1,161.9 | 1,307.8 |
| Fire brigades contributions from insurance companies, etc. | 38.7 | 46.4 | 66.0 | 85.2 | 98.4 |
| Stamp duties, n.e.i. | 351.1 | 430.9 | 389.3 | 550.9 | 666.8 |
| Fees from regulatory services, n.e.i. | 16.1 | 18.6 | 24.0 | 34.4 | 42.4 |
| Other taxes, fees, fines, etc. | 67.6 | 79.0 | 127.9 | 208.1 | 208.3 |
| <i>Total taxation</i> | <i>1,780.3</i> | <i>2,205.7</i> | <i>2,791.2</i> | <i>3,467.3</i> | <i>3,972.7</i> |

STATE AUTHORITIES: TAXATION BY TYPE OF TAX, 1976-77

(\$ million)

| | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | Total |
|--|----------------|----------------|--------------|--------------|--------------|-------------|----------------|
| Estate, gift, probate and succession duties | 105.5 | 80.5 | 25.7 | 20.6 | 12.8 | 6.5 | 251.5 |
| Property taxes— | | | | | | | |
| Land tax | 111.6 | 59.8 | 12.8 | 18.3 | 11.7 | 3.8 | 218.1 |
| Metropolitan improvement rates | — | 13.7 | — | — | 2.2 | — | 15.8 |
| Other | 0.2 | — | — | 1.2 | 0.2 | — | 1.6 |
| <i>Total property</i> | <i>111.8</i> | <i>73.5</i> | <i>12.8</i> | <i>19.6</i> | <i>14.1</i> | <i>3.8</i> | <i>235.5</i> |
| Liquor taxes | 50.6 | 26.1 | 20.8 | 8.6 | 11.2 | 3.4 | 120.9 |
| Taxes on gambling— | | | | | | | |
| Lotteries | 29.5 | 58.2 | 8.6 | 6.3 | 5.9 | 1.1 | 109.6 |
| Poker machines | 92.0 | — | — | — | — | — | 92.0 |
| Racing | 70.6 | 62.9 | 20.8 | 11.2 | 12.3 | 2.8 | 180.6 |
| Other | 5.8 | 1.5 | 2.4 | — | — | 2.2 | 12.0 |
| <i>Total gambling</i> | <i>197.9</i> | <i>122.6</i> | <i>31.8</i> | <i>17.5</i> | <i>18.2</i> | <i>6.1</i> | <i>394.2</i> |
| Taxes on ownership and operation of motor vehicles— | | | | | | | |
| Vehicle registration fees and taxes | 145.3 | 110.7 | 53.9 | 38.2 | 35.9 | 12.7 | 396.7 |
| Drivers', etc., licences and fees | 26.4 | 14.6 | 6.3 | 7.7 | 3.5 | 1.6 | 60.1 |
| Stamp duty on vehicle registration | 41.7 | 40.7 | 9.8 | 15.4 | 5.5 | 3.4 | 116.5 |
| Road transport taxes | 1.1 | 6.8 | 5.1 | 0.1 | 1.9 | 0.9 | 15.9 |
| Road maintenance contributions | 19.8 | 10.0 | 5.3 | 4.7 | 4.6 | 0.2 | 44.7 |
| Motor car third party insurance surcharge and duties | — | 7.5 | — | 1.8 | 3.2 | 0.4 | 12.9 |
| <i>Total motor vehicles</i> | <i>234.3</i> | <i>190.2</i> | <i>80.5</i> | <i>67.9</i> | <i>54.6</i> | <i>19.3</i> | <i>646.8</i> |
| Pay-roll tax | 523.9 | 366.0 | 162.8 | 115.0 | 106.3 | 33.9 | 1,307.8 |
| Fire brigades contributions from insurance companies, etc. | 28.6 | 28.7 | 19.3 | 8.8 | 10.1 | 3.0 | 98.4 |
| Stamp duties, n.e.i. | 219.9 | 230.3 | 90.5 | 63.2 | 49.1 | 13.8 | 666.8 |
| Fees from regulatory services, n.e.i. | 16.7 | 12.5 | 6.5 | 3.3 | 2.9 | 0.5 | 42.4 |
| Other taxes, fees, fines, etc. | 78.8 | 63.0 | 22.7 | 20.3 | 21.0 | 2.5 | 208.3 |
| <i>Total taxation</i> | <i>1,568.0</i> | <i>1,193.6</i> | <i>473.3</i> | <i>344.7</i> | <i>300.2</i> | <i>92.9</i> | <i>3,972.7</i> |

LOCAL AUTHORITIES

In each State of Australia there exists a system of local government whose powers and responsibilities are generally 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, swimming pools, 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 almost 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 form county councils which provide services such as electricity and water supply. Within shires there are also some municipal units known as urban areas. Apart from the more sparsely populated parts of New South Wales and South Australia, and the Australian Territories (except for the City of Darwin, the municipality of Alice Springs, Katherine and Tennant Creek), practically the whole of Australia comes within local government jurisdiction. For further details *see* State Year Books.

Area, population, dwellings, and rates and penalties for ordinary services

The area, population, dwellings, and the amount of rates and penalties for ordinary services in the incorporated areas of each State are shown in the following table. Particulars of dwellings are in accordance with the definition used in the Census, and are compiled from information collected on the Census schedules. In the table, where the boundary of a capital city statistical division cuts across a local government area, the area of that capital city statistical division has been estimated. Particulars of population for capital city statistical divisions take account of those local government areas which overlap with capital city statistical division boundaries.

The item 'Rates and Penalties for Ordinary Services' relates to general and other special or local rates (excluding water and sewerage rates) levied or declared or, where the cash accounting system operates, the rates collected.

**LOCAL GOVERNMENT AUTHORITIES: AREA, POPULATION, DWELLINGS, AND RATES AND
PENALTIES FOR ORDINARY SERVICES—30 JUNE 1976**

| <i>Location(a)</i> | <i>No. of local authorities</i> | <i>Area</i> | <i>Population</i> | <i>Dwellings</i> | <i>Rates and penalties— ordinary services</i> |
|--|---|------------------------------|-------------------|------------------|---|
| | | <i>square kilometres</i> | <i>'000</i> | <i>'000</i> | <i>\$'000</i> |
| New South Wales— | | | | | |
| Sydney Statistical Division | 45 | 12,406 | 3,021 | 1,063 | (b)230,068 |
| Other | 169 | 693,326 | 1,747 | 589 | (b)128,022 |
| <i>Total New South Wales</i> | 214 | 705,732 | 4,768 | 1,652 | (b)358,090 |
| Victoria— | | | | | |
| Melbourne Statistical Division | 56 | 7,800 | 2,604 | 889 | (c)184,395 |
| Other | 155 | 219,300 | 1,041 | 356 | (c)75,610 |
| <i>Total Victoria</i> | 211 | 227,100 | 3,645 | 1,245 | (c)260,005 |
| Queensland— | | | | | |
| Brisbane Statistical Division | 9 | 3,080 | 958 | 315 | 44,254 |
| Other | 123 | 1,723,705 | 1,079 | 351 | 66,433 |
| <i>Total Queensland</i> | 132 | 1,726,785 | 2,037 | 666 | 110,687 |
| South Australia— | | | | | |
| Adelaide Statistical Division | 31 | 1,842 | 900 | 310 | 47,391 |
| Other | 102 | 149,679 | 331 | 117 | 18,223 |
| <i>Total South Australia</i> | 133 | 151,522 | 1,231 | 427 | 65,614 |
| Western Australia— | | | | | |
| Perth Statistical Division | 26 | 5,368 | 806 | 267 | 42,246 |
| Other | 112 | 2,522,675 | 339 | 106 | 20,201 |
| <i>Total Western Australia</i> | 138 | 2,528,043 | 1,145 | 373 | 62,447 |
| Tasmania— | | | | | |
| Hobart Statistical Division | 7 | (d)1,246 | 162 | 55 | 11,691 |
| Other | 42 | 67,085 | 241 | 84 | 19,334 |
| <i>Total Tasmania</i> | 49 | 68,331 | 403 | 139 | 31,025 |

(a) Unincorporated areas are excluded in all States. (b) Based on year ended 31 December 1975. (c) Based on year ended 30 September 1976. (d) Excludes those parts of New Norfolk and Sorell within the Hobart Statistical Division.

Receipts, financing items and outlay

The following tables show details of the receipts, financing items and outlay of all local authorities for the years 1972-73 to 1976-77, and of local authorities in each of the six States in 1976-77. Figures shown for 1976-77 are based on limited data and may be subject to significant revision as more complete accounting information is collected.

LOCAL AUTHORITIES: RECEIPTS AND OUTLAY

(\$ million)

| | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 ^a |
|---|--------------|----------------|----------------|----------------|----------------------|
| OUTLAY | | | | | |
| Final consumption expenditure— | | | | | |
| General public services | 97.7 | 119.8 | 154.3 | 198.2 | 248.8 |
| Education | 2.0 | 2.9 | 4.6 | 7.4 | 9.5 |
| Health | 22.8 | 26.6 | 32.6 | 40.0 | 43.0 |
| Social security and welfare | 4.8 | 7.0 | 10.2 | 13.6 | 16.6 |
| Housing and community amenities— | | | | | |
| Community and regional development | 3.7 | 6.4 | 10.0 | 11.4 | 13.4 |
| Protection of the environment | 21.1 | 28.1 | 40.0 | 43.3 | 50.6 |
| Other | 4.0 | 5.1 | 7.4 | 10.1 | 10.7 |
| Recreation and culture | 71.9 | 78.2 | 115.7 | 160.5 | 161.5 |
| Economic services | 21.0 | 26.2 | 40.7 | 41.9 | 51.3 |
| Other purposes | 0.3 | 0.4 | 1.0 | 2.2 | 2.0 |
| Total | 249.4 | 300.6 | 416.5 | 528.7 | 607.6 |
| Gross capital formation— | | | | | |
| Expenditure on new fixed assets— | | | | | |
| General public services | 46.1 | 52.3 | 89.2 | 99.7 | 111.2 |
| Education | 0.3 | 0.7 | 1.9 | 3.0 | 4.0 |
| Health | 0.5 | 0.9 | 1.1 | 2.4 | 2.5 |
| Social security and welfare | 0.8 | 2.6 | 3.8 | 6.1 | 7.0 |
| Housing and community amenities— | | | | | |
| Community and regional development | 1.1 | 2.6 | 1.5 | 3.8 | 4.5 |
| Protection of the environment | 62.9 | 65.1 | 110.1 | 132.0 | 136.2 |
| Other | 1.3 | 2.5 | 4.3 | 7.6 | 9.1 |
| Recreation and culture | 32.1 | 36.0 | 55.0 | 85.9 | 85.0 |
| Economic services— | | | | | |
| Mining, manufacturing and construction | 2.5 | 2.3 | 4.7 | 10.8 | 8.6 |
| Electricity and gas | 79.2 | 75.7 | 94.5 | 112.7 | 130.0 |
| Water supply | 40.3 | 40.3 | 46.2 | 61.0 | 61.4 |
| Road systems and regulation | 320.8 | 360.9 | 482.4 | 591.3 | 580.2 |
| Other transport services, n.e.c. | 1.7 | 1.8 | 1.6 | 1.8 | 6.3 |
| Other economic services | 1.9 | 1.7 | 3.4 | 5.4 | 6.6 |
| Other purposes | — | — | — | — | — |
| Total | 591.5 | 645.3 | 899.6 | 1123.4 | 1152.5 |
| Expenditure on existing assets and stocks | 3.5 | 9.7 | 37.2 | 37.3 | 28.1 |
| Interest paid | 116.8 | 128.2 | 145.1 | 177.5 | 213.0 |
| Net advances to the private sector | 2.0 | 3.4 | 5.6 | 5.7 | 6.1 |
| Total outlay | 963.1 | 1,087.1 | 1,504.0 | 1,872.7 | 2,007.3 |
| of which— | | | | | |
| Current outlay | 366.2 | 428.8 | 561.6 | 706.2 | 820.6 |
| Capital outlay | 596.9 | 658.4 | 942.4 | 1,166.5 | 1,186.7 |

RECEIPTS AND FINANCING ITEMS

| | | | | | |
|---|--------------|----------------|----------------|----------------|----------------|
| Receipts— | | | | | |
| Taxes, fees, fines, etc.— | | | | | |
| Rates on land | 485.9 | 559.3 | 705.2 | 884.1 | 1,037.1 |
| Licences, etc. | 20.0 | 25.6 | 26.8 | 32.7 | 39.8 |
| Total | 505.9 | 584.9 | 732.0 | 916.8 | 1,076.9 |
| Income from public enterprises | 105.1 | 105.2 | 99.8 | 136.3 | 181.9 |
| Property income | 15.7 | 24.9 | 42.3 | 41.8 | 53.3 |
| Grants from State and Federal authorities | 151.7 | 130.2 | 296.0 | 415.2 | 375.6 |
| Total receipts | 778.4 | 845.2 | 1,170.1 | 1,510.1 | 1,687.7 |
| Financing items— | | | | | |
| Net borrowing—local authority securities | 157.1 | 144.8 | 214.5 | 287.3 | 327.0 |
| Advances from State and Federal authorities | 3.3 | 8.5 | 19.4 | 20.7 | 23.4 |
| Net receipts of private trust funds | 12.3 | 5.8 | -1.3 | 2.3 | 3.3 |
| Reduction in cash and bank balances | -54.2 | -6.8 | 37.1 | -48.2 | -193.1 |
| Reduction in security holdings | -17.1 | -10.5 | -0.2 | -9.1 | 12.5 |
| Other funds available (including errors and omissions)— | | | | | |
| Depreciation allowances | 32.5 | 34.6 | 41.5 | 46.7 | 52.9 |
| Other | 50.8 | 65.5 | 22.9 | 62.9 | 93.6 |
| Total financing items | 184.7 | 241.9 | 333.9 | 362.6 | 319.6 |
| Total funds available | 963.1 | 1,087.1 | 1,504.0 | 1,872.7 | 2,007.3 |

LOCAL AUTHORITIES: RECEIPTS AND OUTLAY, 1976-77p

(\$ million)

| | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | Total |
|---|--------|-------|-------|-------|-------|------|---------|
| OUTLAY | | | | | | | |
| Final consumption expenditure— | | | | | | | |
| General public services | 84.2 | 71.8 | 52.4 | 20.6 | 15.3 | 4.5 | 248.8 |
| Education | 0.7 | 8.7 | — | 0.1 | — | — | 9.5 |
| Health | 15.0 | 18.1 | 4.5 | 1.1 | 3.1 | 1.2 | 43.0 |
| Social security and welfare | 2.8 | 13.5 | — | -0.2 | 0.6 | — | 16.6 |
| Housing and community amenities— | | | | | | | |
| Community and regional development | 5.5 | 3.1 | 2.2 | 1.5 | 1.1 | — | 13.4 |
| Protection of the environment | 18.0 | 12.6 | 8.5 | 5.6 | 3.5 | 2.2 | 50.6 |
| Other | 3.9 | 2.0 | 3.3 | 0.8 | 1.2 | -0.4 | 10.7 |
| Recreation and culture | 55.1 | 49.0 | 23.1 | 12.4 | 16.1 | 5.8 | 161.5 |
| Economic services | 14.6 | 30.6 | -0.8 | 5.5 | 1.6 | — | 51.3 |
| Other purposes | 2.0 | — | — | — | — | — | 2.0 |
| Total | 201.8 | 209.3 | 93.2 | 47.4 | 42.6 | 13.3 | 607.6 |
| Gross capital formation— | | | | | | | |
| Expenditure on new fixed assets— | | | | | | | |
| General public services | 22.9 | 59.7 | 16.8 | 4.1 | 6.1 | 1.6 | 111.2 |
| Education | 2.1 | 0.7 | — | 0.8 | 0.4 | — | 4.0 |
| Health | 0.5 | 1.3 | 0.1 | — | 0.6 | — | 2.5 |
| Social security and welfare | 2.4 | 0.9 | 0.7 | 2.0 | 1.0 | — | 7.0 |
| Housing and community amenities— | | | | | | | |
| Community and regional development | 1.3 | — | 2.8 | 0.4 | — | — | 4.5 |
| Protection of the environment | 37.6 | 12.0 | 63.3 | 8.2 | 6.5 | 8.5 | 136.2 |
| Other | 5.6 | — | 1.2 | 0.1 | 2.0 | — | 9.1 |
| Recreation and culture | 20.6 | 26.6 | 16.5 | 4.8 | 14.4 | 2.1 | 85.0 |
| Economic services— | | | | | | | |
| Mining, manufacturing and construction | 8.0 | — | — | — | — | 0.6 | 8.6 |
| Electricity and gas | 109.5 | 3.8 | 15.1 | 0.3 | 1.3 | — | 130.0 |
| Water supply | 23.9 | 1.5 | 33.2 | — | — | 2.8 | 61.4 |
| Road systems and regulation | 235.4 | 150.1 | 81.0 | 46.1 | 49.2 | 18.5 | 580.2 |
| Other transport services, n.e.c. | 0.3 | — | 6.0 | — | — | — | 6.3 |
| Other economic services | 2.3 | 1.3 | — | 1.2 | 1.8 | — | 6.6 |
| Other purposes | — | — | — | — | — | — | — |
| Total | 472.5 | 257.9 | 236.7 | 67.9 | 83.3 | 34.1 | 1,152.5 |
| Expenditure on existing assets and stocks | 16.7 | 21.4 | -7.1 | 3.4 | -6.3 | — | 28.1 |
| Interest paid | 86.6 | 32.9 | 67.9 | 5.8 | 11.2 | 8.7 | 213.0 |
| Net advances to the private sector | 6.1 | — | — | — | — | — | 6.1 |
| Total outlay | 783.7 | 521.5 | 390.6 | 124.6 | 130.7 | 56.1 | 2,007.3 |
| of which— | | | | | | | |
| Current outlay | 288.4 | 242.2 | 161.0 | 53.2 | 53.7 | 22.0 | 820.6 |
| Capital outlay | 495.3 | 279.2 | 229.6 | 71.4 | 77.0 | 34.1 | 1,186.7 |
| RECEIPTS AND FINANCING ITEMS | | | | | | | |
| Receipts— | | | | | | | |
| Taxes, fees, fines, etc.— | | | | | | | |
| Rates on land | 433.0 | 290.6 | 137.0 | 75.5 | 70.0 | 31.0 | 1,037.1 |
| Licences, etc. | 8.9 | 17.0 | 7.4 | 2.9 | 2.6 | 1.0 | 39.8 |
| Total | 441.9 | 307.6 | 144.4 | 78.4 | 72.6 | 32.0 | 1,076.9 |
| Income from public enterprises | 94.0 | 5.3 | 74.3 | -0.1 | -0.7 | 9.1 | 181.9 |
| Property income | 32.1 | 6.2 | 8.3 | 2.0 | 4.8 | -0.1 | 53.3 |
| Grants from State and Federal authorities | 108.2 | 110.7 | 86.7 | 31.1 | 33.8 | 5.1 | 375.6 |
| Total receipts | 676.2 | 429.8 | 313.7 | 111.4 | 110.5 | 46.1 | 1,687.7 |
| Financing items— | | | | | | | |
| Net borrowing—local authority securities | 149.5 | 48.7 | 81.1 | 12.8 | 21.6 | 13.3 | 327.0 |
| Advances from State and Federal authorities | 4.7 | 1.0 | 14.6 | -0.2 | 3.0 | 0.4 | 23.4 |
| Net receipts of private trust funds | — | — | 3.3 | — | — | — | 3.3 |
| Reduction in cash and bank balances | -150.2 | -15.7 | -20.5 | -4.0 | -0.4 | -2.4 | -193.1 |
| Reduction in security holdings | 13.9 | 2.3 | — | — | — | -3.7 | 12.5 |
| Other funds available (including errors and omissions)— | | | | | | | |
| Depreciation allowances | 52.9 | — | — | — | — | — | 52.9 |
| Other | 36.7 | 55.4 | -1.6 | 4.6 | -4.0 | 2.4 | 93.6 |
| Total financing items | 107.5 | 91.7 | 76.9 | 13.2 | 20.2 | 10.0 | 319.6 |
| Total funds available | 783.7 | 521.5 | 390.6 | 124.6 | 130.7 | 56.1 | 2,007.3 |

ALL PUBLIC AUTHORITIES

In the following tables the transactions of the Commonwealth 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 1976-77 are set out in the following table.

ALL PUBLIC AUTHORITIES(a): RECEIPTS AND OUTLAY
(\$ million)

| | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|
| OUTLAY | | | | | |
| Final consumption expenditure | 5,445.8 | 6,665.3 | 9,190.5 | 11,469.6 | 13,451.0 |
| Gross capital formation— | | | | | |
| Increase in stocks | -43.7 | 56.8 | 383.2 | -35.1 | -21.3 |
| Expenditure on new fixed assets | 3,423.4 | 3,932.8 | 5,578.9 | 6,599.1 | 7,011.4 |
| Expenditure on existing assets (net) | 69.0 | 208.5 | 368.2 | 235.4 | 191.3 |
| <i>Total gross capital formation</i> | <i>3,448.7</i> | <i>4,198.1</i> | <i>6,330.3</i> | <i>6,799.4</i> | <i>7,181.4</i> |
| Transfer payments— | | | | | |
| Interest | 1,021.2 | 1,084.3 | 1,306.6 | 1,488.2 | 2,060.7 |
| Transfers to persons | 2,706.6 | 3,332.2 | 4,631.1 | 6,467.8 | 7,825.6 |
| Subsidies | 351.2 | 332.1 | 325.1 | 316.2 | 302.8 |
| Transfers overseas | 251.6 | 288.0 | 349.2 | 370.1 | 387.8 |
| Grants for private capital purposes | 79.3 | 100.0 | 176.1 | 239.5 | 162.4 |
| <i>Total transfer payments</i> | <i>4,409.9</i> | <i>5,136.6</i> | <i>6,788.1</i> | <i>8,881.8</i> | <i>10,739.3</i> |
| Net advances— | | | | | |
| To the private sector | 26.5 | 112.0 | 276.7 | 291.0 | 251.4 |
| To public financial enterprises | 65.1 | 76.5 | 258.7 | 61.6 | 87.6 |
| To overseas | 7.4 | 32.2 | 35.1 | 78.8 | 43.0 |
| <i>Total net advances</i> | <i>99.0</i> | <i>220.7</i> | <i>570.5</i> | <i>431.4</i> | <i>382.0</i> |
| <i>Total outlay</i> | <i>13,403.4</i> | <i>16,220.7</i> | <i>22,879.4</i> | <i>27,582.2</i> | <i>31,753.7</i> |
| of which— | | | | | |
| Current outlay | 9,776.4 | 11,701.9 | 15,802.5 | 20,111.9 | 24,027.9 |
| Capital outlay | 3,627.0 | 4,518.8 | 7,076.9 | 7,470.3 | 7,725.8 |
| RECEIPTS AND FINANCING ITEMS | | | | | |
| Receipts— | | | | | |
| Taxes, fees, fines, etc. | 10,757.0 | 13,707.5 | 17,734.7 | 21,321.9 | 24,820.0 |
| Income from public enterprises | 779.8 | 682.9 | 547.0 | 893.6 | 1,190.2 |
| Interest, etc., received | 348.8 | 429.8 | 553.8 | 602.0 | 795.8 |
| <i>Total receipts</i> | <i>11,885.6</i> | <i>14,820.2</i> | <i>18,835.5</i> | <i>22,817.5</i> | <i>26,806.0</i> |
| Financing items— | | | | | |
| Net borrowing— | | | | | |
| Treasury notes | 164.6 | -37.8 | 1,689.1 | -769.6 | 363.2 |
| Commonwealth Government securities | 665.5 | 801.2 | 554.1 | 3,165.5 | 2,097.5 |
| Local authority and public corporation securities | 467.0 | 506.1 | 638.1 | 869.7 | 1,440.7 |
| Other general Government securities | 60.1 | 62.9 | 74.8 | 112.0 | 128.8 |
| <i>Total net borrowing</i> | <i>1,357.2</i> | <i>1,332.4</i> | <i>2,956.1</i> | <i>3,377.6</i> | <i>4,030.2</i> |
| Net receipts of private trust funds | 221.5 | 18.2 | 235.1 | 251.8 | 306.2 |
| Reduction in cash and bank balances | -551.1 | -794.7 | 573.6 | -526.8 | -875.2 |
| Reduction in security holdings | -174.4 | -166.2 | -553.2 | 590.6 | 99.9 |
| Other funds available (including errors and omissions)— | | | | | |
| Depreciation allowances | 531.5 | 578.4 | 591.9 | 765.0 | 843.2 |
| Other | 133.1 | 432.4 | 240.5 | 306.5 | 543.3 |
| <i>Total financing items</i> | <i>1,517.8</i> | <i>1,400.5</i> | <i>4,044.0</i> | <i>4,764.7</i> | <i>4,947.7</i> |
| <i>Total funds available</i> | <i>13,403.4</i> | <i>16,220.7</i> | <i>22,879.4</i> | <i>27,582.2</i> | <i>31,753.7</i> |

(a) Excludes financial enterprises.

ALL PUBLIC AUTHORITIES 1976-77

RECEIPTS AND FINANCING ITEMS

OUTLAY

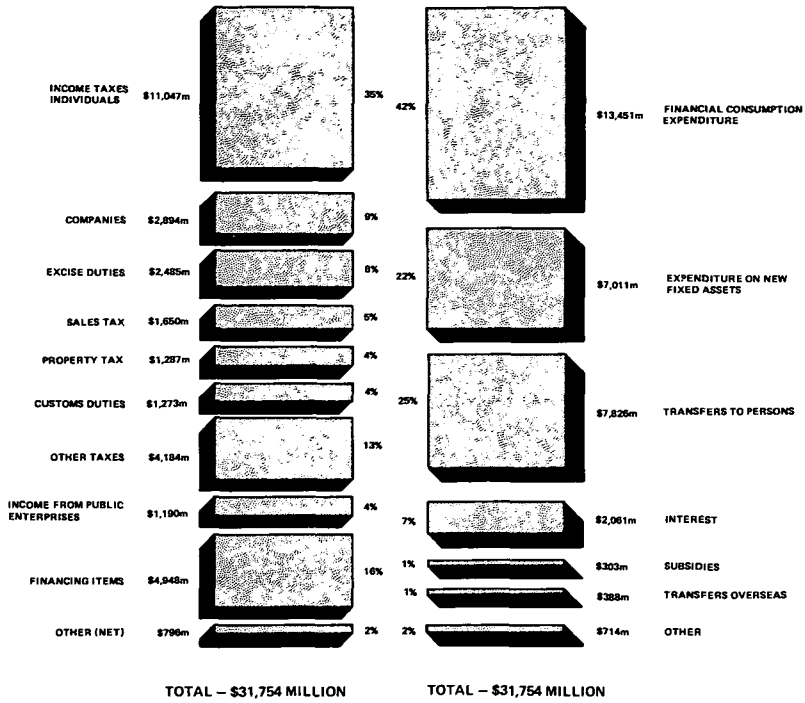


PLATE 38

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 1972-73 to 1976-77.

ALL PUBLIC AUTHORITIES: FINAL CONSUMPTION EXPENDITURE CLASSIFIED BY PURPOSE

| | (\$ million) | | | | |
|--|----------------|----------------|----------------|-----------------|-----------------|
| | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
| General public services— | | | | | |
| General administration, n.e.c. | 630.4 | 779.8 | 1,028.8 | 1,264.8 | 1,488.8 |
| External affairs | 50.0 | 58.3 | 83.8 | 91.7 | 98.1 |
| Law, order and public safety | 359.5 | 446.2 | 622.6 | 765.1 | 894.5 |
| General research | 77.7 | 94.8 | 118.2 | 135.9 | 160.0 |
| Defence | 1,178.6 | 1,222.9 | 1,444.6 | 1,680.3 | 1,999.2 |
| Education | 1,446.3 | 1,889.9 | 2,740.4 | 3,386.8 | 4,070.3 |
| Health | 756.0 | 1,023.9 | 1,541.7 | 2,286.4 | 2,708.8 |
| Social security and welfare | 137.2 | 170.4 | 254.8 | 326.6 | 362.8 |
| Housing and community amenities— | | | | | |
| Housing | 5.3 | 7.6 | 12.4 | 14.1 | 7.0 |
| Community and regional development | 21.4 | 34.9 | 55.5 | 69.9 | 71.5 |
| Protection of the environment | 27.1 | 38.0 | 57.0 | 67.5 | 75.7 |
| Community amenities | 3.9 | 5.0 | 7.0 | 9.2 | 10.1 |
| Recreation and culture | 205.6 | 255.2 | 354.6 | 442.2 | 469.8 |
| Economic services— | | | | | |
| Agriculture, forestry, fishing | 238.8 | 268.0 | 333.9 | 389.6 | 431.1 |
| Mining, manufacturing and construction | 40.8 | 47.7 | 61.6 | 69.8 | 79.6 |
| Electricity, gas and water supply | 1.7 | 1.0 | 4.5 | 7.7 | 6.0 |
| Transport and communication | 90.7 | 111.8 | 133.2 | 144.6 | 157.4 |
| Other economic services(a) | 174.1 | 208.6 | 291.4 | 309.8 | 358.2 |
| Other purposes | 0.7 | 1.5 | 44.7 | 7.5 | 2.2 |
| Total | 5,445.8 | 6,665.3 | 9,190.5 | 11,469.6 | 13,451.0 |

(a) Includes general administration, regulation and research.

ALL PUBLIC AUTHORITIES: EXPENDITURE ON NEW FIXED ASSETS CLASSIFIED BY PURPOSE

| | (\$ million) | | | | |
|--|----------------|----------------|----------------|----------------|----------------|
| | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
| General public services— | | | | | |
| General administration | 111.7 | 134.4 | 207.3 | 243.3 | 250.7 |
| External affairs | 15.4 | 12.3 | 15.9 | 20.3 | 25.5 |
| Law, order and public safety | 37.6 | 42.7 | 55.1 | 74.7 | 88.3 |
| General research | 9.4 | 15.1 | 20.6 | 32.1 | 23.6 |
| Education | 328.0 | 381.8 | 656.3 | 695.0 | 633.0 |
| Health | 117.5 | 146.7 | 244.2 | 381.1 | 393.6 |
| Social security and welfare | 9.3 | 21.4 | 20.9 | 27.8 | 27.1 |
| Housing and community amenities— | | | | | |
| Housing | 79.1 | 119.7 | 304.7 | 338.9 | 329.7 |
| Community and regional development | 28.4 | 39.4 | 63.4 | 95.9 | 93.0 |
| Protection of the environment | 273.4 | 312.4 | 428.7 | 493.9 | 513.6 |
| Community amenities | 0.5 | 0.5 | 1.3 | 3.2 | 3.3 |
| Recreation and culture | 75.7 | 78.4 | 104.9 | 143.4 | 148.1 |
| Economic services— | | | | | |
| Agriculture, forestry and fishing | 119.2 | 118.5 | 160.0 | 186.1 | 217.9 |
| Mining, manufacturing and construction | 34.2 | 47.4 | 71.2 | 85.9 | 78.4 |
| Electricity and gas | 419.5 | 439.0 | 553.3 | 672.0 | 804.2 |
| Water supply | 185.1 | 198.1 | 248.8 | 309.7 | 348.0 |
| Rail transport(a) | 150.5 | 147.0 | 231.4 | 322.4 | 346.7 |
| Sea transport | 85.1 | 74.9 | 133.1 | 133.2 | 229.3 |
| Road systems and regulation | 767.4 | 854.1 | 1,097.0 | 1,321.5 | 1,394.6 |
| Air transport | 60.2 | 85.8 | 97.2 | 88.2 | 53.8 |
| Pipelines | 12.1 | 56.3 | 58.4 | 57.4 | 22.2 |
| Other transport services, n.e.c. | 9.6 | 10.1 | 21.0 | 32.6 | 33.8 |
| Communications | 460.3 | 559.1 | 717.9 | 756.6 | 855.4 |
| Other economic services(b) | 87.4 | 85.4 | 128.8 | 154.9 | 197.2 |
| Other purposes | -0.1 | 1.8 | 6.2 | 5.2 | 1.1 |
| Total | 3,476.4 | 3,982.2 | 5,647.6 | 6,675.6 | 7,112.3 |
| of which— | | | | | |
| Public financial enterprises | 52.9 | 49.3 | 68.6 | 76.5 | 101.0 |

(a) Includes suburban rail transport system.

(b) Includes general administration, regulation and research.

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 1972-73 to 1976-77 was as follows.

ALL PUBLIC AUTHORITIES: TAXATION, BY TYPE OF TAX

(\$ million)

| | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|--|---------------|---------------|---------------|---------------|---------------|
| Income tax— | | | | | |
| Individuals | 4,084 | 5,485 | 7,709 | 9,213 | 11,047 |
| Companies(a) | 1,617 | 2,013 | 2,432 | 2,600 | 2,894 |
| Estate, gift, probate and succession duties | 237 | 261 | 278 | 314 | 339 |
| Customs duties | 513 | 604 | 840 | 1,044 | 1,273 |
| Excise duties | 1,268 | 1,555 | 1,729 | 2,331 | 2,485 |
| Sales tax | 765 | 969 | 1,154 | 1,408 | 1,650 |
| Primary production taxes | 35 | 64 | 143 | 115 | 159 |
| Payroll tax | 455 | 675 | 1,014 | 1,180 | 1,326 |
| Property taxes | 618 | 703 | 898 | 1,114 | 1,287 |
| Liquor taxes | 53 | 59 | 77 | 98 | 123 |
| Taxes on gambling | 172 | 208 | 282 | 345 | 395 |
| Taxes on ownership and operation of motor vehicles | 349 | 380 | 452 | 550 | 653 |
| Stamp duties, n.e.i. | 355 | 435 | 393 | 555 | 672 |
| Other taxes, fees, fines, etc. | 236 | 295 | 333 | 452 | 517 |
| Total | 10,757 | 13,707 | 17,735 | 21,321 | 24,820 |

(a) Includes dividend and interest (withholding) taxes. Excludes income taxes paid by Commonwealth Government public enterprises.

Level of government

In the following tables details are given for 1976-77 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, 1976-77

(\$ million)

| | <i>Federal authorities</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. | 793.0 | 591.6 | 354.9 | 1,739.5 |
| External affairs | 123.7 | -0.1 | - | 123.6 |
| Law, order and public safety | 122.6 | 855.1 | 5.1 | 982.8 |
| General research | 175.6 | 8.0 | - | 183.6 |
| Defence | 1,998.6 | 0.6 | - | 1,999.2 |
| Education | 303.0 | 4,386.9 | 13.5 | 4,703.4 |
| Health | 521.8 | 2,535.1 | 45.5 | 3,102.4 |
| Social security and welfare | 227.1 | 139.2 | 23.6 | 389.9 |
| Housing and community amenities— | | | | |
| Housing | 84.1 | 245.7 | 6.9 | 336.7 |
| Community and regional development | 83.9 | 62.6 | 17.9 | 164.4 |
| Protection of the environment | 35.1 | 367.5 | 186.8 | 589.4 |
| Community amenities | 0.3 | 0.2 | 12.9 | 13.3 |
| Recreation and Culture | 242.3 | 129.2 | 246.5 | 618.0 |
| Economic services— | | | | |
| Agriculture, forestry and fishing | 133.5 | 510.3 | 5.1 | 648.9 |
| Mining, manufacturing and construction | 27.7 | 112.8 | 17.4 | 157.9 |
| Electricity, gas and water supply | 48.5 | 918.4 | 191.3 | 1,158.2 |
| Transport and communication | 1,231.2 | 1,239.8 | 622.2 | 3,093.1 |
| Other economic services | 309.5 | 237.6 | 8.4 | 555.5 |
| Other purposes | 0.4 | 0.7 | 2.0 | 3.2 |
| Total | 6,462.1 | 12,341.0 | 1,760.1 | 20,563.1 |
| less expenditure by public financial enterprises | -57.1 | -43.9 | - | -101.0 |
| Total expenditure on goods and services | 6,405.0 | 12,297.2 | 1,760.1 | 20,462.1 |
| of which— | | | | |
| Final consumption expenditure | 4,738.2 | 8,105.2 | 607.6 | 13,451.0 |
| Expenditure on new fixed assets | 1,666.7 | 4,192.2 | 1,152.5 | 7,011.4 |
| Increase in stocks | -52.6 | 30.0 | 1.3 | -21.3 |
| Expenditure on existing assets (net) | 2.9 | 161.5 | 26.9 | 191.3 |
| Transfer payments— | | | | |
| Interest | 419.1 | 1,428.6 | 213.0 | 2,060.7 |
| Transfers to persons | 7,511.3 | 314.3 | - | 7,825.6 |
| Subsidies | 246.2 | 56.6 | - | 302.8 |
| Transfers overseas | 387.7 | 0.1 | - | 387.8 |
| Grants for private capital purposes | 110.1 | 52.3 | - | 162.4 |
| Grants to the States—for current purposes | 6,110.2 | - | - | (b) |
| —for capital purposes | 1,537.3 | - | - | (b) |
| Grants to local authorities | 13.3 | 362.2 | - | (b) |
| Total transfer payments | 16,335.2 | 2,214.1 | 213.0 | 10,739.3 |
| Net advances to— | | | | |
| The private sector | 59.9 | 185.4 | 6.1 | 251.4 |
| Public financial enterprises | 7.4 | 80.2 | - | 87.6 |
| The States | 1,278.0 | - | - | (b) |
| Local authorities | - | 23.4 | - | (b) |
| Overseas | 43.0 | - | - | 43.0 |
| Total net advances | 1,388.3 | 289.0 | 6.1 | 382.0 |
| Total outlay | 24,078.7 | 14,992.0 | 2,007.3 | 31,753.7 |
| of which— | | | | |
| Current outlay | 19,416.8 | 10,267.1 | 820.6 | 24,027.9 |
| Capital outlay | 4,661.8 | 4,724.9 | 1,186.7 | 7,725.8 |

(a) Excludes financial enterprises.
shown.

(b) In consolidated figures for all public authorities, inter-authority grants and advances are not

**ALL PUBLIC AUTHORITIES(a): RECEIPTS AND OUTLAY
BY LEVEL OF GOVERNMENT, 1976-77—continued**

(\$ million)

| | <i>Federal authorities</i> | <i>State authorities</i> | <i>Local authorities</i> | <i>All public authorities</i> |
|---|--------------------------------|------------------------------|------------------------------|-----------------------------------|
| RECEIPTS AND FINANCING ITEMS | | | | |
| Receipts— | | | | |
| Taxes, fees, fines, etc.— | | | | |
| Income tax— | | | | |
| Individuals | 11,046.7 | - | - | 11,046.7 |
| Companies(b) | 2,894.0 | - | - | 2,894.0 |
| Estate, gift, probate and succession duties | 87.7 | 251.5 | - | 339.2 |
| Customs duties | 1,273.3 | - | - | 1,273.3 |
| Excise duties | 2,485.4 | - | - | 2,485.4 |
| Sales tax | 1,650.3 | - | - | 1,650.3 |
| Payroll tax | 18.6 | 1,307.8 | - | 1,326.4 |
| Primary production taxes and charges | 159.0 | - | - | 159.0 |
| Property taxes | 15.5 | 235.5 | 1,037.1 | 1,288.1 |
| Liquor taxes | 2.4 | 120.9 | - | 123.3 |
| Taxes on gambling | 0.3 | 394.2 | - | 394.5 |
| Taxes on ownership and operation of motor vehicles | 6.0 | 646.8 | 0.1 | 652.9 |
| Stamp duties, n.e.i. | 4.9 | 666.8 | - | 671.7 |
| Fees from regulatory services | 15.3 | 42.4 | 27.5 | 85.2 |
| Other taxes, fees, fines, etc. | 111.0 | 306.7 | 12.2 | 429.9 |
| Total taxes, etc. | 19,770.4 | 3,972.7 | 1,076.9 | 24,819.9 |
| Income from public enterprises | 655.6 | 352.7 | 181.9 | 1,190.2 |
| Interest, etc., received | 156.4 | 586.1 | 53.3 | 795.8 |
| Grants from the Commonwealth Government— | | | | |
| For current purposes | - | 6,110.2 | - | (c) |
| For capital purposes | - | 1,537.3 | - | (c) |
| Direct grants from Commonwealth Government to local authorities | - | - | 13.3 | (c) |
| Grants from State authorities | - | - | 362.2 | (c) |
| Total receipts | 20,582.4 | 12,559.0 | 1,687.7 | 26,805.9 |
| Financing items— | | | | |
| Net borrowing— | | | | |
| Treasury bills and notes | 363.2 | - | - | 363.2 |
| Commonwealth government securities | 2,097.5 | - | - | 2,097.5 |
| Local authorities and public corporation securities | 450.5 | 663.2 | 327.0 | 1,440.7 |
| Other general government securities | 2.4 | 126.4 | - | 128.8 |
| Total net borrowing | 2,913.5 | 789.6 | 327.0 | 4,030.2 |
| Advances from the Commonwealth Government— | | | | |
| For loan works purposes | - | 744.7 | - | (c) |
| Other | - | 533.4 | - | (c) |
| Advances from State authorities | - | - | 23.4 | (c) |
| Net receipts of private trust funds | 60.1 | 242.9 | 3.3 | 306.3 |
| Reduction in cash and bank balances | -289.9 | -392.2 | -193.1 | -875.2 |
| Reduction in security holdings | 213.3 | -125.9 | 12.5 | 99.9 |
| Other funds available (including errors and omissions)— | | | | |
| Depreciation allowances | 442.4 | 347.9 | 52.9 | 843.2 |
| Other | 156.9 | 292.7 | 93.6 | 543.2 |
| Total financing items | 3,496.3 | 2,433.0 | 319.6 | 4,947.6 |
| Total funds available | 24,078.7 | 14,992.0 | 2,007.3 | 31,753.7 |

(a) Excludes financial enterprises.
wealth Government public enterprises.
shown.

(b) Includes dividend and interest (withholding) taxes. Excludes income taxes paid by Common-
(c) In consolidated figures for all public authorities, inter-authority grants and advances are not

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 Commonwealth Government and the States, together with some details of the amounts borrowed by State and local authorities with independent borrowing powers.

For a number of reasons, this information cannot be aggregated, without adjustment, to provide a measure of the 'debt' of public authorities. There are forms of debt not evidenced by the issue of securities, such as Commonwealth Government advances to the States for specific capital purposes. Governments themselves maintain significant holdings of their own securities; for example, the Commonwealth 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 Commonwealth Government represent the proceeds of overseas loans, securities for which were issued directly by the Commonwealth 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'.

Commonwealth Government and States: Government securities on issue

Under the 1927 Financial Agreement between the Commonwealth Government and the States, the Commonwealth 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 Commonwealth and the States and to issue Commonwealth Government securities for all moneys borrowed.

A National Debt Sinking Fund, which is administered by the National Debt Commission, was established by the *National Debt Sinking Fund Act 1923* for the redemption of securities issued on behalf of the Commonwealth Government. Under the terms of the Financial Agreement, the sinking funds existing in respect of the States' debts were also placed under the control of the Commission. The Commonwealth Government is reimbursed by the States for interest, exchange, etc. paid on their behalf, and the securities are redeemed from the Fund to which both the Commonwealth and the State governments make pre-determined contributions. The amounts to be contributed were varied when the *National Debt Sinking Fund Act 1966* repealed all previous legislation on sinking funds relating to securities on issue on behalf of the Commonwealth Government, and again in 1976 when the Act was amended to reflect the amendments to the Financial Agreement. In 1976 the Commonwealth assumed the responsibility for over \$1,000 million of States' debt existing as at 30 June 1975. As a consequence, the separate States' Sinking Funds were absorbed into the National Debt Sinking Fund, with separate accounts being maintained for the Commonwealth and each State.

For further information relating to the recent operations of the National Debt Sinking Fund reference should be made to the fifty-fifth annual report of the National Debt Commission. Particulars of the creation and operation of sinking funds by the *National Debt Sinking Fund Act 1923* are included in issues of the Year Book prior to No. 23, and a general description of the provisions applying between 1966 and 1976 is given in issue No. 61.

In the tables which follow, details are given of transactions in Commonwealth Government securities issued on account of the Commonwealth Government and the States. Amounts relating to overseas loans are shown in Australian currency equivalent calculated on the basis of the rates of exchange ruling at 30 June in each year shown. All amounts shown are at face value.

For figures which permit accurate analysis of the structure and movement of securities issued on behalf of the Commonwealth and States, refer to the Commonwealth Budget Paper No. 6, *Government Securities on Issue*.

Net movement in securities on issue

Summary details of the net movement in securities issued for Commonwealth Government purposes and on account of the States during the period 1972-73 to 1977-78, are given in the following group of tables.

NET MOVEMENT IN GOVERNMENT SECURITIES ON ISSUE
(\$ million)

| | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|--|----------------|----------------|----------------|----------------|----------------|----------------|
| NEW SECURITIES ISSUED | | | | | | |
| Securities repayable in Australian currency— | | | | | | |
| Inscribed stock and bonds | 870.4 | 1,416.4 | 1,054.9 | 2,176.6 | 1,581.0 | 965.7 |
| Australian Savings Bonds | — | — | — | 1,202.3 | 736.3 | 719.6 |
| Special bonds | 109.2 | 454.2 | 343.0 | 160.1 | — | — |
| Drought bonds | 0.8 | 3.2 | 1.5 | 0.2 | 0.2 | — |
| Advance loan subscriptions | (c)11.6 | (c)-8.0 | (c)-14.3 | 22.6 | (c)-21.7 | (c)0.4 |
| Overdue securities | — | — | — | — | — | — |
| Tax-free stock | — | — | — | — | — | — |
| Debentures | — | — | — | — | — | — |
| Stock issued to Government Savings banks under special agreements(a) | 68.4 | 48.5 | 21.1 | 5.9 | 35.4 | 57.9 |
| Treasury notes | (c)164.6 | (c)-37.8 | (c)1,689.1 | 2,667.1 | 4,105.7 | 1,766.7 |
| Treasury bills— | | | | | | |
| Internal | (c)-8.7 | (c)-94.7 | (c)79.4 | (c)157.0 | (c)323.8 | (c)365.2 |
| Public | — | — | — | (c)850.0 | (c)450.0 | (c)200.0 |
| Total | 1,216.3 | 1,781.9 | 3,174.8 | 7,241.9 | 7,210.8 | 4,075.5 |
| Securities repayable in overseas currencies(b) | 116.0 | 16.1 | 235.1 | 268.1 | 424.2 | 1,738.3 |
| Total new securities issued | 1,332.3 | 1,797.9 | 3,409.9 | 7,510.0 | 7,634.9 | 5,813.9 |

REDEMPTIONS, REPURCHASES, CANCELLATIONS(d)

| | | | | | | |
|--|--------------|----------------|--------------|----------------|----------------|----------------|
| Securities repayable in Australian currency— | | | | | | |
| Inscribed stock and bonds | 246.4 | 615.0 | 478.2 | 286.7 | 243.0 | 114.6 |
| Australian Savings Bonds | — | — | — | 13.1 | 176.7 | 174.8 |
| Special bonds | 75.7 | 363.6 | 374.8 | 216.9 | 180.3 | 133.3 |
| Drought bonds | 0.2 | 0.3 | 0.9 | 0.9 | 2.8 | 0.6 |
| Advance loan subscriptions | — | — | — | — | — | — |
| Overdue securities | -0.2 | -0.5 | 0.2 | 0.6 | -2.2 | 0.8 |
| Tax-free stock | 0.4 | 0.1 | — | 0.2 | — | 0.1 |
| Debentures | 3.0 | 3.1 | 3.2 | 3.4 | 3.5 | 3.7 |
| Stock issued to Government Savings banks under special agreements(a) | 4.1 | 4.8 | 4.4 | 8.1 | 7.2 | 6.6 |
| Treasury notes | — | — | — | 4,286.7 | 4,192.5 | 1,773.3 |
| Treasury bills— | | | | | | |
| Internal | — | — | — | — | — | — |
| Public | — | — | — | — | — | — |
| Total | 329.5 | 986.4 | 861.8 | 4,816.6 | 4,803.8 | 2,207.8 |
| Securities repayable in overseas currencies(b) | 293.6 | 249.1 | 84.4 | 125.6 | -121.1 | -26.3 |
| Total redemptions, etc. | 623.1 | 1,235.5 | 946.2 | 4,942.2 | 4,682.8 | 2,181.4 |

NET MOVEMENT

| | | | | | | |
|--|--------------|--------------|----------------|----------------|----------------|----------------|
| Securities repayable in Australian currency— | | | | | | |
| Inscribed stock and bonds | 624.1 | 801.4 | 576.7 | 1,889.9 | 1,338.1 | 851.1 |
| Australian Savings Bonds | — | — | — | 1,189.2 | 559.6 | 544.8 |
| Special bonds | 33.5 | 90.6 | -31.7 | -56.7 | -180.3 | -133.3 |
| Drought bonds | 0.6 | 2.9 | 0.6 | -0.7 | -2.6 | -0.6 |
| Advance loan subscriptions | 11.6 | -8.0 | -14.3 | 22.6 | -21.7 | 0.4 |
| Overdue securities | 0.2 | 0.5 | -0.2 | -0.6 | 2.2 | -0.8 |
| Tax-free stock | -0.4 | -0.1 | — | -0.2 | — | -0.1 |
| Debentures | -3.0 | -3.1 | -3.2 | -3.4 | -3.5 | -3.7 |
| Stock issued to Government Savings banks under special agreements(a) | 64.3 | 43.7 | 16.7 | -2.2 | 28.2 | 51.3 |
| Treasury notes | 164.6 | -37.8 | 1,689.1 | -1,619.6 | -86.8 | -6.5 |
| Treasury bills— | | | | | | |
| Internal | -8.7 | -94.7 | 79.4 | 157.0 | 323.8 | 365.2 |
| Public | — | — | — | 850.0 | 450.0 | 200.0 |
| Total | 886.7 | 795.5 | 2,313.0 | 2,425.4 | 2,406.9 | 1,867.8 |
| Securities repayable in overseas currencies(b) | -177.6 | -233.1 | 150.7 | 142.6 | 545.2 | 1,764.7 |
| Net movement in securities on issue | 709.1 | 562.4 | 2,463.7 | 2,568.0 | 2,952.1 | 3,632.4 |

(a) Recorded in Commonwealth 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.

NOTE: For securities repayable in overseas currencies the amounts shown also include an element due to exchange rate variations in Securities on Issue.

Government securities on issue.

The following table provides details of government securities on issue on account of the Commonwealth Government and the States, repayable in Australian and in overseas currencies.

GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH GOVERNMENT AND STATES
(\$ million)

| | 30 June— | | | | | |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 |
| For Commonwealth Government purposes— | | | | | | |
| Repayable in Australian currency— | | | | | | |
| Inscribed stock and bonds | 1,233.2 | 1,686.5 | 1,613.1 | 3,947.5 | 4,494.7 | 4,949.3 |
| Australian savings bonds | — | — | — | 1,178.4 | 1,637.3 | 1,669.3 |
| Special bonds | 262.9 | 249.9 | 246.5 | 196.1 | 145.5 | 110.3 |
| Drought bonds | 1.1 | 4.0 | 4.6 | 3.9 | 1.3 | 0.8 |
| Advance loan subscriptions | 25.6 | 17.6 | 3.3 | 25.9 | 4.2 | 4.6 |
| Overdue securities | 3.8 | 4.5 | 4.2 | 3.7 | 4.6 | 5.3 |
| Treasury notes | 424.7 | 386.9 | 2,076.0 | 456.5 | 369.6 | 363.1 |
| Treasury bills— | | | | | | |
| Internal | 1,025.5 | 930.8 | 1,010.2 | 1,167.2 | 1,491.0 | 1,856.2 |
| Public | — | — | — | 850.0 | 1,300.0 | 1,500.0 |
| Total | 2,976.8 | 3,280.2 | 4,957.9 | 7,829.2 | 9,448.4 | 10,458.9 |
| Repayable in overseas currencies (a) | 986.2 | 807.3 | 998.2 | 1,181.1 | 1,743.4 | 3,533.1 |
| Total Commonwealth Government | 3,963.0 | 4,087.5 | 5,956.2 | 9,010.3 | 11,191.8 | 13,991.9 |
| On account of States— | | | | | | |
| Repayable in Australian currency— | | | | | | |
| Inscribed stock and bonds | 9,444.2 | 9,792.3 | 10,442.4 | 9,997.9 | 10,788.7 | 11,185.3 |
| Australian savings bonds | — | — | — | 10.8 | 111.5 | 624.3 |
| Special bonds | 643.9 | 747.4 | 719.1 | 712.7 | 583.0 | 484.9 |
| Tax-free stock | 15.4 | 15.3 | 15.3 | 15.1 | 15.1 | 15.0 |
| Stock issued to Government Savings banks under special agreements | 361.7 | 405.4 | 422.0 | 419.8 | 448.0 | 499.3 |
| Debentures | 36.6 | 33.5 | 30.3 | 27.0 | 23.4 | 19.8 |
| Overdue securities | 0.4 | 0.2 | 0.4 | 0.3 | 1.6 | 0.1 |
| Total | 10,502.2 | 10,994.2 | 11,629.5 | 11,183.6 | 11,971.4 | 12,828.6 |
| Repayable in overseas currencies (a) | 278.6 | 224.5 | 184.2 | 143.9 | 127.2 | 102.2 |
| Total States | 10,780.8 | 11,218.7 | 11,813.8 | 11,327.6 | 12,098.5 | 12,930.8 |
| of which— | | | | | | |
| New South Wales | 3,528.6 | 3,654.4 | 3,834.1 | 3,721.0 | 3,959.1 | 4,222.6 |
| Victoria | 2,632.9 | 2,746.6 | 2,896.2 | 2,834.0 | 3,031.8 | 3,244.3 |
| Queensland | 1,427.8 | 1,486.0 | 1,576.7 | 1,538.7 | 1,644.0 | 1,753.9 |
| South Australia | 1,409.7 | 1,473.3 | 1,551.3 | 1,389.5 | 1,491.9 | 1,602.7 |
| Western Australia | 1,029.9 | 1,070.9 | 1,121.6 | 1,090.5 | 1,160.8 | 1,237.3 |
| Tasmania | 752.0 | 787.6 | 833.9 | 753.8 | 811.0 | 870.0 |
| Total Commonwealth Government and States | 14,743.8 | 15,306.2 | 17,769.9 | 20,337.9 | 23,290.3 | 26,922.7 |

(a) Australian currency equivalent.

State and local authorities' borrowings

The borrowings of Commonwealth, State and local authorities come within the purview of the Loan Council under a 'gentlemen's agreement' originating in 1936. The Loan Council determines maximum interest rates and other terms and conditions of loans raised by authorities and approves the aggregate annual borrowing program for authorities borrowing more than \$1,000,000 (in 1976-77 this limit was \$800,000) in the financial year. The total program approved is distributed by the Council between the States, and each State determines the distribution between individual authorities of its share of the overall borrowing program approved for such authorities. Authorities which individually borrow less than \$1,000,000 (1976-77, \$800,000) in the financial year are also subject to the terms and conditions applying under the 'gentlemen's agreement', and it is the responsibility of the States to ensure that these authorities conform with these terms and conditions. No aggregate annual limit on their borrowings is imposed by the Loan Council.

The following table shows the aggregate borrowings by the State and local authorities in each of the years 1972-73 to 1977-78. It will be seen that the amounts borrowed by local authorities vary between the States, reflecting a number of factors including, importantly, variations between the States in the range of services provided by local government authorities. For example, the high figures for Queensland reflect, in part, borrowings by the Brisbane City Council which carries out a number of functions (e.g. metropolitan bus services and sewerage services) which in other States are undertaken by State authorities.

For further information relating to the figures given in the table, reference should be made to the Commonwealth Budget Paper No. 7, *Payments to or for the States, the Northern Territory and Local Government Authorities*.

NEW MONEY BORROWINGS BY STATE AND LOCAL AUTHORITIES
(S'000)

| | <i>New South Wales</i> | <i>Victoria</i> | <i>Queens- land</i> | <i>South Australia</i> | <i>Western Australia</i> | <i>Tasmania</i> | <i>Total</i> |
|-----------------------------|--------------------------------|-----------------|-------------------------|----------------------------|------------------------------|-----------------|--------------|
| STATE AUTHORITIES(a) | | | | | | | |
| 1972-73 | 122,671 | 158,686 | 48,559 | 22,391 | 35,672 | 10,904 | 398,883 |
| 1973-74 | 142,357 | 177,510 | 61,254 | 25,492 | 37,883 | 10,113 | 454,609 |
| 1974-75 | 164,885 | 207,532 | 75,545 | 29,968 | 41,969 | 13,646 | 533,545 |
| 1975-76 | 205,312 | 256,930 | 102,411 | 39,490 | 44,309 | 17,720 | 666,172 |
| 1976-77 | 253,883 | 326,717 | 127,517 | 50,100 | 54,019 | 21,432 | 833,668 |
| 1977-78 | 332,215 | 388,620 | 198,721 | 73,220 | 78,689 | 30,771 | 1,102,236 |
| LOCAL AUTHORITIES(b) | | | | | | | |
| 1972-73 | 95,291 | 40,958 | 71,391 | 9,698 | 19,043 | 7,934 | 244,315 |
| 1973-74 | 104,540 | 40,974 | 77,472 | 10,819 | 20,820 | 8,591 | 263,216 |
| 1974-75 | 132,803 | 50,188 | 102,804 | 13,617 | 21,839 | 10,710 | 331,962 |
| 1975-76 | 163,847 | 63,043 | 102,097 | 16,831 | 27,845 | 14,503 | 388,166 |
| 1976-77 | 191,932 | 65,893 | 116,118 | 21,674 | 32,380 | 17,053 | 445,050 |
| 1977-78 | 202,230 | 84,493 | 117,993 | 19,424 | 36,481 | 17,405 | 478,026 |

(a) New money borrowings by State-type authorities in the Northern Territory in 1977-78 were \$1,450,000. (b) New money borrowings by local authorities in the Northern Territory are not included in the table. These borrowings are as follows: 1972-73, \$426,000; 1973-74, \$515,000; 1974-75, \$516,000; 1975-76, \$597,000; 1976-77, \$1,194,000; 1977-78, \$1,697,000.

Further references

For further detailed information on the subjects covered by this chapter see the annual bulletins published by the ABS: *Australian National Accounts—National Income and Expenditure* (5204.0); *Public Authority Finance—Federal Authorities* (5502.0); *Public Authority Finance—State and Local Authorities* (5504.0); *Public Authority Finance—Taxation* (5506.0) and *Public Authority Finance—Estimates* (5501.0). Current information in summarised form is given in *Quarterly Estimates of National Income and Expenditure* (5206.0), and is also contained in the *Monthly Review of Business Statistics* (1304.0), and the *Monthly Digest of Current Economic Statistics* (1305.0).

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.

CHAPTER 23

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 Commonwealth Budgets.

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, 1976-77*.

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 goods and services used up in the process of production 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 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 redistributive transfers. It is equivalent to national income less net transfers and net withholding taxes paid to overseas.

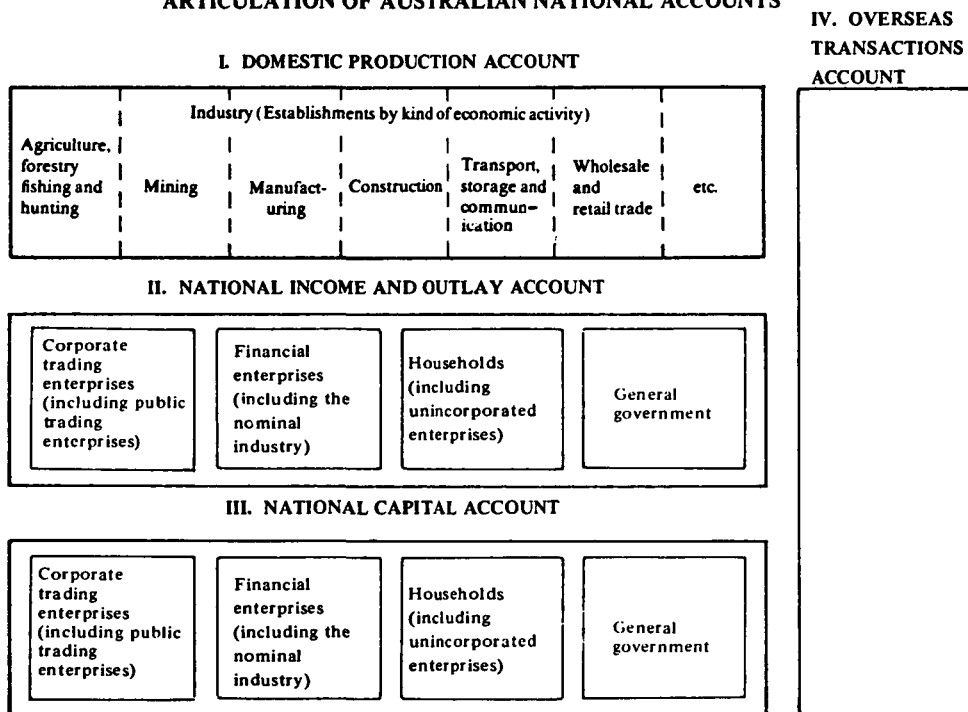
Gross national expenditure is the total expenditure within a given period on final goods and services (i.e. excluding goods and services used up during the period in the process of production) bought by Australian residents. It is equivalent to the gross domestic product plus imports of goods and services 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, salaries 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. It also includes third party motor vehicle and public risk insurance claims paid to persons in respect of policies taken out by enterprises. 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 Australian national accounts, four internal 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 productive activity, receive and disburse income and accumulate assets. In this publication no accounts are shown for the internal sectors; these accounts are published in *Budget Paper, National Income and Expenditure, 1977-78*. The transactions of the internal sectors are summarised in three accounts: a domestic production account (Table 1, page 568), a national income and outlay account (Table 3, page 569) and a national capital account (Table 4, page 569). In addition, there is an overseas sector having an account (Table 6, page 570) which shows a summary of the transactions into which overseas governments, persons and businesses enter with Australian residents.

The framework of sectors and accounts underlying the Australian national accounts is set out in the following diagram. The heavy rectangles depict the minimum system of four accounts which represent the consolidated accounts of the nation. The light rectangles represent the accounts for institutional sectors. The subdivision of the domestic production account represents production accounts for establishments classified according to industry. Selected transactions from such production accounts are shown in *Australian National Accounts, National Income and Expenditure, 1976-77* (5204.0). Such production accounts can be developed in detail to produce input-output accounts.

ARTICULATION OF AUSTRALIAN NATIONAL ACCOUNTS**PLATE 39****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; the remainder is the national disposable income. The outlay side of the account shows that 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; 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.

Estimates at constant prices

For certain kinds of intertemporal comparison, it is desirable to derive measures which attempt to remove the direct effect of price changes during the periods under review. Such estimates, conventionally described as 'at constant prices', are presented in Tables 2 and 5 (pages 568 and 570 respectively) for gross domestic product, exports and imports of goods and services, and gross national expenditure and its principal components.

Part 1 of *Australian National Accounts, National Income and Expenditure, 1976-77* contains a discussion of the conceptual problems involved in making these estimates. Appendix B of that publication contains a brief account of the sources and methods used in preparing the estimates.

It should be noted that estimates at constant prices involve approximations and assumptions, and care must be taken in the interpretation and use of results.

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 and some of which is available only after a delay of several years. 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 because 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, 1976-77*.

National income and expenditure tables

(For explanatory note on item numbers see Note following Table 3.)

TABLE 1
DOMESTIC PRODUCTION ACCOUNT
(\$ million)

| | 1975-76 | 1976-77 | 1977-78 |
|---|---------|---------|---------|
| Final consumption expenditure— | | | |
| 1 Private | 41,912 | 48,013 | 53,628 |
| 2 Government | 11,361 | 13,301 | 15,126 |
| Gross fixed capital expenditure— | | | |
| 3 Private | 10,240 | 12,016 | 13,158 |
| 4 Public enterprises | 3,288 | 3,668 | 4,051 |
| 5 General government | 3,387 | 3,477 | 3,659 |
| 6 Increase in stocks | 33 | 1,073 | -225 |
| 7 Statistical discrepancy | 671 | 1,074 | 1,276 |
| Gross national expenditure | 70,892 | 82,622 | 90,673 |
| 8 Exports of goods and services | 10,905 | 13,092 | 13,900 |
| 9 Less Imports of goods and services | 10,433 | 13,243 | 14,353 |
| Expenditure on gross domestic product | 71,364 | 82,471 | 90,220 |
| 10 Wages, salaries and supplements | 40,589 | 45,773 | 50,119 |
| Gross operating surplus— | | | |
| Trading enterprises— | | | |
| 11a Companies | 8,313 | 10,016 | 10,713 |
| 11b Unincorporated enterprises | 8,371 | 9,993 | 10,793 |
| 11c Dwellings owned by persons | 4,053 | 5,040 | 6,076 |
| 11d Public enterprises | 1,642 | 1,904 | 2,078 |
| 11e Financial enterprises | 1,714 | 2,128 | 2,420 |
| 11f Less Imputed bank service charge | 1,850 | 2,144 | 2,346 |
| Gross domestic product at factor cost | 62,832 | 72,710 | 79,853 |
| 12 Indirect taxes less subsidies | 8,532 | 9,761 | 10,367 |
| Gross domestic product | 71,364 | 82,471 | 90,220 |
| Gross farm product | 3,706 | 4,192 | 4,034 |
| Gross non-farm product | 67,658 | 78,279 | 86,186 |

TABLE 2
EXPENDITURE ON GROSS DOMESTIC PRODUCT AT AVERAGE 1974-75 PRICES
(\$ million)

| | 1975-76 | 1976-77 | 1977-78 |
|---|---------|---------|---------|
| Final consumption expenditure— | | | |
| Private | 36,274 | 37,310 | 38,173 |
| Government | 9,871 | 10,406 | 10,982 |
| Gross fixed capital expenditure— | | | |
| Private | 8,822 | 9,201 | 9,244 |
| Public | 5,818 | 5,527 | 5,555 |
| Increase in stocks | 55 | 809 | -412 |
| Statistical discrepancy | 629 | 869 | 938 |
| Gross national expenditure | 61,469 | 64,122 | 64,480 |
| Exports of goods and services | 10,064 | 10,955 | 11,247 |
| Less Imports of goods and services | 9,232 | 10,304 | 10,058 |
| Expenditure on gross domestic product | 62,301 | 64,773 | 65,669 |
| Gross farm product | 3,889 | 3,891 | 3,692 |
| Gross non-farm product | 58,412 | 60,882 | 61,977 |

TABLE 3
NATIONAL INCOME AND OUTLAY ACCOUNT
(\$ million)

| | 1975-76 | 1976-77 | 1977-78 |
|-------------------------------------|---------|---------|---------|
| 10 Wages, salaries and supplements | 40,589 | 45,773 | 50,119 |
| 11g Net operating surplus | 17,473 | 21,518 | 23,666 |
| Domestic factor incomes | 58,062 | 67,291 | 73,785 |
| 13 Less Net income paid overseas | 765 | 876 | 995 |
| 12a Indirect taxes | 8,848 | 10,064 | 10,821 |
| 12b Less Subsidies | 316 | 303 | 454 |
| National income | 65,829 | 76,176 | 83,157 |
| 14 Less Net transfers to overseas | 342 | 428 | 428 |
| 15g Withholding taxes from overseas | 96 | 96 | 118 |
| National disposable income | 65,583 | 75,844 | 82,847 |
| Final consumption expenditure— | | | |
| 1 Private | 41,912 | 48,013 | 53,628 |
| 2 Government | 11,361 | 13,301 | 15,126 |
| 15 to 19, 26 } Saving | 12,310 | 14,530 | 14,093 |
| Disposal of income | 65,583 | 75,844 | 82,847 |

NOTE. Items in all current price tables are numbered from 1 to 26, with or without the addition of a letter, and this system is used to identify the corresponding credit and debit entries in the accounts. 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. A description of the numbered items can be found in *Australian National Accounts, National Income and Expenditure 1976-77* (5204.0).

TABLE 4
NATIONAL CAPITAL ACCOUNT
(\$ million)

| | 1975-76 | 1976-77 | 1977-78 |
|---|---------|---------|---------|
| 11h Depreciation allowances | 4,770 | 5,419 | 6,068 |
| Saving— | | | |
| 15 Increase in income tax provisions | 399 | 383 | 93 |
| 16 Undistributed (company) income | 918 | 1,960 | 2,420 |
| 17 Retained income of public financial enterprises | 520 | 529 | 408 |
| 18 Household saving | 7,640 | 8,774 | 9,130 |
| 19 General government surplus on current transactions | 2,833 | 2,884 | 2,042 |
| 26 Extraordinary insurance claims paid | — | — | — |
| Finance of gross accumulation | 17,080 | 19,949 | 20,161 |
| Gross fixed capital expenditure— | | | |
| Private— | | | |
| 3a Dwellings | 3,218 | 4,038 | 3,972 |
| 3b Other building and construction | 1,967 | 1,938 | 2,278 |
| 3c All other | 5,055 | 6,040 | 6,908 |
| 4 Public enterprises | 3,288 | 3,668 | 4,051 |
| 5 General government | 3,387 | 3,477 | 3,659 |
| Total gross fixed capital expenditure | 16,915 | 19,161 | 20,868 |
| Increase in stocks— | | | |
| 6a Farm and miscellaneous | 33 | 6 | -256 |
| 6b Private non-farm | .. | 1,067 | 31 |
| 7 Statistical discrepancy | 671 | 1,074 | 1,276 |
| 21 Net lending to overseas | -539 | -1,359 | -1,758 |
| Gross accumulation | 17,080 | 19,949 | 20,161 |

TABLE 5
GROSS FIXED CAPITAL EXPENDITURE AND INCREASE IN STOCKS AT AVERAGE 1974-75 PRICES
(\$ million)

| | 1975-76 | 1976-77 | 1977-78 |
|---|---------------|---------------|---------------|
| Gross fixed capital expenditure— | | | |
| Private— | | | |
| Dwellings | 2,771 | 3,097 | 2,872 |
| Other building and construction | 1,696 | 1,487 | 1,610 |
| All other | 4,355 | 4,617 | 4,762 |
| <i>Total private</i> | <i>8,822</i> | <i>9,201</i> | <i>9,244</i> |
| Public | 5,818 | 5,527 | 5,555 |
| Total | 14,640 | 14,728 | 14,799 |
| Increase in stocks— | | | |
| Farm and miscellaneous | 73 | 4 | -432 |
| Private non-farm | -18 | 805 | 20 |
| Total | 55 | 809 | -412 |

TABLE 6
OVERSEAS TRANSACTIONS ACCOUNT
(\$ million)

| | 1975-76 | 1976-77 | 1977-78 |
|---|---------------|---------------|---------------|
| 9a Imports f.o.b. | 7,924 | 10,345 | 11,203 |
| 9b Transportation | 1,573 | 1,944 | 2,073 |
| 9c Travel | 509 | 510 | 531 |
| 9d Government transactions | 175 | 189 | 226 |
| 9e Other goods and services | 253 | 255 | 320 |
| 9 <i>Imports of goods and services</i> | <i>10,433</i> | <i>13,243</i> | <i>14,353</i> |
| 13a Property income to overseas | 1,043 | 1,164 | 1,257 |
| 14a Personal transfers overseas | 313 | 290 | 356 |
| 14b General government transfers overseas | 388 | 414 | 450 |
| 21 Net lending to overseas | -539 | -1,359 | -1,758 |
| Use of current receipts | 11,638 | 13,752 | 14,658 |
| 8a Exports f.o.b. | 9,408 | 11,399 | 12,043 |
| 8b Transportation | 1,038 | 1,234 | 1,326 |
| 8c Travel | 233 | 278 | 326 |
| 8d Government transactions | 77 | 88 | 90 |
| 8e Other goods and services | 149 | 94 | 115 |
| 8 <i>Exports of goods and services</i> | <i>10,905</i> | <i>13,092</i> | <i>13,900</i> |
| 13b Property income from overseas | 278 | 288 | 262 |
| Transfers from overseas— | | | |
| 14c Personal | 359 | 276 | 378 |
| 14d Extraordinary insurance claims | - | - | - |
| 15g Withholding taxes | 96 | 96 | 118 |
| Current receipts from overseas | 11,638 | 13,752 | 14,658 |

TABLE 7
MAIN AGGREGATES AT CURRENT PRICES, 1954-55 TO 1977-78
(\$ million)

| Year | 1 | | 2 | 3 | 4 | 5 | 6 | 7 |
|---------|--------------------------------------|-------------------|--|---|---------------------------|--------------------------------|-----------------------------------|---|
| | <i>Final consumption expenditure</i> | | <i>Private gross fixed capital expenditure</i> | <i>Public gross fixed capital expenditure</i> | <i>Increase in stocks</i> | <i>Statistical discrepancy</i> | <i>Gross national expenditure</i> | |
| | <i>Private</i> | <i>Government</i> | | | | | (1 to 6) | |
| 1954-55 | 6,375 | 936 | 1,482 | 871 | 166 | 48 | 9,878 | |
| 1955-56 | 6,852 | 1,043 | 1,640 | 927 | 229 | -78 | 10,613 | |
| 1956-57 | 7,327 | 1,086 | 1,717 | 950 | -45 | -165 | 10,870 | |
| 1957-58 | 7,682 | 1,121 | 1,858 | 998 | 56 | -59 | 11,656 | |
| 1958-59 | 8,089 | 1,223 | 1,922 | 1,100 | 253 | -59 | 12,528 | |
| 1959-60 | 8,874 | 1,312 | 2,191 | 1,214 | 168 | 95 | 13,854 | |
| 1960-61 | 9,416 | 1,410 | 2,415 | 1,256 | 478 | 22 | 14,997 | |
| 1961-62 | 9,703 | 1,535 | 2,328 | 1,378 | -219 | -76 | 14,649 | |
| 1962-63 | 10,400 | 1,629 | 2,580 | 1,429 | 253 | -118 | 16,173 | |
| 1963-64 | 11,225 | 1,786 | 2,913 | 1,583 | 120 | -118 | 17,509 | |
| 1964-65 | 12,144 | 2,044 | 3,398 | 1,848 | 561 | 1 | 19,996 | |
| 1965-66 | 12,922 | 2,378 | 3,657 | 2,064 | 109 | -147 | 20,983 | |
| 1966-67 | 13,955 | 2,698 | 3,828 | 2,180 | 360 | -252 | 22,769 | |
| 1967-68 | 15,258 | 3,043 | 4,162 | 2,366 | 140 | -343 | 24,626 | |
| 1968-69 | 16,511 | 3,325 | 4,725 | 2,531 | 721 | -332 | 27,481 | |
| 1969-70 | 18,179 | 3,634 | 5,160 | 2,753 | 454 | -185 | 29,995 | |
| 1970-71 | 20,021 | 4,183 | 5,841 | 2,926 | 498 | -321 | 33,148 | |
| 1971-72 | 22,221 | 4,739 | 6,309 | 3,292 | 29 | -50 | 36,540 | |
| 1972-73 | 24,833 | 5,409 | 6,585 | 3,470 | -381 | 399 | 40,315 | |
| 1973-74 | 29,305 | 6,766 | 7,771 | 3,982 | 1,317 | 1,457 | 50,598 | |
| 1974-75 | 35,321 | 9,170 | 8,545 | 5,649 | 930 | 1,123 | 60,738 | |
| 1975-76 | 41,912 | 11,361 | 10,240 | 6,675 | 33 | 671 | 70,892 | |
| 1976-77 | 48,013 | 13,301 | 12,016 | 7,145 | 1,073 | 1,074 | 82,622 | |
| 1977-78 | 53,628 | 15,126 | 13,158 | 7,710 | -225 | 1,276 | 90,673 | |

| Year | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---------|--------------------------------------|--------------------------------------|-------------------------------|--|------------------------|-------------------------|--|
| | <i>Exports of goods and services</i> | <i>Imports of goods and services</i> | <i>Gross domestic product</i> | <i>Gross domestic product at factor cost</i> | <i>National income</i> | <i>Household income</i> | <i>Wages, salaries and supplements</i> |
| | | | (7+8-9) | | | | |
| 1954-55 | 1,702 | 1,983 | 9,597 | 8,617 | 8,902 | 7,891 | 4,964 |
| 1955-56 | 1,734 | 1,953 | 10,394 | 9,331 | 9,601 | 8,561 | 5,444 |
| 1956-57 | 2,184 | 1,736 | 11,318 | 10,121 | 10,458 | 9,144 | 5,758 |
| 1957-58 | 1,840 | 1,925 | 11,571 | 10,274 | 10,529 | 9,146 | 5,980 |
| 1958-59 | 1,860 | 1,960 | 12,428 | 11,080 | 11,286 | 9,844 | 6,273 |
| 1959-60 | 2,126 | 2,285 | 13,695 | 12,220 | 12,449 | 10,811 | 6,961 |
| 1960-61 | 2,168 | 2,601 | 14,564 | 12,993 | 13,201 | 11,617 | 7,500 |
| 1961-62 | 2,452 | 2,204 | 14,897 | 13,351 | 13,459 | 12,021 | 7,722 |
| 1962-63 | 2,491 | 2,610 | 16,054 | 14,411 | 14,495 | 12,781 | 8,148 |
| 1963-64 | 3,156 | 2,860 | 17,805 | 16,033 | 16,174 | 14,151 | 8,860 |
| 1964-65 | 3,035 | 3,473 | 19,558 | 17,597 | 17,671 | 15,454 | 9,908 |
| 1965-66 | 3,135 | 3,617 | 20,501 | 18,359 | 18,435 | 16,210 | 10,677 |
| 1966-67 | 3,459 | 3,695 | 22,533 | 20,265 | 20,261 | 17,929 | 11,640 |
| 1967-68 | 3,539 | 4,134 | 24,031 | 21,550 | 21,545 | 18,827 | 12,650 |
| 1968-69 | 3,895 | 4,268 | 27,108 | 24,369 | 24,385 | 21,171 | 13,982 |
| 1969-70 | 4,733 | 4,759 | 29,969 | 26,948 | 26,937 | 23,320 | 15,671 |
| 1970-71 | 5,044 | 5,092 | 33,100 | 29,792 | 29,887 | 26,158 | 17,946 |
| 1971-72 | 5,596 | 5,216 | 36,920 | 33,221 | 33,432 | 29,541 | 20,067 |
| 1972-73 | 6,935 | 5,327 | 41,923 | 37,681 | 38,154 | 33,808 | 22,375 |
| 1973-74 | 7,760 | 7,649 | 50,709 | 45,389 | 46,671 | 41,958 | 27,596 |
| 1974-75 | 9,935 | 9,991 | 60,682 | 54,059 | 56,062 | 51,886 | 35,409 |
| 1975-76 | 10,905 | 10,433 | 71,364 | 62,832 | 65,829 | 60,488 | 40,589 |
| 1976-77 | 13,092 | 13,243 | 82,471 | 72,710 | 76,176 | 69,796 | 45,773 |
| 1977-78 | 13,900 | 14,353 | 90,220 | 79,853 | 83,157 | 77,086 | 50,119 |

Sources of information

The detailed annual estimates of national income and expenditure are published in *Australian National Accounts, National Income and Expenditure* (5204.0). Preliminary estimates (less detailed) are published in a Budget Paper *National Income and Expenditure* (5213.0) usually in August. Quarterly estimates are published in *Quarterly Estimates of National Income and Expenditure* (5206.0). A supplement to the December quarter issue of *Quarterly Estimates of National Income and Expenditure* (5207.0) presents historical quarterly series of gross domestic product and related aggregates at current and constant prices consistent with the Australian National Accounts bulletin (5204.0).

Australian National Accounts, Gross Product by Industry at Current and Constant Prices, 1976-77 was published in September 1978. The Bureau also compiles input-output tables for the Australian economy. Tables for the year 1968-1969 were published in *Australian National Accounts, Input-Output Tables 1968-69* (5209.0) in November 1977.

The figures shown on pages 568-570 are as published in *Budget Paper, National Income and Expenditure, 1977-78* (5213.0).

CHAPTER 24

OVERSEAS TRANSACTIONS

This chapter includes statistics of overseas trade, balance of payments, and overseas investment by private investors; however, because of limitations of space, the statistics are mainly restricted to summarised form.

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.

Commonwealth Government Legislation

Commonwealth Government legislation affecting overseas trade includes the *Customs Act*, the *Customs Tariff* and the *Customs Tariff (Anti-Dumping) Act* 1975. The *Customs Tariff* provides the statutory authority for imposing the actual rates of duty operative from time to time, while the *Customs Tariff (Anti-Dumping) 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. Customs collections are a major source of revenue, but in its protective character the tariff has an important influence on the Australian economy. However, an extra duty known as 'primage' is imposed on some goods, generally of a luxury nature, for revenue purposes.

The present tariff provides for general and preferential rates of duty, and its structure is based on the 'Customs Co-operation Council Nomenclature' (formerly known as 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. The *Australian Customs Tariff* has been based on the Customs Co-operation Council Nomenclature since 1 July 1965.

Preferential rates. Preferential rates generally apply to goods, the produce or manufacture of the United Kingdom, Ireland, Canada, New Zealand and Papua New Guinea, and to 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.

Details of the rules covering the application of preferential rates may be found in Year Book No. 61, pages 316 and 317, or by reference to the *Customs Act* 1966 and associated regulations.

Declared preference countries or developing countries. Under the *Customs Act*, certain goods from specified countries are subject to special rates of duty. Countries to which these special rates apply are classed as 'declared preference countries' or 'developing countries'. A full list of these countries, and goods excluded from the special rates of duty normally applicable, is given in the *Australian Customs Tariff*.

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 in accordance with the provisions of the *Customs Act*, to authorise admission of imported goods either free of duty or at rates of duty lower than those normally applicable. The rates of duty that apply where concessional entry has been granted are contained in the *Customs Tariff* and are identified by the words 'as prescribed by by-law'. The most frequently used by-law provision is Item

19 in Schedule 2 to the *Customs Tariff* which allows duty free admission of goods, 'being goods a suitable equivalent of which that is the produce or manufacture of Australia is not reasonably available'. Normally, by-laws identify goods by general description, have neither quantity nor time limitations and may be used by any importer. Ministerial Determinations may be either in that form or, if it is necessary to limit the availability of concessions to ensure that the tariff protection accorded to local industry is maintained, be restricted in some way, e.g. quantity or time limitations. By-laws and notices of the making of Ministerial Determinations are published in the Commonwealth of Australia Gazette.

Anti-Dumping duties. The *Customs Tariff (Anti-Dumping) Act 1975* 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 material injury to an Australian industry.

For details on the calculation of dumping duty see Year Book No. 61, page 320 or the *Customs Tariff (Anti-Dumping) Act 1975*.

Import controls

Import controls, by global tariff quotas or import licensing, are introduced to assist local industry following inquiry and report by the Industries Assistance Commission, the Textiles Authority or the Temporary Assistance Authority. At present, the textile, apparel, footwear, motor vehicle and steel industries are assisted by import control. Import licensing firmly limits import quantities, provides for penal and seizure action and may be selectively applied to particular goods or countries. As such, it differs from global tariff quotas which allow imports up to a predetermined level, above which additional duties may be imposed. At present, some 42 commodities or groups of commodities are subject to import controls. Further information on import controls may be obtained from the Bureau of Customs, Department of Business and Consumer Affairs, Edmund Barton Building, Barton, A.C.T. 2600.

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. 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 to control the movement out of Australia of capital in the form of securities and currency.

Export incentives. The Commonwealth Government provides financial incentives to encourage exports. The *Export Market Development Grants Act 1974* was introduced to operate for five years from 1 July 1974 but has been revised (to improve its effectiveness) with effect from 1 July 1978. The scheme will now operate until 30 June 1982. The scheme administered by the Export Development Grants Board, which is responsible to the Minister for Trade and Resources, is designed to encourage exporters and potential exporters to seek out and develop overseas markets. The scheme covers exporters of primary products, industrial goods, services, know-how and industrial property rights, whether the exporter is an individual, partnership, company or marketing organisation.

The scheme operates by way of taxable grants, to a maximum of \$100,000 (and in certain circumstances to \$125,000), in relation to eligible expenditure incurred on overseas market research and development.

The Board also administers the *Export Expansion Grants Act 1978*, a new scheme designed to reward improved export performance. Grants, which are taxable, are calculated on a formula applied to the increase in exports in a grant year, over the average annual exports in the three immediately preceding years. The scheme covers a wide range of exports. However, some products are excluded including minerals, wool, wheat, sugar, livestock and meat sold to North America under quota. The scheme took effect from 1 July 1977 and will run until mid 1982.

Export education. A nationwide export consciousness program in Australia, to be conducted over the next three years, is being organised in close consultation with the Trade Development Council.

The program, to be launched in February 1979, aims to increase awareness amongst industry of the benefits to be obtained from developing exports and of the range of assistance available from both Government and other sources.

Export awards. In 1963 the Government, in association with the Associated Chambers of Manufacturers of Australia (now the Confederation of Australian Industry) introduced a scheme of annual Export Awards to recognise the achievements of exporters. Effective from 1979 a series of additional Awards will be introduced including a new prestigious Award to be named 'The Governor-General's Award for Export Excellence'.

Trade descriptions

The Commerce (Trade Descriptions) Act 1905. This Act, administered by the Bureau of Customs of the Department of Business and Consumer Affairs, 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 in relation to specified export commodities.

Government authorities

Export Finance and Insurance Corporation

The Export Finance and Insurance Corporation was established by the Commonwealth Government in 1975 to provide Australian exporters with a specialised range of insurance guarantee and finance facilities not normally available from commercial sources. EFIC took over the functions of the Export Payments Insurance Corporation which had been operating since 1956.

Trade Relations

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. 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 December 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. This legislation embraces the provisions and wording of the Code, though to varying extents depending on the particular country. Australia acceded to the Code in November 1975.

A new round of multilateral trade negotiations (the seventh) was inaugurated at Tokyo in September 1973. Some 98 countries—both members and non-members of GATT—are participating 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 are to be given special treatment. Australia is actively participating in all stages of the negotiations.

Up to the end of 1977 the contracting parties had held thirty-three 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 annual 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 definitively, the Agreement is at present being applied provisionally pursuant to a Protocol of Provisional Application. As at 1 November 1978, eighty-four countries were full contracting parties to the Agreement, three had acceded provisionally, one had applied to accede provisionally, and twenty-four applied the Agreement on a *de facto* basis. These 112 countries account for around 85 per cent of world trade.

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 their commitments under GATT, the developed countries have introduced the 'Generalised System of Preferences' (GSP) which offers tariff preferences on developing country products.

The Australian System of Tariff Preferences for Developing Countries, like those of other donors, is a unilateral, non-reciprocal and non-contractual provision of specified preferential tariff advantages. Accordingly, Australia reserves the right at any time to modify, withdraw, suspend or limit the preferential treatment for any item or with respect to any beneficiary.

Australia's system of tariff preferences was introduced in 1966 (the first in the world) and was substantially revised and expanded from 1 January 1974. It covers most dutiable manufactured, semi-manufactured and substantially processed primary products and offers margins of preference which are generally 10 to 15 percentage points below the general tariff rate. A further major review of the system took place in 1976.

The system is designed to assist developing countries to overcome the disadvantages they face in competing with third world countries in the Australian market, provided there is no injury, or threat of injury, to Australian industry. A range of products where developing countries are already competitive on the Australian market is excluded from the system and a small number of additional products have been withdrawn from the system because of disruption to local industry.

Proposals for the addition or withdrawal of products are now referred to the Industries Assistance Commission for inquiry and report. This procedure gives all interested parties the opportunity to submit their views in evidence to a public inquiry.

Bilateral arrangements

West Europe—Australia has no bilateral trade agreements with West European countries, the majority of whom are now members of the European Economic Community. The EEC comprises the world's largest trading bloc (accounting for 40 per cent of world trade) and is Australia's second largest trading partner and its largest source of imports.

Although the EEC has special trading arrangements with a large number of countries providing for either free trade or preferential treatment, no arrangement has been concluded with Australia. Upon the United Kingdom entering the EEC in 1973 the UK/Australia Trade Agreement was terminated and all trading preferences with the UK were finally phased out by January 1978.

Australia has suffered in recent years, a large and growing trade deficit with the EEC, which reflects an imbalance of trading opportunities. Recent initiatives, including the appointment of the Minister for Special Trade Negotiations, have been directed towards discussions with the EEC towards redressing the situation by obtaining access to the EEC market for certain of our agricultural exports, a limitation on subsidised EEC exports to our traditional markets, especially dairy products, flour and beef, and a reduction of duties on fruits and processed minerals. Greater co-operation has also been sought from the EEC in international commodity stabilisation especially in respect of sugar and wheat.

East Europe—The development of Australia's trade relations with the countries of East Europe began as part of a policy of market diversification away from West Europe in the mid 1960s.

Formal trade agreements Australia has signed with the German Democratic Republic, Hungary, Bulgaria (all in 1974), Romania (in 1975) and Poland (in 1978—supplementary to the earlier 1966 Agreement) are broadly similar in their provisions. They either confirm reciprocal most favoured nation treatment of imports while recognising preferential arrangements, or, as in the Trade Agreements with Hungary, Poland and Romania, acknowledge that trade between Australia and these countries is to be in accordance with the rights and obligations of both countries under the General Agreement on Tariffs and Trade. They provide for the encouragement and facilitation of the further development of mutually beneficial trade and economic relations and express support in principle for the conclusion of relevant international commodity agreements aimed at improving the conditions of international trade in primary products.

There are provisions to encourage and facilitate the development of economic co-operation and the negotiation of long-term commercial contracts between respective enterprises and organisations and the interchange of commercial trade and technical representations, groups, and delegations. In addition, the Agreements with the German Democratic Republic and Bulgaria provide for the exchange of indicative lists of goods each country is interested in exporting to the other.

Mixed Commissions are also established by these Agreements to provide a forum for regular bilateral discussions on trade development and trade related issues and problems. Other Bilateral Trade Agreements are in force with Yugoslavia, signed 1970, Czechoslovakia, signed 1972. A protocol (to the Trade Agreement with the German Democratic Republic) on Industrial and Technical co-operation was signed in Berlin in 1977.

Trade agreements

Canada—signed 1960. Provides for each country to give the other tariff preferences on specific goods and for the exchange of preferences in each country's tariff derived from the preferential agreements 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. An Exchange of Letters governing the future operation of the 1960 Agreement was signed on 25 October 1973. The Exchange provides for a continuation of the tariff preferences, but on a more flexible basis, with some other modifications of provisions of the 1960 Agreement, particularly those relating to indirect shipment of goods and to anti-dumping procedures.

New Zealand—The New Zealand—Australia Free Trade Agreement (NAFTA) signed in 1965 came into force on 1 January 1966 and formally established a free trade area between Australia and New Zealand. However, complete free trade was not thereby achieved. The Agreement provides only for free trade in certain scheduled goods. Provision is made for additions to the free trade schedule. It also provides in respect of non-scheduled goods, for the two governments to agree on special measures (including the remission or reduction of duties) beneficial to the trade and development of each country.

The 1933 Agreement continues in effect as part of the Free Trade Agreement except as superseded or modified by it. Following the termination in early 1973 of the trade agreements which they had with Britain, Australia and New Zealand entered into an interim arrangement on tariffs and tariff preferences on 7 May 1973. This has been replaced by a new agreement which came into effect on 1 December 1977 and allows for the continuation of the contractual right of both countries to margins of preferences in each others' markets.

Malaysia—signed 1958. The Agreement provides for each country to accord preferences to the other on certain specified goods. The exchange of these preferences was placed on a more flexible basis by an Exchange of Letters on 21 February 1975. The Agreement further provides for protection of Malaysia's tin and rubber exports to Australia and of Australia's wheat exports to Malaysia.

against dumped or subsidised competition. There are also certain guarantees of market access for Australian wheat in the Malaysian market and for natural rubber in the Australian market provided that the Papua New Guinea natural rubber crop is absorbed. The Agreement also assures Malaysia that Australian tariff or import licensing treatment of natural rubber will be the same as for synthetic rubber.

India—signed 1976. The Agreement confirms that trade between the two countries shall be conducted in accordance with the provisions of GATT. It provides for encouragement and co-operation between India and Australia and establishes a Joint Trade Committee to meet annually and review the operation of the Agreement and advance its objectives.

Republic of Korea—signed 1975. The current Agreement replaced an earlier Agreement entered into by Australia and the Republic of Korea in 1965. The new Agreement states that the two governments are to take all appropriate measures to facilitate, strengthen, and diversify bilateral trade in accordance with the General Agreement on Tariffs and Trade; recognises the need to improve the conditions of world commodity trade; declares support in principle for international commodity agreements, and expresses support in principle for the conclusion of long-term commercial contracts between organisations and enterprises of the two countries. The Agreement also established a Joint Trade Committee to further the aims of the Agreement.

Philippines—signed 1965. Provides, inter alia, for reciprocal most favoured nation treatment of imports from either country; recognises preferential agreements of both countries; provides consultations on request of either Government; supports the principle of international action to improve international trade in primary products.

In August 1978 notes were yet to be exchanged between the two Governments to formally bring into force a revised Trade Agreement signed in June 1975.

Papua New Guinea—came into force 1977. The Papua New Guinea Australia Trade and Commercial Relations Agreement (PACRA) provides, inter alia, that subject to certain exceptions, trade between Australia and Papua New Guinea shall be free of duties and other restrictions.

Indonesia—signed 1972. The current Agreement replaced an earlier Agreement signed in 1959. It provides, inter alia, for reciprocal most favoured nation treatment of imports; expresses support for trade initiatives and arrangements among member countries of the Association of South East Asian Nations (ASEAN); declares support in principle for international commodity agreements and encouragement for Australian commercial investment in Indonesia.

Iran—signed 1974. The Agreement states that the two governments are to take all appropriate measures to facilitate, strengthen, and diversify trade and encourage industrial and technical co-operation; declares the support of both governments for the principle of long-term contracts between organisations and enterprises of the two countries; incorporates schedules of goods each country is interested in exporting to the other; and provides that payments in relation to trade will be in convertible currency. The Agreement also established a committee of representatives to further the aims of the Agreement.

Japan—signed 1957. The current Agreement on Commerce between Australia and Japan was initially signed in 1957, amended in 1963 and formally ratified on 27 May 1964. It provides for reciprocal most favoured nation treatment of imports while recognising the preferential arrangements of both countries; for certain commitments by Japan in regard to some important Australian export commodities including wool, soft wheat, sugar, canned meat, leather, butter and cheese; and for equal opportunity for Japanese products in relation to Commonwealth Government purchases from suppliers overseas. It also provides for close consultation between the two countries on matters relating to trade.

People's Republic of China—signed 1973. The Agreement provides, inter alia, for reciprocal most favoured nation treatment for imports, while recognising the preferential arrangements extended by both countries. The Agreement includes schedules of goods which each country is interested in exporting to the other. It also provides that exchanges of goods and technical services under contracts and agreements will be at reasonable international market prices; that payments in relation to trade will be in freely convertible currency; and that each country will promote the interchange of trade representatives, groups, and delegations, and encourage the commercial exchange of industrial and technical expertise. The Agreement also established a Joint Trade Committee to further the aims of the Agreement.

Socialist Republic of Viet Nam—signed in 1974. Provides, inter alia, for reciprocal most favoured nation treatment for imports and expresses support for the principle of long term commercial contracts.

U.S.S.R.—signed 1965. The Agreement provides for reciprocal most favoured nation treatment of imports and recognised the preferential agreements of both countries. A supplementary Agreement on the Development of Trade and Economic Relations was signed in 1973 and provides, inter

alia, for encouragement and facilitation of trade between the two countries; encouragement of industrial and technical co-operation; support for international commodity agreements; and established a Mixed Commission to provide a forum for regular consultations on measures to develop bilateral trade and on bilateral trade problems, and to further the aims of the Agreement.

Brazil—signed 23 February 1978. The Agreement represented a significant development in strengthening trade and economic links between Australia and Brazil. It basically confirms GATT rights and obligations and emphasises industrial co-operation including investment. A significant feature is the ten year initial life of the Agreement to cover long term commodity contracts. It also establishes a Joint-Consultative Committee which meets annually.

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 1979 there was an establishment of 178 Trade Commissioners and Assistant Trade Commissioners in Australia and in sixty posts in forty-seven countries.

Trade Commissioners are responsible for commercial intelligence in their territories. Particular facilities provided for Australian exporters and export organisations include: surveying market prospects; advising on selling and advertising methods; arranging introductions with buyers and agents; providing reports on the standing of overseas firms; advising and assisting 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; and 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 Trade and Resources (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 or Commercial Secretary.

The Department of Trade and Resources maintains Trade Commissioners at sixty posts in forty-seven countries. More than fifty editions of the Department of Trade and Resources' promotion periodical *Australian Trading News* now circulate in more than 100 countries in seventeen languages.

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 only. Argentina; Austria; Bahrain; Belgium; Brazil (Sao Paulo); Britain (London, Manchester); Canada (Vancouver, Toronto, Ottawa); China, People's Republic; Egypt, Arab Republic of; France; German Democratic Republic; Germany, Federal Republic (Bonn, Hamburg); Greece; Hong Kong; India; Indonesia; Iran; Iraq; Israel; Italy (Rome, Milan); Japan (Tokyo, Osaka); Kenya; Korea, Republic of; Malaysia; Mexico; Netherlands; New Zealand (Wellington, Christchurch, Auckland); Nigeria; Pacific Islands (Fiji); Pakistan; Papua New Guinea; Peru; Philippines; Poland; Saudi Arabia; Singapore; South Africa (Johannesburg); Spain; Sweden; Switzerland (Berne, Geneva); Thailand; United States of America (Washington DC, Chicago, Los Angeles, San Francisco, New York); U.S.S.R.; West Indies; Yugoslavia, Socialist Federal Republic.

Full details of the Australian Trade Commissioner posts are available from the Department of Trade and Resources, Canberra, A.C.T. 2600.

Australian Trade Correspondents and Marketing Officers

Detached Australian Trade Correspondents and Marketing Officers supplement the work of the Trade Commissioner in whose territory they are located. Correspondents are situated in various locations throughout the world.

Trade Missions

Since 1954 the Commonwealth 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 October 1978, Australia had sent overseas 142 trade and survey missions and 5 trade ships.

Trade displays, fairs, exhibitions and store promotions

For many years Australia has organised or participated in numerous major trade fairs, exhibitions and displays in Africa, Asia, Europe, the Americas, the Middle East and the Pacific area.

Initially, the emphasis was on participation in general trade fairs directed at the public and the general commercial community; however, 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, Jakarta, Port Moresby and Suva.

Market Advisory Services

The Commonwealth Government established a Market Advisory Section in the Department of Trade and Resources 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.

Australian Standard Commodity Classification

The ABS has developed and recently published a new classification manual called the *Australian Standard Commodity Classification* (ASCC) (1207.0) to enable users to compare statistics of commodities produced in Australia with statistics of commodities imported and exported.

The first edition of the ASCC manual, which relates to the year 1975–76, links production, import and export items at their most detailed level of comparability, in the form of standard (ASCC) commodity items. In a large number of cases however, due to the differences between production, import and export items, comparability is only achieved at fairly broad aggregate levels. In the ASCC, commodities are grouped under industries (as defined in the *Australian Standard Industrial Classification* (ASIC) (1201.0)) in which they are typically produced. The first edition of the ASCC only covers commodities originating in manufacturing industries.

Considerable further development will take place over the coming years to improve the alignment between the production, import and export items in the ASCC.

In 1979 the ABS will be publishing a new statistical bulletin containing comparable commodity statistics of Australian production, imports and exports based on the ASCC (standard) items contained in the ASCC manual. Additionally, the introduction of the ASCC will affect the publication of traditional manufacturing and overseas trade commodity statistics in those instances where detailed commodity items are being combined either for confidentiality reasons or for the publication of more summary commodity statistics. In these instances, the commodity groupings will where appropriate reflect the classification requirements embodied in the ASCC. This will be particularly relevant in the case of manufacturing commodity statistics.

Trade representation 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. 2600.

Austria (Sydney); Belgium (Sydney, Melbourne, Perth); Britain (Canberra, Sydney, Melbourne, Brisbane, Adelaide, Perth); Bulgaria (Sydney); Canada (Sydney, Melbourne); China (Canberra); Czechoslovakia (Sydney); Denmark (Sydney, Melbourne); Finland (Sydney); France (Sydney, Melbourne); German Democratic Republic (Sydney); Germany, Federal Republic of (Sydney, Melbourne); Greece (Sydney); Hungary (Sydney); Israel (Sydney); Italy (Sydney, Canberra, Melbourne); Indonesia (Sydney, Canberra); Japan (Canberra); Malaysia (Sydney); Mexico (Sydney); New Zealand (Sydney, Melbourne, Canberra, Brisbane, Perth); Norway (Canberra); Pakistan (Sydney); Peru (Canberra); Philippines (Sydney, Melbourne); Poland (Sydney); Romania (Sydney); Singapore (Sydney); South Africa (Melbourne); Spain (Sydney); Sri Lanka (Sydney); Sweden (Sydney, Melbourne); United States of America (Sydney, Melbourne); U.S.S.R. (Canberra).

Collection and presentation of statistics

Source of data

Overseas trade statistics are compiled by the Australian Bureau of Statistics from documentation submitted by exporters or importers or their agents to the Bureau of Customs as required by the *Customs Act*.

Scope of the statistics

The statistics presented below are, with one exception, recorded on a *general trade* basis, i.e. total exports include both Australian produce and re-exports, and total imports comprise goods entered directly for domestic consumption together with goods imported into Customs warehouses. The statistics of import clearances, however, are recorded on a *special trade* basis, i.e., clearances comprise goods entered directly for domestic consumption together with goods cleared into the domestic market from Customs warehouses.

Exports of Australian produce 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 or shelling.

Total exports are the aggregate of exports of Australian produce and re-exports.

The statistics are not confined to goods which are the subject of a commercial transaction; generally, all goods imported into or exported from Australia are recorded. Among the items included are exports and imports on government account, including defence equipment. For exports, the value recorded for each item includes the value of the outside package, i.e., the outside package or covering in which the goods were exported. For imports prior to 1 July 1976, outside packages were included as a non-commercial transaction under Statistical Item 931.00.21; since 1 July 1976, however, the recorded value of imports includes the value of the outside package and, therefore, separate details on the value of outside packages are no longer available.

The following are excluded from overseas trade statistics:

- (a) direct transit trade, i.e., goods being transhipped or moved through Australia for purposes of transport only;
- (b) bunkers and stores supplied to foreign owned vessels and aircraft prior to departure overseas (these are shown separately as *ships' stores* statistics on page 598);
- (c) migrants' and passengers' effects for which customs entries are not required; and parcels post exports and imports of small value, for which customs entries are not required;
- (d) certain materials for intergovernmental defence and similar projects for which customs entries are not required;
- (e) vessels and aircraft engaged in the transport of passengers or goods between Australia and other countries;
- (f) vessels and aircraft purchased for use on overseas routes and any subsequent sales made of such vessels and aircraft;
- (g) fish and other sea products landed in Australia or abroad directly from the high seas by Australian vessels.

State

This means the State in which export or import documentation was lodged with the Bureau of Customs. This may not necessarily be the same as State of export or entry of goods, or the State of production or final consumption. For example, goods for which entries were lodged at the Customs House, Port Adelaide, but which were forwarded interstate to Port Melbourne for export, would be recorded statistically as exports from Port Adelaide, i.e., from South Australia and not Victoria. The same method of recording (i.e., port of lodgement of the documentation) applies to imports of goods forwarded interstate following discharge from an overseas vessel.

Period covered by the statistics

Exports and imports are recorded statistically in the month in which the documentation is processed. Normally this is within a few days of shipment or discharge of cargo. However, delays may occur in the processing of documentation and in some cases the documentation may be cleared prior to discharge or shipment of cargo.

Valuation

Exports. Goods sold to overseas buyers before export are valued at the free on board (f.o.b.) Australian port of shipment equivalent of the actual price paid to the exporter. Goods shipped on consignment are valued at the f.o.b. Australian port of shipment equivalent of the current price offering for similar goods of Australian origin in the principal markets of the country to which they are dispatched for sale. The value of outside packages is included.

Imports. The recorded value is the value for duty for Customs purposes. On 1 July 1976, Australia adopted the internationally recognised Brussels Definition of Value (BDV) on a free-on-board (f.o.b.) basis (i.e. charges and expenses involved in delivering the goods from the place of exportation to the place of introduction in Australia, are excluded). The value for duty is based on the normal price i.e., the price the goods would fetch at the time when duty becomes payable on a sale in the open market between a buyer and a seller independent of each other. In practice, the basis for valuation is generally taken to be the invoice price subject to certain safeguards and adjustments where necessary. Because of the change in the basis of valuation the recorded imports figures for 1976-77 are not comparable with previous years. For details of the method of valuation used prior to 1 July 1976, see Year Book No. 61, page 330.

Leasing arrangements. The recorded value of goods exported or imported under leasing arrangements is defined according to the valuation procedures shown above and is not the value of the lease receipts or payments. However, for balance of payments purposes, large items of equipment under lease are normally excluded from export and import figures, if the lease is for 12 months or less, and therefore, from the balance of trade.

Quantity data

Where quantities are shown they are generally expressed in terms of the normal unit of quantity used in the appropriate industry and as specified in the Australian Export and Import Commodity Classifications (1203.0, 1204.0) published by the ABS. Quantities are not tabulated in respect of statistical items for which there is no appropriate unit of quantity (e.g. a statistical item which covers a number of commodities that cannot be recorded under a uniform unit of quantity).

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. Complete descriptions of commodities classified as non-merchandise are contained in the Australian Export and Import Commodity Classifications 1203.0, 1204.0) published by the ABS.

Excess of exports or imports

The excess of the value of exports or imports does not represent the balance of trade. The balance of trade is the excess of exports or imports on a *balance of payments basis*. Details of the adjustments (relating to coverage, timing and valuation) made to total recorded exports and imports for balance of payments purposes, are set out in the annual bulletin *Balance of Payments* (5303.0). Some information may be found in the section relating to the balance of payment, page 603.

Country

A country is defined as a geographical entity which trades, or has the potential to trade, with Australia in accordance with Australian Customs provisions. External territories under Australian administration are treated separately whilst self-governing territories and dependent territories

under the administration of other countries *may* be treated as individual countries in Australian overseas trade statistics. *Exports*: for exports, *country* refers to the country to which the goods were consigned at the time of export. Where the country of consignment is not determined at the time of export, goods are recorded as exported *For orders* and in those cases where it was found to be impossible to determine the destination, as *Destination unknown*. *Imports*: for imports, *country* refers to the country of origin of the goods which is defined as the country of production for Customs purposes.

Commodity classification

Exports and imports are classified according to the Australian Export and Import Commodity Classifications which are based on the *Standard International Trade Classification, Revised* (S.I.T.C. (R)), which is closely related to the Customs Co-operation Council Nomenclature used in the *Australian Customs Tariff*.

Total overseas trade

The following table shows the total trade of Australia with overseas countries from 1972-73 to 1977-78. For details relating to years prior to 1972-73, see Year Book No. 61, page 333.

OVERSEAS TRADE

(\$m)

| Year | Exports | Imports | Excess of exports (+) |
|-------------------|---------|---------|-------------------------------|
| | | | or imports (-) |
| 1972-73 | 6,214 | 4,121 | + 2,093 |
| 1973-74 | 6,914 | 6,085 | + 829 |
| 1974-75 | 8,726 | 8,080 | + 646 |
| 1975-76 | 9,640 | 8,241 | + 1,399 |
| 1976-77 | 11,652 | 10,410 | + 1,241 |
| 1977-78 | 12,245 | 11,167 | + 1,078 |

Plate 40 below shows the overseas trade of Australia from 1957-58 to 1977-78.

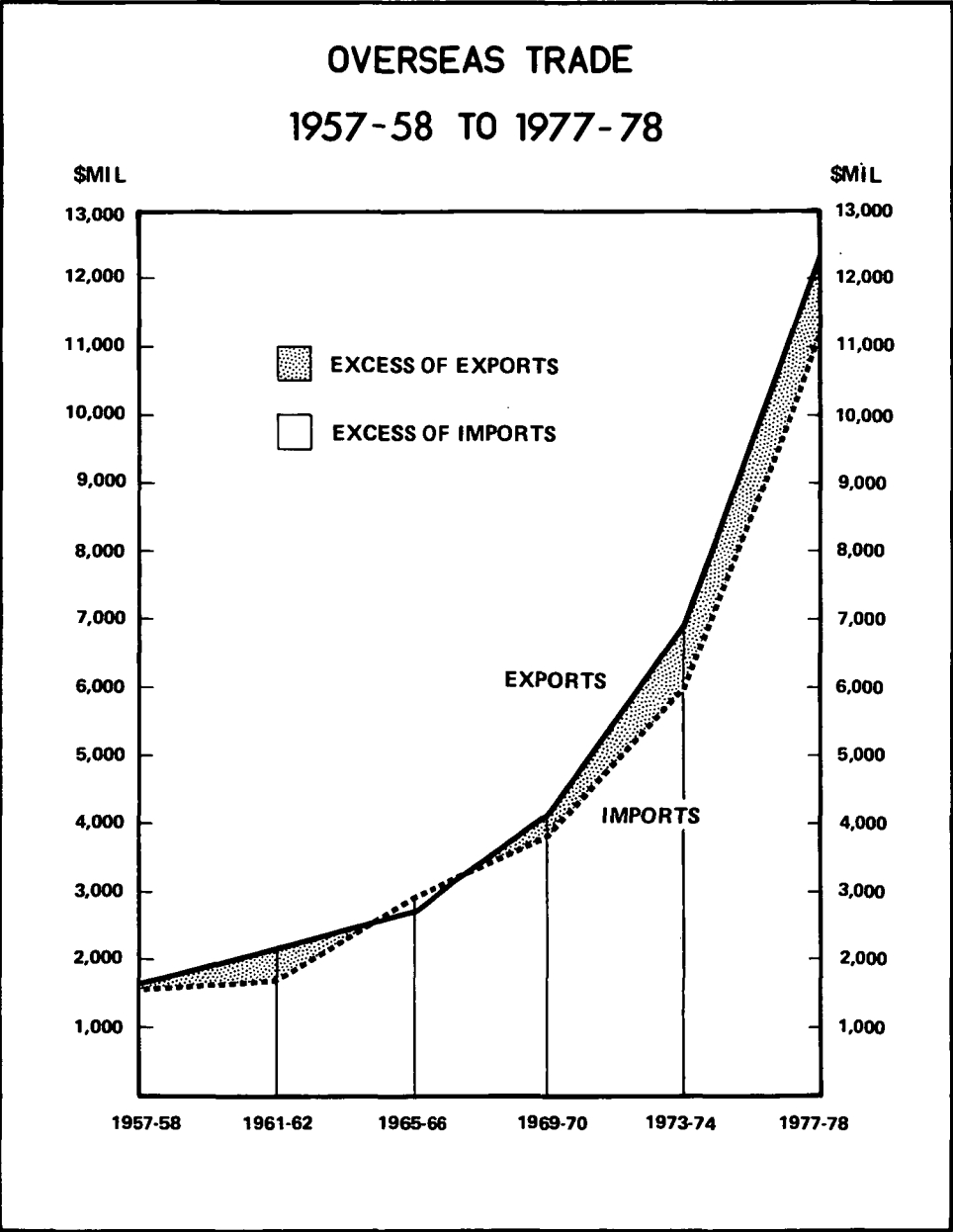


PLATE 40

The following table shows particulars of merchandise and non-merchandise trade for recent years.

MERCHANDISE AND NON-MERCHANDISE TRADE

(\$'000)

EXPORTS

| Year | Merchandise | | | Non-merchandise | | | Total |
|-----------------|--------------------|------------|------------|--------------------|------------|---------|------------|
| | Australian produce | Re-exports | Total | Australian produce | Re-exports | Total | |
| 1972-73 | 5,879,066 | 193,449 | 6,072,514 | 82,359 | 58,830 | 141,190 | 6,213,704 |
| 1973-74 | 6,618,034 | 140,141 | 6,758,175 | 89,021 | 67,200 | 156,220 | 6,914,395 |
| 1974-75 | 8,342,085 | 198,510 | 8,540,595 | 114,782 | 70,398 | 185,180 | 8,725,774 |
| 1975-76 | 9,235,698 | 163,768 | 9,399,466 | 103,910 | 136,207 | 240,117 | 9,639,583 |
| 1976-77 | 11,291,763 | 197,284 | 11,489,046 | 89,765 | 72,780 | 162,545 | 11,651,591 |
| 1977-78 | 11,770,386 | 254,724 | 12,025,110 | 127,516 | 92,505 | 220,021 | 12,245,130 |

IMPORTS

| Year | Merchandise | Non-merchandise | Total |
|-------------------|-------------|-----------------|------------|
| 1972-73 | 4,071,911 | 48,816 | 4,120,727 |
| 1973-74 | 6,027,091 | 57,913 | 6,085,004 |
| 1974-75 | 7,960,683 | 119,170 | 8,079,853 |
| 1975-76 | 8,153,421 | 87,172 | 8,240,593 |
| 1976-77 | 10,330,210 | 80,435 | 10,410,645 |
| 1977-78 | 11,079,677 | 87,075 | 11,166,752 |

VALUE OF EXPORTS AND IMPORTS
PROPORTIONS BY COUNTRY

1973-74 TO 1977-78

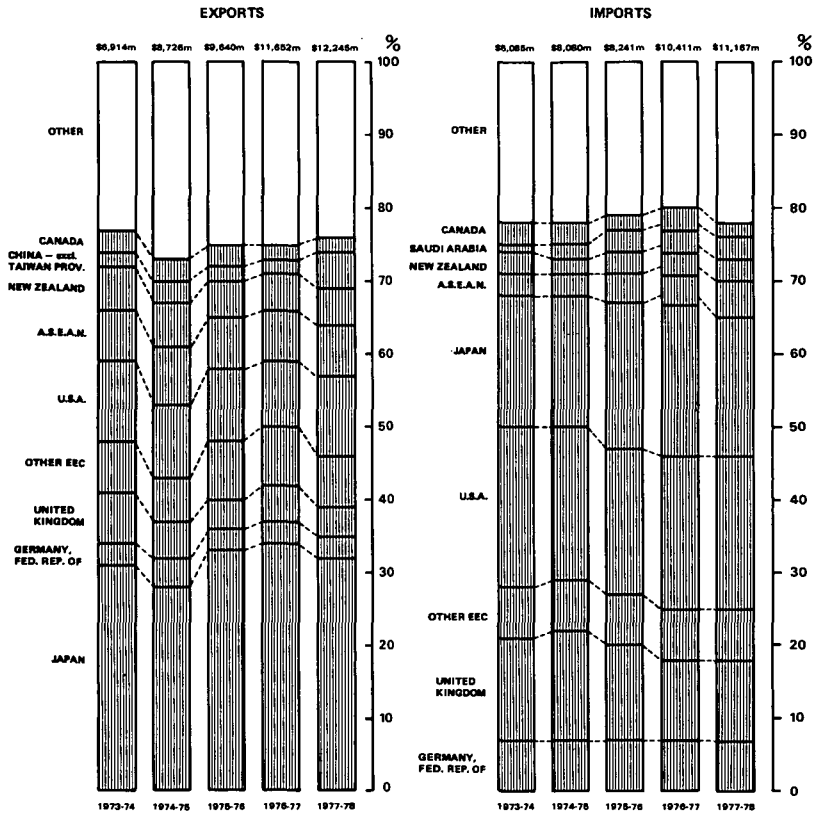


PLATE 41

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)

| Division No. | Description | Exports | | | Imports | | |
|--------------|--|-----------|------------|------------|-----------|------------|------------|
| | | 1975-76 | 1976-77 | 1977-78 | 1975-76 | 1976-77(c) | 1977-78 |
| 00 | Live animals | 28,587 | 60,389 | 104,427 | 15,503 | 17,337 | 16,805 |
| 01 | Meat and meat preparations | 667,897 | 885,820 | 1,118,816 | 1,593 | 3,330 | 2,784 |
| 02 | Dairy products and eggs | 200,019 | 199,124 | 198,852 | 15,924 | 19,525 | 21,569 |
| 03 | Fish and fish preparations | 81,294 | 136,448 | 144,465 | 69,912 | 109,908 | 120,234 |
| 04 | Cereals and cereal preparations | 1,376,740 | 1,348,337 | 1,352,472 | 9,245 | 12,492 | 14,955 |
| 05 | Fruit and vegetables | 103,964 | 110,468 | 126,021 | 54,776 | 73,639 | 92,139 |
| 06 | Sugar, preparations, honey | 584,778 | 654,814 | 547,693 | 10,203 | 11,100 | 10,659 |
| 07 | Coffee, tea, cocoa and spices | 12,060 | 21,919 | 21,721 | 81,378 | 184,718 | 220,385 |
| 08 | Feeding stuff for animals | 27,495 | 47,546 | 49,024 | 7,292 | 10,986 | 16,061 |
| 09 | Miscellaneous food preparations | 7,026 | 7,226 | 9,290 | 8,985 | 11,826 | 16,229 |
| 11 | Beverages | 16,321 | 15,877 | 18,162 | 40,855 | 52,282 | 59,573 |
| 12 | Tobacco and tobacco manufacturers | 5,106 | 5,503 | 8,424 | 49,309 | 47,008 | 62,712 |
| 21 | Hides, skins and furskins, undressed | 146,339 | 247,717 | 258,473 | 1,658 | 2,080 | 1,885 |
| 22 | Oil seeds, oil nuts and oil kernels | 18,339 | 4,360 | 3,748 | 5,861 | 7,151 | 9,966 |
| 23 | Crude rubber (including synthetic and reclaimed) | 1,649 | 1,281 | 3,144 | 38,509 | 44,399 | 47,321 |
| 24 | Wood, timber and cork | 9,734 | 9,561 | 10,271 | 102,494 | 143,812 | 125,951 |
| 25 | Pulp and waste paper | 342 | 347 | 504 | 55,035 | 66,872 | 57,578 |
| 26 | Textile fibres and their waste | 977,363 | 1,490,125 | 1,199,497 | 61,658 | 65,160 | 69,177 |
| 27 | Crude fertilisers and minerals (except coal, petroleum and precious stones) | 50,708 | 56,555 | 68,517 | 92,687 | 102,594 | 119,176 |
| 28 | Metalliferous ores and metal scrap | 1,350,687 | 1,623,240 | 1,664,868 | 9,275 | 13,526 | 19,058 |
| 29 | Crude animal and vegetable materials n.e.s. | 23,195 | 27,708 | 34,601 | 20,204 | 25,386 | 26,246 |
| 32 | Coal, coke and briquettes | 1,069,786 | 1,292,506 | 1,465,200 | 871 | 1,740 | 1,935 |
| 33 | Petroleum and petroleum products | 161,665 | 205,798 | 239,912 | 805,977 | 993,839 | 1,154,684 |
| 34 | Petroleum gases and other gaseous hydrocarbons | (a) | (a) | (a) | 79 | 128 | 174 |
| 41 | Animal oils and fats | 63,510 | 68,399 | 100,365 | 673 | 432 | 608 |
| 42 | Fixed vegetable oils and fats | 1,277 | 1,209 | 1,957 | 37,896 | 48,177 | 56,676 |
| 43 | Animal and vegetable oils, fats and waxes, processed | 3,586 | 5,387 | 6,179 | 3,725 | 5,034 | 8,583 |
| 51 | Chemical elements and compounds | 482,165 | 621,114 | 730,130 | 275,139 | 357,472 | 390,123 |
| 52 | Mineral tar and crude chemicals from coal, petroleum and natural gas | 9,088 | 5,178 | 1,713 | 3,503 | 4,339 | 5,686 |
| 53 | Dyeing, tanning and colouring materials | 12,616 | 14,666 | 15,980 | 36,909 | 53,944 | 54,846 |
| 54 | Medicinal and pharmaceutical products | 32,388 | 44,058 | 47,239 | 91,737 | 101,731 | 111,517 |
| 55 | Essential oils and perfume materials; toilet and cleansing preparations | 14,240 | 15,168 | 18,343 | 30,513 | 39,679 | 51,619 |
| 56 | Fertilisers, manufactured | 3,567 | 305 | 845 | 9,111 | 21,055 | 16,701 |
| 57 | Explosives and pyrotechnic products | 2,659 | 2,886 | 3,650 | 6,273 | 7,447 | 10,972 |
| 58 | Plastic materials, regenerated cellulose and artificial resins | 23,464 | 30,907 | 32,968 | 166,528 | 225,323 | 238,498 |
| 59 | Chemical materials, n.e.s. | 39,040 | 47,782 | 48,399 | 89,573 | 114,715 | 128,835 |
| 61 | Leather, leather manufactures, n.e.s. and dressed furskins | 7,669 | 19,758 | 26,731 | 18,616 | 18,471 | 23,571 |
| 62 | Rubber manufactures, n.e.s. | 5,032 | 6,222 | 6,544 | 111,588 | 138,754 | 145,779 |
| 63 | Wood and cork manufactures (excluding furniture) | 53,539 | 83,569 | 86,112 | 46,561 | 59,197 | 52,296 |
| 64 | Paper, paperboard and manufactures | 16,376 | 19,696 | 23,714 | 186,063 | 281,953 | 283,543 |
| 65 | Textile yarn, fabrics, made-up articles | 26,695 | 31,375 | 28,431 | 546,508 | 639,998 | 677,052 |
| 66 | Non-metallic mineral manufactures n.e.s. | 48,079 | 60,656 | 64,405 | 166,103 | 222,998 | 242,518 |
| 67 | Iron and steel | 319,558 | 435,002 | 457,650 | 154,654 | 216,304 | 235,852 |
| 68 | Non-ferrous metals | 439,762 | 595,361 | 578,411 | 32,558 | 47,209 | 51,768 |
| 69 | Manufactures of metal, n.e.s. | 86,040 | 90,384 | 97,849 | 197,677 | 266,075 | 281,101 |
| 71 | Machinery, other than electric | 223,487 | 235,974 | 262,150 | 1,338,752 | 1,706,333 | 1,868,370 |
| 72 | Electrical machinery and apparatus | 101,435 | 106,980 | 102,444 | 829,511 | 999,591 | 944,191 |
| 73 | Transport equipment | 170,841 | 140,339 | 185,067 | 1,008,993 | 1,273,970 | 1,304,037 |
| 81 | Sanitary, plumbing, heating and lighting fixtures and fittings | 2,157 | 3,177 | 3,491 | 17,911 | 24,700 | 24,337 |
| 82 | Furniture | 2,154 | 2,258 | 2,797 | 32,797 | 53,628 | 59,258 |
| 83 | Travel goods, handbags, etc. | 340 | 482 | 404 | 24,476 | 30,299 | 32,221 |
| 84 | Clothing and accessories; articles of knitted or crocheted fabric | 10,890 | 12,527 | 10,586 | 192,055 | 242,332 | 268,461 |
| 85 | Footwear, gaiters and similar articles | 1,126 | 1,159 | 1,662 | 54,774 | 74,264 | 85,760 |
| 86 | Professional, scientific and controlling instruments; photographic and optical goods, watches and clocks | 51,212 | 63,269 | 89,099 | 274,171 | 348,315 | 389,741 |
| 89 | Manufactured articles, n.e.s. | 51,902 | 57,326 | 65,996 | 449,132 | 580,489 | 623,887 |
| 9A | Commodities and transactions not classified according to kind(b) | 172,478 | 213,801 | 275,694 | 159,654 | 105,140 | 124,017 |
| | Total merchandise | 9,399,466 | 11,489,046 | 12,025,109 | 8,153,421 | 10,330,210 | 11,079,677 |
| 9B | Non-merchandise | 240,117 | 162,545 | 220,021 | 87,172 | 80,435 | 87,075 |
| | Total | 9,639,583 | 11,651,591 | 12,245,130 | 8,240,593 | 10,410,645 | 11,166,752 |

(a) Included in Division 9A. (b) Includes Division 34 (Exports only). (c) Import figures from 1976-77 are not comparable with previous years because of the change in the basis of valuation (see page 582).

Exports of major commodities

| Commodity | Unit of quantity | Quantity | | | Value (\$'000) | | |
|--|------------------|------------|------------|------------|----------------|------------|------------|
| | | 1975-76 | 1976-77 | 1977-78 | 1975-76 | 1976-77 | 1977-78 |
| Aluminium and alloys, unworked | tonnes | 69,074 | 75,533 | 75,921 | 44,009 | 60,084 | 69,270 |
| Aluminium oxide and hydroxide | " | 5,265,431 | 5,877,472 | 6,398,207 | 436,088 | 567,054 | 667,661 |
| Barley | " | 1,962,770 | 2,100,152 | 1,325,176 | 200,827 | 222,516 | 121,834 |
| Butter | " | 72,173 | 32,092 | 31,678 | 63,659 | 38,114 | 43,946 |
| Cars, passenger motor, assembled and unassembled | | - | - | - | 42,788 | 36,808 | 32,101 |
| Cheese | tonnes | 31,520 | 52,498 | 44,089 | 35,177 | 56,248 | 55,358 |
| Coal (anthracite, bituminous and sub-bituminous) (except briquettes) | " | 30,260,405 | 34,431,726 | 37,160,914 | 1,062,545 | 1,282,900 | 1,457,178 |
| Copper, ore and concentrates | " | 158,891 | 143,012 | 109,157 | 40,838 | 50,960 | 31,996 |
| Copper, refined, unworked | " | 85,843 | 75,295 | 62,671 | 82,715 | 91,013 | 67,157 |
| Crustaceans and molluscs (except canned or bottled) | | - | - | - | 73,542 | 118,551 | 132,118 |
| Flour (wheaten) plain white | tonnes | 218,992 | 155,867 | 129,378 | 38,458 | 26,166 | 21,485 |
| Fruit, fresh and nuts, fresh or dried | " | 118,318 | 72,979 | 91,540 | 28,924 | 22,436 | 32,472 |
| Fruit, preserved and fruit preparations | | - | - | - | 39,015 | 48,191 | 45,539 |
| Hides, bovine and equine (except calf and kip skins) | tonnes | 163,723 | 174,675 | 186,353 | 66,735 | 119,423 | 128,199 |
| Iron and steel ingots and other primary forms | " | 1,689,360 | 1,886,752 | 1,603,843 | 176,816 | 220,640 | 202,443 |
| Iron ore and concentrates (except roasted iron pyrites) | " | 78,930,827 | 80,775,467 | 74,690,551 | 770,998 | 901,664 | 920,923 |
| Iron, pig and cast | " | 593,051 | 763,421 | 519,176 | 40,478 | 56,813 | 39,583 |
| Lead and lead alloys (including silver-lead) unworked | " | 310,443 | 296,569 | 305,272 | 111,129 | 165,488 | 193,865 |
| Meat, fresh, chilled or frozen, beef—boneless | " | 494,757 | 600,613 | 708,878 | 452,648 | 589,032 | 782,015 |
| Meat, fresh, chilled or frozen—bovine animals, other | " | 54,629 | 34,406 | 46,166 | 34,940 | 31,996 | 43,871 |
| Meat, fresh, chilled or frozen—edible offals | " | 50,347 | 55,667 | 61,468 | 31,380 | 37,482 | 48,795 |
| Meat, fresh, chilled or frozen—sheep, lambs and goats | " | 160,487 | 225,969 | 192,424 | 102,433 | 169,314 | 184,185 |
| Milk and cream | " | 143,336 | 184,886 | 114,214 | 86,798 | 92,209 | 84,518 |
| Nickel and nickel alloys, unworked | | n.p. | n.p. | n.p. | 37,285 | 46,755 | 25,442 |
| Nickel matte and speiss | | n.p. | n.p. | n.p. | 139,510 | 184,975 | 161,916 |
| Petroleum products | | - | - | - | 144,105 | 190,336 | 223,787 |
| Rice | tonnes | 218,018 | 256,477 | 277,459 | 51,407 | 57,148 | 66,634 |
| Skins, sheep and lamb, with wool on | " | 83,488 | 89,959 | 76,445 | 70,085 | 109,541 | 106,369 |
| Sorghum, unmilled | " | 815,020 | 829,247 | 384,528 | 71,830 | 76,267 | 35,457 |
| Sugar—from cane (except icing sugar) | " | 1,999,849 | 2,555,712 | 2,477,896 | 569,835 | 637,498 | 536,640 |
| Titanium and zirconium ore and concentrates (except beneficiated ilmenite) | " | 1,261,644 | 1,866,049 | 1,699,716 | 127,141 | 137,876 | 111,230 |
| Wheat (including spelt) and maslin, unmilled | " | 7,558,718 | 7,945,143 | 10,966,217 | 921,492 | 863,456 | 1,013,182 |
| Wood chips | " | 2,335,706 | 3,233,602 | 3,131,652 | 50,551 | 79,497 | 82,421 |
| Wool, carbonised—shorn and skin | " | 9,097 | 12,065 | 10,533 | 18,960 | 35,905 | 34,003 |
| Wool, carded or combed (tops and other) | " | 8,513 | 11,693 | 9,973 | 25,329 | 43,615 | 39,759 |
| Wool, greasy | " | 583,302 | 675,476 | 493,575 | 842,283 | 1,276,600 | 993,424 |
| Wool, washed and scoured—shorn, skin and boiled | " | 35,901 | 41,132 | 35,366 | 73,021 | 118,029 | 112,603 |
| Zinc, ore and concentrates | " | 424,582 | 379,113 | 389,247 | 62,224 | 58,950 | 44,751 |
| Zinc and zinc alloys, unworked | " | 124,068 | 170,075 | 184,290 | 70,816 | 109,390 | 96,066 |
| Total major commodities | | - | - | - | 7,338,814 | 9,030,940 | 9,090,196 |
| Total Exports | | - | - | - | 9,639,583 | 11,651,591 | 12,245,130 |

Exports by industrial group

The following table is designed to show fluctuations in exports of Australian produce dissected according to the main industry of the exports' origin, although any such classification is necessarily somewhat arbitrary.

EXPORTS BY INDUSTRIAL GROUP

| <i>Industrial group</i> | <i>Value (\$'000)</i> | | | <i>Proportion of total exports (per cent)</i> | | |
|--|-----------------------|-------------------|-------------------|---|----------------|----------------|
| | <i>1975-76</i> | <i>1976-77</i> | <i>1977-78</i> | <i>1975-76</i> | <i>1976-77</i> | <i>1977-78</i> |
| Agriculture, horticulture and viticulture— | | | | | | |
| Unprocessed | 1,368,155 | 1,324,057 | 1,343,861 | 14.2 | 11.4 | 11.0 |
| Processed | 736,327 | 813,110 | 713,594 | 7.6 | 7.0 | 5.8 |
| Total | 2,104,482 | 2,137,168 | 2,057,454 | 21.8 | 18.3 | 16.8 |
| Pastoral— | | | | | | |
| Unprocessed | 1,639,991 | 2,413,191 | 2,415,693 | 17.0 | 20.7 | 19.7 |
| Processed | 234,167 | 368,437 | 397,071 | 2.4 | 3.2 | 3.2 |
| Total | 1,874,158 | 2,781,628 | 2,812,764 | 19.4 | 23.9 | 23.0 |
| Dairy and farmyard— | | | | | | |
| Unprocessed | 20,778 | 16,276 | 15,345 | 0.2 | 0.1 | 0.1 |
| Processed | 192,238 | 188,095 | 194,140 | 2.0 | 1.6 | 1.6 |
| Total | 213,016 | 204,371 | 209,485 | 2.2 | 1.8 | 1.7 |
| Mines and quarries (except gold)— | | | | | | |
| Unprocessed | 2,340,383 | 2,792,598 | 2,955,944 | 24.3 | 24.0 | 24.1 |
| Processed | 437,287 | 596,472 | 579,823 | 4.5 | 5.1 | 4.7 |
| Total | 2,777,670 | 3,389,070 | 3,535,768 | 28.8 | 29.1 | 28.9 |
| Fisheries— | | | | | | |
| Unprocessed | 76,076 | 128,142 | 141,373 | 0.8 | 1.1 | 1.2 |
| Processed | 7,300 | 15,620 | 11,465 | 0.1 | 0.1 | 0.1 |
| Total | 83,376 | 143,762 | 152,838 | 0.9 | 1.2 | 1.2 |
| Forestry— | | | | | | |
| Unprocessed | 1,442 | 252 | 351 | 0.0 | 0.0 | 0.0 |
| Processed | 10,232 | 12,180 | 12,696 | 0.1 | 0.1 | 0.1 |
| Total | 11,674 | 12,432 | 13,047 | 0.1 | 0.1 | 0.1 |
| Total primary produce— | | | | | | |
| Unprocessed | 5,446,825 | 6,674,516 | 6,872,567 | 56.5 | 57.3 | 56.1 |
| Processed | 1,617,551 | 1,993,914 | 1,908,789 | 16.8 | 17.1 | 15.6 |
| Total | 7,064,376 | 8,668,431 | 8,781,356 | 73.3 | 74.4 | 71.7 |
| Manufactures | 1,945,864 | 2,368,445 | 2,679,975 | 20.2 | 20.3 | 21.9 |
| Refined petroleum oils | 158,719 | 200,299 | 232,046 | 1.7 | 1.7 | 1.9 |
| Gold | 36,983 | 31,918 | 44,453 | 0.4 | 0.3 | 0.4 |
| Unclassified | 133,667 | 112,436 | 160,071 | 1.4 | 1.0 | 1.3 |
| Total Australian produce | 9,339,608 | 11,381,528 | 11,897,902 | 96.9 | 97.7 | 97.2 |
| Re-exports | 299,974 | 270,064 | 347,229 | 3.1 | 2.3 | 2.8 |
| Total | 9,639,583 | 11,651,591 | 12,245,130 | 100.0 | 100.0 | 100.0 |

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) | | | Proportion to total imports | | |
|---|----------------|------------|------------|-----------------------------|------------|---------|
| | 1975-76 | 1976-77(a) | 1977-78 | 1975-76 | 1976-77(a) | 1977-78 |
| PURPOSE | | | | | | |
| Producers' materials for use in— | | | | | | |
| Building and construction | 249,419 | 342,814 | 316,221 | 3.0 | 3.3 | 2.8 |
| Rural industries | 87,156 | 94,141 | 115,863 | 1.1 | 0.9 | 1.0 |
| Manufacturing— | | | | | | |
| Motor vehicle assembly | 515,142 | 636,690 | 582,499 | 6.3 | 6.1 | 5.2 |
| Other | 2,441,998 | 3,166,372 | 3,498,415 | 29.6 | 30.4 | 31.3 |
| Total producers' materials | 3,293,715 | 4,240,017 | 4,512,997 | 40.0 | 40.7 | 40.4 |
| Capital equipment— | | | | | | |
| Producers' equipment | 1,685,272 | 2,086,509 | 2,366,830 | 20.5 | 20.0 | 21.2 |
| Transport equipment— | | | | | | |
| Complete road vehicles and assembled chassis | 502,876 | 700,935 | 697,995 | 6.1 | 6.7 | 6.3 |
| Railway equipment, vessels and civil aircraft | 114,081 | 132,543 | 249,645 | 1.4 | 1.3 | 2.2 |
| Total capital equipment | 2,302,229 | 2,919,987 | 3,314,469 | 27.9 | 28.0 | 29.7 |
| Finished consumer goods— | | | | | | |
| Food, beverages and tobacco | 287,660 | 449,945 | 512,849 | 3.5 | 4.3 | 4.6 |
| Clothing and accessories | 243,204 | 307,412 | 346,944 | 3.0 | 3.0 | 3.1 |
| All other | 1,519,393 | 1,872,729 | 1,856,721 | 18.4 | 18.0 | 16.6 |
| Total finished consumer goods | 2,050,257 | 2,630,086 | 2,716,513 | 24.9 | 25.3 | 24.3 |
| Fuels and lubricants | 282,613 | 337,376 | 346,515 | 3.4 | 3.2 | 3.1 |
| Auxiliary aids to production | 156,071 | 86,328 | 99,483 | 1.9 | 0.8 | 0.9 |
| Munitions and war stores | 68,536 | 116,415 | 89,701 | 0.8 | 1.1 | 0.8 |
| Total Merchandise | 8,153,421 | 10,330,210 | 11,079,677 | 98.9 | 99.2 | 99.2 |
| DEGREE OF MANUFACTURE | | | | | | |
| Producers' materials— | | | | | | |
| Crude | 835,302 | 1,054,549 | 1,233,689 | 10.1 | 10.1 | 11.0 |
| Simply transformed | 500,788 | 619,134 | 667,703 | 6.1 | 5.9 | 6.0 |
| Elaborately transformed | 1,957,625 | 2,566,335 | 2,611,604 | 23.8 | 24.7 | 23.4 |
| Finished consumer goods— | | | | | | |
| Crude | 64,470 | 128,735 | 139,345 | 0.8 | 1.2 | 1.2 |
| Simply transformed | 101,240 | 147,993 | 174,700 | 1.2 | 1.4 | 1.6 |
| Elaborately transformed | 1,884,547 | 2,353,358 | 2,402,468 | 22.9 | 22.6 | 21.5 |
| Total imports— | | | | | | |
| Crude | 899,773 | 1,183,284 | 1,373,034 | 10.9 | 11.4 | 12.3 |
| Simply transformed | 992,261 | 1,127,459 | 1,210,662 | 12.0 | 10.8 | 10.8 |
| Elaborately transformed | 6,261,386 | 8,019,466 | 8,495,982 | 76.0 | 77.0 | 76.1 |
| Total Merchandise | 8,153,421 | 10,330,210 | 11,079,677 | 98.9 | 99.2 | 99.2 |
| Non-merchandise | 87,172 | 80,435 | 87,075 | 1.1 | 0.8 | 0.8 |
| Total | 8,240,193 | 10,410,645 | 11,166,752 | 100.0 | 100.0 | 100.0 |

(a) Import figures from 1976-77 are not comparable with previous years because of the change in the basis of valuation (see page 582).

Direction of Overseas Trade

Exports and imports, by country of consignment or of origin

The following table shows 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 41 on page 586.

AUSTRALIAN EXPORTS AND IMPORTS, VALUE BY COUNTRY OR COUNTRY GROUP OF
CONSIGNMENT OR ORIGIN
(S'000)

| Country | Exports | | | Imports | | |
|---|------------------|-------------------|-------------------|------------------|-------------------|-------------------|
| | 1975-76 | 1976-77 | 1977-78 | 1975-76 | 1976-77(a) | 1977-78 |
| Argentina | 28,020 | 27,336 | 41,014 | 3,130 | 3,679 | 4,602 |
| Associations of South-East Asian Nations— | | | | | | |
| Indonesia | 161,331 | 180,508 | 197,065 | 24,535 | 50,174 | 84,096 |
| Malaysia | 172,735 | 224,636 | 214,569 | 82,116 | 113,434 | 120,454 |
| Philippines | 93,517 | 118,460 | 130,020 | 27,855 | 43,937 | 56,821 |
| Singapore, Republic of | 185,334 | 183,506 | 237,842 | 160,309 | 196,305 | 264,863 |
| Thailand | 46,438 | 65,044 | 73,562 | 22,150 | 27,219 | 30,623 |
| Total ASEAN | 659,356 | 772,153 | 853,058 | 316,965 | 431,069 | 556,857 |
| Austria | 2,956 | 4,463 | 9,122 | 26,503 | 30,012 | 34,025 |
| Bahrain | 25,580 | 29,313 | 38,021 | 86,921 | 68,348 | 75,328 |
| Bangladesh | 18,077 | 16,903 | 35,088 | 7,852 | 10,575 | 9,516 |
| Brazil | 16,875 | 10,387 | 22,089 | 28,952 | 44,455 | 48,245 |
| Canada | 243,617 | 280,352 | 280,124 | 204,079 | 292,206 | 276,392 |
| China—excl. Taiwan Province | 219,791 | 184,685 | 580,975 | 68,942 | 103,151 | 113,387 |
| —Taiwan Province only | 114,143 | 134,401 | 182,144 | 134,242 | 212,754 | 246,799 |
| Egypt, Arab Republic of | 162,754 | 144,970 | 187,635 | 92 | 121 | 115 |
| European Economic Community— | | | | | | |
| Belgium-Luxembourg | 128,849 | 171,304 | 115,312 | 69,969 | 83,821 | 110,442 |
| Denmark | 4,982 | 6,234 | 7,223 | 32,536 | 33,846 | 40,409 |
| France | 206,781 | 282,358 | 268,023 | 138,766 | 170,764 | 179,688 |
| Germany, Federal Republic of | 294,518 | 395,916 | 398,803 | 543,618 | 715,366 | 746,394 |
| Ireland | 4,685 | 4,096 | 3,680 | 12,989 | 20,762 | 22,835 |
| Italy | 209,644 | 342,007 | 259,186 | 192,230 | 264,239 | 268,523 |
| Netherlands | 174,778 | 173,467 | 171,960 | 129,258 | 158,818 | 164,523 |
| United Kingdom | 406,782 | 540,361 | 480,214 | 1,108,680 | 1,136,204 | 1,281,000 |
| Total EEC | 1,431,018 | 1,915,744 | 1,704,400 | 2,228,046 | 2,583,820 | 2,813,815 |
| Fiji | 51,655 | 68,002 | 77,655 | 10,510 | 9,580 | 10,672 |
| Finland | 2,188 | 4,066 | 4,608 | 31,014 | 57,118 | 57,946 |
| Hong Kong | 147,392 | 189,157 | 215,484 | 216,512 | 254,281 | 265,387 |
| India | 71,498 | 201,342 | 69,807 | 50,053 | 70,586 | 89,655 |
| Iran | 89,296 | 150,310 | 179,397 | 83,582 | 103,657 | 82,645 |
| Iraq | 55,377 | 64,272 | 72,127 | 69,059 | 59,074 | 117,554 |
| Japan | 3,192,131 | 3,959,413 | 3,877,334 | 1,609,561 | 2,149,988 | 2,111,835 |
| Korea, Republic of | 120,224 | 190,205 | 266,448 | 70,573 | 95,818 | 120,258 |
| Kuwait | 34,674 | 47,631 | 64,525 | 125,817 | 197,211 | 194,715 |
| New Zealand | 455,043 | 579,734 | 585,260 | 250,789 | 319,556 | 360,116 |
| Norway | 66,228 | 48,444 | 37,817 | 23,021 | 23,161 | 24,169 |
| Pakistan, Islamic Republic of | 22,552 | 23,140 | 44,320 | 5,968 | 6,836 | 5,840 |
| Papua New Guinea | 174,719 | 189,912 | 237,264 | 36,399 | 80,277 | 73,867 |
| Poland | 64,271 | 105,879 | 65,351 | 6,493 | 7,969 | 8,116 |
| Romania | 14,344 | 35,064 | 44,899 | 4,291 | 4,975 | 12,734 |
| Saudi Arabia | 39,539 | 54,237 | 86,982 | 236,020 | 281,655 | 355,220 |
| South Africa, Republic of | 90,958 | 69,415 | 65,596 | 36,890 | 56,374 | 58,051 |
| Spain | 82,870 | 69,499 | 57,338 | 36,680 | 47,277 | 42,802 |
| Sri Lanka | 35,487 | 21,368 | 21,433 | 11,744 | 17,426 | 21,210 |
| Sweden | 57,405 | 57,869 | 46,247 | 166,982 | 203,958 | 175,955 |
| Switzerland | 7,861 | 10,521 | 9,918 | 105,352 | 127,186 | 131,627 |
| United Arab Emirates | 30,324 | 35,724 | 32,953 | 12,189 | — | 24,968 |
| United States of America | 968,322 | 1,009,381 | 1,290,730 | 1,656,319 | 2,161,662 | 2,320,030 |
| U.S.S.R. | 372,783 | 347,700 | 246,706 | 3,719 | 5,796 | 5,751 |
| Yugoslavia | 28,379 | 50,726 | 59,801 | 4,663 | 5,157 | 6,838 |
| Other countries | 411,930 | 527,650 | 514,936 | 265,300 | 280,644 | 304,335 |
| 'For Orders' and Country of origin or destination unknown | 29,946 | 20,223 | 36,525 | 5,369 | 3,233 | 5,376 |
| Total | 9,639,583 | 11,651,591 | 12,245,130 | 8,240,593 | 10,410,645 | 11,166,752 |

(a) Import figures from 1976-77 are not comparable with previous years because of the change in the basis of valuation (see page 582).

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 OR COUNTRY GROUP: DIVISIONS OF THE AUSTRALIAN
EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1977-78**
(S'000)

| Division No. | Description | A.S.E.A.N. | | Belgium- Luxembourg | | Canada | |
|-----------------|--|------------|---------|------------------------|---------|---------|---------|
| | | Exports | Imports | Exports | Imports | Exports | Imports |
| 00 | Live animals | 6,405 | - | - | - | - | - |
| 01 | Meat and meat preparations | 27,483 | 26 | 1,033 | 5 | 40,521 | 29 |
| 02 | Dairy products and eggs | 46,274 | - | - | 69 | 3,275 | - |
| 03 | Fish and fish preparations | 1,400 | 14,731 | 503 | 10 | 190 | 13,082 |
| 04 | Cereal grains and cereal preparations | 149,363 | 252 | 130 | 31 | 92 | 198 |
| 05 | Fruit and vegetables | 13,952 | 6,919 | 1,269 | 245 | 18,578 | 3,508 |
| 06 | Sugar and sugar preparations and honey | 26,468 | 310 | 123 | 14 | 95,540 | 43 |
| 07 | Coffee, tea, cocoa, spices and manufactures thereof | 5,822 | 48,859 | - | 56 | 139 | 5 |
| 08 | Feeding-stuff for animals (except unmilled cereals) | 9,639 | 3,937 | - | 111 | 5 | - |
| 09 | Miscellaneous preparations chiefly for food | 1,697 | 829 | - | 93 | 18 | 386 |
| 11 | Beverages | 1,508 | 31 | 3 | 54 | 1,867 | 118 |
| 12 | Tobacco and tobacco manufactures | 370 | 1,589 | - | 3 | - | 500 |
| 21 | Hides, skins and furskins, undressed | 1,323 | - | 646 | - | 9 | 109 |
| 22 | Oil-seeds, oil nuts and oil kernels | 21 | 388 | 16 | - | 3 | 40 |
| 23 | Crude rubber (including synthetic and reclaimed) | 1,359 | 29,901 | - | 1,154 | - | 193 |
| 24 | Wood, timber and cork | 11 | 45,138 | 1,216 | 8 | 8 | 34,986 |
| 25 | Pulp and waste paper | 78 | - | - | - | - | 15,308 |
| 26 | Textile fibres and their waste | 11,877 | 1,241 | 36,787 | 77 | 10,033 | 2,030 |
| 27 | Crude fertilisers and crude minerals (except coal, petroleum and precious stones) | 7,920 | 434 | - | 582 | 63 | 36,565 |
| 28 | Metalliferous ores and metal scrap | 55,201 | 943 | 23,205 | - | 37,086 | 12,272 |
| 29 | Crude animal and vegetable materials, n.e.s. | 1,068 | 1,616 | 342 | 38 | 1,480 | 166 |
| 32 | Coal, coke and briquettes | 3,642 | - | 14,248 | - | - | 62 |
| 33 | Petroleum and petroleum products | 46,608 | 207,212 | - | 441 | 64 | 5,103 |
| 34 | Petroleum gases and other gaseous hydrocarbons | (a) | - | (a) | - | (a) | 2 |
| 41 | Animal oils and fats | 5,316 | - | 20 | - | 47 | - |
| 42 | Fixed vegetable oils and fats | 4 | 18,393 | - | 10 | - | - |
| 43 | Animal and vegetable oils and fats, processed and waxes of animal or vegetable origin | 2,624 | 1,021 | - | 5 | 62 | 4 |
| 51 | Chemical elements and compounds | 16,106 | 1,301 | 106 | 10,486 | 53,031 | 6,301 |
| 52 | Mineral tar and crude chemicals from coal, petroleum and natural gas | 563 | 5 | - | - | - | - |
| 53 | Dyeing, tanning and colouring materials | 4,279 | 81 | 1 | 691 | 126 | 418 |
| 54 | Medicinal and pharmaceutical products | 7,081 | 2,420 | 226 | 1,426 | 1,669 | 506 |
| 55 | Essential oils and perfume materials; toilet, polishing and cleansing preparations | 4,097 | 1,039 | 84 | 457 | 132 | 493 |
| 56 | Fertilisers, manufactured | 26 | 1,088 | - | 192 | 4 | 4,462 |
| 57 | Explosives and pyrotechnic products | 1,819 | 234 | 26 | 5 | - | 167 |
| 58 | Plastic materials, regenerated cellulose and artificial resins | 10,266 | 3,628 | 21 | 1,940 | 2 | 6,259 |
| 59 | Chemical materials and products, n.e.s. | 6,967 | 147 | - | 443 | 938 | 1,174 |
| 61 | Leather, leather manufactures, n.e.s., and dressed furskins | 1,089 | 496 | 18 | 319 | 249 | 84 |
| 62 | Rubber manufactures, n.e.s. | 1,083 | 3,059 | 4 | 1,320 | 89 | 713 |
| 63 | Wood and cork manufactures (except furniture) | 434 | 10,026 | 1 | 101 | 25 | 1,319 |
| 64 | Paper, paperboard and manufactures thereof | 6,767 | 670 | 13 | 2,458 | 12 | 30,845 |
| 65 | Textile yarn, fabrics, made-up articles and related products | 2,613 | 26,717 | 7 | 6,570 | 166 | 14,244 |
| 66 | Non-metallic mineral manufactures, n.e.s. | 10,192 | 5,745 | 1,286 | 13,522 | 2,783 | 1,786 |
| 67 | Iron and steel | 88,297 | 2,805 | 9,091 | 851 | 1,670 | 1,402 |
| 68 | Non-ferrous metals | 73,514 | 1,877 | 21,743 | 587 | 145 | 10,545 |
| 69 | Manufactures of metals, n.e.s. | 14,840 | 6,160 | 288 | 2,279 | 1,530 | 7,295 |
| 71 | Machinery (except electric) | 37,563 | 11,015 | 1,747 | 42,249 | 2,881 | 35,195 |
| 72 | Electric machinery, apparatus and appliances | 18,317 | 15,029 | 228 | 10,716 | 749 | 10,838 |
| 73 | Transport equipment | 51,658 | 30,029 | 67 | 1,283 | 1,132 | 5,601 |
| 81 | Sanitary, plumbing, heating and lighting fixtures and fittings | 843 | 548 | - | 42 | 1 | 550 |
| 82 | Furniture | 251 | 7,605 | - | 59 | 52 | 881 |
| 83 | Travel goods, handbags and similar articles | 53 | 1,776 | 1 | 4 | 7 | 5 |
| 84 | Clothing and clothing accessories; articles of knitted or crocheted fabric | 978 | 13,497 | - | 62 | 55 | 1,466 |
| 85 | Footwear, gaiters, and similar articles and parts therefor | 157 | 4,929 | - | - | 7 | 120 |
| 86 | Professional, scientific and controlling instruments; photographic and optical goods, watches and clocks | 14,179 | 2,488 | 165 | 5,009 | 1,598 | 2,663 |
| 89 | Miscellaneous manufactured articles, n.e.s. | 7,874 | 17,374 | 157 | 2,622 | 1,177 | 5,594 |

OVERSEAS TRANSACTIONS

593

EXPORTS AND IMPORTS BY COUNTRY OR COUNTRY GROUP: DIVISIONS OF THE AUSTRALIAN
EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1977-78—continued
(\$'000)

| Division No. | Description | A.S.E.A.N. | | Belgium- Luxembourg | | Canada | |
|-----------------|---|------------|---------|------------------------|---------|---------|---------|
| | | Exports | Imports | Exports | Imports | Exports | Imports |
| 9A | Commodities and transactions of merchandise trade, not elsewhere classified | (b)15,600 | 691 | (b)92 | 1,691 | (b)349 | 444 |
| | Total merchandise | 824,941 | 556,249 | 114,916 | 110,392 | 279,661 | 276,080 |
| 9B | Commodities and transactions not included in merchandise trade | 28,117 | 608 | 396 | 50 | 463 | 312 |
| | Grand total | 853,058 | 556,857 | 115,312 | 110,442 | 280,124 | 276,392 |

(a) Included in Division 9A.

(b) Includes Division 34.

| Div. No. | China-excl. Taiwan Province | | China-Taiwan Province only | | E.E.C. | | France | | Germany, Federal Republic of | |
|-------------|--------------------------------|---------|-------------------------------|---------|-----------|-----------|---------|---------|---------------------------------|---------|
| | Exports | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports | Imports |
| 00 | - | - | 44 | - | 27 | 5,459 | - | 120 | - | 12 |
| 01 | 8 | 4 | 4,548 | - | 55,511 | 725 | 9,304 | 70 | 4,695 | 26 |
| 02 | - | - | 12,959 | 7 | 11 | 10,479 | - | 876 | - | 1,389 |
| 03 | 57 | 1,725 | 309 | 1,382 | 5,864 | 18,677 | 2,943 | 96 | 606 | 1,222 |
| 04 | 376,390 | 271 | 28,593 | 61 | 27,824 | 5,656 | 144 | 78 | 21,504 | 818 |
| 05 | 5 | 5,463 | 209 | 8,062 | 42,589 | 8,138 | 2,698 | 241 | 10,911 | 1,025 |
| 06 | 37,614 | 121 | 2 | 69 | 5,020 | 4,200 | - | 160 | 95 | 157 |
| 07 | 78 | 4,613 | 19 | 195 | 4,484 | 21,010 | 5 | 58 | 1,813 | 1,356 |
| 08 | 33 | - | 4,670 | 61 | 228 | 1,186 | 28 | 202 | - | 595 |
| 09 | 264 | 419 | 15 | 429 | 71 | 6,513 | - | 963 | - | 586 |
| 11 | 6 | 37 | 9 | 3 | 1,173 | 45,904 | 23 | 7,109 | 12 | 4,546 |
| 12 | - | 13 | - | - | 8 | 16,348 | - | 88 | - | 91 |
| 21 | 2,263 | 246 | 3,964 | - | 154,855 | 438 | 76,094 | 17 | 29,616 | 16 |
| 22 | - | 133 | - | - | 199 | 34 | 17 | - | 22 | - |
| 23 | - | - | 235 | 36 | 11 | 3,723 | - | 696 | - | 336 |
| 24 | - | - | 33 | 57 | 7,400 | 733 | 532 | 32 | 514 | 91 |
| 25 | - | - | 10 | - | 11 | 228 | - | - | - | - |
| 26 | 12,981 | 537 | 25,758 | 421 | 327,635 | 8,987 | 64,852 | 48 | 86,216 | 2,710 |
| 27 | - | 936 | 3,176 | 11 | 3,747 | 5,733 | 1 | 74 | 1,123 | 543 |
| 28 | 35,260 | 152 | 21,908 | - | 327,220 | 891 | 35,140 | 1 | 110,985 | 317 |
| 29 | - | 1,822 | 965 | 404 | 12,619 | 5,588 | 290 | 556 | 3,548 | 550 |
| 32 | - | - | 32,546 | - | 209,201 | 753 | 51,551 | - | 19,526 | 714 |
| 33 | 160 | 1,104 | 869 | 61 | 95 | 27,105 | - | 2,497 | 77 | 1,781 |
| 34 | (a) | - | (a) | - | (a) | 46 | (a) | 27 | (a) | 5 |
| 41 | 16,643 | - | 4,848 | - | 9,392 | 114 | 3,026 | 4 | 382 | - |
| 42 | - | 1,706 | - | 2 | 964 | 1,030 | - | 57 | - | 162 |
| 43 | 272 | 14 | 188 | - | 497 | 4,565 | 66 | 3 | 39 | 334 |
| 51 | 1,634 | 2,474 | 4,654 | 2,176 | 64,808 | 138,256 | 359 | 13,562 | 55,762 | 46,319 |
| 52 | - | - | - | - | 6 | 118 | - | 4 | - | 7 |
| 53 | 607 | 55 | 449 | 5 | 493 | 29,692 | 8 | 1,650 | 14 | 10,463 |
| 54 | - | 467 | 203 | 382 | 6,521 | 65,186 | 137 | 2,206 | 392 | 16,429 |
| 55 | - | 393 | 81 | 99 | 364 | 22,853 | 19 | 8,815 | 21 | 3,817 |
| 56 | - | - | - | - | - | 2,392 | - | 77 | - | 1,048 |
| 57 | - | 212 | - | 194 | 345 | 4,797 | 64 | 143 | 164 | 307 |
| 58 | - | 55 | 267 | 7,119 | 501 | 98,033 | 45 | 6,721 | 55 | 20,909 |
| 59 | 3 | 2,048 | 100 | 3 | 1,032 | 54,800 | 56 | 4,250 | 36 | 9,008 |
| 61 | 400 | 121 | 111 | 1,576 | 11,958 | 7,790 | 50 | 492 | 2,777 | 872 |
| 62 | - | 44 | 14 | 4,177 | 409 | 47,194 | 3 | 7,358 | 8 | 6,178 |
| 63 | - | 223 | 11 | 16,531 | 505 | 4,558 | - | 210 | 297 | 881 |
| 64 | - | 534 | 19 | 444 | 319 | 42,447 | 15 | 1,848 | 10 | 12,084 |
| 65 | 12 | 48,333 | 196 | 32,949 | 811 | 127,306 | 25 | 7,376 | 326 | 22,724 |
| 66 | 3 | 2,133 | 597 | 5,304 | 6,946 | 96,061 | 191 | 5,920 | 2,364 | 16,516 |
| 67 | 86,744 | 66 | 7,126 | 753 | 46,675 | 30,173 | 987 | 2,669 | 7,104 | 8,476 |
| 68 | 8,769 | 127 | 18,191 | 15 | 261,829 | 14,777 | 11,048 | 358 | 25,720 | 3,481 |
| 69 | 263 | 856 | 362 | 11,421 | 5,967 | 88,762 | 362 | 3,470 | 530 | 23,413 |
| 71 | 163 | 561 | 2,025 | 11,571 | 19,244 | 617,816 | 1,115 | 29,213 | 3,131 | 190,320 |
| 72 | 101 | 1,236 | 330 | 14,408 | 10,404 | 272,959 | 1,695 | 19,408 | 1,967 | 99,892 |
| 73 | 155 | 12 | 495 | 10,019 | 9,552 | 320,067 | 1,236 | 22,875 | 1,083 | 117,834 |
| 81 | - | 34 | 13 | 1,433 | 370 | 10,053 | 9 | 333 | 30 | 2,377 |
| 82 | - | 680 | 4 | 6,962 | 174 | 20,020 | - | 237 | 41 | 1,754 |
| 83 | 6 | 533 | 1 | 6,328 | 38 | 4,157 | 1 | 289 | 3 | 291 |
| 84 | - | 21,056 | 27 | 46,827 | 1,131 | 41,218 | 21 | 4,611 | 548 | 2,682 |
| 85 | - | 5,615 | - | 25,417 | 36 | 22,074 | 3 | 2,311 | - | 768 |
| 86 | 4 | 660 | 324 | 2,694 | 16,793 | 134,979 | 2,842 | 7,366 | 1,012 | 45,151 |
| 89 | 4 | 5,460 | 370 | 26,619 | 11,481 | 209,909 | 377 | 9,685 | 1,202 | 27,360 |
| 9A | (b)1 | - | (b)212 | 59 | (b)4,862 | 67,190 | (b)185 | 962 | (b)1,027 | 29,695 |
| | 580,902 | 113,304 | 182,057 | 246,748 | 1,680,231 | 2,799,896 | 267,567 | 178,491 | 397,307 | 740,440 |
| 9B | 73 | 83 | 87 | 51 | 24,169 | 13,918 | 456 | 1,197 | 1,496 | 5,954 |
| | 580,975 | 113,387 | 182,144 | 246,799 | 1,704,400 | 2,813,815 | 268,023 | 179,688 | 398,803 | 746,394 |

(a) Included in Division 9A.

(b) Includes Division 34.

EXPORTS AND IMPORTS BY COUNTRY OR COUNTRY GROUP: DIVISIONS OF THE AUSTRALIAN
EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1977-78—*continued*
(\$'000)

| Division No. | Description | Hong Kong | | Indonesia | | Iran | |
|-----------------|--|-----------|---------|-----------|---------|-----------|---------|
| | | Exports | Imports | Exports | Imports | Exports | Imports |
| 00 | Live animals | 5,204 | — | 636 | — | 47,951 | — |
| 01 | Meat and meat preparations | 13,374 | 8 | 562 | — | 69,867 | — |
| 02 | Dairy products and eggs | 11,525 | — | 11,156 | — | 525 | — |
| 03 | Fish and fish preparations | 4,648 | 677 | 28 | 1,314 | — | — |
| 04 | Cereal grains and cereal preparations | 18,669 | 460 | 69,786 | 8 | 3,162 | — |
| 05 | Fruit and vegetables | 3,221 | 878 | 1,184 | 1,046 | 16 | 1,986 |
| 06 | Sugar and sugar preparations and honey | 194 | 61 | 228 | — | 701 | — |
| 07 | Coffee, tea, cocoa, spices and manufactures thereof | 1,256 | 63 | 243 | 37,451 | — | 80 |
| 08 | Feeding-stuff for animals (except unmilled cereals) | 1,116 | 10 | 105 | — | 3,370 | — |
| 09 | Miscellaneous preparations chiefly for food | 1,289 | 1,213 | 551 | 13 | — | — |
| 11 | Beverages | 726 | 27 | 335 | — | 1 | — |
| 12 | Tobacco and tobacco manufactures | 300 | — | 214 | 42 | — | 5 |
| 21 | Hides, skins and furskins, undressed | 4,748 | 9 | — | — | 155 | — |
| 22 | Oil-seeds, oil nuts and oil kernels | 256 | 245 | — | 98 | — | — |
| 23 | Crude rubber (including synthetic and reclaimed) | 1 | — | 578 | 8,823 | — | — |
| 24 | Wood, timber and cork | — | 7 | — | 730 | 77 | — |
| 25 | Pulp and waste paper | — | — | 78 | — | — | — |
| 26 | Textile fibres and their waste | 9,881 | 589 | 372 | — | 6,888 | — |
| 27 | Crude fertilisers and crude minerals (except coal, petroleum and precious stones) | 141 | 3 | 2,359 | 20 | 1,208 | 829 |
| 28 | Metalliferous ores and metal scrap | 232 | 580 | 3,277 | 15 | 362 | — |
| 29 | Crude animal and vegetable materials, n.e.s. | 894 | 576 | 45 | 78 | — | 2 |
| 32 | Coal, coke and briquettes | — | — | 359 | — | — | — |
| 33 | Petroleum and petroleum products | 1,035 | 6 | 9,738 | 29,051 | — | 76,331 |
| 34 | Petroleum gases and other gaseous hydrocarbons | (a) | — | (a) | — | (a) | — |
| 41 | Animal oils and fats | 235 | — | 113 | — | 1,057 | — |
| 42 | Fixed vegetable oils and fats | 2 | 242 | 1 | — | — | — |
| 43 | Animal and vegetable oils and fats, processed and waxes of animal or vegetable origin | 245 | — | 1,401 | — | — | — |
| 51 | Chemical elements and compounds | 2,266 | 409 | 5,943 | 115 | 7,965 | — |
| 52 | Mineral tar and crude chemicals from coal, petroleum and natural gas | — | — | 10 | — | — | 2,120 |
| 53 | Dyeing, tanning and colouring materials | 369 | 59 | 699 | — | 1 | 20 |
| 54 | Medicinal and pharmaceutical products | 2,171 | 54 | 925 | 449 | 94 | — |
| 55 | Essential oils and perfume materials; toilet, polishing and cleansing preparations | 1,880 | 750 | 524 | 200 | — | — |
| 56 | Fertilisers, manufactured | 4 | — | 19 | 1,081 | — | — |
| 57 | Explosives and pyrotechnic products | — | 5 | 1,797 | — | — | — |
| 58 | Plastic materials, regenerated cellulose and artificial resins | 1,987 | 502 | 3,312 | — | 1 | — |
| 59 | Chemical materials and products, n.e.s. | 797 | 433 | 2,743 | — | 48 | — |
| 61 | Leather, leather manufactures, n.e.s., and dressed furskins | 2,167 | 238 | 17 | 2 | 71 | — |
| 62 | Rubber manufactures, n.e.s. | 81 | 52 | 485 | 172 | 1 | — |
| 63 | Wood and cork manufactures (except furniture) | 14 | 404 | — | 67 | — | — |
| 64 | Paper, paperboard and manufactures thereof | 1,382 | 1,014 | 920 | — | 23 | — |
| 65 | Textile yarn, fabrics, made-up articles and related products | 1,179 | 61,049 | 402 | 231 | 27 | 1,203 |
| 66 | Non-metallic mineral manufactures, n.e.s. | 13,645 | 2,714 | 1,302 | 105 | 417 | 2 |
| 67 | Iron and steel | 17,759 | 9 | 20,427 | — | 16,754 | — |
| 68 | Non-ferrous metals | 9,771 | 288 | 26,040 | — | 9,877 | — |
| 69 | Manufactures of metal, n.e.s. | 4,955 | 11,220 | 1,817 | 32 | 476 | 6 |
| 71 | Machinery (except electric) | 11,506 | 3,833 | 8,625 | 97 | 2,042 | — |
| 72 | Electric machinery, apparatus and appliances | 3,181 | 26,555 | 1,704 | 36 | 157 | — |
| 73 | Transport equipment | 2,360 | 1,066 | 4,332 | 894 | 97 | — |
| 81 | Sanitary, plumbing, heating and lighting fixtures and fittings | 283 | 1,996 | 119 | — | 17 | 10 |
| 82 | Furniture | 227 | 2,402 | 1 | 81 | — | — |
| 83 | Travel goods, handbags and similar articles | 43 | 10,777 | 1 | 39 | — | — |
| 84 | Clothing and clothing accessories; articles of knitted or crocheted fabric | 633 | 60,972 | 59 | 890 | 88 | 7 |
| 85 | Footwear, gaiters, and similar articles and parts therefor | 13 | 3,352 | 30 | 682 | — | — |
| 86 | Professional, scientific and controlling instruments; photographic and optical goods, watches and clocks | 11,071 | 10,568 | 851 | — | 172 | — |
| 89 | Miscellaneous manufactured articles, n.e.s. | 3,330 | 57,907 | 655 | 153 | 94 | 2 |
| 9A | Commodities and transactions of merchandise trade, not elsewhere classified | (b) 5,249 | 645 | (b) 6,457 | 37 | (b) 5,486 | — |
| | Total merchandise | 177,516 | 264,931 | 193,566 | 84,054 | 179,246 | 82,603 |
| | Commodities and transactions not included in merchandise trade | 37,968 | 456 | 3,499 | 42 | 151 | 42 |
| | Grand total | 215,484 | 265,387 | 197,065 | 84,096 | 179,397 | 82,645 |

(a) Included in Division 9A.

(b) Includes Division 34.

EXPORTS AND IMPORTS BY COUNTRY OR COUNTRY GROUP: DIVISIONS OF THE AUSTRALIAN
EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1977-78—continued

(\$'000)

| Division No. | Italy | | Japan | | Korea, Republic of | | Kuwait | | Malaysia | |
|-----------------|---------|---------|------------|-----------|-----------------------|---------|---------|---------|----------|---------|
| | Exports | Imports | Exports | Imports | Exports | Imports | Exports | Imports | Exports | Imports |
| 00 | - | - | 456 | - | 222 | - | 18,300 | - | 1,320 | - |
| 01 | 1,185 | 209 | 207,296 | 21 | 27,974 | - | 17,642 | - | 8,020 | - |
| 02 | - | 1,905 | 39,203 | 3 | 627 | - | 2,172 | - | 12,277 | - |
| 03 | 1,279 | 282 | 71,080 | 21,330 | - | 3,167 | - | - | 403 | 8,213 |
| 04 | 2,608 | 518 | 262,111 | 550 | 4,154 | 20 | 21,177 | - | 43,173 | 40 |
| 05 | 432 | 3,370 | 10,070 | 992 | 260 | 1,146 | 1,186 | - | 2,377 | 366 |
| 06 | - | 232 | 218,095 | 2,316 | 49,352 | 24 | 121 | - | 12,233 | 109 |
| 07 | - | 413 | 5,579 | 869 | - | 7 | 4 | - | 4,110 | 7,938 |
| 08 | - | 45 | 23,820 | 401 | 303 | 1 | 793 | - | 2,108 | 244 |
| 09 | - | 289 | 126 | 991 | 4 | 81 | 43 | - | 434 | 130 |
| 11 | 12 | 4,812 | 208 | 201 | 17 | 4 | 118 | - | 250 | - |
| 12 | - | 11 | 1 | 8 | - | 2,633 | - | - | 156 | - |
| 21 | 34,805 | - | 31,690 | - | 8,353 | - | - | - | 178 | - |
| 22 | - | - | 538 | 18 | 253 | - | - | - | 16 | 4 |
| 23 | - | 2 | 10 | 2,969 | - | - | - | - | 172 | 17,985 |
| 24 | 6 | 1 | - | 88 | - | 14 | - | - | - | 31,582 |
| 25 | - | - | - | 1,219 | - | - | - | - | - | - |
| 26 | 87,289 | 44 | 356,978 | 7,362 | 51,983 | 7 | - | - | 11,295 | 312 |
| 27 | 524 | 544 | 35,425 | 7,385 | 3,282 | 32 | - | - | 2,409 | 1 |
| 28 | 35,430 | - | 992,769 | 67 | 33,273 | 27 | - | - | 46,473 | - |
| 29 | 2,008 | 198 | 5,174 | 1,318 | 611 | 324 | 20 | - | 407 | 226 |
| 32 | 42,485 | - | 1,091,460 | 42 | 49,197 | - | - | - | 32 | - |
| 33 | - | 16,747 | 18,032 | 588 | - | - | - | 194,715 | 5,195 | 2,512 |
| 34 | (a) | - | (a) | - | (a) | - | (a) | - | (a) | - |
| 41 | 123 | - | 18,316 | - | 10,189 | - | 1 | - | 1,599 | - |
| 42 | - | 535 | - | 60 | - | 1,161 | - | - | 1 | 11,639 |
| 43 | - | 1 | 1,174 | 312 | 1 | 89 | - | - | 373 | 1,021 |
| 51 | 2 | 4,978 | 101,416 | 66,689 | 214 | 2,110 | - | - | 2,014 | 197 |
| 52 | - | - | 1,000 | 50 | - | - | - | - | - | - |
| 53 | 3 | 748 | 150 | 3,342 | 2,164 | 32 | 39 | - | 774 | 1 |
| 54 | 41 | 1,548 | 2,191 | 4,049 | 520 | 478 | 43 | - | 2,677 | 345 |
| 55 | 63 | 682 | 1,614 | 874 | 141 | 27 | 8 | - | 922 | 41 |
| 56 | - | 356 | 3 | 643 | - | - | - | - | 2 | 2 |
| 57 | - | 145 | - | 128 | - | 40 | - | - | - | - |
| 58 | 43 | 2,664 | 441 | 43,341 | 2 | 205 | 14 | - | 819 | 670 |
| 59 | 7 | 394 | 6,924 | 6,140 | 213 | - | 4 | - | 1,350 | 32 |
| 61 | 7,252 | 751 | 358 | 616 | 121 | 471 | 6 | - | 141 | 79 |
| 62 | 1 | 3,542 | 4 | 52,766 | - | 4,192 | 1 | - | 237 | 2,018 |
| 63 | - | 1,105 | 82,513 | 1,323 | 2 | 1,932 | - | - | 263 | 3,852 |
| 64 | 5 | 3,459 | 220 | 30,052 | 162 | 1,646 | - | - | 3,137 | 44 |
| 65 | 24 | 13,131 | 774 | 152,889 | 352 | 20,648 | - | - | 679 | 11,367 |
| 66 | 94 | 19,747 | 10,241 | 56,237 | 27 | 3,190 | 41 | - | 906 | 109 |
| 67 | 27,482 | 323 | 10,251 | 142,453 | 17,586 | 16,675 | 40 | - | 6,395 | 11 |
| 68 | 11,339 | 537 | 78,011 | 5,764 | 2,680 | 18 | 225 | - | 8,750 | 1,858 |
| 69 | 84 | 6,498 | 5,213 | 58,005 | 17 | 3,841 | 311 | - | 3,164 | 2,602 |
| 71 | 1,630 | 64,989 | 23,818 | 281,030 | 288 | 4,324 | 267 | - | 6,121 | 5,751 |
| 72 | 332 | 12,946 | 1,963 | 329,707 | 504 | 4,773 | 1,459 | 1 | 5,000 | 2,193 |
| 73 | 364 | 29,770 | 1,271 | 620,460 | 516 | 706 | 289 | - | 2,236 | 227 |
| 81 | 62 | 2,465 | 5 | 2,866 | - | 49 | 2 | - | 140 | 92 |
| 82 | 2 | 9,513 | 94 | 2,718 | - | 1,194 | 9 | - | 98 | 1,021 |
| 83 | 3 | 2,056 | 20 | 948 | 1 | 3,423 | - | - | 5 | 157 |
| 84 | 168 | 9,456 | 1,135 | 7,146 | 7 | 23,448 | 46 | - | 275 | 1,969 |
| 85 | 1 | 13,889 | - | 1,460 | - | 4,551 | - | - | 10 | 2,013 |
| 86 | 1,164 | 5,948 | 1,914 | 85,473 | 229 | 1,426 | 57 | - | 594 | 605 |
| 89 | 163 | 25,450 | 1,060 | 95,938 | 144 | 12,049 | 84 | 1 | 1,255 | 727 |
| 9A | (b)273 | 272 | (b)148,882 | 6,568 | (b)40 | 58 | (b)1 | - | (b)1,259 | 70 |
| | 258,790 | 267,520 | 3,871,095 | 2,108,787 | 265,985 | 120,243 | 64,523 | 194,715 | 204,233 | 120,379 |
| 9B | 396 | 1,003 | 6,240 | 3,048 | 464 | 15 | 2 | - | 10,336 | 75 |
| | 259,186 | 268,523 | 3,877,334 | 2,111,835 | 266,448 | 120,258 | 64,525 | 194,715 | 214,569 | 120,454 |

(a) Included in Division 9A.

(b) Includes Division 34.

EXPORTS AND IMPORTS BY COUNTRY OR COUNTRY GROUP: DIVISIONS OF THE AUSTRALIAN
EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1977-78—continued

(\$'000)

| Division No. | Description | Netherlands | | New Zealand | | Papua New Guinea | |
|-----------------|--|-------------|---------|-------------|---------|------------------|---------|
| | | Exports | Imports | Exports | Imports | Exports | Imports |
| 00 | Live animals | - | - | 3,022 | 10,801 | 325 | - |
| 01 | Meat and meat preparations | 6,481 | 2 | 314 | 1,625 | 27,937 | - |
| 02 | Dairy products and eggs | 1 | 2,262 | 234 | 4,884 | 3,562 | - |
| 03 | Fish and fish preparations | 188 | 1,244 | 556 | 9,693 | 340 | 487 |
| 04 | Cereal grains and cereal preparations | 892 | 1,013 | 2,162 | 5,184 | 27,298 | - |
| 05 | Fruit and vegetables | 1,942 | 1,044 | 11,042 | 11,089 | 1,808 | 5 |
| 06 | Sugar and sugar preparations and honey | 30 | 302 | 17,380 | 1,799 | 7,538 | - |
| 07 | Coffee, tea, cocoa, spices and manufactures thereof | - | 10,625 | 375 | 1,495 | 1,943 | 61,787 |
| 08 | Feeding-stuff for animals (except unmilled cereals) | - | 6 | 154 | 46 | 1,102 | - |
| 09 | Miscellaneous preparations chiefly for food | - | 521 | 221 | 1,658 | 3,439 | - |
| 11 | Beverages | 5 | 521 | 1,090 | 117 | 2,448 | 5 |
| 12 | Tobacco and tobacco manufactures | - | 12,274 | 476 | 95 | 5,083 | 832 |
| 21 | Hides, skins and furskins, undressed | 3,961 | 27 | 556 | 359 | 1 | - |
| 22 | Oil-seeds, oil nuts and oil kernels | 104 | 15 | 651 | 77 | 3 | - |
| 23 | Crude rubber (including synthetic and reclaimed) | - | 234 | 1,209 | 49 | 189 | 3,413 |
| 24 | Wood, timber and cork | 811 | 1 | 1,142 | 10,121 | 8 | 2,257 |
| 25 | Pulp and waste paper | - | - | 376 | 26,294 | 27 | - |
| 26 | Textile fibres and their waste | 12,596 | 1,077 | 1,355 | 23,021 | 1,089 | - |
| 27 | Crude ferulisers and crude minerals (except coal, petroleum and precious stones) | 517 | 140 | 1,859 | 264 | 426 | - |
| 28 | Metalliferous ores and metal scrap | 45,379 | - | 1,497 | 1,792 | 98 | 125 |
| 29 | Crude animal and vegetable materials, n.e.s. | 1,736 | 349 | 1,278 | 2,682 | 229 | 8 |
| 32 | Coal, coke and briquettes | 47,276 | 10 | 247 | 82 | 10 | - |
| 33 | Petroleum and petroleum products | 1 | 3,064 | 118,523 | 88 | 7,094 | - |
| 34 | Petroleum gases and other gaseous hydrocarbons | (a) | - | (a) | - | (a) | - |
| 41 | Animal oils and fats | 2,967 | 2 | 11 | 12 | 2,169 | - |
| 42 | Fixed vegetable oils and fats | 964 | 257 | 503 | 40 | 262 | - |
| 43 | Animal and vegetable oils and fats, processed and waxes of animal or vegetable origin | 56 | 2,623 | 111 | 72 | 452 | - |
| 51 | Chemical elements and compounds | 2,825 | 9,735 | 62,168 | 295 | 1,042 | 2 |
| 52 | Mineral tar and crude chemicals from coal, petroleum and natural gas | 6 | - | 102 | 11 | 19 | - |
| 53 | Dyeing, tanning and colouring materials | 297 | 993 | 4,601 | 1,177 | 1,157 | - |
| 54 | Medicinal and pharmaceutical products | 68 | 1,732 | 20,768 | 1,666 | 1,300 | - |
| 55 | Essential oils and perfume materials; toilet, polishing and cleansing preparations | 18 | 565 | 3,386 | 3,642 | 4,117 | - |
| 56 | Fertilisers, manufactured | - | 562 | 666 | 234 | 83 | - |
| 57 | Explosives and pyrotechnic products | - | - | 872 | 6 | 482 | - |
| 58 | Plastic materials, regenerated cellulose and artificial resins | 15 | 7,159 | 14,546 | 3,794 | 1,831 | 18 |
| 59 | Chemical materials and products, n.e.s. | 24 | 7,892 | 5,273 | 541 | 1,579 | 1 |
| 61 | Leather, leather manufactures, n.e.s., and dressed furskins | 892 | 51 | 567 | 4,048 | 112 | - |
| 62 | Rubber manufactures, n.e.s. | 5 | 961 | 1,537 | 1,334 | 1,573 | 1 |
| 63 | Wood and cork manufactures (except furniture) | 17 | 168 | 1,311 | 4,085 | 218 | 2,723 |
| 64 | Paper, paperboard and manufactures thereof | 4 | 4,505 | 4,981 | 43,445 | 6,729 | 9 |
| 65 | Textile yarn, fabrics, made-up articles and related products | 21 | 4,495 | 15,296 | 45,056 | 1,815 | 9 |
| 66 | Non-metallic mineral manufactures, n.e.s. | 347 | 1,762 | 5,817 | 5,871 | 3,138 | 86 |
| 67 | Iron and steel | 1 | 198 | 39,890 | 1,276 | 6,975 | - |
| 68 | Non-ferrous metals | 34,807 | 591 | 33,452 | 1,914 | 1,581 | 27 |
| 69 | Manufactures of metal, n.e.s. | 284 | 1,478 | 19,068 | 12,099 | 8,328 | 1 |
| 71 | Machinery (except electric) | 735 | 15,738 | 45,336 | 23,626 | 23,155 | 20 |
| 72 | Electric machinery, apparatus and appliances | 1,404 | 21,197 | 25,294 | 21,635 | 10,861 | 11 |
| 73 | Transport equipment | 154 | 14,381 | 54,757 | 13,892 | 13,221 | 139 |
| 81 | Sanitary, plumbing, heating and lighting fixtures and fittings | 1 | 706 | 259 | 890 | 909 | - |
| 82 | Furniture | 31 | 343 | 486 | 9,591 | 901 | 2 |
| 83 | Travel goods, handbags and similar articles | 1 | 35 | 87 | 1,361 | 38 | 1 |
| 84 | Clothing and clothing accessories; articles of knitted or crocheted fabric | 21 | 113 | 859 | 21,118 | 1,517 | - |
| 85 | Footwear, gaiters, and similar articles and parts thereof | - | 17 | 713 | 2,168 | 576 | - |
| 86 | Professional, scientific and controlling instruments; photographic and optical goods, watches and clocks | 2,446 | 18,740 | 16,666 | 3,300 | 2,402 | 32 |
| 89 | Miscellaneous manufactured articles, n.e.s. | 253 | 5,313 | 19,123 | 15,306 | 5,222 | 155 |
| 9A | Commodities and transactions of merchandise trade, not elsewhere classified | (b)162 | 7,157 | (b)6,098 | 1,680 | (b)36,351 | 90 |
| | Total merchandise | 170,743 | 164,201 | 570,322 | 358,497 | 232,115 | 72,246 |
| 9B | Commodities and transactions not included in merchandise trade | 1,217 | 322 | 14,938 | 1,619 | 5,149 | 1,621 |
| | Grand total | 171,960 | 164,523 | 585,260 | 360,116 | 237,264 | 73,867 |

(a) Included in Division 9A.

(b) Includes Division 34.

EXPORTS AND IMPORTS BY COUNTRY OR COUNTRY GROUP: DIVISIONS OF THE AUSTRALIAN
EXPORT AND IMPORT COMMODITY CLASSIFICATIONS, 1977-78—continued

(\$'000)

| Div. No. | Saudi Arabia | | Singapore Republic of | | United Kingdom | | United States of America | | U.S.S.R. | |
|-------------|--------------|---------|--------------------------|---------|----------------|-----------|-----------------------------|-----------|----------|---------|
| | Exports | Imports | Exports | Imports | Export | Imports | Exports | Imports | Exports | Imports |
| 00 | 13,297 | - | 3,756 | - | 27 | 5,318 | 631 | 520 | - | - |
| 01 | 14,732 | - | 12,713 | 24 | 32,193 | 412 | 418,678 | 14 | 30,599 | - |
| 02 | 24,903 | - | 6,363 | - | 8 | 466 | 4,720 | 699 | - | - |
| 03 | 172 | - | 967 | 1,742 | 336 | 13,692 | 58,140 | 11,087 | - | 963 |
| 04 | 17,984 | - | 24,357 | 163 | 2,540 | 2,651 | 426 | 1,129 | 30,339 | - |
| 05 | 2,549 | - | 10,361 | 246 | 22,837 | 2,204 | 3,566 | 13,695 | - | 5 |
| 06 | 227 | - | 13,907 | 6 | 4,725 | 2,743 | 82,815 | 577 | - | - |
| 07 | - | - | 1,458 | 3,308 | 2,658 | 8,450 | 58 | 2,586 | - | 16 |
| 08 | 220 | - | 2,648 | 46 | 200 | 143 | 167 | 7,439 | - | - |
| 09 | 292 | - | 481 | 453 | 71 | 3,231 | 590 | 2,585 | - | - |
| 11 | 111 | - | 841 | 17 | 1,108 | 26,061 | 2,147 | 3,853 | 4 | 188 |
| 12 | - | - | - | - | 7 | 3,632 | 20 | 29,983 | - | - |
| 21 | - | - | 50 | - | 8,803 | 255 | 1,922 | 586 | 795 | 63 |
| 22 | - | - | 1 | 118 | 41 | 19 | 515 | 8,256 | - | - |
| 23 | - | - | 8 | 2,934 | 11 | 1,301 | 49 | 6,176 | - | - |
| 24 | 2 | - | 4 | 3,526 | 4,077 | 326 | 334 | 29,660 | - | 3 |
| 25 | - | - | - | - | 11 | 228 | 1 | 8,273 | - | - |
| 26 | 15 | - | 188 | 8 | 39,868 | 5,031 | 31,320 | 15,209 | 170,343 | - |
| 27 | 37 | - | 801 | 104 | 370 | 2,942 | 1,224 | 5,412 | - | - |
| 28 | - | - | 239 | 75 | 76,924 | 573 | 100,555 | 1,121 | 7,700 | - |
| 29 | 22 | - | 323 | 922 | 3,881 | 2,257 | 2,608 | 7,391 | - | 5 |
| 32 | - | - | 2 | - | 33,254 | 15 | 15,253 | 577 | - | 6 |
| 33 | 2 | 355,220 | 26,887 | 175,648 | 18 | 2,568 | 3,425 | 24,513 | - | 17 |
| 34 | (a) | - | (a) | - | (a) | 13 | (a) | 86 | (a) | - |
| 41 | 9 | - | 1,099 | - | 2,874 | 107 | 302 | 292 | - | - |
| 42 | - | - | 1 | 451 | - | 5 | - | 14,312 | - | - |
| 43 | - | - | 138 | - | 336 | 717 | 376 | 2,124 | - | - |
| 51 | 5 | - | 1,863 | 198 | 5,753 | 49,354 | 291,634 | 127,970 | 6,103 | 1,552 |
| 52 | - | - | 378 | 5 | - | 107 | - | 3,382 | - | - |
| 53 | 35 | - | 1,628 | 76 | 167 | 15,112 | 267 | 11,436 | - | - |
| 54 | 12 | - | 1,067 | 1,507 | 5,256 | 34,470 | 1,011 | 21,003 | - | 3 |
| 55 | 15 | - | 1,463 | 797 | 154 | 8,385 | 384 | 16,932 | - | 2 |
| 56 | - | - | 3 | 5 | - | 154 | 4 | 7,802 | - | - |
| 57 | 3 | - | 20 | - | 91 | 4,196 | 15 | 4,470 | - | 1 |
| 58 | 96 | - | 1,727 | 2,531 | 315 | 58,215 | 270 | 68,031 | - | - |
| 59 | 259 | - | 1,578 | 92 | 901 | 32,235 | 21,579 | 58,266 | 36 | - |
| 61 | - | - | 584 | 59 | 800 | 5,292 | 267 | 1,563 | - | 16 |
| 62 | 7 | - | 158 | 360 | 387 | 25,648 | 185 | 23,391 | - | - |
| 63 | 19 | - | 165 | 2,250 | 190 | 1,587 | 201 | 2,236 | - | - |
| 64 | 2 | - | 2,040 | 552 | 273 | 17,864 | 467 | 62,545 | - | - |
| 65 | 77 | - | 658 | 7,642 | 361 | 71,394 | 895 | 64,681 | - | 971 |
| 66 | 9 | - | 2,600 | 1,748 | 2,613 | 37,113 | 5,772 | 27,853 | - | 14 |
| 67 | 1,160 | - | 13,142 | 611 | 1,974 | 17,641 | 35,939 | 14,906 | - | - |
| 68 | 24 | - | 7,117 | 11 | 156,965 | 9,217 | 47,961 | 12,249 | - | 8 |
| 69 | 7,190 | - | 6,070 | 1,739 | 3,972 | 49,846 | 6,491 | 55,221 | 105 | 4 |
| 71 | 1,101 | - | 11,620 | 3,820 | 10,531 | 262,323 | 34,170 | 747,958 | 1 | 816 |
| 72 | 1,520 | - | 8,537 | 10,757 | 4,435 | 102,327 | 8,276 | 194,519 | - | 91 |
| 73 | 148 | - | 41,853 | 21,373 | 6,442 | 133,734 | 23,443 | 259,506 | - | - |
| 81 | 91 | - | 506 | 403 | 260 | 4,041 | 79 | 3,192 | - | - |
| 82 | 17 | - | 91 | 3,188 | 101 | 7,539 | 176 | 3,505 | - | 15 |
| 83 | - | - | 30 | 290 | 31 | 1,398 | 38 | 755 | - | - |
| 84 | 52 | - | 557 | 1,622 | 364 | 24,114 | 3,003 | 4,482 | - | - |
| 85 | - | - | 107 | 276 | 32 | 5,025 | 65 | 665 | - | - |
| 86 | 336 | - | 6,587 | 1,393 | 8,320 | 49,373 | 12,191 | 117,878 | 10 | 308 |
| 89 | 147 | - | 4,451 | 10,969 | 9,115 | 135,391 | 6,295 | 149,677 | 428 | 358 |
| 9A | (b)38 | - | (b)2,786 | 502 | (b)3,078 | 27,229 | (b)18,939 | 42,356 | (b)1 | 88 |
| | 86,940 | 355,220 | 226,978 | 264,565 | 460,058 | 1,275,682 | 1,249,807 | 2,306,580 | 246,466 | 5,516 |
| 9B | 42 | - | 10,864 | 298 | 20,156 | 5,318 | 40,923 | 13,450 | 240 | 235 |
| | 86,982 | 355,220 | 237,842 | 264,863 | 480,214 | 1,281,000 | 1,290,730 | 2,320,030 | 246,706 | 5,751 |

(a) Included in Division 9A.

(b) Includes Division 34.

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, 1975-76
TO 1977-78**
(S'000)

| <i>Stores</i> | <i>1975-76</i> | <i>1976-77</i> | <i>1977-78</i> |
|--|----------------|----------------|----------------|
| Cigarettes, cigars and tobacco | 1,038 | 1,749 | 1,536 |
| Fuel, lubricating oil and lubricants | 136,659 | 189,688 | 203,566 |
| Foodstuffs for human consumption— | | | |
| Meats | 2,075 | 2,210 | 3,306 |
| Sugar | 34 | 18 | 9 |
| Milk and cream, preserved | 23 | 62 | 84 |
| Butter | 43 | 94 | 167 |
| Cheese | 35 | 69 | 108 |
| Eggs in shell | 130 | 231 | 368 |
| Seafoods | 373 | 627 | 823 |
| Prepared grains | 169 | 200 | 465 |
| Vegetables | 503 | 699 | 1,324 |
| Fruit | 194 | 334 | 442 |
| Tea | 4 | 12 | 21 |
| Other | 1,777 | 1,691 | 2,315 |
| Fodder | 381 | 192 | 218 |
| Alcoholic beverages | 3,057 | 3,708 | 4,029 |
| Other ships' stores | 8,628 | 8,275 | 10,203 |
| Total | 155,123 | 209,857 | 228,981 |

Overseas trade by State

The following table shows the value of exports and imports for each State and Territory.

EXPORTS AND IMPORTS BY STATE, 1977-78
(S'000)

| <i>State(a)</i> | <i>Exports</i> | <i>Imports</i> |
|--|-------------------|-------------------|
| New South Wales | 3,107,347 | 4,634,833 |
| Victoria | 2,506,046 | 3,856,014 |
| Queensland | 2,802,156 | 887,176 |
| South Australia | 662,267 | 628,561 |
| Western Australia | 2,588,958 | 937,350 |
| Tasmania | 381,934 | 115,778 |
| Northern Territory | 193,314 | 99,597 |
| Australian Capital Territory | 3,107 | 7,443 |
| Grand Total | 12,245,130 | 11,166,752 |

(a) State in which export or import documentation was lodged with the Bureau of Customs.

Total import clearances, dutiable clearances, and customs duties collected

The following table shows the value of total import clearances, total dutiable clearances, and the customs duties collected, together with the ratio of total dutiable clearances to total clearances.

TOTAL IMPORT CLEARANCES, DUTIABLE CLEARANCES, AND CUSTOMS DUTIES

| | | <i>1972-73</i> | <i>1973-74</i> | <i>1974-75</i> | <i>1975-76</i> | <i>1976-77(a)</i> | <i>1977-78</i> |
|--|----------|----------------|----------------|----------------|----------------|-------------------|----------------|
| Total import clearances | S'000 | 4,132,983 | 6,015,035 | 7,976,280 | 8,174,645 | 10,304,756 | 11,122,166 |
| Total dutiable clearances | " | 1,804,803 | 2,329,826 | 3,029,747 | 3,224,861 | 4,022,198 | 3,978,241 |
| Total customs duties collected | " | 537,544 | 621,864 | 857,386 | 950,150 | 1,172,424 | 1,145,398 |
| Ratio of dutiable clearances to total clearance | per cent | 43.7 | 38.7 | 38.0 | 39.4 | 39.0 | 35.8 |
| Ratio of duties collected to dutiable clearances | " | 29.8 | 26.7 | 28.3 | 29.5 | 29.1 | 28.8 |

(a) Clearance figures from 1976-77 are not comparable with previous years because of the change in the basis of valuation (see page 582).

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 Bureau of Customs, 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 Chapter 22, Public Finance. The following table shows the quantities of spirits, beer, tobacco, etc. on which excise duty was paid in Australia.

| <i>Article</i> | <i>1975-76</i> | <i>1976-77</i> | <i>1977-78</i> | <i>Article</i> | <i>1975-76</i> | <i>1976-77</i> | <i>1977-78</i> |
|--------------------------------|----------------|----------------|----------------|------------------------------------|----------------|----------------|----------------|
| | '000 litre | '000 litre | '000 litre | | '000 litre | '000 litre | '000 litre |
| Beer | 1,863,075 | 1,891,229 | 1,923,387 | Petrol— | | | |
| | | | | Aviation gasoline (by-law)(a) | 57,705 | 56,381 | 64,108 |
| | | | | Aviation gasoline—Other(a) | — | 111 | — |
| | | | | Gasoline | 13,004,982 | 13,774,739 | 14,214,250 |
| | | | | <i>Total petrol</i> | 13,062,687 | 13,831,231 | 14,278,358 |
| | '000 l al | '000 l al | '000 l al | Mineral turpentine | — | — | — |
| Spirits— | | | | Aviation turbine kerosene(a) | 966,489 | 942,638 | 1,019,474 |
| Brandy | 2,674 | 2,755 | 2,845 | Other kerosene | — | 5,000 | — |
| Whisky | 680 | 731 | 695 | Diesel fuel (as defined by by-law) | 1,354,652 | 1,552,161 | 1,674,390 |
| Whisky | 743 | 671 | 633 | | doz. packs | doz. packs | doz. packs |
| Rum | 1,389 | 1,529 | 1,750 | | '000 | '000 | '000 |
| Liqueurs | 329 | 298 | 296 | Playing cards | 141 | 127 | 132 |
| Vodka | 698 | 760 | 827 | | '000 | '000 | '000 |
| Flavoured spirituous liquors | 210 | 243 | 263 | Cigarette papers and tubes | 3,922,920 | 3,706,945 | 3,150,190 |
| Other | 6 | 10 | 101 | | matches | matches | matches |
| <i>Total spirits (potable)</i> | 6,730 | 6,998 | 7,410 | | '000 | '000 | '000 |
| | | | | Matches | 29,302,853 | 26,655,026 | 25,739,447 |
| | '000 kg | '000 kg | '000 kg | | '000 tonnes | '000 tonnes | '000 tonnes |
| Tobacco | 2,276 | 2,097 | 1,944 | Coal | 56,171 | 63,982 | 68,398 |
| Cigars | 108 | 93 | 82 | | '000 doz | '000 doz | '000 doz |
| Cigarettes—machine-made | 27,743 | 27,846 | 27,867 | Canned fruit | 7,728 | 6,752 | 7,030 |

Surveys of foreign 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 foreign investment in enterprises in Australia and in Australian public authority securities repayable in Australian currency, as well as statistics of Australian investment in enterprises abroad 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 foreign 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 enterprises. 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 on foreign investment is classified on a similar basis, i.e. it is classified to the country to which it is directly payable.

Remittances between Australia and foreign residents by Australian life insurance enterprises are regarded as capital transactions made to bring assets located in foreign countries into line with commitments in those countries, and are included as a flow of investment between Australia and foreign residents. Similar considerations apply for foreign life insurance enterprises with branches in Australia.

The following are explanatory notes relating to some of the terms used in the tables:

Branches. Offices in Australia of enterprises incorporated abroad or offices in separate foreign countries of enterprises incorporated in Australia. For the purposes of the survey, branches are included if the value of net liabilities to head office exceeds \$A10,000 or if the annual net profit or loss exceeds \$A10,000. Australian branches of foreign enterprises *include* other Australian offices of foreign enterprises where a branch register is maintained in Australia, but *exclude* enterprises in

Australia which are incorporated abroad but which have no business operations in Australia other than an account with a bank in Australia. Foreign branches of enterprises in Australia *exclude* foreign enterprises which are incorporated in Australia but which have no business operations abroad other than an account with a foreign bank. However, the short-term assets represented by the bank accounts abroad are included as Australian portfolio investment abroad for those companies included in the surveys of foreign investment.

Enterprises. Incorporated and unincorporated businesses and other organisations, *excluding* enterprises 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 enterprises.

Foreign residents. Any individual, enterprise or other organisation domiciled in a country other than Australia. Includes Norfolk Island and other external territories of Australia. Foreign branches and subsidiaries of enterprises in Australia are also regarded as being foreign residents.

Portfolio investment and institutional loans. Investment in enterprises other than direct investment, i.e. investment other than investment by related enterprises in branches and subsidiaries. Includes both corporate equities and borrowings.

Subsidiaries. An *Australian subsidiary* of a foreign enterprise is an enterprise in Australia, other than a branch, in which:

- (a) a single foreign resident (individual or enterprise) or a group of related enterprises in the one foreign country holds 25 per cent or more of the equity, or, if this condition does not apply,
- (b) residents of one foreign country combined hold 50 per cent or more of the equity, together with other enterprises in Australia in which the Australian subsidiary holds, directly or indirectly, more than 50 per cent of the equity.

A *foreign subsidiary* of an enterprise in Australia is a foreign enterprise other than a branch, in which an enterprise in Australia holds 25 per cent or more of the equity. In principal, foreign enterprises 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 foreign enterprises.

Undistributed profits of subsidiaries. Equity of direct investors in the net earnings of an enterprise 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 and petroleum 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 include undistributed income accruing to the subsidiary from related enterprises 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 enterprises related to the branch.

More detailed statistics on foreign investment in Australia and Australian investment abroad are contained in the annual bulletin *Foreign Investment* (5305.0).

Private foreign investment in enterprises in Australia and investment income payable abroad by enterprises in Australia

The inflow of private foreign investment in Australia in recent years is shown in the next three tables.

INFLOW OF FOREIGN INVESTMENT IN ENTERPRISES IN AUSTRALIA BY TYPE OF INVESTMENT
(\$ million)

| Year | Direct investment | | | | | Portfolio investment and institutional loans | Total |
|---------|----------------------|--------------|-----------------------------------|-----------|-------|--|-------|
| | Undistributed income | | Other direct investment | | | | |
| | Branches | Subsidiaries | Branch liabilities to head office | Other (a) | Total | | |
| | | | | | | | |
| 1972-73 | 41 | 256 | 45 | 48 | 391 | 94 | 484 |
| 1973-74 | 21 | 399 | -1 | 186 | 605 | -134 | 471 |
| 1974-75 | 15 | 226 | 15 | 387 | 644 | 237 | 881 |
| 1975-76 | 178 | 428 | 6 | -48 | 564 | 198 | 762 |
| 1976-77 | 41 | 618 | 48 | 347 | 1,055 | 496 | 1,551 |

(a) Includes for subsidiaries: corporate equities, intercompany indebtedness and borrowings; and for branches: borrowings from related foreign enterprises other than the head office.

Minus sign (-) denotes withdrawal

INFLOW OF FOREIGN INVESTMENT IN ENTERPRISES IN AUSTRALIA, BY COUNTRY
(\$ million)

| Year | <i>E.E.C.</i> | | | | | | <i>Total</i> |
|-------------------|-----------------------|-----------------|---------------|---------------|--------------|------------------------|--------------|
| | <i>United Kingdom</i> | <i>Other(a)</i> | <i>U.S.A.</i> | <i>Canada</i> | <i>Japan</i> | <i>Other countries</i> | |
| 1972-73 | 116 | 52 | 92 | 8 | 51 | 165 | 484 |
| 1973-74 | 94 | 82 | 187 | 18 | 78 | 11 | 471 |
| 1974-75 | 109 | 158 | 349 | 15 | 65 | 185 | 881 |
| 1975-76 | 277 | 10 | 358 | 14 | 94 | 9 | 762 |
| 1976-77 | 357 | 255 | 613 | 68 | 204 | 54 | 1,551 |

(a) Includes Belgium, Denmark, France, Federal Republic of Germany, Ireland, Italy, Luxembourg and Netherlands.

INFLOW OF DIRECT FOREIGN INVESTMENT IN ENTERPRISES IN AUSTRALIA, BY INDUSTRY GROUP
(\$ million)

| Year | <i>Primary production(a)</i> | <i>Manufacturing</i> | <i>Other industries</i> | <i>Total</i> |
|-------------------|------------------------------|----------------------|-------------------------|--------------|
| 1972-73 | 67 | 84 | 240 | 391 |
| 1973-74 | 60 | 245 | 300 | 605 |
| 1974-75 | 64 | 283 | 296 | 644 |
| 1975-76 | 21 | 228 | 314 | 564 |
| 1976-77 | -50 | 482 | 624 | 1,055 |

(a) Includes agriculture, forestry, fishing, mining, quarrying and oil exploration and production.

Minus sign (-) denotes withdrawal.

The next three tables show investment income payable abroad by enterprises in Australia.

INCOME PAYABLE ON FOREIGN INVESTMENT IN ENTERPRISES IN AUSTRALIA, BY TYPE OF INCOME
(\$ million)

| <i>Income payable abroad on direct investment</i> | | | | | | | <i>Income payable abroad on portfolio investment and institutional loans</i> | <i>Total</i> |
|---|---------------------------------|---|------------------------------|-----------------------------|--------------|-----|--|--------------|
| <i>Year</i> | <i>Undistributed income</i> | <i>Distributed income</i> | | | <i>Total</i> | | | |
| | | <i>Remitted profits of branches</i> | <i>Dividends payable</i> | <i>Interest payable</i> | | | | |
| | | | | | | | | |
| 1972-73 | 297 | 92 | 203 | 110 | 703 | 150 | 854 | |
| 1973-74 | 420 | 104 | 208 | 111 | 843 | 163 | 1,007 | |
| 1974-75 | 241 | 152 | 204 | 134 | 731 | 208 | 940 | |
| 1975-76 | 605 | 157 | 248 | 130 | 1,141 | 242 | 1,384 | |
| 1976-77 | 659 | 273 | 230 | 122 | 1,285 | 256 | 1,541 | |

OVERSEAS TRANSACTIONS

INCOME PAYABLE ON FOREIGN INVESTMENT IN ENTERPRISES IN AUSTRALIA BY COUNTRY
(\$ million)

| Year | <i>E.E.C.</i> | | <i>U.S.A.</i> | <i>Canada</i> | <i>Japan</i> | <i>Other countries</i> | <i>Total</i> |
|---------|-----------------------|-----------------|---------------|---------------|--------------|------------------------|--------------|
| | <i>United Kingdom</i> | <i>Other(a)</i> | | | | | |
| 1972-73 | 340 | 16 | 404 | 27 | 18 | 48 | 854 |
| 1973-74 | 383 | 14 | 491 | 27 | 20 | 73 | 1,007 |
| 1974-75 | 292 | 1 | 529 | 16 | 23 | 79 | 940 |
| 1975-76 | 481 | 53 | 644 | 47 | 44 | 114 | 1,384 |
| 1976-77 | 535 | 55 | 723 | 38 | 77 | 114 | 1,541 |

(a) Includes Belgium, Denmark, France, Federal Republic of Germany, Ireland, Italy, Luxembourg and Netherlands.

INCOME PAYABLE ON DIRECT FOREIGN INVESTMENT IN ENTERPRISES IN AUSTRALIA, BY INDUSTRY GROUP
(\$ million)

| Year | <i>Primary production(a)</i> | <i>Manufacturing</i> | <i>Other industries</i> | <i>Total</i> |
|---------|------------------------------|----------------------|-------------------------|--------------|
| 1972-73 | 182 | 281 | 241 | 703 |
| 1973-74 | 269 | 320 | 253 | 843 |
| 1974-75 | 304 | 270 | 157 | 731 |
| 1975-76 | 309 | 411 | 421 | 1,141 |
| 1976-77 | 324 | 529 | 431 | 1,285 |

(a) Includes agriculture, forestry, fishing, mining, quarrying and oil exploration and production.

Australian investment in and investment income receivable from foreign enterprises

The outflow of Australian investment in enterprises 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 ABROAD, BY TYPE OF INVESTMENT
(\$ million)

| <i>Direct investment</i> | | | | | | | |
|--------------------------|-----------------------------|---------------------|--|--------------|--------------|--|--------------|
| <i>Year</i> | <i>Undistributed income</i> | | <i>Other direct investment</i> | | | <i>Portfolio investment and institutional loans(a)</i> | <i>Total</i> |
| | <i>Branches</i> | <i>Subsidiaries</i> | <i>Branch liabilities to head office</i> | <i>Other</i> | <i>Total</i> | | |
| 1972-73 | -10 | 83 | 10 | 13 | 97 | 17 | 114 |
| 1973-74 | -3 | 103 | 55 | 80 | 234 | 18 | 252 |
| 1974-75 | -12 | 40 | 16 | 63 | 107 | 5 | 112 |
| 1975-76 | 2 | 63 | 11 | 80 | 155 | 20 | 175 |
| 1976-77 | -10 | 100 | 33 | 88 | 211 | 2 | 213 |

(a) Prior to April 1975, excludes portfolio investment in Papua New Guinea other than some long-term trade credit and short-term assets; between April and December 1975, includes transactions with Papua New Guinea where amounts involved are denominated in Kina; from January 1976, includes all portfolio investment in Papua New Guinea.

Minus sign (-) denotes repatriation of investment.

OUTFLOW OF AUSTRALIAN INVESTMENT IN FOREIGN ENTERPRISES BY COUNTRY
(\$ million)

| Year | <i>E.E.C.</i> | | <i>New Zealand</i> | <i>U.S.A. and Canada</i> | <i>Papua New Guinea(b)</i> | <i>A.S.E.A.N.</i> | <i>Other countries</i> | <i>Total</i> |
|---------|---------------|-----------------|--------------------|--------------------------|----------------------------|-------------------|------------------------|--------------|
| | <i>U.K.</i> | <i>Other(a)</i> | | | | | | |
| 1972-73 | -2 | 21 | 24 | 20 | (c) | 7 | (d)44 | 114 |
| 1973-74 | 41 | 29 | 28 | 39 | (c) | 24 | (d)91 | 252 |
| 1974-75 | 2 | -1 | 51 | 9 | -7 | 38 | 21 | 112 |
| 1975-76 | 30 | 8 | 11 | 43 | 46 | 10 | 27 | 175 |
| 1976-77 | 31 | 8 | 55 | 40 | 26 | 15 | 38 | 213 |

(a) Belgium, Denmark, France, Federal Republic of Germany, Ireland, Italy, Luxembourg and Netherlands. (b) Prior to April 1975, excludes portfolio investment other than some long-term trade credit and short-term assets; between April and December 1975, includes transactions with Papua New Guinea where amounts involved are denominated in Kina; from January 1976, includes all portfolio investment in Papua New Guinea. (c) Not available for publication. (d) Includes Papua New Guinea.

Minus sign (-) denotes repatriation of investment.

The next two tables show income from direct investment receivable by Australian enterprises from foreign enterprises, and the countries from which it is receivable.

**INCOME RECEIVABLE ON AUSTRALIAN DIRECT INVESTMENT IN
FOREIGN ENTERPRISES, BY TYPE OF INCOME^(a)**
(\$ million)

| Year | | | <i>Distributed income</i> | | | Total |
|---------|-----------------------------|--------------|-------------------------------------|----------------------------------|----------|-------|
| | <i>Undistributed income</i> | | <i>Remitted profits of branches</i> | <i>Dividends of subsidiaries</i> | Interest | |
| | Branches | Subsidiaries | | | | |
| 1972-73 | -10 | 83 | 16 | 34 | 2 | 125 |
| 1973-74 | -3 | 103 | 18 | 67 | 1 | 187 |
| 1974-75 | -12 | 40 | 23 | 60 | 3 | 113 |
| 1975-76 | 2 | 63 | 22 | 46 | 5 | 138 |
| 1976-77 | -10 | 100 | 33 | 59 | 7 | 190 |

(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 withdrawal.

**INCOME RECEIVABLE ON AUSTRALIAN DIRECT INVESTMENT IN FOREIGN ENTERPRISES, BY
COUNTRIES^(a)**
(\$ million)

| Year | <i>E.E.C.</i> | | <i>New Zealand</i> | <i>U.S.A. and Canada</i> | <i>Papua New Guinea</i> | <i>A.S.E.A.N.</i> | <i>Other countries</i> | Total |
|---------|---------------|----------------------|--------------------|--------------------------|-------------------------|-------------------|------------------------|-------|
| | U.K. | Other ^(b) | | | | | | |
| 1972-73 | 19 | 3 | 21 | 3 | (c) | 4 | (d)78 | 125 |
| 1973-74 | 25 | - | 35 | 2 | (c) | 6 | (d)118 | 187 |
| 1974-75 | 17 | -7 | 29 | 4 | (c) | 9 | (d)61 | 113 |
| 1975-76 | 24 | 2 | 34 | 8 | (c) | 9 | (d)61 | 138 |
| 1976-77 | 33 | -3 | 54 | 8 | 40 | 17 | 41 | 190 |

(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) Belgium, Denmark, France, Federal Republic of Germany, Ireland, Italy, Luxembourg and Netherlands. (c) Not available for publication—included in 'Other countries'. (d) Includes Papua New Guinea.
Minus (-) sign denotes withdrawal.

BALANCE OF PAYMENTS

Balance of payments estimates provide a systematic record, in money terms, of transactions between residents of a country and residents of the rest of the world (non-residents) for a given period. Such a record is essential to the examination of influences which external factors have on the domestic economy. These estimates have always assumed a particular importance in Australia as the Australian economy is subject to fairly large fluctuations in export income and is also affected in important respects by variations in the level of foreign investment and the demand for imports.

Official estimates of Australia's balance of payments for 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 at least annually. Detailed estimates and a description of the various items included are provided in the annual bulletin *Balance of Payments* (5303.0). Somewhat less detailed estimates of the principal current account items and capital movements are published in the quarterly bulletin *Balance of Payments* (5303.0), and summary statement of the main balance of payments aggregates, *Balance of Payments (Preliminary)*, is issued monthly (5301.0).

Transactions are recorded in the balance of payments when ownership of goods changes, services are rendered, income and transfer payment are made and financial assets or liabilities are created or extinguished. The Australian balance of payments is divided into a current account and a capital account, the former covering transactions in goods, services, income and transfers, and the latter covering the creation or extinction of financial assets or liabilities through such activities as government loans raised overseas, private direct investment and portfolio investment. Included in the capital account are movements in the levels of financial assets held in the form of official reserves.

The balance of payments is a double entry accounting statement based on rules of debit and credit so that, conceptually, credits should exactly offset debits. However, errors and omissions in the

estimates and timing discrepancies in the recording of transactions and their offsets occur. It is therefore necessary, to preserve the identity between the two accounts, to introduce a balancing item which, although it is included in the capital account, reflects errors, omissions and timing discrepancies in both the current and capital accounts.

Current account

The current account is sub-divided into transactions in goods and invisibles. Transactions in goods consist of exports and imports, the difference between the two being the balance of trade. Exports and imports comprise all movable goods which undergo a change of ownership between residents and non-residents. Recorded trade statistics based on customs warrants provide the basic source of data; however these have to be adjusted in respect of valuation, timing and coverage to bring them onto a balance of payments basis. In brief, these adjustments include deducting those goods from recorded trade which, although they have crossed the customs frontier, have not changed ownership, and adding to the recorded trade figures those goods which have changed ownership but have not crossed the customs frontier. Goods crossing the customs frontier without changing ownership for the purpose of sale at a later date (e.g. consignment goods) are removed from trade data and added back later when they are sold. The value of recorded imports is also adjusted to allow for overstatement resulting from some imports being recorded, for customs purposes, at values higher than the transactions value required for the balance of payments.

Invisibles transactions include the sale and purchase of services, property income receivable from and payable to overseas, and transfer payments, both government and private. In most cases, credit entries represent the receipt of foreign exchange and debit entries the payment of foreign exchange, although there are some exceptions to this general rule: undistributed income, for example, is included as an imputed transaction in both the current and capital accounts, and transfers in kind (e.g. aid in the form of food shipments) also occur which do not result in movements of foreign exchange. The item Gold Production (net) also requires an explanation: reflecting the previous significance afforded to gold as an international medium of exchange, this item showed, for the period prior to 1 January 1976 (from which date the treatment was changed), the net value of gold exports (gold transactions being excluded from the visible trade items) plus the value of newly-produced gold retained by the Reserve Bank as part of Australia's official reserve assets.

Sources of data for the invisibles items vary. They include ABS surveys (transportation, defence expenditure, remitted profits, dividends and interest), data from trading banks on foreign exchange transactions (travel, miscellaneous services, royalties and copyrights, most private transfers), and data from government departments (most of the Government items, interest on public authority debt, foreign aid, social security cash benefits).

The balance on Current Account gives the net result of the trade and invisibles transactions and is derived by summing the balance of trade, invisible credits and invisible debits.

Capital account

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. They include government loan-raising operations overseas, investment by overseas residents in Australian companies, the investment by Australian residents in companies overseas, and changes in the level of Australia's foreign reserves.

In the capital account, transactions are recorded on a net basis, i.e. 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 'non-official' monetary institutions. Transactions of official institutions include changes in Australia's official reserve assets (consisting of gold, foreign exchange, the IMF gold tranche and special drawing rights in the IMF) and transactions between the Reserve Bank of Australia and foreign central monetary authorities and the IMF. Also included is an item, *19.3 Allocation of Special Drawing Rights*. This is the counterpart to the change in official reserve assets due to the allocation to Australia of SDRs by the IMF. 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. 'Non-official' 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 and government shipping and airline enterprises 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 trade credit transactions n.e.i. The figures for trade credit n.e.i. represent changes, mainly short term, in export and import indebtedness of the principal Australian marketing authorities and other private companies.

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 pages 603-604.

BALANCE OF PAYMENTS
(\$ million)

| | 1974-75 | | 1975-76 | | 1976-77 | |
|--|---------|-------|---------|-------|---------|--------|
| | Credit | Debit | Credit | Debit | Credit | Debit |
| CURRENT ACCOUNT | | | | | | |
| Goods— | | | | | | |
| 1 Exports f.o.b.(a) | 8,490 | — | 9,408 | — | 11,399 | — |
| 2 Imports f.o.b.(a) | — | 7,652 | — | 7,924 | — | 10,345 |
| Balance of trade | 838 | — | 1,484 | — | 1,054 | — |
| Invisibles— | | | | | | |
| 3 Gold production (net)(b) | 56 | — | 23 | — | — | — |
| 4 Transportation— | | | | | | |
| 4.1 Freight on imports(c) | — | 784 | — | 802 | — | 1,034 |
| 4.2 Expenditure of overseas carriers | 627 | — | 693 | — | 813 | — |
| 4.3 Other transportation | 324 | 712 | 348 | 801 | 425 | 947 |
| 5 Travel | 212 | 428 | 233 | 509 | 278 | 510 |
| 6 Government— | | | | | | |
| 6.1 Australian government— | | | | | | |
| 6.11 Defence expenditure | — | 47 | — | 57 | — | 62 |
| 6.12 Other expenditure | — | 99 | — | 118 | — | 127 |
| 6.13 Services to non-residents | 23 | — | 23 | — | 24 | — |
| 6.2 Foreign governments expenditure | 52 | — | 55 | — | 64 | — |
| 7 Miscellaneous— | | | | | | |
| 7.1 Business expenses | 88 | 187 | 64 | 138 | 52 | 109 |
| 7.2 Other | 70 | 107 | 62 | 116 | 42 | 146 |
| 8 Property income— | | | | | | |
| 8.1 Direct investment— | | | | | | |
| 8.11 Undistributed | 28 | 241 | 65 | 605 | 90 | 659 |
| 8.12 Distributed | 85 | 490 | 73 | 536 | 100 | 626 |
| 8.2 Interest on government loans | — | 76 | — | 85 | — | 114 |
| 8.3 Royalties and copyrights | 9 | 75 | 8 | 75 | 13 | 57 |
| 8.4 Other | 309 | 218 | 197 | 251 | 175 | 271 |
| 9 Government transfers— | | | | | | |
| 9.1 Papua New Guinea | — | 191 | — | 239 | — | 244 |
| 9.2 Other foreign aid | — | 160 | — | 132 | — | 145 |
| 9.3 Social security cash benefits | — | 11 | — | 18 | — | 26 |
| 10 Private transfers— | | | | | | |
| 10.1 Migrants' funds | 173 | 100 | 149 | 115 | 133 | 102 |
| 10.2 Social security cash benefits | 25 | — | 29 | — | 29 | — |
| 10.3 Other | 231 | 166 | 181 | 198 | 114 | 188 |
| Balance on current account | — | 946 | — | 1,108 | — | 1,961 |

OVERSEAS TRANSACTIONS
BALANCE OF PAYMENTS—*continued*
(\$ million)

| | 1974-75 | | 1975-76 | | 1976-77 | |
|---|---------|-------|---------|-------|---------|-------|
| | Credit | Debit | Credit | Debit | Credit | Debit |
| CAPITAL ACCOUNT (NET) | | | | | | |
| Government— | | | | | | |
| 11 Government securities— | | | | | | |
| 11.1 Domiciled overseas | 1 | — | 126 | — | 357 | — |
| 11.2 Domiciled in Australia | 21 | — | — | 80 | 14 | — |
| 12 International development institutions | — | 27 | — | 25 | — | 35 |
| 13 Other government transactions | — | 19 | — | 150 | — | 188 |
| Private— | | | | | | |
| 14 Overseas investment in Australian companies— | | | | | | |
| 14.1 Direct investment— | | | | | | |
| 14.11 Undistributed income | 241 | — | 605 | — | 659 | — |
| 14.12 Other | 403 | — | — | 41 | 396 | — |
| 14.2 Portfolio investment and institutional loans | 237 | — | 198 | — | 496 | — |
| 15 Australian investment overseas— | | | | | | |
| 15.1 Direct investment— | | | | | | |
| 15.11 Undistributed income | — | 28 | — | 65 | — | 90 |
| 15.12 Other | — | 79 | — | 90 | — | 121 |
| 15.2 Portfolio investment | — | 1 | — | 20 | — | 2 |
| 16 Other private investment | 14 | — | 1 | — | 6 | — |
| 17 Trade credit n.e.i.— | | | | | | |
| 17.1 Marketing authorities | — | 60 | 120 | — | 111 | — |
| 17.2 Other | — | 9 | — | 16 | 129 | — |
| Monetary— | | | | | | |
| 18 Non-official monetary institutions— | | | | | | |
| 18.1 Changes in liabilities— | | | | | | |
| 18.11 Borrowing overseas | 60 | — | 33 | — | 12 | — |
| 18.12 Other liabilities | 81 | — | — | 67 | 41 | — |
| 18.2 Changes in assets— | | | | | | |
| 18.21 Advances to non-residents | — | 3 | — | 9 | 15 | — |
| 18.22 Foreign currency balances | — | 87 | 19 | — | — | 44 |
| 19 Official monetary institutions— | | | | | | |
| 19.1 Changes in liabilities— | | | | | | |
| 19.11 Use of I.M.F. credit | — | — | — | — | 309 | — |
| 19.12 Other liabilities | 7 | — | — | 28 | — | 10 |
| 19.2 Changes in official reserve assets | 460 | — | 1,053 | — | 190 | — |
| 19.3 Allocation of S.D.R.'s | — | — | — | — | — | — |
| 19.4 Other transactions | — | 3 | — | 4 | 2 | — |
| Balancing item | — | 264 | — | 451 | — | 286 |
| Balance on capital account | 946 | — | 1,108 | — | 1,961 | — |

(a) The amounts shown represent the recorded trade figures adjusted for balance of payments purposes. Adjustments affect timing, coverage and valuation. (b) Estimates cover period 31 December 1976 since which date the treatment of gold transactions in the balance of payments has changed. (c) Freight payable overseas only. Total freight and insurance on imports, whether payable overseas or in Australia, is estimated at \$952 million in 1974-75 and \$938 million in 1975-76 and \$1,218 million in 1976-77.

OVERSEAS TRANSACTIONS
BALANCE OF PAYMENTS BY REGIONS
(\$ million)

607

| | 1974-75 | 1975-76 | 1976-77 |
|---|---------------|---------------|---------------|
| CURRENT ACCOUNT(a) | | | |
| Exports f.o.b.(b)– | | | |
| United States of America | 787 | 867 | 982 |
| Canada | 290 | 243 | 280 |
| United Kingdom | 432 | 398 | 516 |
| European Economic Community(c) | 840 | 1,031 | 1,321 |
| Japan | 2,414 | 3,189 | 3,933 |
| New Zealand | 516 | 439 | 553 |
| Papua New Guinea | 184 | 163 | 190 |
| Sino-Soviet Area | 605 | 748 | 771 |
| Other countries | 2,422 | 2,330 | 2,853 |
| <i>Total exports</i> | <i>8,490</i> | <i>9,408</i> | <i>11,399</i> |
| Imports f.o.b.(b)– | | | |
| United States of America | 1,565 | 1,640 | 2,145 |
| Canada | 204 | 194 | 287 |
| United Kingdom | 1,141 | 1,042 | 1,140 |
| European Economic Community(c) | 1,097 | 1,061 | 1,520 |
| Japan | 1,392 | 1,558 | 2,117 |
| New Zealand | 175 | 238 | 314 |
| Papua New Guinea | 31 | 35 | 79 |
| Sino-Soviet Area | 124 | 107 | 150 |
| Other countries | 1,922 | 2,049 | 2,593 |
| <i>Total imports</i> | <i>7,652</i> | <i>7,924</i> | <i>10,345</i> |
| Invisibles (net)– | | | |
| United States of America | -617 | -843 | -1,007 |
| Canada | -23 | -62 | -52 |
| United Kingdom | -491 | -753 | -909 |
| European Economic Community(c) | -156 | -224 | -258 |
| Japan | -28 | -57 | -98 |
| New Zealand | 57 | 23 | 40 |
| Papua New Guinea | -76 | -120 | -142 |
| Sino-Soviet Area | -6 | -5 | 4 |
| Other countries | -437 | -538 | -540 |
| International agencies | -58 | -37 | -55 |
| Gold production | 56 | 23 | - |
| <i>Total invisibles (net)</i> | <i>-1,784</i> | <i>-2,592</i> | <i>-3,015</i> |
| Balance on current account– | | | |
| United States of America | -1,395 | -1,616 | -2,170 |
| Canada | 63 | -13 | -59 |
| United Kingdom | -1,200 | -1,398 | -1,533 |
| European Economic Community(c) | -413 | -253 | -456 |
| Japan | 994 | 1,574 | 1,718 |
| New Zealand | 398 | 224 | 279 |
| Papua New Guinea | 76 | 8 | -31 |
| Sino-Soviet Area | 476 | 636 | 625 |
| Other countries | 62 | -256 | -280 |
| International agencies | -58 | -37 | -55 |
| Gold production | 56 | 23 | - |
| <i>Balance on current account</i> | <i>-946</i> | <i>-1,108</i> | <i>-1,961</i> |

For footnotes see next page.

OVERSEAS TRANSACTIONS

BALANCE OF PAYMENTS BY REGIONS—*continued*

(\$ million)

| | 1974-75 | 1975-76 | 1976-77 |
|--|-------------|--------------|--------------|
| CAPITAL ACCOUNT (NET)(a) | | | |
| Non-monetary sector— | | | |
| Government capital movements— | | | |
| United States of America | - | 43 | -61 |
| Canada | - | - | 1 |
| United Kingdom | -64 | -54 | -78 |
| European Economic Community(c) | 9 | -10 | 362 |
| Japan | 2 | - | -8 |
| New Zealand | - | -1 | - |
| Papua New Guinea | 11 | -3 | 3 |
| Sino-Soviet Area | - | - | - |
| International development financing institutions | -39 | -36 | -40 |
| Other countries | 57 | -69 | -30 |
| <i>Total government capital movements</i> | <i>-24</i> | <i>-129</i> | <i>148</i> |
| Overseas investment in Australian companies— | | | |
| United States of America | 349 | 358 | 613 |
| Canada | 15 | 14 | 68 |
| United Kingdom | 110 | 277 | 357 |
| European Economic Community(c) | 158 | 10 | 255 |
| Japan | 65 | 94 | 204 |
| New Zealand | 2 | 14 | -18 |
| Papua New Guinea | -13 | -3 | - |
| Sino-Soviet Area | - | - | -1 |
| Other countries | 195 | -3 | 73 |
| <i>Total overseas investment in Australian companies</i> | <i>881</i> | <i>762</i> | <i>1,551</i> |
| Other private capital movements— | | | |
| United States of America | -2 | -57 | -4 |
| Canada | -35 | 1 | 23 |
| United Kingdom | 11 | -25 | -15 |
| European Economic Community(c) | -29 | -8 | 39 |
| Japan | -30 | 58 | 19 |
| New Zealand | -95 | 8 | -27 |
| Papua New Guinea | -6 | -44 | -18 |
| Sino-Soviet Area | 18 | -4 | 69 |
| Other countries | 5 | - | -52 |
| <i>Total other private capital movements</i> | <i>-163</i> | <i>-70</i> | <i>33</i> |
| Total non-monetary sector transactions— | | | |
| United States of America | 347 | 344 | 548 |
| Canada | -20 | 15 | 93 |
| United Kingdom | 57 | 198 | 264 |
| European Economic Community(c) | 138 | -8 | 656 |
| Japan | 37 | 152 | 215 |
| New Zealand | -93 | 21 | -45 |
| Papua New Guinea | -8 | -50 | -15 |
| Sino-Soviet Area | 17 | -4 | 68 |
| International development financing institutions | -39 | -36 | -40 |
| Other countries | 257 | -72 | -9 |
| <i>Total non-monetary sector transactions</i> | <i>695</i> | <i>563</i> | <i>1,733</i> |
| Monetary sector transactions— | | | |
| Net official monetary movements(d) | 464 | 1,020 | 491 |
| Non-official monetary sector transactions(d) | 51 | -25 | 24 |
| Balancing item(d) | -264 | -451 | -286 |
| Balance on capital account(d) | 946 | 1,108 | 1,961 |

(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) Excluding United Kingdom. (d) No regional split is available for these items.

International reserves

The following table shows Australia's official reserve assets as at 30 June for recent years.

OFFICIAL RESERVE ASSETS(a)

(Source: Reserve Bank of Australia)

(\$ million)

| | 30 June | | |
|----------------------------------|--------------|--------------|--------------|
| | 1976 | 1977 | 1978 |
| Official reserve assets— | | | |
| Gold | 749 | 947 | 1,225 |
| Special Drawing Rights | 37 | 27 | 113 |
| I.M.F. gold tranche | 155 | 174 | 179 |
| Foreign exchange— | | | |
| United States dollars | 1,457 | 1,312 | 727 |
| Others | 688 | 851 | 982 |
| Total | 3,086 | 3,312 | 3,225 |

(a) Up to 30 June 1974, SDRs, Australia's reserve position in the IMF and IMF credit tranche, are valued on the basis of Australia's official parity established with the IMF; subsequent figures are based on the IMF basket valuation for the SDR, which is published in terms of US dollars crossed with the representative rate for the Australian dollar in terms of the US dollar. Gold is valued at the Reserve Bank buying price up to the end of January 1976; from February 1976 to end May 1976, gold is valued at the IMF official price in SDRs converted to Australian dollars at the derived SDR/\$A rate; subsequently, the basis of valuation is the average London gold price for the month, converted to Australian dollars at the market rate of exchange applying on the last day of the month. Since June 1973, the foreign currency value of all other overseas assets has been based, where applicable, on market quotations. Accrued interest is normally taken into account. Figures for earlier periods are on an historical cost basis. Conversion to Australian dollar equivalent is based on market rates of exchange.

FOREIGN CONTROL

A program of studies of foreign control of key industries and economic activities in Australia has been undertaken. Studies have been completed for manufacturing, mining, mineral exploration other than for petroleum, petroleum exploration, registered financial corporations other than re-tailers, finance companies, general insurance, life insurance, tourist accommodation, accredited advertising agencies and research and experimental development (R and D). This program of foreign control studies has now been terminated, as part of the measures necessary to bring ABS activities within the resources available to it.

Brief explanatory notes and a summary of the main results of these studies are given below.

An enterprise in Australia has been classified to *foreign control* if a foreign resident investor (individual, company or group of related companies) or foreign controlled enterprise held at least 25 per cent of the paid-up value of its voting shares (or equivalent equity interest in the case of unincorporated enterprises), provided that there was no larger holding by an Australian controlled enterprise or Australian resident individual. This definition of foreign control includes cases where there was an equal holding by an Australian controlled enterprise or Australian resident individual. All enterprises not classified to foreign control have been classified to *Australian control*.

To obtain aggregate measures of the extent of foreign control of an industry (or economic activity), operations data for each statistical unit in that industry (economic activity) have been allocated wholly to the appropriate control category for that unit and the results summed over all units in the industry (economic activity).

In the following table the classification by country of foreign control is based on the country of domicile of the *immediate* foreign resident investor who held the controlling interest in the enterprise. This is not necessarily the country of ultimate control, since an immediate foreign resident investor may be an enterprise that is controlled by residents of another country.

FOREIGN CONTROL OF INDUSTRIES AND ECONOMIC ACTIVITIES IN AUSTRALIA

| Industry and period | Foreign/Aust. control measured in terms of | Foreign control | | | | Australian control | | |
|---|---|-----------------|---------------|--------------|---------------|--------------------|----------------|-------------------|
| | | U.K. | U.S.A. | Other | Total | Australian control | Total | Total |
| Manufacturing 1972-73 | value added | per cent 16.2 | per cent 13.1 | per cent 5.0 | per cent 34.3 | per cent 65.7 | per cent 100.0 | \$ million 10,746 |
| Mining 1976-77 | value added | 15.9 | 37.5 | 5.6 | 59.0 | 41.0 | 100.0 | 3,562 |
| Mineral exploration other than for petroleum 1975-76 | exploration expenditure | 15.0 | 23.6 | 15.8 | 54.4 | 45.6 | 100.0 | 117 |
| Petroleum exploration 1975-76 | exploration expenditure | 36.7 | 34.1 | 3.6 | 74.4 | 25.6 | 100.0 | 60 |
| Registered financial corporations other than retailers 1976 | total assets | 14.2 | 17.1 | 2.5 | 33.8 | 66.2 | 100.0 | 25,172 |
| Finance companies 1976 | balances outstanding | 17.9 | 26.5 | 3.8 | 48.2 | 51.8 | 100.0 | 13,254 |
| General insurance business 1975-76 | premiums received | 26.0 | 2.7 | 9.1 | 37.8 | 62.2 | 100.0 | 2,846 |
| Life insurance business 1976 | premiums received | 13.2 | 1.7 | 3.8 | 18.7 | 81.3 | 100.0 | 1,501 |
| Tourist accommodation establishments 1973-74 | total takings | 1.2 | 0.7 | 2.3 | 4.3 | 95.7 | 100.0 | 1,361 |
| Accredited advertising agencies 1974-75 | turnover | 6.4 | 44.5 | — | 50.9 | 49.1 | 100.0 | 464 |
| R and D performed on account of private enterprises 1976-77 | expenditure | 21.2 | 23.5 | 7.5 | 52.3 | 47.7 | 100.0 | 156 |

VALUES OF EXPORTS AND IMPORTS OF MERCHANDISE AT CONSTANT PRICES

The following tables show annual values of Australian exports and imports of merchandise at constant (average 1974-75) prices. These estimates are compiled on the basis of recorded statistics of merchandise trade within the framework of the Australian Export Commodity Classification (AECC) and the Australian Import Commodity Classification (AICC). Quarterly figures in original and seasonally adjusted terms are published regularly in the bulletin *Exports and Imports of Merchandise at Constant Prices* (5421.0).

Nature of measures

In concept, constant price estimates may be thought of as being derived by expressing the value of each component transaction as the product of a quantity and a price, and then substituting for each current period price the average price of the corresponding item in the base year. There are, however, many transactions recorded in statistics of overseas trade for which it is not possible to apply such an approach. Some common examples of such transactions are those where quantity data are not recorded or where there is some doubt as to whether the commodity involved corresponds sufficiently to that for which a base year price has been calculated. In these cases it is necessary to make assumptions and approximations (e.g. revaluing by means of the price index which is considered to be most closely related to the commodity involved). The published estimates at constant prices should be viewed in the light of these approximations and should not be interpreted as precise quantitative measures.

The system of recording import values was changed from 1 July 1976. It has been estimated that, if the previous basis of valuation had been continued, the total value of imports would have been about 2 per cent higher at current prices than the recorded values on the new basis. The constant (average 1974-75) price estimates would be affected to a much lesser degree (refer page 582).

IMPORTS OF MERCHANDISE AT AVERAGE 1974-75 PRICES

(\$ million)

| | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78p |
|---|---------|---------|---------|---------|---------|----------|
| Food, beverages and tobacco | 282 | 354 | 377 | 330 | 379 | 369 |
| Fuels | 722 | 769 | 724 | 680 | 763 | 798 |
| Basic materials | 444 | 539 | 433 | 407 | 442 | 427 |
| Chemicals (incl. plastics) | 688 | 805 | 786 | 667 | 795 | 831 |
| Textiles, fabrics, etc. | 460 | 658 | 436 | 526 | 545 | 516 |
| Metals, metal manufactures, machinery and transport equipment | 2,188 | 3,131 | 3,565 | 3,160 | 3,514 | 3,100 |
| Other imports | 1,248 | 1,623 | 1,639 | 1,558 | 1,747 | 1,669 |
| Total imports of merchandise | 6,032 | 7,879 | 7,961 | 7,326 | 8,185 | 7,709 |

EXPORTS OF MERCHANDISE AT AVERAGE 1974-75 PRICES
(\\$ million)

| | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|---|--------------|--------------|--------------|--------------|--------------|--------------|
| Principal exports of rural origin— | | | | | | |
| Meat and meat preparations | 676 | 479 | 444 | 604 | 727 | 799 |
| Cereal grains and cereal preparations . . . | 1,027 | 975 | 1,460 | 1,460 | 1,534 | 1,797 |
| Sugar, sugar preparations and honey . . . | 702 | 600 | 661 | 665 | 841 | 814 |
| Wool and sheep skins | 1,172 | 835 | 816 | 1,027 | 1,193 | 902 |
| Other (dairy produce, fruit, etc.) | 502 | 461 | 399 | 471 | 526 | 460 |
| Total | 4,079 | 3,351 | 3,780 | 4,227 | 4,821 | 4,772 |
| Other exports— | | | | | | |
| Metalliferous ores and metal scrap . . . | 1,011 | 1,168 | 1,202 | 1,177 | 1,218 | 1,208 |
| Coal, coke and briquettes | 576 | 623 | 733 | 674 | 765 | 813 |
| Metals, metal manufacturers, machinery and transport equipment | 1,756 | 1,448 | 1,551 | 1,434 | 1,502 | 1,648 |
| Other exports | 1,150 | 1,311 | 1,275 | 1,335 | 1,412 | 1,541 |
| Total | 4,493 | 4,550 | 4,761 | 4,620 | 4,897 | 5,210 |
| Total exports of merchandise | 8,572 | 7,901 | 8,541 | 8,847 | 9,718 | 9,982 |

Further information

For detailed information see the *Annual Bulletin of Overseas Investments, Australia* (5305.0) and the associated bulletin *Overseas Borrowings by Companies in Australia* (5307.0) (latest issue 1974-75; also the other annual bulletins *Overseas Trade* (issued in two parts) (5409.0 and 5410.0)), *Australian Exports, Country by Commodity* (5411.0), *Australian Imports, Country by Commodity* (5414.0), *Imports Cleared for Home Consumption* (issued in two parts) (5412.0 and 5413.0) and the annual bulletin *Balance of Payments* (5303.0). Preliminary information is available in summary form in the statements *Balance of Payments—Quarterly Summary* (5302.0), *Overseas Investment—Preliminary Bulletin* (annual) (5304.0), *Australian Overseas Trade—Exports and Imports* (5401.0) (monthly), *Overseas Trade—Exports by Commodity Divisions* (monthly) (5402.0), and *Overseas Trade—Imports by Commodity Divisions* (monthly) (5405.0). Current information is included in the *Monthly Review of Business Statistics* (1304.0), the *Digest of Current Economic Statistics* (1305.0), and in more detail in the *Monthly Bulletins of Overseas Trade Statistics* (5404.0) (5406.0). There are also the following additional mineographed statements: *Exports of Major Commodities by Country* (monthly) (5403.0), *Imports of Assembled New Passenger Motor Cars* (monthly) (5416.0) and *Exports by Mode of Transport* (quarterly) (5415.0). 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.

More detailed statistics and explanatory notes on individual foreign participation studies are contained in the following bulletins:

Foreign Ownership and Control in Manufacturing Industry 1972-73 (5322.0), *Foreign Control in Manufacturing, Study of Large Enterprise Groups, 1972-73* (5315.0), *Foreign Ownership and Control of the Mining Industry 1973-74 and 1974-75* (5317.0), *Foreign Ownership and Control of General Insurance Business, 1972-73* (5309.0), *Foreign Ownership and Control of Life Insurance Business, 1973* (5311.0), *Foreign Ownership and Control of Finance Companies, 1973* (5313.0), *Foreign Ownership and Control of Tourist Accommodation Establishments, 1973-74* (5319.0), *Foreign Ownership and Control of Accredited Advertising Agencies, 1974-75* (5318.0) and *Foreign Control in Mineral Exploration 1975-76* (5323.0).

CHAPTER 25

SCIENCE AND TECHNOLOGY

Overview

Much of the early history of Australian science was based largely on the individual achievements of a few outstanding scientists.

During and after World War I, governments in various parts of the world took initiatives aimed at encouraging scientific research and applying it to economic growth and national development; Australia was no exception. In 1926 the Council for Scientific and Industrial Research (CSIR) was established by the Commonwealth Government. Initially, it concentrated its efforts on the primary industries, typifying the trend of research in Australia at that time, when most major research initiatives were taken by Government and aimed at the primary industries. The level of research in the universities and industries remained much as before.

With the approach of World War II, however, moves were made to extend scientific support for secondary industry. In the CSIR, 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.

Expansion of scientific research in general, and industrial research in particular, continued after the war. This expansion extended beyond government into the universities and industry.

Though, even today, agricultural research absorbs a significant proportion of Australia's research effort, industrial, medical and defence research are now of major importance also. The volume of research in the social sciences remains small, although 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 proposals.

In 1973–74, the most recent year for which data are available, total expenditure on research and development (R and D) in both the natural and social sciences was estimated at \$651 million, approximately equivalent to 1.3 per cent of the Gross Domestic Product (\$50,557 million) in that year. The data are summarised in the table on page 989 of Year Book No. 61.

In 1973–74, governments in Australia provided approximately 60 per cent of the funds devoted to R and D and undertook in their own agencies approximately 42 per cent (in terms of expenditure) of the overall national R and D effort.

Whilst these data serve to illustrate the dominant position occupied by governments in Australian scientific and technological R and D activities, they do not provide a complete picture since comprehensive information is not available on resources devoted to other scientific and technological activities in Australia.

Advice and co-ordination

In order to achieve at the national level integration of advice, relative assessment of priorities and the development of criteria and broad strategies for future directions, three national advisory bodies have been established: the Australian Science and Technology Council (ASTEC), which is responsible to the Prime Minister; the National Energy Advisory Committee (NEAC), which advises the Minister for National Development on matters relating to national energy policy; and the Australian Manufacturing Council (AMC), which is served by some eleven advisory councils and advises the Minister for Industry and Commerce on matters of industry policy. In 1978, the Government decided to establish a Commonwealth Council for Rural Research and Extension, which will advise the Minister for Primary Industry.

Australian Science and Technology Council (ASTEC)

Prior to the establishment of ASTEC, there had been an intensive period of discussion and review concerning arrangements for the provision to the Government of adequate advice on policies for science and technology in Australia. An outline of the discussions can be found in Chapter 28 of Yearbook No. 61.

ASTEC was established as a permanent body by executive action in April 1977. At that time the Prime Minister announced in Parliament that ASTEC would become a statutory body. The ASTEC

legislation passed through Parliament in the Autumn session of 1978, and has received Royal Assent. The legislation has not yet been proclaimed (November 1978).

ASTEC's legislation states:

The functions of the Council are to investigate, and to furnish information and advice to the Commonwealth Government in respect of matters relating to science and technology, including the following matters:

- the advancement of scientific knowledge;
- the development and application of science and technology in relation to the furtherance of the national well-being;
- the adequacy, effectiveness and overall balance of scientific and technological activities in Australia;
- the identification and support of new ideas in science and technology likely to be of national importance;
- the practical development and application of scientific discoveries;
- the fostering of scientific and technological innovation in industry; and
- the means of improving efficiency in the use of resources by the application of science and technology.

These functions allow ASTEC a wide purview, ranging from pure science, to the problems of improving efficiency in industry by applying the results of research and development. It considers the activities and technological problems of higher education institutions and private enterprise.

The Government intends ASTEC to play an important part in ensuring that there is a worthwhile interchange of ideas and information, and level of co-operation, between Government, industry and academic science and scientists.

The Council's advice to the Government on priorities and balance of effort influences the allocation of resources by the Government, and facilitates long-term forward planning by both Government and industry.

To discharge its functions, the Council is provided with appropriate powers. The Council is able to conduct inquiries and collect information on any matter within its functions arising either from its own initiative or at the direction of the Minister to whom ASTEC reports (presently the Prime Minister).

The Council's reports to the Government are made public unless there are overwhelming reasons in the national interest for not doing so. ASTEC's Act contains detailed provisions requiring the prompt tabling in Parliament of ASTEC reports except in closely defined circumstances.

The Council is able to consult widely, with Commonwealth and State bodies, and with scientific, commercial, industrial and other organisations. Commonwealth bodies provide the Council with such assistance in the performance of its functions as is reasonably practicable. The Council has powers to engage consultants to conduct studies for it, and to arrange with Commonwealth authorities for officers of those authorities to be available to assist the Council. The Council also forms committees of Council members and others, to conduct investigations on behalf of the Council, and to report their findings and recommendations to the Council.

Membership of these committees is not restricted to ASTEC members. Hence the Council is able to draw on such expert advice and assistance as is necessary.

These powers assist the Council to meet its responsibilities adequately, from the conduct of basic investigations and information-gathering to reporting its advice and recommendations to the Government.

ASTEC's major exercise since its formation has been a comprehensive review of the state of Australian science and technology, embracing descriptions of various areas of national importance, and recommendations thereon. The first part of this report was made public in mid-1978.

National Energy Advisory Committee (NEAC)

The National Energy Advisory Committee was established on an interim basis in February 1977 to advise the Government on energy matters and to assist in the development of a national energy policy. At the time, the then Minister for National Resources indicated that the operations and membership of the Committee would be reviewed at the end of 1977.

In February 1978, the Minister for National Development established the permanent Committee. Mr G. J. Lynch was appointed Chairman.

The functions of the Committee include the provision of advice on Australia's energy reserves and on factors likely to influence the pattern of energy supply and demand, and future costs, in Australia; the assessment and development of our energy resources; and economy in the use of energy. The Committee is also required to offer advice on the balance of resources for research relating

to the development of energy sources in Australia, and on developments both here and overseas in respect of methods and technology associated with the production and distribution of energy.

The Committee consists of 21 members who have been selected with a view to covering a wide spectrum of expertise in the energy area, and appointed on the basis of the personal contribution which they can make to the work of the Committee, as distinct from any representational role they might otherwise perform.

Five of the Committee's reports have been published:

- An Australian Conservation of Energy Program (September 1977);
- Australia's Energy Resources: An Assessment (December 1977);
- A Research and Development Program for Energy (December 1977);
- Motor Spirit—Octane Ratings and Lead Additives (February 1978); and
- Electric Vehicles (June 1978).

Department of Science and the Environment

Successive Governments have seen the Department of Science, and now the Department of Science and the Environment, as having a complementary role in relation to an advisory council on science and technology. As a government department it has ready access to information available to government concerning civil science and technology, and is able to provide a scientific and technological perspective at the interdepartmental level. The Department's role includes the fostering of closer working relationships and consultation among government agencies, tertiary institutions, scientific associations, the private sector and the community. The Department's administrative functions in relation to certain scientific services and research activities (such as the Bureau of Meteorology, the Australian Government Analytical Laboratories, and the Antarctic Division) help to ensure that its policy advice is tempered with an awareness of practical problems in science and technology.

Other Organisations

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; ad hoc advisory committees are appointed by the Academy from time to time to examine and report on specific matters. In addition, the Academy has 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. Communication between government and the technology area of the science-technology spectrum is facilitated by the *Australian Academy of Technological Sciences*.

The most broadly based of the learned and professional bodies is the *Australian and New Zealand Association for the Advancement of Science* (ANZAAS). The Association has established a Science Policy Commission for giving increased attention to policy issues.

In recent years, matters of scientific and technological policy have received much discussion among such learned and professional organisations as well as in academic circles. Increasingly, other professional bodies with more specific charters are giving attention to matters of science and technology policy. Such bodies include the *Royal Australian Chemical Institute* (RACI), the *Institution of Engineers, Australia*, the *Australian Institute of Physics*, and the *Federation of Australian University Staff Associations* (FAUSA) which concentrates on issues specifically affecting the university sector.

There are a number of groups within the industry sector—e.g. the Australian Industrial Research Group (AIRG) and some specialist panels (Industry Advisory Councils) of the Australian Manufacturing Council (AMC)—which, from time to time, provide advice to government on industrial research and development.

Intergovernmental co-ordination is effected through bodies established for the purpose. While certain of these are concerned with promoting research and scientific and technical services, these are secondary objectives pursued in tandem with economic, social or environmental goals. Typical of these bodies are the Australian Agricultural Council, the Australian Minerals and Energy Council, the Australian Water Resources Council, and the Australian Environment Council.

The intergovernmental ministerial councils are assisted by standing committees of officials. Frequently, expert working groups and sub-committees are established to consider particular specialised aspects of a Council's broad field of interest and to advise the council through the relevant standing committee.

Councils do not directly undertake research or the provision of services, although such activities are commonly pursued within agencies coming under the control of individual ministerial members. In some instances, councils have control of research funds and provide grants or arrange for projects to be undertaken in particular fields of interest.

In some scientific and technical fields not coming directly within the purview of the Ministerial councils, there are standing arrangements at agency level for consultation and promotion of co-operation (the Electricity Supply Association of Australia is an example).

In addition to intergovernmental agencies, official advisory bodies have been established to deal with activities, interests and responsibilities of the Federal Government and its agencies, and to advise on Government support of higher education and of industry. Amongst these bodies are the Australian Research Grants Committee (ARGC); the National Health and Medical Research Council (NHMRC); the Australian Industrial Research and Development Incentives Board (AIRDIB); the CSIRO Advisory Council and its State Committees; the Rural Industry Research Fund Advisory Committees; and the Tertiary Education Commission and its Councils.

In May 1978 the Minister for National Development announced the establishment of a further advisory body, the National Energy Research, Development and Demonstration Council (NERDDC). This Council will advise him on the development and co-ordination of a national program of energy research, development and demonstration in Australia. The Council is supported by a secretariat within the National Energy Office of the Department of National Development. The particular areas where NERDDC, under its terms of reference, is required to provide advice to the Minister are:

- co-ordination of the Government's overall effort in energy RD and D;
- the support to be given to individual projects submitted for consideration by the Council;
- the support to be given for international co-operation in energy RD and D; and
- in consultation with NEAC, provide advice on energy RD and D priorities.

Expenditure and manpower

Project SCORE

As mentioned above, comprehensive data on the resources devoted to scientific and technological activities in Australia are not available. Therefore, though some details of Australian expenditure on research and development activities are given below, it should be noted that the data do not include many important scientifically- or technologically-based programs. Programs not covered by Project SCORE (Survey and Comparisons of Research Expenditures), some of which involve large expenditures, are R and D components of the non-scientific or technological services.

The first comprehensive survey of expenditure on R and D was carried out for the 1968-69 financial year. This survey covered R and D expenditure and manpower in the natural and social sciences in all sectors of the Australian economy. In addition to a summary report dealing with the overall national situation, separate Project SCORE reports cover the following sectors: Commonwealth Government, Business Enterprise, State Government, Higher Education, and Private Non-Profit. A summary of the results for 1968-69 is given in Year Book No. 60, pp. 995-1,005.

Two subsequent SCORE surveys cover the financial years 1973-74 and 1976-77, although expenditure in the Higher Education sector is for the calendar years 1974 and 1976. A summary of the results of the second survey is given in Year Book No. 61, pp. 989-998. The data from the third survey had not been collated at time of writing.

Resources and services

Although power to regulate the development and utilisation of Australia's natural resources rests largely with the States, the Commonwealth 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 Commonwealth 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 health (chapter 10), the rural industry (chapter 13), forestry (chapter 14), fisheries (chapter 14), water (chapter 15), the mineral industry (chapter 16), transport (chapter 20), and communications (chapter 20).

Soil resources

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 Commonwealth 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

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. Various divisions of CSIRO have also carried out work on fauna and flora, but an important part of total Australian research into inventorying biological resources continues to be undertaken in the museums and herbaria of the State governments.

In 1973, the Commonwealth Government set up the Australian Biological Resources Study (ABRS) under an Interim Council. Funds were made available through it to stimulate taxonomic and ecological studies of Australian fauna and flora. In 1978, following recommendations by the Interim Council and by ASTEC, ABRS was established as a continuing program within the Department of Science and the Environment.

Funds are made available through ABRS on the recommendation of an Advisory Committee to the Minister for Science and the Environment for work designed to fill the gaps in the scientific knowledge of the Australian fauna and flora. The role of ABRS is to co-ordinate all work aimed at collecting, describing, classifying and determining the distribution of Australian animals and plants. Its responsibilities include the maintenance of a comprehensive network of national taxonomic collections and a national taxonomic data bank. A report of the first five years of the Study was published by AGPS in November 1978.

Fauna and flora conservation

Responsibility for the conservation and management of fauna and flora resources rests, in the main, with the State Governments. However, the Commonwealth has responsibility for such resources in its own Territories.

In 1975, the Commonwealth Government established 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.

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 Commonwealth Government has responsibility for environmental protection in its own Territories, in respect of 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 Commonwealth funds. It is also concerned with the enforcement of provisions of relevant international conventions to which Australia is a signatory.

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; and the *Australian Water Resources Council*, which is concerned with the assessment, development and use of national water resources.

Each government has 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.

Meteorology

The Bureau of Meteorology, which is a Division of the Department of Science and the Environment, is the national authority for providing weather forecasting and warning services, and general meteorological information and consultative advice. Users of these services include 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 CSIRO. The Australian Numerical Meteorology Research Centre, which specialises in the development of

numerical model techniques for predicting atmospheric behaviour, is operated jointly by the Department of Science and the Environment and CSIRO.

Total expenditure by the Bureau in 1977-78 was approximately \$37.5 million.

Ionospheric Prediction Service

The Ionospheric Prediction Service (IPS) Branch of the Department of Science and the Environment 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 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

Scientific literature for scientists and technologists is provided through national and State libraries, libraries operated by scientific and technological agencies of the Commonwealth and State Governments, tertiary education institutions and industrial organisations. Two important scientific libraries within the Commonwealth Government sector are the CSIRO Central Library and the Australian National Scientific and Technological Library (ANSTEL).

Several Commonwealth Agencies including the Australian Atomic Energy Commission (AAEC), the CSIRO, the Department of Productivity and the National Library of Australia are now offering Australian subscribers access to overseas bibliographic and numerical data bases. The Overseas Telecommunications Commission is developing an international data transmission service to be known as MIDAS (Multi-mode International Data Acquisition Service) which should improve access to international data stores.

Another overseas trend now arousing interest amongst Australian scientists is the development of numerical data bases which provide quick access to factual data. CSIRO is currently operating Thermodata, a metallurgical thermodynamic data base, and is in the process of developing other similar data bases.

A number of Australian scientific and technological indexes and directories now exist or are in the course of production by Commonwealth Government departments and agencies. Two recent initiatives are:

- a Directory of Technical Information Sources for Industry which has been produced by the National Library of Australia; and
- a directory of Australian research projects currently being undertaken in the natural sciences and selected social sciences in the Higher Education Sector compiled jointly by the Department of Science and the Environment (in conjunction with its work on Project SCORE) and the CSIRO.

Major government research agencies

The Commonwealth Scientific and Industrial Research Organization (CSIRO)

CSIRO is the largest scientific research organization in Australia. It has a total staff of some 7,000 people located in more than 100 laboratories and field stations throughout Australia. About one-third of the staff are scientists.

CSIRO is a statutory body established by the *Science and Industry Research Act 1949*. Under the Act CSIRO replaced, but had continuity with, the former Council for Scientific and Industrial Research (CSIR) which was established in 1926. The *Science and Industry Research Act 1949* as amended by the *Science and Industry Research Amendment Act 1978* provides that the functions of CSIRO are:

- to carry out scientific research for any of the following purposes:
 - (i) assisting Australian industry;
 - (ii) furthering the interests of the Australian community;
 - (iii) contributing to the achievement of Australian national objectives or the performance of the national and international responsibilities of the Commonwealth;
 - (iv) any other purpose determined by the Minister;
- to encourage or facilitate the application or utilization of the results of such research;
- to act as a means of liaison between Australia and other countries in matters connected with scientific research;
- to train, and to assist in the training of, research workers in the field of science and to cooperate with tertiary-education institutions in relation to education in that field;

- to establish and award fellowships and studentships for research, and to make grants in aid of research, for a purpose referred to in scientific research above;
- to recognize associations of persons engaged in industry for the purpose of carrying out industrial scientific research and to cooperate with, and make grants to, such associations;
- to establish, develop and maintain standards of measurement of physical quantities and, in relation to those standards—
 - (i) to promote their use;
 - (ii) to promote, and participate in, the development of calibration with respect to them; and
 - (iii) to take any other action with respect to them that the Executive thinks fit;
- to collect, interpret and disseminate information relating to scientific and technical matters; and
- to publish scientific and technical reports, periodicals and papers.

The Act provides for CSIRO to be governed by an Executive comprising a full-time Chairman, two other full-time Members and between three and five part-time Members. It also provides for a statutory Advisory Council and State Committees as independent sources of advice to the Executive.

CSIRO's research is carried out in some thirty seven Divisions and five smaller units. The Divisions and Units are grouped into the following five Institutes:

Institute of Animal Sciences Divisions of Animal Health, Animal Production, Food Research, Human Nutrition; Centre for Animal Research and Development; Molecular and Cellular Biology Unit; Wheat Research Unit.

Institute of Biological Resources Divisions of Entomology, Fisheries & Oceanography, Forest Research, Horticultural Research, Irrigation Research, Plant Industry, Tropical Crops & Pastures, Wildlife Research.

Institute of Earth Resources Divisions of Applied Geomechanics, Land Resources Management, Land Use Research, Mineral Chemistry, Mineral Engineering, Mineralogy, Mineral Physics, Process Technology, Soils; Fuel Geoscience Unit.

Institute of Industrial Technology Divisions of Applied Organic Chemistry, Building Research, Chemical Technology, Mechanical Engineering, Protein Chemistry, Textile Industry, Textile Physics.

Institute of Physical Sciences Divisions of Applied Physics, Atmospheric Physics, Chemical Physics, Cloud Physics, Computing Research, Environmental Mechanics, Materials Science, Mathematics and Statistics, Radiophysics; Australian Numerical Meteorology Research Centre.

There is also a Bureau of Scientific Services comprising the Central Information, Library and Editorial Section, the Centre for International Research Cooperation and various groups concerned with information and technology transfer.

CSIRO has an annual budget of more than \$150 million. Some 85 per cent of this money is provided directly by the Commonwealth Government. The remainder is contributed by trust funds concerned with the wool, meat, wheat, dairy, fishing and dried fruit industries, by individual companies, by Australian and overseas government instrumentalities, and by private foundations. The trust funds constitute approximately two-thirds of these contributory funds. They are derived principally from industry levies supported by Commonwealth Government contributions.

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 uranium 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 and 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 National Development. The Atomic Energy Act provides for the Commission to consist of five Commissioners including a Chairman.

The Commission's current program places emphasis on the following areas: nuclear power; safety and the environment; uranium and nuclear fuels; radioisotopes and radiation; and international relations.

Current expenditure by the AAEC is of the order of \$20 million a year. Staff totals some 1,250 professional, technical, trade, administration and support personnel.

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 research workers within the universities and colleges of advanced education. The Australian School of Nuclear Technology, located at Lucas Heights, is a joint enterprise of the AAEC and the University of New South Wales. Courses are provided regularly on such subjects as Radionuclides in Medicine, and Radiation Protection and Nuclear Technology. Participants have been drawn from Australia, New Zealand, Asia, Africa, Papua New Guinea and the Pacific region.

The Antarctic Division, Department of Science and the Environment

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 Division.

At any given time the total staff complement of the Division varies between 170 and 220 persons, about half of whom are engaged on a short-term basis to man annual expeditions and provide general support. Expenditure by the Division in 1977-78 was approximately \$8.1 million.

Services provided by the Antarctic Division in relation to research expeditions include:

- the supply and maintenance of three permanent stations in the Australian Antarctic Territory 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 (which include the Antarctic Division itself, the Bureau of Meteorology and the Ionospheric Prediction Service of the Department of Science and the Environment); the Bureau of Mineral Resources, Geology and Geophysics, and the Division of National Mapping of the Department of National Development; 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. In 1977 the Government approved an extension of the Division's scientific program into the marine areas around Antarctica. Personnel at research stations include meteorologists, physicists, glaciologists, biologists and logistic staff.

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 (AIMS)

The AIMS has been established on a 190 hectare site within a national park at Cape Ferguson, 50 kilometres south of Townsville in North Queensland. Comprehensive headquarters facilities were opened in September, 1977 and include laboratories, lecture theatre, library, computer centre, administrative and other support services. A harbour for the Institute's vessels was completed in April, 1976. A 24.4 metre ocean-going research vessel constructed specifically for the Institute was delivered during October, 1978.

The Institute is essentially concerned with research and emphasises multidisciplinary projects, many of which are focussed on tropical marine science. Research projects at the AIMS during 1977-78 fell into 3 areas: estuarine and oceanic marine food webs; reef-building organisms and the Great Barrier Reef and marine pollution. These areas were selected both for their current importance to marine science and for their relevance to many applied problems. Specific programs being undertaken by the Institute concern: inshore ecology and productivity; pelagic biology; coral taxonomy; coral calcification; reef origins and maintenance; sedimentology; and physical oceanography.

Defence Science

The Commonwealth Government performs a significant amount of research and development in this category. More detail may be found in Chapter 4.

Research in private industry

Expenditure on research and development carried out by private industry in 1973-74 was about \$190 million of which about \$171 million came from industry's own funds. In addition, industry contributed about \$28 million towards the cost of R and D carried out overseas and in the Higher Education, Private Non-Profit and Government sectors. Australia has not been collecting data on its private industry R and D expenditure for sufficient time to establish any trends. There are indications, however, that expenditure on R and D by private industry has fallen in actual and real terms since the 1973-74 survey. This seems particularly true of the larger companies where staff numbers employed on R and D are estimated to have fallen by about 40 per cent in the last 5 years.

The Government provides funding to encourage industrial research and development under the provisions of the *Industrial Research and Development Incentives Act 1976*. Two types of grants are payable under the Act: commencement grants to encourage companies to develop a basic R and D capability; and grants designed to give on-going support for companies with established IR and D facilities to undertake specific IR and D projects showing technical and commercial promise. In 1978-79 commencement grants will be paid at the rate of 50 per cent of eligible expenditure up to a ceiling of \$25,000, and project grants at 50 per cent of eligible expenditure up to a ceiling of \$500,000. In addition the Minister for Productivity is empowered under the Act to approve full funding of projects considered to be in the 'public interest'. \$24 million was appropriated in the 1978-79 Budget for the Industrial Research and Development Incentives Program.

The Assistance to Inventors' Scheme provides financial grants to individual inventors to enable them to develop worthwhile inventions, after patent application, to the prototype or demonstration stage. Grants of up to \$10,000 can be provided for each invention, as well as technical, industrial or commercial advice on how to develop the invention.

Australian R and D efforts have been significantly supplemented by overseas technology largely associated with the activities of foreign firms. Australian firms in many industries have bought or licensed foreign technology. No figure is available on total Australian payments for overseas technology. However, in 1977-78 payments remitted overseas for royalties and copyrights were \$75 million while Australia received payments of \$10 million for these categories of technology.

Other fields of activity which to some extent involve the adoption by industry of new technology, and which attract financial support from the Commonwealth, include industrial design and product standardisation. The Industrial Design Council of Australia and the Standards Association of Australia receive subsidies from the Commonwealth Government.

Metric Conversion

The conversion to the metric (SI) system of weights and measures is now well advanced in Australia. The conversion program has been developed and implemented under the guidance of a Metric Conversion Board established by the Commonwealth Government. The Board considers that the conversion will be effectively achieved by 1980 as originally envisaged, although it has always been recognised that some residual use of imperial units will continue for a time thereafter, e.g. in association with equipment of long life. The implementation of the program has depended in large measure on general community co-operation. The Board sought and gained assistance from advisory groups representative of all sectors of the community.

The Australian Patent Information Service

The Australian Patent Information Service (APIS) has recently been formed with the major purpose of making Australian industry aware of the wealth of technological information contained in the world collection of patent specifications held by the Patents Office. The Service is available to assist industry to gain access to this information by providing copies of patent specifications (Australian and foreign), covering the relevant area(s) of technology in which an inquirer is interested.

Industry organisations

A number of organisations aiming, wholly or in part, to support and encourage R and D have been established within industry. By far the majority support sectional interests. Examples of such organisations are the Bread Research Institute and the Australian Mineral Industries Research Association.

Research in universities and colleges

General financial support for higher education is provided primarily by the Commonwealth Government through the Councils of the Tertiary Education Commission (the Universities Council (UC); the Technical and Further Education Council (TAFEC); and the Advanced Education Council (AEC)). In addition, the Government funds research undertaken in the universities and elsewhere through a number of granting schemes. In some cases, Commonwealth Government funds are supplemented by State governments or by levies imposed on or by specific industries (e.g. the wool, wheat and beef industries) for that purpose.

The two principal granting schemes through which supplementary funds are made available for research in universities are those administered by the Australian Research Grants Committee (ARGC), and the National Health and Medical Research Council (NHMRC). For both schemes the principal criteria for awards are the scientific excellence of the applicant and the research project. Applications are judged by expert advisory committees composed of practising scientists, and recommendations are made to the Minister for Science and the Environment and the Minister for Health for the ARGC and NHMRC awards respectively.

The Commonwealth Department of Health administers the health service research and development grant program which provides grants to researchers in educational and health institutions and to independent researchers. The Department receives advice from the Health Services Research and Development Grants Advisory Committee.

Fellowships such as the Queen Elizabeth the Second Fellowships and the like, while providing some additional funds, are significant more for the prestige they carry than for their contribution to overall funding levels. They are, however, more readily available to the young scientist than are the ARGC awards.

Colleges of Advanced Education do not maintain expensive research facilities or programs akin to those of the universities; nevertheless, staff are encouraged to undertake research to the extent that this is possible. Research of an applied nature, and associated consultancy services to industry and commerce, are expected to become increasingly prominent within the colleges.

Research organisations associated with education institutions

Several of the tertiary education institutions have established independent, commercial companies to promote and manage research and consultancy services to industry, commerce, government and the community. Examples are: Unisearch Ltd, associated with University of New South Wales; Wait-Aid Ltd, associated with the Western Australia Institute of Technology; Technisearch Ltd, associated with the Royal Melbourne Institute of Technology; SARD, associated with the Swinburne College of Technology; Techsearch Inc., associated with the South Australian Institute of Technology; and TUNRA, the University of Newcastle research association.

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 ARGC and the Australian Advisory Committee on Research and Development in Education.

The bulk of social science research carried out within Commonwealth Government agencies is performed as part of the general activities of various departments. However, several agencies have been established specifically to undertake research. Agencies which have been established to undertake research in particular areas include the Australian Institute of Aboriginal Studies, the Australian Institute of Criminology, the Bureau of Agricultural Economics and the Bureau of Transport Economics.

Agencies of the various State governments undertake research relevant to their own activities and programs especially related to health, youth and community services.

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, and the Australian Institute of Political Science.

International activities

International Organisations

Australia participates in the activities of both governmental and non-governmental international scientific organisations. To facilitate scientific liaison and representation, some Government agencies have scientific and technological representation at overseas posts (e.g. Japan, United Kingdom, United States of America, USSR, the International Atomic Energy Association (IAEA) and the OECD). Australia also plays an active role in regional bodies such as ESCAP (formerly ECAFE), the Pacific Science Congress, and the Association for Science Cooperation in Asia (ASCA), and has provided technical assistance to countries in the region under both multilateral and bilateral arrangements.

Australia participates in the programs of the Committee for Scientific and Technological Policy of the OECD.

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.

Bilateral Arrangements

Various bilateral arrangements at both government and non-government levels have contributed to the development and maintenance of cooperation in science and technology between Australian institutions and scientists and those in other countries. Formal bilateral agreements solely devoted to scientific and technological cooperation have been entered into with the USA (1968), India (1975) and the Federal Republic of Germany (1976) and are administered by the Department of Science and the Environment. A fourth such agreement, with the USSR (1975), is administered by the Department of Foreign Affairs. Support is provided for both individual visits and specialist seminars over the whole range of civil science. Where opportunities exist, other cooperative projects which depend on special facilities are supported.

A scientific exchange program between the Australian Academy of Science and the Academy Sinica of Peking was initiated in 1976-77. Scientific fields considered most promising are plant physiology, entomology and earth science. A similar exchange program between the Australian Academy of Science and the Japan Society for the Promotion of Science was also initiated during 1977.

Visits to Japan by Australian scientists can be supported by the Australia/Japan Foundation, established by the Australian Government in 1976.

Meteorology

Australia is a Member of the World Meteorological Organization (WMO) and operates one of the three World Meteorological Centres in WMO's principal program, the World Weather Watch.

Australia also participates in the joint WMO/ICSU Global Atmospheric Research Program. The Program's Global Weather Experiment, to run twelve months from December 1978, is of particular relevance to Australian meteorology because of the opportunity to use special systems to observe conditions over the southern oceans where data are normally scarce.

Astronomy

In the field of optical astronomy, the Anglo-Australian Telescope Board, established under the provisions of an international agreement between Australia and the United Kingdom and drawing its funds in equal shares from each country, operates the 3.9 metre Anglo-Australian Telescope at Siding Spring Mountain near Coonabarabran in New South Wales. The Telescope, among the largest in the world, came into full scientific operation during 1975. Its technical excellence and the scientific work which it has made possible have brought it to be widely recognised as the world's foremost optical telescope.

Space

An agreement has been signed by the Governments of Australia and the United States of America to cooperate 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 Science and the Environment and the National Aeronautics and Space Administration (NASA) respectively.

As part of the world-wide network supporting NASA's space program, the stations track spacecraft in their orbits around the earth or on their journeys into space, receive telemetered data from the spacecraft, and relay radio commands controlling the spacecraft.

The Department of Science and the Environment is responsible for managing, staffing and operating the tracking stations on behalf of NASA. The stations are located at Orroral Valley, Honeysuckle Creek and Tidbinbilla in the Australian Capital Territory. An extensive communications system links them with control centres in the United States of America.

Expenditure by NASA on its tracking station operations in Australia in 1976-77 was approximately \$10 million.

High Altitude

The Australian Balloon Launching Station (ABLS) at Mildura, Victoria is operated by the Department of Science and the Environment under a joint-sponsorship arrangement with the US National Science Foundation. The station provides a service for scientific research, requiring the use of high altitude balloons, to research workers from the USA, Australia and other countries.

Seismology

A comprehensive seismic station at Alice Springs (Joint Geological and Geophysical Research Station) is operated jointly under an agreement between the Governments of Australia and the United States of America. The agencies for the Governments are, respectively, the Department of Science and the Environment and the United States Air Force.

The station provides continuous seismic records to assist the United States Government in the identification of underground nuclear explosions and, through the Department of Science, provides seismic records to the Bureau of Mineral Resources, Geology and Geophysics. Records are also available, through the Department of Science and the Environment, to Australian scientists for research in earth physics.

Defence

In the field of defence science, Australia collaborates with other countries through a variety of arrangements at intergovernmental level. Further information is given in Chapter 4.

Other

At the non-governmental level, formal arrangements for scientific cooperation with counterpart institutions in other countries have been concluded by a number of Australian bodies. For example, an arrangement covering cooperation 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 University of Moscow which includes exchanges in the scientific fields.

Additional information

Additional information on topics presented in this chapter may be found in the annual reports of the organisations mentioned, particularly the Department of Science and the Environment, the CSIRO and its divisions, the Australian Atomic Energy Commission, and the Department of Defence. Statistical information for the years 1968-69 and 1973-74 may be found in the reports published by the then Department of Science on Project SCORE.

Also relevant are reports published by the former Office of Secondary Industry of the Department of Trade and Industry (*Survey of Industry Research and Development in Australia* 1968-69) and by the former Department of Manufacturing Industry (Bulletin No. 11, November 1974 *R and D in Manufacturing Industry* 1971-72).

CHAPTER 26

CULTURE, RECREATION AND TRAVEL

This chapter is divided into three major sections:

- The cultural 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 Home Affairs on major aspects of leisure: community recreation, fitness, sport development and information on youth affairs provided by the Department of Employment and Youth Affairs. Information on tourism, is provided by the Department of Industry and Commerce. This section also includes the results of a Census of Tourist Accommodation Establishments for the year ended 30 June 1974, and quarterly accommodation surveys conducted by the Australian Bureau of Statistics.
- 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 Commonwealth 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 Australian Elizabethan Theatre Trust and the Australia Council.

The Arts Council of Australia

The Arts Council of Australia was founded shortly after World War II. (It should not be confused with the Australia Council mentioned later in this chapter, which is a national government agency for assistance to the arts). Further details of the Arts Council of Australia are given on page 1,009 of Year Book No. 61.

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. Only the Marionette Theatre of Australia continues to operate under Trust administration. The Trust's major functions now are 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 Australia Council and from State and local governments. Its revenue is supplemented by subscriptions, donations and its own activities.

The Australia Council

In January 1973 the Prime Minister announced the Government's intention to legislate to establish the Australian Council for the Arts—subsequently to be known as the Australia Council—as a statutory authority; an independent agency to carry out the Commonwealth Government's policies in the arts. The Council became a statutory authority in March 1975.

Within the Council framework there are seven specialist Boards: Theatre (including Drama, Dance and Puppetry); Visual Arts; Music (including Opera); Literature; Crafts; Community Arts; and Aboriginal Arts. The Boards each consist of a maximum of seven members, except for the Aboriginal Arts Board which has a maximum of nine. The Chairman of each Board is also a member of the Council and the Boards are the main source of policy initiatives in their field.

Further details of the Australia Council are given on page 1,010 of Year Book No. 61.

FEDERAL GOVERNMENT FUNDS ALLOCATIONS TO THE AUSTRALIA COUNCIL
(\$ million)

| Year | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|------------------|---------|---------|---------|---------|---------|---------|
| Budget | 4.58 | 7.05 | 15.34 | 22.24 | 23.21 | 23.77 |

ALLOCATION OF FUNDS FOR PROGRAMS, BOARDS AND ADMINISTRATIVE EXPENSES OF THE AUSTRALIA COUNCIL, 1976-77

| | \$ |
|---|-------------------|
| Council programs (including Community Arts) | 2,576,467 |
| Theatre Board | 5,989,706 |
| Visual Arts Board | 1,090,886 |
| Music Board | 5,197,028 |
| Literature Board | 1,253,316 |
| Crafts Board | 931,602 |
| Film, Radio and Television (a) | 1,436,040 |
| Aboriginal Arts Board | 1,331,012 |
| Public Lending Right (b) | 740,557 |
| Administrative expenses | 3,225,755 |
| Total budget | 23,772,369 |

(a) Functions transferred to the Australian Film Commission in 1976. (b) Functions transferred to the Australia Council in 1976.

The National Estate

The Australian Heritage Commission

The Committee of Inquiry into the National Estate, which reported to the Federal Parliament in August 1974, recommended the establishment of a permanent commission to be the Government's policy and advisory body on National Estate matters.

The Act to establish the Australian Heritage Commission was assented to in June 1975. The Commission consists of a part-time independent Chairman and six part-time Commissioners with various skills and interests in the natural and cultural environment. Research and secretariat services for the Commission are provided by a staff of professional and clerical officers permanently located in Canberra.

The Commission's responsibilities are to advise the Minister for Home Affairs on all matters related to the National Estate; to prepare a Register of National Estate places; to develop policies and programs for education, research, professional training and public interest and understanding in fields related to the national estate; and to administer any gifts and bequests made to the Commission.

Australian National Trusts

The Australian National Trusts were founded to further the conservation 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 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 Northern Territory and the Australian Capital Territory. The Trusts in New South Wales, Queensland, South Australia, Western Australia, Tasmania and the Northern Territory have statutory authority, and those in Victoria and the Australian Capital Territory are incorporated under the *Companies Act* of Victoria and the *Companies Ordinance* of the Australian Capital Territory respectively.

Membership of the National Trusts is open to all individuals and organisations. Total membership throughout Australia is approximately 60,700. 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 buildings and towns, archaeological sites and places of natural beauty. Each State National Trust receives financial support from the Commonwealth Government in the form of an administrative grant-in-aid of \$30,000 each per annum, and each receives support from its State Government.

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. The Commonwealth Government supports the Council through an annual grant of \$60,000 for administrative purposes and also provides support to the Council and State Trusts through taxation concessions.

Since 1973, the National Trusts have received substantial grants from the Commonwealth Government under the National Estates program for capital projects, mainly for the restoration of buildings and conservation studies. They have also supervised projects of other organisations financed under the program.

The number of properties owned or controlled by the Trusts exceeds 200. These include houses such as Clarendon (Tas.), nature reserves, a telegraph station, a stock exchange (Charters Towers, Qld), a powder magazine, a market (Castlemaine, Vic.), an inn (Overland Corner, S.A.), a police station, a court house, a gaol, an historic hamlet (Greenough, W.A.), two paddle steamers and an iron barque, a joss house and a garden (Leura, N.S.W.). The Trusts have established registers of 15,000 places including buildings, urban areas and landscapes which they consider should be preserved as part of the national estate.

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 or other representations of all Governors-General, Prime Ministers, Presidents of the Senate, Speakers of the House of Representatives, Chief Justices of Australia and other distinguished Australians. In addition, the Committee has commissioned paintings recording special events connected with the Commonwealth 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 Australia Council. The Secretary to the Committee is Mr P. M. Ryan, Department of Home Affairs, Canberra.

The performing arts

Festivals

The number of festivals devoted solely or partly to the arts now totals about 400 a year. 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. Victoria's large popular festival, 'Moomba', has a substantial arts program.

Many 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 stage musicals and plays and bring to Australia overseas companies such as the Royal Shakespeare Company and the Moscow Circus. Commercial theatre organisations and entrepreneurs occasionally collaborate with government subsidised organisations in arranging joint festival attractions and visits by foreign artists and companies. For further details see Year Book No. 61, page 1012.

Opera

The Australian Opera was created in 1956 and, until late 1969 when it formed its own Board of Directors, was known as the Elizabethan Trust Opera Company. In September 1973 the Australian Opera opened its first season in the new Sydney Opera House. It employs a chorus of 49 singers and 41 principles on a permanent basis.

The 1977 budget for the Australian Opera was \$6,123,000. This does not include the cost of the orchestras. Of this total, approximately \$2,777,000 comes from State and Federal subsidies or from donations from individuals or industry. The Federal grant was \$1,900,000. The remainder was met from box office receipts.

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 Australian Ballet receives subsidies from the Federal Government (through the Australia Council), the six State Governments and major municipal bodies. It also receives support from private corporations and individuals. The Australia Ballet has its headquarters and studios in Melbourne.

The 1977 budget for the Australian Ballet was \$4,252,000; of this \$1,144,000 was met by Commonwealth Government subsidy, and \$220,000 by grants from State governments. This figure does not include the services of the Elizabethan Trust Orchestras which perform with the Ballet.

Music

The Music Board of the Australia Council is responsible for administering Commonwealth Government assistance to music and opera. Assistance is provided for a wide range of music activities, one of the most important being the development of Australian music and interest in the work of Australian composers.

Australia has eight fully professional orchestras. Six symphony orchestras have been established—one in each State capital. They are managed by the Australian Broadcasting Commission. Two Elizabethan Theatre Trust orchestras are predominantly engaged in work with the Australian Opera and Ballet. The ABC's Sydney and Melbourne Symphony Orchestras have toured the USA, Asia, Europe and Canada with acclaim.

The ABC also controls a national training orchestra and organises about 750 concerts—both symphony and recital—each year. For further details of the Australian Broadcasting Commission see Year Book No. 61, pages 416–18 and 1,013.

Chamber music

Musica Viva Australia organises tours in Australia by Australian and overseas chamber music ensembles. It is a non-profit making voluntary organisation with over 10,500 members in all States and a small paid administrative staff. The society also assists Australian chamber music groups to tour overseas and has been responsible for helping many Australian groups reach international standards.

Film

Film and Television School

The Film and Television School was established as an independent statutory authority by an Act of Parliament in 1973 and is governed by a fifteen member Council.

Assistance for production is given in the form of investments and loans to large budget feature films and grants for smaller budget features and experimental films.

The Commission provides assistance to national film bodies, film festivals, film publications, video groups and public broadcasting organisations.

Marketing and distribution assistance is provided through the promotion of Australian films at international festivals and markets by the Commission's local and overseas representatives, and by the provision of marketing loans. Non-theatrical distribution in Australia is arranged with state film distribution agencies and through the National Library of Australia.

Between sixty and seventy films are produced annually by the Film Australia Branch 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 of the life and activities of the Australian people.

Film and Television School

The Film and Television School was established as an independent statutory authority by Act of Parliament in 1973 and is governed by a fifteen member Council.

The School's principal activities are:

Full-time program—a three year full-time course providing professional training for creative positions in the film and television industry and for work with film and television in education;

Open programs—providing, on an Australia-wide basis, training courses of shorter duration including workshops, seminars, public lectures and refresher courses for people involved as film makers and video specialists in the audio-visual communications field;

Training assistance and grants-in-aid—administering grants-in-aid to suitably qualified people who may benefit from study, experience or training within Australia or overseas; and

Other activities—conducting programs to assess employment opportunities for graduates, industry training needs, and student research activities, and maintaining and extensive collection of film and television library materials.

In June 1976, as a step towards rationalisation of Government film, radio, television and audio visual production activities, it was decided that the School should become responsible for training in radio and audio visual communications.

Film Censorship

The Federal Government's film censorship powers under the *Customs Act* extended only to imported films and imported advertising matter. Under that Act the Customs (Cinematograph Films) Regulations provide for the appointment of a nine-member Film Censorship Board whose function is to register films and approve advertising matter unless they fall into certain defined categories. Importers may appeal against decisions of the Film Censorship Board to the Films Board of Review.

The Attorney-General's Department is responsible for film censorship and all States have agreed that the Federal Boards should be the censorship authorities for the purpose of the State Acts.

Thirty-five mm feature films: In 1976, 807 feature films (including 18 Australian films) totalling 1,333 hours running time were examined. Forty-four feature films were rejected and 27 were cut. There were 20 appeals of which 6 were upheld and 14 dismissed. Of the 807 features, 129 were classified For General Exhibition ('G'), 148 Not Recommended for Children ('N.R.C.'), 220 For Mature Audiences ('M'), and 190 For Restricted Exhibition ('R'). Seventy-six were registered subject to special conditions.

The principal suppliers were United States of America (250 films), Italy (101 films), Greece (52 films), United Kingdom (67 films), France (63 films) and Hong Kong (82 films).

While the 'M', 'N.R.C.' and 'G' classifications are advisory, persons between the ages of 2 and 18 (6 and 18 in New South Wales and Victoria) are excluded by law from seeing 'R' films.

Sixteen mm feature films: Excluding those imported for television use, 131 feature films (including 7 Australian films) totalling 217 hours were examined.

Television films: In 1976, 8,327 films for use on television were examined. These consisted of 4,929 sixteen mm films (totalling 3,383 hours) and 3,398 videotapes (2,195 hours). The principal suppliers were the United States (6,471 films) and United Kingdom (1,606 films). Of the total imports, 233 films were cut and 34 were classified as unsuitable for television.

Art

The Visual Arts Board

The Visual Arts Board of the Australia Council is 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 in international art competitions. Exhibitions of important international art tour Australia under the auspices of the Visual Arts Board, sometimes in association with the Australian Gallery Directors' Council.

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 1981. It is 23,000 square metres in area. This includes fourteen exhibition galleries taking up 30 per cent of the floor space. The remainder will accommodate theatres and a theatre, an education section, a library, a conservation laboratory, administrative and workshop areas and stores.

The Australian National Gallery will contain the National Collection of Australian Art and representative collections of the arts of other cultures and times.

The National Collection of Australian Art will be the focus around which other collections will be assembled.

These collections will include:

- Arts of Asia and South East Asia
- Primitive Art
- European Art before 1850
- Art of the Modern Period—from 1850
- Prints, Drawings and Illustrated Books from 1800
- Sculpture
- Decorative Arts
- Photography
- Film

The *National Gallery Act 1975* was proclaimed on 3 June 1976 establishing the Australian National Gallery as a Statutory Authority.

Other galleries

Other important art collections are housed in the Australian War Memorial and in public galleries in all State capitals and many of the larger country centres. As well as these galleries there are many municipal and private trust institutions, and university and private collections.

Crafts

The Crafts Board of the Australia Council (formed in 1973) is concerned with the promotion of excellence and the understanding of crafts in the community. It has a comprehensive exhibitions program supporting a wide range of craft exhibitions both in Australia and overseas.

Under its grants program the Board funds organisations for equipment purchases, workshops, exhibitions, publications, films and, in some cases, administrative expenses. It makes grants to individuals for workshop establishment and development, study and research, and master craftsman/trainee schemes, and special grants for research and travel.

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 in Year Book No. 55, pages 547-9, and in the State Year Books.

Literature**The Literature Board**

From the founding of the Australian Council for the Arts (now the Australia Council), an effort was made through the Literature Board to substantially increase financial assistance to the writing profession. Assistance has increased from \$340,000 in 1972-73 to \$1,591,800 in 1974-75. Support for creative writers is given through fellowships varying in duration from six months to three years. Writers are also assisted by special grants for research and travel expenses. Other types of grants administered by the Literature Board include assistance to publishers, literary organisations, seminars, visiting speakers, writers' workshops, conferences, poetry readings and pilot schemes for the promotion of creative Australian writing.

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.

Book publishing

Statistics of book publishing are compiled and published by the National Library. The following table shows the number of books and pamphlets (including leaflets) published in Australia in 1973, 1974, 1975 and 1976, and received by the National Library to December 1976, 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) | | | |
|--|----------------------|-------|-------|-------|
| | 1973 | 1974 | 1975 | 1976 |
| State or Territory— | | | | |
| New South Wales | 1,679 | 1,701 | 1,710 | 763 |
| Victoria | 1,136 | 1,328 | 1,366 | 679 |
| Queensland | 322 | 331 | 341 | 153 |
| South Australia | 468 | 490 | 595 | 227 |
| Western Australia | 338 | 313 | 313 | 96 |
| Tasmania | 109 | 84 | 91 | 27 |
| Northern Territory | 52 | 70 | 74 | 9 |
| Australian Capital Territory | 980 | 1,081 | 1,188 | 416 |
| Papua New Guinea | 238 | 139 | 104 | 2 |
| Total | 5,322 | 5,537 | 5,782 | 2,372 |
| Publisher— | | | | |
| Commercial | 1,798 | 1,966 | 2,437 | 1,340 |
| Commonwealth Government | 943 | 1,014 | 876 | 357 |
| State Government | 779 | 909 | 891 | 249 |
| Local government | 45 | 21 | 24 | 2 |
| Society, institution, company, private | 1,757 | 1,627 | 1,554 | 424 |
| Total | 5,322 | 5,537 | 5,782 | 2,372 |

(a) Received by the National Library to December 1976.

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 which is representative of all the major countries of the world. It is also responsible for assembling a comprehensive collection of library material relating to Australia and the Australian people. In fulfilling the latter statutory function, the Library seeks to preserve books, periodicals, newspapers, government publications, pictures, prints, manuscripts, maps, moving picture films, music scores, sound recordings and other material whether in writing or some other form. 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 Compston 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 Australianiana in 1970. The Library maintains a permanent exhibition of paintings, prints and other historical material selected from its various collections.

In association with the State 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. The computer-produced *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. 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 *Australian Public Affairs Information Service*, published monthly with annual cumulations, is the major periodical index to Australia's political, economic, social and cultural life. *Australian Maps* has been issued quarterly from 1968 with a 10 year cumulation for the period 1961–1973 and annual cumulations from 1974.

The provision of central cataloguing services is an important function of the National Library aimed at achieving cataloguing economies on a national scale. Established in 1967, the Australian Card Service makes available catalogue cards for titles listed in *Australian National Bibliography*. Since 1970, cards for overseas books have been available from the Overseas Card Service. Australian

libraries with access to computer facilities can order machine-readable records for Australian and overseas books through the Australian MARC Record Service. The Library also operates the Australian Cataloguing in Publication Program whereby, as a result of the co-operation of many trade and academic publishers, books published in Australia are catalogued in advance of publication and the cataloguing data are printed in the books. These data also appear as preliminary entries in *Australian National Bibliography*, the Australian MARC Record Service and the Australian Card Service.

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 was commenced in 1960 and since then all the larger libraries and an increasing number of smaller libraries have reported their monograph accessions to the National Library. This catalogue is now published on microfilm so that duplicate copies can be held in major research and academic libraries in Australia, Papua New Guinea and New Zealand. Access is thus decentralised and speeded. The second major published union catalogue is the continually updated *Serials in Australian Libraries, Social Sciences and Humanities*, which compliments another catalogue, *Scientific Serials in Australian Libraries*, published by the Commonwealth Scientific and Industrial Research Organization. Both of these are being automated and eventually will be available in microfilm. Other union catalogues maintained and/or published by the National Library cover manuscripts, newspapers, music and oriental language material. All are described in the *Guide to the National Union Catalogue of Australia* which the Library periodically re-issues.

Since 1969 the Library has operated a number of automated data bases which provide computer-produced bibliographies of recent and current material to users either in printed form or on-line. It also provides access through international links to data bases operated elsewhere. A new on-line network, AUSINET, has been developed to give, for the first time in Australia, access from the same terminal to a range of data bases in science and technology, the social sciences and the humanities.

The National Library acts as a central library of documentary and educational films. Its lending collection of approximately 20,000 films contains both Australian and overseas material on a wide range of topics, while its historical collection constitutes the major holding of Australian film production since its beginning in 1896. Additions to the film lending collection are recorded in *Film Acquisitions* published quarterly with annual cumulations.

The National Library's collections of Australian and overseas material contain over 1,725,258 volumes; 28,640 paintings, drawings and prints; 216,607 photographs; 138,795 reels of microfilm; 1,117,672 microfiche pieces; 294,322 microprint/microcard pieces; 2,500 metres of manuscripts; 19,153,000 metres moving picture film; 131,000 stills; 844,030 maps and aerial photographs; 32,558 music scores; 238,000 sound recordings and tapes; and 5,600 oral history tapes.

Patent Office Library. The library of the Australian Patent, Trademarks and Designs Office in Canberra contains approximately 10,000 books and a wide variety of periodicals and other literature relating to science, technology, industrial property (patents, trademarks and designs), law and practice. Patent specifications of inventions are received from the principal countries of the world. Present holdings are over 15,000,000. An international index to these specifications is available on microfiche. The Australian Patent Information Service works in co-operation with the Library. Its major function is to make Australian industry aware of the wealth of technological information held in the world collection of patent literature and assist them in accessing this information. Australian specifications and related material are also available at Sub-Offices in Brisbane, Sydney, Melbourne, Adelaide and Perth and the State Library in Hobart.

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*. The Information Service 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*. It also provides a question-and-answer service; operates the CSIRO Selective Dissemination of Information (SDI) System; and provides specialist bibliographies.

The Australian War Memorial Library, Canberra. In the War Memorial library are preserved the documentary and pictorial records of Australia's participation in armed conflicts. Printed material includes over 80,000 volumes (books and bound periodicals); thousands of unbound periodicals; leaflets; souvenir and microfilm items; a large collection of military maps; newscuttings and newspapers; sound recordings; war posters; postage stamps; and currency. Official and personal

records are housed in about 5,200 containers. Official war photographs covering the 1914–18, 1939–45, Korean and Vietnam wars number over 670,000, and there are about 1½ million metres of cinefilm. Facilities exist for reference and research.

The Commonwealth Parliamentary Library. The Library is 'an intellectual resource centre' providing information and research services to the Commonwealth Parliament through the Legislative Research Service and the Library and Legislative Information Service. The Research Service comprises groups staffed by subject specialists who prepare analyses and interpretations of specific issues with which the Parliament is or may be concerned. The Library and Legislative Information Service answers questions and provides information from printed sources. The library collection is concentrated on topical material, supported by wide collection of standard references; it totals 40,000 titles, including 8,500 serial titles. The library publishes the Commonwealth Parliamentary Handbook, which is a standard reference work, occasional annotated reading lists, background papers, digests of bills and, in alternate fortnights, Index to Current Information and select Lists of Acquisitions.

Other Commonwealth Government libraries. Most Commonwealth 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 1974, stocks totalled 67,124 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 1977, 489,350 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 in Year Book No. 59, pages 685–690 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 in Year Book No. 59, pages 689 and 690.

University and college libraries

Since 1957, when the Commonwealth 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 ABS annual publication *University Statistics—Part 2: Staff and Libraries* (4209.0).

Archives

Australian Archives

The War Archives Committee, established in 1943 by the Prime Minister to arrange for preservation of war archives, in 1946 became the Commonwealth Archives Committee with responsibility for Commonwealth archives generally. In 1944, the Australian War Memorial and the Commonwealth National Library were designated as archival authorities for the service departments and for other departments respectively. In 1952, the National Library became the sole archival authority for the Commonwealth, and in 1961 the Archives Division of the National Library was reconstituted as the Commonwealth Archives Office, a part of the then Prime Minister's Department. In March 1974, the Commonwealth Archives Office was re-named the Australian Archives.

The Australian Archives functions as a central agency for the administration of Commonwealth Government records which are no longer required in the day-to-day business of government. Its headquarters are in Canberra, and it has regional branches in all State capitals and in Darwin and Townsville. In relation to the Government's records management programme, its responsibilities are:

- (1) to ensure the preservation of Commonwealth records of permanent value;
- (2) to promote efficient and economic management of current Commonwealth records;
- (3) to facilitate use of Commonwealth records by members of the public; and
- (4) to administer official policy on access to Commonwealth records, most of which are available for consultation by the public when they are thirty years old.

At 30 June 1978, its holdings throughout Australia totalled 274,363 shelf metres of records, including 105,523 metres of permanent value material. During 1977-78, 918 official reference inquiries were received and 276,000 items were issued to Government departments. Some 1,417 public reference inquiries were also received.

The Australian Archives maintains liaison with similar organisations overseas, 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; in other States they are held by the archives sections of State libraries.

Australian National University Archives of Business and Labour

The Australian National University Archives was established in 1954 when the records of the Australian Agricultural Company were acquired. 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 in economic history, history and political science. Records of over 100 businesses (168 deposits) and over 100 employer and employee organisations (267 deposits) are held.

The Archives include deposits which have been microfilmed and pamphlet collections of interest to research workers in political history. In addition, an archival program for the University's own records is being developed.

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. The former is notable for its holdings of records of pastoral companies; the latter for its holdings of mining companies. In addition, both hold large collections of records of trade unions. The University of New England concentrates on rural industries. The Archives of Wollongong University 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 responsible 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.

Taronga Zoo, on the northern side of Sydney Harbour, occupies about 30 hectares, including an aquarium. In 1977-78 paid admissions to the grounds were 840,279. Exhibits at 30 June 1978 comprised 775 mammals, 3,080 birds, 333 reptiles, 204 invertebrates and 858 fish.

The open range Western Plains Zoo at Dubbo, occupying about 300 hectares, was opened on 28 February 1977. Paid admissions to the Zoo during 1977-78 were 178,148. Exhibits at 30 June 1978 were 390 mammals and 180 birds in addition to a variety of free-ranging species, which could be viewed in a natural environment.

Taronga Zoo and the Western Plains Zoo are administered by the Zoological Parks Board of New South Wales. In 1977-78, income of the Board was \$2,521,000, while expenditure amounted to \$2,450,000.

Victoria: The main botanical gardens in the State are the Royal Botanic Gardens and National Herbarium, comprising an area of 36 hectares within 2 kilometres of the centre of the City of Melbourne. There are some 30,000 plants representing 12,000 species laid out in 18th century English landscape tradition. Native birds and eels breed on the islands and in lakes within the gardens. 182 hectares of land at Cranbourne, south-east of Melbourne are under development as an annexe for the growth, display and study of Australian plants. 10 hectares of formal garden built in 1875 at Werribee Park are also being restored by the Royal Botanic Gardens, as part of the cultural amenity for visitors there.

The Royal Melbourne Zoological Gardens at Royal Park contain a wide selection of animals, birds and reptiles.

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 12,000 species.

The completion of the new botanic gardens in the foothills of Mount Coot-tha, about 5 kilometres from central Brisbane, is expected by 1980. The area being developed is approximately 75 hectares, and special attractions now include a tropical plant display dome, planetarium, cactus house and tropical rain forest.

South Australia: The Adelaide Botanic Garden 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 1954, 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 established in Kings Park, a reserve of about 400 hectares close to the centre of Perth.

The Zoological Gardens of 18 hectares at South Perth specialise in the collection of Australian—and particularly Western Australian—fauna.

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.

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. The Gardens were extensively damaged by Cyclone Tracy in December 1974 and, along with an extensive planting of palm and rain forest species, every effort has been made to restore and improve the Gardens.

Australian Capital Territory: The National Botanic Gardens (formerly Canberra Botanic Gardens) occupies a 40 hectare site on the lower slopes of Black Mountain. It was officially opened in 1970 and comprises the largest living collection of Australian native plants with over 4,000 species in cultivation. The associated herbarium houses over 70,000 specimens. Public education and horticultural research into native plants are important aspects of the Gardens' activities.

The Tidbinbilla Nature Reserve covers 5,515 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 162,000 in 1978.

The Nature Reserve at Jervis Bay consists of 4,470 hectares of outstanding coastal area featuring diverse vegetation communities and varied wildlife. The Reserve covers two thirds of the total Territory of Jervis Bay.

RECREATION

The Department of Home Affairs has since December 1978 assumed responsibility for, among other things, co-ordinating such aspects of leisure as recreation, fitness and sports development.

All State governments have also established agencies with special responsibilities for recreation and sport. Some local government authorities are now employing recreation workers who are responsible for planning the use of recreation facilities, and for devising recreation programs.

Community recreation

Late in 1974 the Commonwealth and Victorian Governments conducted a study into the attitudes of Victorians towards fitness and active recreation. The findings of this study are the basis of a five-year 'Life. Be in it' strategy. Victoria implemented this strategy in November 1975 and, as the national value of the program was recognised, the Commonwealth and other State Governments were closely involved. In 1977, Commonwealth, State and Territory Ministers responsible for recreation agreed to co-operate in an Australia-wide 'Life. Be in it' program. The Commonwealth Government is contributing \$1.8 million over three years and is co-ordinating national aspects of the program.

A study to identify the future needs of voluntary recreation workers is being conducted in co-operation with State Government departments.

The Department continues to work in co-operation with State Government departments to develop recreation planning.

Sports development

During 1978-79, national sporting bodies are to receive \$1.3 million in Commonwealth Government assistance through a sports development program. Assistance is available in the following general categories: international competition; administration of national sporting bodies; national coaching schemes; development projects; and research and information dissemination.

The Minister for Home Affairs is advised on guidelines for the program, the allocation of funds and other aspects of sports development by a six member Sports Advisory Council.

Since 1951, the Commonwealth Government has provided grants for both the Royal Life Saving Society and the Surf Life Saving Association of Australia. In 1978-79 the Government has provided \$60,000 to the Royal Life Saving Society for administrative purposes and \$280,000 to the Surf Life Saving Association. Of the latter amount, \$140,000 is provided on a dollar for dollar subsidy basis for the purchase of rescue equipment for clubs, branches and State Centres; \$100,000 for administrative purposes; \$30,000 for special projects; and \$10,000 to assist needy clubs to purchase rescue equipment.

Youth affairs

The Office of Youth Affairs has been transferred to the new Department of Employment and Youth Affairs from the former Department of Environment, Housing and Community Development.

The functions of the Office are: to seek greater co-ordination and consultation between Commonwealth Government departments on programs and proposals affecting youth; to seek greater co-ordination and consultation with State Governments, local government and non-government agencies in relation to Commonwealth programs and proposals affecting youth; to build up a research and information capacity to complement and increase the effectiveness of similar activities in functional departments; to advise on youth needs and to assist those designing specific and general programs and services; and to build a better channel of communication with youth.

The Office works closely with both the voluntary and government sectors with the aim of enabling young people to communicate more easily with government. The possibility of a 'conference' approach to government consultation with youth is being explored. In 1979 a National Youth Conference will involve youth and the community in discussions on matters of importance to youth such as employment, education and training.

Other tasks being examined by the Office include:

- the school/work transition problem;
- integration of services at the local level;
- the provision of crisis accommodation for the young;
- the adequacy of youth related statistics; and
- the international aspects of youth programs.

Most specific youth activities and programs in Australia are provided by voluntary youth organisations, many of which are organised nationally. The Commonwealth Government provides financial assistance to some of these national organisations to enable them to better serve young people and the community in general. In 1977-78, \$161,000 was allocated for youth organisations.

Tourism

The Department of Industry and Commerce is responsible for overseas and domestic tourism. The Department is involved in a range of policy, administrative and consultative activities designed to encourage the efficient development of tourism in Australia in co-operation with the industry and

with Commonwealth and State government departments. Major functions of the department include: formulation of policy proposals, transmission of advice to the Minister on industry problems, administration of the *Australian Tourist Commission Act*, conduct of research into the tourist and travel industries, provision of secretarial support to the Tourist Ministers Council and Australian Standing Committee on Tourism and liaison with international tourism organisations.

On 1 December 1976 the Government established a Parliamentary Select Committee on Tourism. The Committee's terms of reference were to examine the nature of the industry, report on problems and recommend solutions. The final report of the Committee was tabled on 26 October 1978. Following examination, a report on action taken by the Government will be made to the Parliament.

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 nine commissioners including representatives of the Commonwealth and State governments and the tourist industry. In 1978-79 its budget was \$4.24 million.

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.

Tourist Accommodation

Census of Tourist Accommodation Establishments. A census of Tourist Accommodation Establishments was conducted by the ABS in respect of the year ended 30 June 1974 to identify and measure the amount, type and location of tourist accommodation available throughout Australia.

For detailed statistics from the Census see *Census of Tourist Accommodation Establishments, Australia and Australian Capital Territory, Year Ended 30 June 1974* (8637.0) and *Census of Tourist Accommodation Establishments, 1973-74* published by the Deputy Commonwealth Statistician in each State.

Surveys of Tourist Accommodation Establishments. Quarterly accommodation surveys were commenced in the September Quarter 1975 and data published from these surveys include room occupancy, bed occupancy, takings from accommodation and employment.

The main purpose of the surveys of tourist accommodation establishments is to measure the utilisation of available tourist accommodation. For detailed statistics from the surveys see *Tourist Accommodation* (8635.0).

TOURIST ACCOMMODATION (a)

| | | March quarter 1977(b) | June quarter 1977(b) | September quarter 1977 | December quarter 1977 | March quarter 1978 | June quarter 1978 |
|---|---------|-----------------------------|----------------------------|------------------------------|-----------------------------|--------------------------|-------------------------|
| LICENSED HOTELS WITH FACILITIES(c) | | | | | | | |
| Establishments | Number | 905 | 910 | 935 | 937 | 917 | 916 |
| Guest rooms | " | 23,723 | 24,222 | 24,721 | 24,979 | 24,671 | 24,751 |
| Bed spaces | " | 52,450 | 54,418 | 55,764 | 56,469 | 55,987 | 55,954 |
| Room occupancy rates | % | 55.3 | 53.1 | 55.4 | 51.7 | 54.7 | 53.1 |
| Bed occupancy rates | % | 38.5 | 35.5 | 37.1 | 34.0 | 37.2 | 34.6 |
| Gross takings from accom- modation | \$'000 | 25,257 | 25,309 | 29,009 | 27,503 | 29,912 | 29,905 |
| Employment at end of period— | | | | | | | |
| Full-time | Persons | 15,024 | 14,843 | 15,731 | 15,490 | 15,130 | 15,151 |
| Other | " | 16,203 | 15,728 | 16,611 | 17,294 | 16,124 | 15,768 |
| Total | " | 31,227 | 30,571 | 32,342 | 32,784 | 31,254 | 30,919 |
| MOTELS, ETC.(c) | | | | | | | |
| Establishments | Number | 1,976 | 2,018 | 2,055 | 2,059 | 2,056 | 2,053 |
| Guest rooms | " | 50,506 | 50,365 | 51,454 | 51,391 | 51,317 | 51,371 |
| Bed spaces | " | 140,086 | 141,900 | 145,387 | 145,759 | 146,478 | 146,102 |
| Room occupancy rates | % | 61.3 | 59.6 | 62.2 | 57.3 | 61.6 | 58.5 |
| Bed occupancy rates | % | 41.3 | 38.1 | 39.5 | 35.5 | 40.8 | 36.3 |
| Gross takings from accom- modation | \$'000 | 57,068 | 55,417 | 61,709 | 57,651 | 64,347 | 61,275 |
| Employment at end of period— | | | | | | | |
| Full-time | Persons | 10,311 | 10,457 | 10,959 | 10,344 | 10,455 | 10,265 |
| Other | " | 9,986 | 9,559 | 10,080 | 10,234 | 10,259 | 9,924 |
| Total | " | 20,297 | 20,016 | 21,039 | 20,578 | 20,714 | 20,189 |
| TOTAL | | | | | | | |
| Establishments | Number | 2,881 | 2,928 | 2,990 | 2,996 | 2,973 | 2,969 |
| Guest rooms | " | 74,229 | 74,587 | 76,175 | 76,370 | 75,988 | 76,122 |
| Bed spaces | " | 192,536 | 196,318 | 201,151 | 202,228 | 202,465 | 202,056 |
| Room occupancy rates | % | 59.4 | 57.5 | 60.0 | 55.5 | 59.4 | 56.7 |
| Bed occupancy rates | % | 40.6 | 37.4 | 38.9 | 35.1 | 39.8 | 35.9 |
| Gross takings from accom- modation | \$'000 | 82,325 | 80,726 | 90,717 | 85,154 | 94,260 | 91,180 |
| Employment at end of period— | | | | | | | |
| Full-time | Persons | 25,335 | 25,300 | 26,690 | 25,834 | 25,585 | 25,416 |
| Other | " | 26,189 | 25,287 | 26,691 | 27,528 | 26,383 | 25,692 |
| Total | " | 51,524 | 50,587 | 53,381 | 53,362 | 51,968 | 51,108 |
| CARAVAN PARKS(c) | | | | | | | |
| Establishments | Number | n.a. | n.a. | 1,729 | 1,764 | 1,755 | 1,728 |
| Powered sites | " | n.a. | n.a. | 116,453 | 118,941 | 119,713 | 118,432 |
| Unpowered sites | " | n.a. | n.a. | 58,502 | 58,864 | 58,647 | 57,570 |
| Cabins, flats, etc. | " | n.a. | n.a. | 3,377 | 3,656 | 3,579 | 3,580 |
| Total capacity | " | n.a. | n.a. | 178,332 | 181,461 | 181,939 | 179,582 |
| Site occupancy rates | % | n.a. | n.a. | 19.8 | 22.6 | 33.4 | 19.9 |
| Guest nights | '000 | n.a. | n.a. | 8,436 | 10,428 | 16,960 | 8,564 |
| Gross takings from accom- modation | \$'000 | n.a. | n.a. | 12,334 | 14,967 | 20,703 | 13,008 |
| Employment at end of period— | | | | | | | |
| Full-time | Persons | n.a. | n.a. | 3,364 | 3,620 | 3,591 | 3,438 |
| Other | " | n.a. | n.a. | 1,481 | 1,765 | 1,634 | 1,446 |
| Total | " | n.a. | n.a. | 4,845 | 5,385 | 5,225 | 4,884 |

(a) For the purposes of this survey, hotels, motels and guest houses which provide predominantly short-term accommodation (i.e. for periods of less than two months) to the general public and which provide breakfast. (b) Excludes Northern Territory. (c) For definitions see *Tourist Accommodation* (8635.0).

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 abroad; this classification distinguishes between long-term and short-term movement.

Statistics of permanent and long-term movement are shown in Chapter 6, Demography.

Traveller statistics (overseas visitors and Australian residents)

Statistics of short-term arrivals and departures which are in the nature of travel statistics are given below.

Short-term movement is defined as comprising visitors arriving and Australian residents departing temporarily with the intention of staying in Australia or abroad for less than twelve months, together with the departure of visitors and the return of Australian residents who have stayed in Australia or abroad for less than twelve months.

Short-term movement 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; 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.

From 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'.

SUMMARY OF SHORT-TERM TRAVELLER STATISTICS

| | <i>Overseas visitors</i> | | <i>Australian residents</i> | |
|---------------------|--------------------------------------|---|---|--------------------------------------|
| | <i>Arriving in Australia</i> | <i>Departing from Australia</i> | <i>Departing from Australia</i> | <i>Arriving in Australia</i> |
| Annual average— | | | | |
| 1961-1965 | 131,461 | 135,006 | 97,041 | 118,624 |
| 1966-1970 | 297,275 | 308,325 | 259,700 | 258,824 |
| 1971-1975 | 475,925 | 479,015 | 631,446 | 647,608 |
| Year— | | | | |
| 1972 | 426,403 | 441,320 | 490,962 | 504,519 |
| 1973 | 472,124 | 481,901 | 620,842 | 638,141 |
| 1974 | 532,683 | 515,378 | 752,218 | 769,650 |
| 1975 | 516,023 | 506,454 | 880,609 | 911,815 |
| 1976 | 531,868 | 512,468 | 968,265 | 973,799 |
| 1977 | 563,281 | 540,943 | 971,253 | 973,677 |

In addition to the basic classification of travellers shown above, certain other characteristics are ascertained. These characteristics are: sex, age, marital status, country of citizenship, 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* (3402.0 and 3404.0). 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 VISTORS AND AUSTRALIAN RESIDENTS: SHORT-TERM ARRIVALS AND DEPARTURES
BY MONTH OF ARRIVAL OR DEPARTURE AND MODE OF TRANSPORT AUSTRALIA, 1977**

| 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 . . . | 720 | 47,885 | 48,605 | 896 | 67,841 | 68,737 | 1,830 | 79,333 | 81,163 | 1,573 | 153,860 | 155,433 |
| February . . . | 951 | 47,442 | 48,393 | 489 | 47,018 | 47,507 | 2,611 | 45,111 | 47,722 | 1,259 | 69,480 | 70,739 |
| March . . . | 824 | 49,817 | 50,641 | 610 | 50,229 | 50,839 | 1,845 | 74,387 | 76,232 | 1,191 | 56,020 | 57,211 |
| April . . . | 633 | 41,051 | 41,684 | 611 | 46,796 | 47,407 | 3,270 | 78,627 | 81,897 | 1,004 | 55,625 | 56,629 |
| May . . . | 721 | 35,484 | 36,205 | 711 | 40,578 | 41,289 | 3,787 | 91,599 | 95,386 | 1,531 | 66,294 | 67,825 |
| June . . . | 358 | 31,332 | 31,690 | 191 | 31,600 | 31,791 | 1,394 | 84,016 | 85,410 | 854 | 65,979 | 66,833 |
| July . . . | 421 | 40,411 | 40,832 | 330 | 34,207 | 34,537 | 1,265 | 83,103 | 84,368 | 1,446 | 76,351 | 77,797 |
| August . . . | 386 | 42,377 | 42,763 | 466 | 42,134 | 42,600 | 1,427 | 101,933 | 103,360 | 954 | 84,811 | 85,765 |
| September . . . | 259 | 37,212 | 37,471 | 136 | 39,250 | 39,386 | 655 | 62,317 | 62,972 | 1,778 | 115,303 | 117,081 |
| October . . . | 451 | 45,424 | 45,875 | 313 | 40,544 | 40,857 | 1,664 | 63,876 | 65,540 | 1,493 | 89,435 | 90,928 |
| November . . . | 776 | 64,319 | 65,095 | 584 | 49,610 | 50,194 | 1,034 | 58,161 | 59,195 | 795 | 73,625 | 74,420 |
| December . . . | 1,986 | 72,040 | 74,026 | 341 | 45,459 | 45,800 | 1,290 | 126,718 | 128,008 | 2,138 | 50,876 | 53,014 |
| Total . . . | 8,486 | 554,796 | 563,281 | 5,678 | 535,265 | 540,943 | 22,072 | 949,181 | 971,253 | 16,016 | 957,661 | 973,677 |

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—SHORT-TERM MOVEMENT: STATED PURPOSE OF
JOURNEY AND INTENDED LENGTH OF STAY, 1977**
(Persons)

| Intended length of stay | Stated purpose of journey | | | | | | | | Other and not stated | Total |
|--|---------------------------|-----------------|----------------|--|-----------------------|----------------|-----------------|----------------|-------------------------------|----------------|
| | In transit | Con- vention | Business | Accom- panying business traveller | Visiting relatives | Holiday | Employ- ment | Edu- cation | | |
| Under 1 week | .. | 1,257 | 17,421 | 881 | 2,808 | 9,672 | 1,441 | 180 | 3,379 | 37,040 |
| 1 week and under 2 weeks | .. | 4,667 | 18,537 | 1,893 | 7,418 | 77,202 | 768 | 1,234 | 6,792 | 118,510 |
| 2 weeks and under 3 weeks | .. | 4,070 | 17,802 | 2,193 | 12,741 | 156,732 | 894 | 1,026 | 9,626 | 205,085 |
| 3 weeks and under 1 month | .. | 2,055 | 10,996 | 1,402 | 18,853 | 76,411 | 581 | 611 | 5,841 | 116,751 |
| 1 month and under 2 months | .. | 317 | 22,500 | 2,960 | 47,929 | 89,148 | 1,348 | 593 | 9,399 | 174,195 |
| 2 months and under 3 months | .. | .. | 9,033 | 1,776 | 32,795 | 47,483 | 997 | 377 | 5,411 | 97,872 |
| 3 months and under 6 months | .. | .. | 5,069 | 1,691 | 36,405 | 54,588 | 2,181 | 609 | 6,241 | 106,783 |
| 6 months and under 9 months | .. | .. | 1,987 | 1,513 | 20,279 | 36,623 | 2,320 | 440 | 5,836 | 68,998 |
| 9 months and under 12 months | .. | .. | 1,483 | 1,625 | 6,201 | 11,365 | 3,453 | 957 | 4,188 | 29,271 |
| Indefinite, not stated | .. | .. | 1,211 | 678 | 2,864 | 8,005 | 481 | 156 | 3,353 | 16,748 |
| Total | .. | 12,366 | 106,040 | 16,612 | 188,294 | 567,229 | 14,465 | 6,181 | 60,067 | 971,253 |

**OVERSEAS VISITORS ARRIVING—SHORT-TERM MOVEMENT: STATED PURPOSE OF JOURNEY
AND INTENDED LENGTH OF STAY, 1977**
(Persons)

| Stated purpose of journey | | | | | | | | | | |
|------------------------------|------------|----------------------|---------------|---|----------------------------|--------------|----------------------|----------------|----------------------------|---------|
| | In transit | Con- ven- tion | Busi- ness | Accom- panying business travel- ler | Visiting rela- tives | Holi- day | Em- ploy- ment | Edu- cation | Other and not stated | Total |
| Short-term movement— | | | | | | | | | | |
| Under 1 week | 50,149 | 1,327 | 23,362 | 1,368 | 5,724 | 39,591 | 1,701 | 96 | 9,464 | 132,782 |
| 1 week and under 2 weeks | 2,192 | 4,544 | 23,827 | 1,791 | 10,753 | 42,900 | 438 | 249 | 5,850 | 92,544 |
| 2 weeks and under 3 weeks | 561 | 2,025 | 14,341 | 1,197 | 17,098 | 31,347 | 205 | 292 | 4,585 | 71,651 |
| 3 weeks and under 1 month | 131 | 551 | 3,813 | 431 | 20,418 | 18,126 | 151 | 59 | 2,405 | 46,084 |
| 1 month and under 2 months | .. | .. | 8,305 | 818 | 39,071 | 26,993 | 583 | 368 | 5,284 | 81,422 |
| 2 months and under 3 months | .. | .. | 2,590 | 430 | 20,360 | 10,201 | 613 | 518 | 2,368 | 37,080 |
| 3 months and under 6 months | .. | .. | 2,562 | 765 | 27,216 | 11,377 | 2,518 | 3,391 | 3,955 | 51,784 |
| 6 months and under 9 months | .. | .. | 920 | 316 | 9,612 | 5,804 | 3,237 | 639 | 2,536 | 23,064 |
| 9 months and under 12 months | .. | .. | 729 | 803 | 1,866 | 2,796 | 5,761 | 4,422 | 2,587 | 18,964 |
| Indefinite, not stated | .. | .. | 1,064 | 239 | 1,705 | 2,278 | 537 | 261 | 1,823 | 7,907 |
| Total | 53,032 | 8,446 | 81,512 | 8,156 | 153,825 | 191,414 | 15,744 | 10,294 | 40,857 | 563,281 |

The average intended length of stay abroad of Australian residents departing in 1977 for short-term visits abroad was 67 days. The average intended length of stay in Australia by short-term visitors from overseas was 53 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 the case of both Australian residents departing and overseas visitors arriving, the most common reason for visit was 'holiday', followed by 'visiting relatives' and 'business' as the second and third most common reasons.

**OVERSEAS VISITORS ARRIVING BY COUNTRY OF RESIDENCE AND INTENDED LENGTH OF STAY, AND
AUSTRALIAN RESIDENTS DEPARTING BY COUNTRY OF INTENDED STAY AND INTENDED LENGTH OF STAY:
AUSTRALIA, 1977**

| Country of residence (visitors) and country of intended stay (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— | | | | | | | | | | | | |
| South Africa | 1,586 | 1,883 | 1,409 | 731 | 64 | 5,673 | 50 | 1,034 | 1,696 | 1,024 | 76 | 3,880 |
| Other | 780 | 764 | 1,133 | 715 | 58 | 3,451 | 60 | 802 | 1,958 | 1,400 | 128 | 4,348 |
| Total, Africa | 2,367 | 2,647 | 2,543 | 1,446 | 122 | 9,124 | 110 | 1,836 | 3,655 | 2,424 | 204 | 8,228 |
| America— | | | | | | | | | | | | |
| Canada | 2,355 | 7,523 | 5,119 | 2,805 | 215 | 18,017 | 50 | 2,299 | 4,306 | 2,358 | 179 | 9,192 |
| U.S. America | 24,151 | 34,940 | 11,104 | 5,180 | 861 | 76,236 | 1,188 | 44,466 | 31,896 | 10,676 | 1,388 | 89,613 |
| Other | 852 | 1,034 | 712 | 427 | 162 | 3,187 | 40 | 900 | 2,719 | 1,847 | 165 | 5,671 |
| Total, America | 27,358 | 43,496 | 16,933 | 8,414 | 1,238 | 97,439 | 1,278 | 47,664 | 38,921 | 14,881 | 1,732 | 104,475 |
| Asia— | | | | | | | | | | | | |
| Hong Kong | 2,420 | 4,301 | 2,057 | 1,125 | 107 | 10,011 | 2,210 | 29,875 | 3,697 | 1,618 | 590 | 37,989 |
| India | 1,212 | 840 | 619 | 647 | 58 | 3,376 | 141 | 2,035 | 3,974 | 814 | 132 | 7,096 |
| Indonesia | 1,688 | 2,235 | 1,067 | 911 | 81 | 5,983 | 811 | 18,798 | 5,199 | 2,884 | 387 | 28,079 |
| Israel | 102 | 327 | 576 | 337 | 18 | 1,360 | 30 | 410 | 2,813 | 1,575 | 79 | 4,907 |
| Japan | 17,650 | 10,041 | 1,471 | 1,218 | 323 | 30,703 | 724 | 12,471 | 3,260 | 560 | 217 | 17,232 |
| Malaysia | 1,260 | 3,154 | 2,610 | 3,179 | 142 | 10,346 | 636 | 11,983 | 3,815 | 2,184 | 298 | 18,914 |
| Philippines | 1,017 | 1,014 | 566 | 339 | 69 | 3,004 | 799 | 7,851 | 2,112 | 742 | 184 | 11,688 |
| Singapore | 2,790 | 3,934 | 2,158 | 756 | 88 | 9,726 | 3,165 | 30,320 | 4,049 | 1,129 | 503 | 39,166 |
| Thailand | 690 | 1,178 | 584 | 553 | 57 | 3,063 | 410 | 5,856 | 1,259 | 415 | 100 | 8,040 |
| Other and unspecified | 2,237 | 2,697 | 1,785 | 1,719 | 261 | 8,701 | 181 | 7,455 | 6,017 | 9,191 | 421 | 23,263 |
| Total, Asia | 31,067 | 29,721 | 13,493 | 10,785 | 1,204 | 86,271 | 9,107 | 127,052 | 36,193 | 21,108 | 2,911 | 196,371 |
| Europe— | | | | | | | | | | | | |
| Austria | 402 | 390 | 414 | 400 | 37 | 1,643 | 40 | 251 | 1,628 | 1,172 | 54 | 3,145 |
| France | 1,681 | 1,643 | 1,052 | 735 | 80 | 5,191 | 40 | 912 | 2,864 | 1,821 | 115 | 5,751 |
| Germany (a) | 3,674 | 3,902 | 4,216 | 3,194 | 220 | 15,207 | 100 | 2,152 | 8,331 | 5,540 | 232 | 16,353 |
| Greece | 479 | 348 | 861 | 1,526 | 127 | 3,340 | 120 | 1,200 | 5,766 | 23,151 | 768 | 31,005 |
| Italy | 1,120 | 1,801 | 2,611 | 2,959 | 199 | 8,690 | 140 | 2,182 | 12,185 | 20,332 | 619 | 35,457 |
| Netherlands | 1,591 | 1,935 | 4,177 | 2,669 | 100 | 10,472 | 30 | 960 | 6,252 | 4,217 | 172 | 11,630 |
| Switzerland | 1,182 | 1,357 | 1,052 | 851 | 60 | 4,502 | 41 | 770 | 1,481 | 1,080 | 69 | 3,440 |
| U.K. and Ireland | 9,815 | 18,322 | 28,887 | 24,524 | 681 | 82,228 | 1,040 | 14,902 | 92,499 | 66,230 | 2,721 | 177,389 |
| U.S.S.R. | 234 | 341 | 317 | 285 | 64 | 1,240 | .. | 250 | 433 | 170 | 24 | 877 |
| Yugoslavia | 206 | 358 | 815 | 2,107 | 86 | 3,572 | 50 | 320 | 3,713 | 10,845 | 342 | 15,270 |
| Other and unspecified | 2,922 | 3,080 | 2,307 | 3,136 | 289 | 11,733 | 111 | 1,553 | 10,891 | 13,924 | 641 | 27,115 |
| Total, Europe | 23,305 | 33,476 | 46,709 | 42,385 | 1,943 | 147,817 | 1,712 | 25,449 | 146,038 | 148,477 | 5,757 | 327,431 |
| Oceania— | | | | | | | | | | | | |
| Fiji | 2,850 | 2,615 | 1,393 | 812 | 110 | 7,780 | 2,394 | 44,195 | 1,542 | 772 | 820 | 49,722 |
| New Caledonia | 2,883 | 2,257 | 2,123 | 634 | 187 | 8,083 | 841 | 10,650 | 549 | 200 | 217 | 12,457 |
| Papua New Guinea | 6,038 | 6,742 | 7,349 | 4,449 | 340 | 24,919 | 3,409 | 8,728 | 4,649 | 4,195 | 466 | 21,447 |
| New Hebrides | 314 | 331 | 272 | 151 | 14 | 1,083 | 270 | 4,812 | 266 | 123 | 93 | 5,564 |
| New Zealand | 31,306 | 83,988 | 23,943 | 21,301 | 2,025 | 162,562 | 15,083 | 145,758 | 31,384 | 7,434 | 3,046 | 202,704 |
| Norfolk Island | 200 | 433 | 175 | 98 | 21 | 926 | 880 | 7,796 | 285 | 103 | 158 | 9,221 |
| Other | 1,341 | 716 | 928 | 856 | 50 | 3,887 | 601 | 5,190 | 1,094 | 850 | 119 | 7,853 |
| Total, Oceania | 44,933 | 97,080 | 36,183 | 28,298 | 2,746 | 209,241 | 23,478 | 227,128 | 39,767 | 13,634 | 4,919 | 308,969 |
| Other | 3,753 | 3,858 | 2,640 | 2,485 | 654 | 13,389 | 1,355 | 11,218 | 7,512 | 4,531 | 1,226 | 25,842 |
| Total | 132,782 | 210,279 | 118,502 | 93,812 | 7,907 | 563,281 | 37,040 | 440,346 | 272,067 | 205,052 | 16,748 | 971,253 |

(a) Comprises the German Democratic Republic and the Federal Republic of Germany.

CHAPTER 27

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.

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 6 and 7 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* (1306.0) and the *Australian Capital Territory Statistical Summary* (1307.0) issued by the Bureau. Statistics for the Northern Territory and the Australian Capital Territory are also included in chapters dealing with particular subjects.

THE NORTHERN TERRITORY

General Description

The total area of the Northern Territory is 1,346,200 square kilometres.

Area, legislation and administration

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 terms of the transfer were outlined in Year Book No. 15, page 940.

The *Northern Territory (Administration) Act* 1910 provides for an Administrator, appointed by the Governor-General, to administer the Territory on behalf of the Commonwealth Government.

In 1974 the Act was amended to provide for the establishment of a Legislative Assembly for the Northern Territory to make Ordinances for the peace, order and good government of the Northern Territory. The Assembly consists of 19 elected members including a Speaker elected by the members. The first meeting of the new Assembly was held on 20 November 1974. The Assembly replaces the Legislative Council for the Northern Territory, which held its last meeting on 26 September 1974, and consisted of 6 official members and 11 elected members with a President elected from among the elected 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. The Administrator's Council consists of the Administrator and 5 members of the Assembly.

The Territory elects one member to the House of Representatives and, since 1975, two Senators to the Senate.

The Commonwealth Government has commenced a programme of transferring executive powers to the Legislative Assembly by 1 July 1979. Previously, the Assembly had legislative powers only.

A separate Northern Territory Public Service was created on 1 January 1977 and administrative powers in connection with a number of State-like services, including police, fire brigade, correctional services and local government administration, were transferred.

On 1 July 1978 a major transfer of powers and responsibilities occurred. The Department of the Northern Territory was abolished and its functions transferred to the Northern Territory Public Service, along with elements of other Commonwealth Departments including Construction, Attorney-General's and Administrative Services. The transferred Commonwealth staff and functions were restructured into ten Northern Territory Public Service Departments and other Territory Statutory Authorities.

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. The changes of weather are uniform and regular. 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. Buffaloes exist in large herds on the northern coastal plains. Most types of native fauna are protected.

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 Tablelands 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 Chapter 6, Demography.

The population of the Northern Territory at the census of 30 June 1976, as adjusted for under-enumeration, was 101,400 persons (including Aborigines, for whom separate details are not yet available (November 1978)).

Aboriginal Affairs

Policy

The Government is committed to the policies of Aboriginal self management at all levels, and Aboriginal self sufficiency. Involvement of Aborigines in delivery and planning programs, and in all stages of the development and implementation of policy is paramount.

The basis of the Government's approach is to secure for Aborigines access to Government services equal to that accorded other Australian citizens, together with additional services appropriate to Aborigines' state of extreme disadvantage, and, in recognition of a community obligation deriving from Aborigines' past dispossession and dispersal, to secure for them certain special benefits not available to other citizens, provided such special benefits are sanctioned by the Parliament.

Legal status

As Australian citizens, Aborigines are entitled to equality before the law. For the purpose of administering various programs designed to benefit Aborigines, the Department of Aboriginal Affairs and other Commonwealth Government departments and agencies define an 'Aboriginal' or 'Torres Strait Islander' as a person of Aboriginal or Torres Strait Islander descent who identifies as an Aboriginal or Torres Strait Islander and is accepted as such by the community in which he lives.

Land and land rights

The *Aboriginal Land Rights (Northern Territory) Act 1976* gives traditional Aborigines inalienable freehold title to former reserve land in the Northern Territory and provides a procedure for them to claim title to other areas of unalienated Crown land.

The former reserve land granted to Aborigines totals 249,013 square kilometres, or 18.4 per cent of the area of the Northern Territory.

Aborigines who are able to prove strong traditional links with unalienated Crown land may make a claim before the Aboriginal Land Commissioner, a judge of the Northern Territory Supreme Court. The Aboriginal Land Rights Act requires the Land Commissioner, in hearing a claim, to consider a number of matters in addition to traditional ownership before making a recommendation to the Minister for Aboriginal Affairs. The Minister can then accept or reject the Land Commissioner's recommendations.

To October 1978, the two Aboriginal land claims have been heard and granted; the Borroloola land claim and the Warlpiri and Kartangarurru-Kurintji land claim. Other claims have been lodged, and further claims are expected.

Titles to Aboriginal land are held by Aboriginal Land Trusts and the land is administered by Aboriginal Land Councils.

Minerals on Aboriginal land remain the property of the Crown. The Aboriginal Land Rights Act provides, however, that mineral exploration can only proceed with the approval of the appropriate land council who, in turn must consult with the traditional Aboriginal owners of the area concerned. There is provision in the Act for the objections of the land council to be over-ridden, in the national interest, and for the Minister for Aboriginal Affairs to appoint an arbitrator if the land council is unable or unwilling to reach agreement with a mining interest. Certain exceptions to the requirement for Aboriginal consent were created by the Act and these include the Ranger Project Area and the Jabiluka deposit, should the latter become Aboriginal land.

Royalties from mining on Aboriginal land are paid into an Aboriginal Benefits Trust Account and are distributed to pay administrative expenses of land councils, to communities affected by mineral developments and, on the recommendation of an advisory committee, to Aboriginal communities of the Northern Territory generally. Control of uranium mining has been reserved by the Commonwealth and special arrangements have been made between the Commonwealth and the Northern Territory Governments in relation to payments in lieu of royalties.

Aboriginal communities are also being assisted to purchase land off reserves. An Aboriginal Land Fund was established in 1974 for this purpose.

Community services and affairs

Government policy in the administration of Aboriginal affairs is to encourage existing State and Commonwealth departments and instrumentalities to provide services to Aborigines as to other Australian citizens and to take special measures to ensure that these services are appropriate, accessible and reflect the variety of Aboriginal life styles. In line with the transfer of other functions to the Northern Territory Government which took place when self-government was conferred on the Northern Territory on 1 July 1978, the Northern Territory Government has assumed responsibility for the provision of essential services to Aboriginal communities. Responsibility for health and education services to Aborigines will transfer to the Northern Territory Government, as part of the transfer of the general health and education functions, on 1 January and 1 July 1979 respectively.

Responsibility for a variety of services in Aboriginal communities in the Northern Territory has been transferred from the Northern Territory Division of the Department to other appropriate authorities. The Departments of Education, Health, and Northern Territory have assumed full responsibility for education, health and social welfare services respectively in Aboriginal communities in the Northern Territory.

Special programs for Aborigines

Attention is being given to changing the institutional character of Aboriginal reserve communities in the Northern Territory. Supervisory staff continue to be replaced by community development advisors, and managerial and technical staff are progressively being recruited 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 and other social 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.

Government policy is to provide Aboriginal primary school children in Aboriginal communities with education in their own language as far as practicable. Bilingual education programs initiated in Northern Territory Aboriginal communities in 1973 have been expanded and are now operating in nineteen schools. There are some 1,800 children receiving part of their instruction in their mother tongue.

Aboriginal Legal Services operated by Aborigines and supported by the Department of Aboriginal Affairs have been established on the initiative of Aboriginal groups in all States and the Northern Territory to ensure that Aborigines have access to legal advice and are competently represented in the courts.

Production

See also the chapters dealing with particular subjects.

Land tenure

On 30 June 1977, 74,000 hectares were held under freehold title; 80,570,800 hectares under leasehold; 2,350,600 hectares under various licences; 25,633,600 hectares were reserved for public purposes and for the benefit of Aborigines; and 25,961,000 hectares were unalienated. Land rent collected for the year 1976-77 amounted to \$305,900.

The Commonwealth 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 Commonwealth Government in April 1974. *See* Land and land rights.

A Commission of Inquiry into Urban Land Tenures was also established, under the chairmanship of Mr Justice Else-Mitchell. Various government departments studied the Commission's first report, made in November 1973, and further submissions were made to the Commission. A second and final report was presented to Commonwealth Parliament in 1976.

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 for 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 at 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 to the poor quality of native pastures and unsatisfactory market outlets. Developments in pasture improvement and the use of adapted Zebu cross-cattle in the northern areas, the opening in 1963 of the export abattoirs in

Katherine and Darwin, better disease control coupled with better management techniques, and various incentives and research programs introduced by the Government to encourage developments of the pastoral industry have resulted in an increase in turnoff figures and value of production during the late 1960's and early 1970's.

In the mid 1970's, markets for beef were poor with prices lower than in previous years. Coupled with this, the closure of the Darwin abattoirs had caused a downturn in the beef industry in the Northern Territory. Northern Territory cattle have also been affected by restricted overseas markets. Consequently, the value of production and the numbers of cattle turned-off declined. This reduction of the market and favourable seasonal factors resulted in a marked increase in the cattle population. However, since 1976-77 there has been some improvement both in the cattle turn-off rate, and in economic returns.

The value and volume of agricultural production continues to fluctuate with successive attempts and failures at large scale 'corporation' farming. Grain sorghum is well established as the major crop, with rice, legume grains and pasture seeds also being produced. The hay industry has undergone expansion in recent years in response to the demands of the live cattle export trade. Following Cyclone Tracy there has been noticeable growth in the horticultural industry, with attempted diversification of production, and marked growth in the nursery industry. However, infrastructure and marketing problems still impede the development of most agricultural industries. Approximately 120,000 hectares of improved pastures have been sown for more intensive beef production, although new sowings have decreased in recent years in response to difficulties in the beef industry.

Animal production has continued to be augmented by the buffalo meat industry. Interest in domestication has been developed on the sub-coastal plains properties and will need to continue if this industry is to be further advanced. Both the pig and poultry industries, unaffected by overseas marketing, have continued to expand.

Continuing 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 on the need to conserve valuable pastoral lands while achieving maximum productivity. Fields of work at the Institute include animal health, agriculture, soil conservation, botany, animal production and range management.

Coastal Plains Research Station. The station has 3 main roles: one as a regional station examining suitable pasture and animal production systems in the Coastal Plains/Darwin area; second involving basic studies into breeding and breeds with wider implications; and a third as the major centre for rice research. Its efforts have been 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 Brahman and Africander cross-breeds, and Shorthorns. Banteng (Bali) 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 taken.

Victoria River Experiment Station. This is the only Government Experiment Station in the range-lands 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 Marrakai 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, feeding supplementation trials and rice production.

Berrimah Experiment Farm. The work of this farm has been mainly restricted to pasture and crop investigations; plant introduction; 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 and management of improved pastures; sorghum, peanut, guar, cowpea and bulrush millet trials; and various aspects of cattle management.

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: NUMBER, AREA AND LAND UTILISATION OF RURAL ESTABLISHMENTS

| | Number of rural establishments | Area used for crops (a) | Area under sown pastures and grasses | Balance of area (b) | Total | |
|-------------------|--------------------------------|-------------------------|--------------------------------------|---------------------|----------|---|
| | | | | | Area | Percentage of N.T. land area (134,620,000 hectares) |
| | Number | | | '000 hectares | | |
| 1972-73 | 415 | 12.1 | 146.5 | 77,852.2 | 78,010.8 | 57.9 |
| 1973-74 | 394 | 5.0 | 127.1 | 79,354.5 | 79,486.5 | 59.0 |
| 1974-75 | 385 | 8.0 | 129.1 | 79,209.9 | 79,347.1 | 58.9 |
| 1975-76 | 361 | 8.3 | 115.8 | 78,662.5 | 78,786.6 | 58.5 |
| 1976-77 | 289 | 2.4 | 112.8 | 75,263.3 | 75,378.5 | 55.9 |
| 1977-78 | 317 | 1.2 | 113.1 | 76,075.6 | 76,189.9 | 56.5 |

(a) Excludes duplication on account of area double cropped.

(b) Used for grazing, lying idle, fallow, etc.

NORTHERN TERRITORY: RURAL STATISTICS

| | Unit | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78p |
|---|----------|---------|---------|---------|---------|---------|----------|
| Livestock numbers— | | | | | | | |
| Cattle | '000 | 1,237.2 | 1,320.9 | 1,434.4 | 1,602.8 | 1,663.7 | 1,681.1 |
| Domesticated buffaloes | '000 | 5.2 | 4.4 | 3.2 | 3.3 | 3.7 | 4.2 |
| Poultry | '000 | 82.3 | 66.5 | 15.0 | 139.5 | 174.9 | 183.2 |
| Pigs | '000 | 6.7 | 7.8 | 7.3 | 7.0 | 7.4 | 3.2 |
| Gross value of livestock slaughtering and other disposals— | | | | | | | |
| Cattle and calves | \$'000 | 28,690 | 25,148 | 9,445 | 9,456 | 22,834 | n.y.a. |
| Poultry | '000 | 47 | 31 | 9 | 2 | 534 | n.y.a. |
| Pigs | '000 | 182 | 297 | 268 | 559 | 602 | n.y.a. |
| Gross value of livestock products— | | | | | | | |
| Dairy products | \$'000 | 70 | 80 | 167 | 113 | 142 | n.y.a. |
| Eggs | \$'000 | 547 | 915 | 853 | 900 | 898 | n.y.a. |
| Crops, Area— | | | | | | | |
| Sorghum (grain & feed) | Hectares | 11,227 | 4,051 | 4,286 | 3,934 | 1,705 | n.y.a. |
| Hay | Hectares | 321 | 367 | 34 | 236 | 195 | n.y.a. |
| Tree fruit | Hectares | 39 | 32 | 19 | 40 | 26 | 19 |
| Bananas | Hectares | 21 | 20 | 11 | 19 | 11 | 14 |
| Vegetables | Hectares | 170 | 182 | 131 | 143 | 97 | 108 |
| Pastures & grasses (hay, seed, green feed) | Hectares | 2,066 | 4,728 | 2,715 | 2,058 | 2,175 | 1,868 |
| Total area used for crops (incl. pastures & grasses) | Hectares | 14,173 | 9,706 | 10,733 | 10,351 | 4,581 | n.y.a. |
| Crops, Production— | | | | | | | |
| Sorghum for grain | Tonnes | 17,041 | 6,674 | 6,784 | 4,986 | 1,335 | n.y.a. |
| Hay | Tonnes | 878 | 2,334 | 60 | 1,022 | 1,457 | n.y.a. |
| Bananas | Tonnes | 242 | 274 | 138 | 121 | 70 | 89 |
| Pastures & grasses (hay, seed) | Tonnes | 5,034 | 10,441 | 3,280 | 4,869 | 7,056 | 5,235 |
| Gross value of crops— | | | | | | | |
| Sorghum for grain | \$'000 | 1,141 | — | — | 414 | 117 | n.y.a. |
| Fruit | \$'000 | 106 | 76 | 66 | 66 | 36 | n.y.a. |
| Vegetables | \$'000 | 245 | 181 | 147 | 122 | 132 | n.y.a. |
| Pastures & grasses | \$'000 | 207 | 389 | 168 | 104 | 152 | n.y.a. |
| Total crops (incl. pastures and grasses) | \$'000 | 1,763 | 1,215 | 960 | 790 | 545 | n.y.a. |
| Gross value of agriculture | \$'000 | 31,317 | 27,686 | 11,702 | 11,820 | 25,555 | n.y.a. |

Mining

During 1976-77 the mining industry continued to be the major contributor to the income of the Northern Territory. Mineral output was valued at \$139 million in 1974-75, at \$137 million in 1975-76 and at \$217 million in 1976-77. Much of the increased value in 1976-77 reflects higher prices of manganese, bauxite and alumina.

The main minerals produced during 1976-77 were bauxite (including the production of alumina) on the Gove Peninsula, manganese from Groote Eylandt and gold, copper and bismuth from Tennant Creek. Most of the Northern Territory ore production is exported to Japan. European Countries and the U.S.A. are the other major purchasers of minerals.

At the Gove mining and treatment plant, Nabalco Pty Ltd. produced bauxite, including alumina, to the value of \$101 million in 1976-77. Of the 4.75 million tonnes of bauxite produced, 2.56 million tonnes or 54 per cent was fed to the alumina plant. Bauxite exports totalled 1.71 million tonnes with Japan purchasing 1.11 million tonnes (65 per cent).

The production of manganese from the extensive deposits at Groote Eylandt supplies all Australia's requirements of metallurgical grade manganese ore. Approximately 40 per cent of the manganese produced during 1976-77 was exported to Japan, with smaller amounts being exported to Europe, the U.S.A. and other countries. Total shipments from Groote Eylandt amounted to 981,017 tonnes of lump ore and 593,150 tonnes of fines.

The value of gold production in 1976-77 was \$16.5 million, nearly all produced in the Tennant Creek area. The underground Warrego mine of Peko Mines Ltd. yielded almost 75 per cent of the total gold production, with bismuth and copper as by-products. The other major producer of gold is the open cut Noble's Nob mine of Australian Development Ltd. Due to the unfavourable world price of copper, only those mines producing ores with a high gold content are now viable, and the flash smelter installed in 1973 to produce blister copper has been shut down since February 1975.

Reserves of the four major uranium deposits (Ranger, Nabarlek, Jabiluka and Koongarra), discovered in the Alligator Rivers area some 1,240 kilometres east from Darwin, exceed 300,000 tonnes of uranium oxide, i.e. 20 per cent of the known world reserves. The Government has decided that the mining and export of uranium should proceed and has approved an environmental impact assessment of the Ranger Project. The other deposits are still subject to environmental inquiries.

In the McArthur River District a pilot plant has been established to develop an economic ore treatment method for the extensive, medium-grade, but extremely finely-disseminated, lead-zinc sulphide deposits, which pose a major concentrating problem.

NORTHERN TERRITORY: MINING ESTABLISHMENTS

| | | 1974-75 | 1975-76 | 1976-77 |
|---|-----|---------|---------|---------|
| Establishments operating end of June | No. | 15 | 13 | 14 |
| Persons employed(a) | No. | 1,180 | 1,221 | 1,203 |
| Wages and salaries | \$m | 15.9 | 14.8 | 16.9 |
| Turnover | \$m | 91.6 | 90.2 | 148.7 |
| Opening stocks at 30 June | \$m | 12.5 | 19.8 | 19.7 |
| Closing stocks at 30 June | \$m | 17.5 | 18.3 | 20.2 |
| Purchases, transfers in and selected expenses | \$m | 27.4 | 32.0 | 37.1 |
| Value added(b) | \$m | 69.2 | 56.7 | 112.2 |
| Fixed capital expenditure(c) | \$m | 14.7 | 13.6 | 10.1 |

(a) At end of June. Includes working proprietors. (b) Turnover plus increase (or less decrease) in the value of stocks less purchases, transfers in and selected expenses. (c) Outlay on fixed tangible assets less disposals.

Petroleum and natural gas

Off-shore operations represented the main activity in petroleum exploration during 1976-77. At 30 June 1977 there were four on-shore oil permits covering 76,500 square kilometres and nine off-shore permits covering 689 blocks. Three oil leases covering 2,340 square kilometres are under application.

No wells were drilled during 1976-77, but two off-shore seismic surveys were completed.

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 ten 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 Aboriginals and included plantation establishment, the protection of native forests from fire to encourage regeneration and the training of Aboriginals 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 130,000 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. In addition, tree planting activities are to be expanded for conservation purposes in the arid zone. A new program is currently being prepared.

The consumption of sawn timber in the Northern Territory during 1975-76 was estimated at 12,000 cubic metres. It is not possible to obtain accurate statistics because of the substantial, but unknown, quantity of swan timber with enters in Northern Territory by road. Local production during 1975-76 was 454 cubic metres.

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.

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. Two prawning companies are now operating, one of which is a joint Australian-Japanese venture. One prawn processing plant is in operation in Darwin and another operates on Groote Eylandt. Boats and equipment valued at \$58 million were based in the Northern Territory in 1977-78. During 1977-78, 2.2m kilograms live weight of prawns were caught by Northern Territory prawning ventures. The Territory exported 1.0m kilograms (processed weight) valued at \$7.9 million. The other main fishing 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 1,089,125 kilograms (live weight) for 1977-78.

NORTHERN TERRITORY: PRINCIPAL FISHERIES

| | | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|---|--------|---------|---------|---------|---------|---------|
| Prawns— | | | | | | |
| Estimated gross weight of prawn catch | tonnes | 4,489 | 3,346 | 3,191 | 2,882 | 2,165 |
| Gross value of prawns | \$'000 | 6,509 | 5,019 | 4,222 | 8,647 | 8,100 |
| Fish— | | | | | | |
| Estimated live weight of fish catch | tonnes | 846 | 781 | 978 | 1,483 | 612 |
| Gross value of fish | \$'000 | 749 | 613 | 969 | 1,664 | 1,451 |
| All fisheries— | | | | | | |
| Number of boats engaged | | 276 | 194 | 289 | 290 | 380 |
| Number of persons employed | | 788 | 638 | 830 | 934 | 1,258 |

Secondary Industries

The types of secondary industries that have developed in the Northern Territory have been largely service industries based on demand for local markets, together with the processing of primary production for export including the processing of mined ores, prawns and beef. The isolation of the Northern Territory from the major population areas of Australia and the resultant high transportation costs make other than local market expansion difficult. However such isolation also provides a protected market for some aspects of secondary industry.

The extent of importation of commodities into the Northern Territory, significant under-developed raw resources and a growing population (and hence market) would suggest that potential exists for industrial expansion. Some see the proximity of South East Asian markets to Darwin as providing considerable future potential for export-orientated secondary industry development.

In recent years, the effects of Cyclone Tracy on the City of Darwin, the general downturn in economic activity in the Australian economy, and the beef industry slump have had a significant effect on secondary industry in the Northern Territory. Some rapid growth in secondary industry associated with the building industry in Darwin has occurred, but growth in other areas is largely dependent on improvement in the general economic climate.

The following table shows results of the Manufacturing Censuses taken in respect of the years 1973-74 and 1974-75.

NORTHERN TERRITORY: MANUFACTURING ESTABLISHMENTS

| | | 1973-74 | 1974-75(a) | 1975-76(a) |
|---|-----|---------|------------|------------|
| Establishments at 30 June | No. | 102 | 67 | 69 |
| Persons employed(b) | No. | 2,450 | 2,305 | 2,036 |
| Wages and salaries | \$m | 18.0 | 22.0 | 20.5 |
| Turnover | \$m | 87.0 | 94.7 | 127.1 |
| Opening stocks at 30 June | \$m | 16.6 | 17.6 | 34.3 |
| Closing stocks 30 June | \$m | 26.0 | 34.1 | 35.9 |
| Purchases, transfers in and selected expenses | \$m | 45.8 | 61.4 | 82.9 |
| Value added(c) | \$m | 50.6 | 47.8 | 45.8 |

(a) From 1974-75 all manufacturing establishments owned by multi-establishment enterprises and single establishment manufacturing enterprises with four or more persons employed. (b) Average over whole year. Includes working proprietors. (c) 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 and is likely to play an increasingly important role in the Territory's economy. Prior to Cyclone Tracy the industry had sustained growth rates of the order of 12 per cent per annum. In 1971, visitors numbered 112,800, with 12,000 of these coming from overseas. Ayers Rock provides the most reliable long-term visitor figures which show that from a visitor total of 5,000 in 1961, numbers had increased to 38,000 in 1971 and to 62,646 in 1976. Despite the setback suffered by the Top End as a result of Cyclone Tracy, the industry there already shows signs of resurgence, while the Centre has experienced continued growth.

For 1977-78 the Northern Territory Tourist Board has been allocated \$713,000 for development of the industry. Bureaux are currently in operation in Sydney, Melbourne and Adelaide, and the Territory operations are controlled by two regional managers working from Bureau offices in Darwin and Alice Springs.

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 Northern Territory Public Service. Wildlife protected areas total 236,000 square kilometres, the bulk of which consists of Aboriginal reserves.

The Northern Territory Reserves Board administers some 42 national parks and reserves covering an area of 125,060 hectares. 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 Northern 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
(\$'000)**

| <i>Commodity</i> | <i>1972-73</i> | <i>1973-74</i> | <i>1974-75</i> | <i>1975-76</i> | <i>1976-77(a)</i> | <i>1977-78</i> |
|---|----------------|----------------|----------------|----------------|-------------------|----------------|
| IMPORTS | | | | | | |
| Automotive spirit | 1,399 | 192 | 3,801 | 4,786 | 7,566 | 9,843 |
| Automotive distillate | 1,185 | 1,507 | 3,772 | 3,780 | 6,054 | 9,172 |
| Furnace fuel | 2,233 | 8,505 | 13,407 | 19,332 | 13,502 | 31,397 |
| Chemical elements and compounds | 3,282 | 2,144 | 7,760 | 6,834 | 5,463 | 9,656 |
| Timber | 771 | 1,235 | 1,754 | 1,887 | 2,573 | 1,157 |
| Machinery and transport equipment | 32,827 | 17,579 | 7,332 | 7,314 | 16,112 | 13,759 |
| Other articles | 7,893 | 7,270 | 11,069 | 15,226 | 21,071 | 24,613 |
| Total imports | 49,590 | 38,432 | 48,895 | 59,159 | 72,341 | 99,597 |
| EXPORTS(b) | | | | | | |
| Meats and meat preparations | 7,375 | 6,047 | 2,698 | 2,076 | 1,771 | 3,037 |
| Fresh prawns and shrimps | 4,479 | 4,162 | 3,140 | 3,005 | 4,291 | 7,941 |
| Iron ore and concentrates | 5,656 | 4,939 | 1,549 | 606 | — | — |
| Other metalliferous ores and metal scrap | 22,918 | 27,149 | 37,379 | 53,825 | 69,549 | 57,227 |
| Inorganic chemicals elements metallic oxides, etc. | 22,258 | 35,775 | 56,786 | 83,374 | 87,808 | 115,898 |
| Ships, boats and floating structures | 14,881 | 3,185 | 11,519 | 322 | 950 | 4,067 |
| Other articles | 18,131 | 5,525 | 3,993 | 8,643 | 5,364 | 5,145 |
| Total exports | 95,698 | 86,782 | 117,064 | 151,851 | 169,733 | 193,314 |

(a) Import figures from 1976-77 are not comparable with previous years because of the change in the basis of valuation (see page 582).
(b) Includes Australian produce and re-exports.

Railways

The Australian National Railways operates the Central Australia Railway from Port Augusta in South Australia to Alice Springs over a distance of 1,226 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 gauge (1,067 mm) from Marree to Alice Springs. The Commonwealth Government has approved the construction of a standard gauge line between Tarcoola and Alice Springs to replace the Marree-Alice Springs section of the Central Australian Railway; survey work has commenced. The train service on the North Australia Railway which operated from Darwin to Birdum ceased on 30 June 1976 by direction of the Commonwealth Government.

Roads

The Stuart Highway is the principal north-south axis route for the Northern Territory connecting Alice Springs, Katherine, Tennant Creek and Darwin to Adelaide. The section Darwin-Alice Springs is 1,535 kilometres long and sealed over its full length. The section south of Alice Springs is sealed to the South Australian border, a distance of 307 kilometres.

The Barkly Highway is the principal route to and from Queensland via Mount Isa. It is 648 kilometres long and is sealed. Running approximately east-west, it connects to the Stuart Highway some 26 kilometres north of Tennant Creek.

The Victoria Highway, the principal access route to and from Western Australia via Kununurra, is 467 kilometres long and is sealed.

These highways are used to carry a variety of freight, including cattle, particularly between the railheads at Mount Isa and Alice Springs. They provide access to meatworks at Wyndham (Western Australia), Cloncurry (Queensland) and Katherine. In addition, they play a particularly important part in the Northern Territory economy through their association with the tourist industry.

The first of a number of programs for upgrading the Stuart and Barkly Highways is complete, and work is presently being carried out on the second program.

The fourth principal Northern Territory road is the Arnhem Highway which has been sealed for 210 kilometres. It commences some 34 kilometres south of Darwin at the Stuart Highway and leads eastwards to the uranium exploration and development areas of the Alligator Rivers district.

Development roads serving the more remote outback communities have received attention. At 30 June 1976 there were 20,285 kilometres of roads in the Northern Territory. These comprise 4,652 kilometres sealed, 1,597 kilometres gravel, 4,942 kilometres formed and 9,094 kilometres unformed.

Shipping

Shipping services to Darwin are provided from the eastern states by the Australian National Line using one vessel on a six weekly service, and from Western Australia by West Australian State Shipping Service using three vessels providing three services a month. Tankers from Australian and overseas ports deliver oil products to Darwin. General cargo vessels from overseas ports also visit Darwin. The prawning and fishing industry accounts for a significant portion of the shipping entries into the port.

John Burke Pty Ltd operates a regular shipping service from Brisbane to the Gulf of Carpentaria ports which serves Aboriginal communities as well as the mining centres of Melville Bay (Gove) and Milner Bay (Groote Eylandt). Other shipping services to Milner Bay and Melville Bay bring supplies for the mining operation, and bulk carriers load ore and other mining products for delivery to ports in Australia and overseas.

Powered barges provide services from Darwin to Aboriginal communities and ports along the coast.

Air services

At 1 January 1977, there were 127 aerodromes in the Territory, six of which are maintained by the Australian Department of Transport, Air Transport Group. Overseas passenger flights ceased following the destruction by Cyclone Tracy of the facilities for international passengers in the Darwin terminal building, but they have now resumed. The Merpati Nusantara service (Darwin to Kupang) resumed during 1975, and on 31 March 1976 Qantas re-introduced a service to Hong Kong and London. In addition, on 3 October 1977, Cathay Pacific commenced a weekly north-bound service via Darwin to Hong Kong. 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, based at Alice Springs, operate a network of air services throughout the Territory, and 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, while 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.

Post, telegraph, telephone, radio and television

Postal communication is maintained by road, rail and air transport between major and 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 London, Bangkok and Djakarta.

Trunk telephone links to Darwin extend from Townsville 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 towns along the routes. Subscriber trunk dialling facilities were introduced to Darwin and Nhulunbuy (Gove Peninsula) in 1974 and to Katherine in 1975. ISD (International Subscriber Dialling) was introduced to telephone exchanges in the Darwin area and to Katherine and Nhulunbuy in December 1976.

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 Telecom Australia 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, Katherine and Gove 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. The Darwin ABD 6 national program is also broadcast in Katherine (ABKN 7) and Tennant Creek (ABTD 9) with a translator (ABTD 9-10) to give coverage of the mining residential area at Warrigo. A national television station, ABAD Channel 7, operates in Alice Springs.

Education

See also Chapter 12, Education.

The Commonwealth Department of Education, through its Northern Territory Division will continue to be responsible for the administration of education in the Northern Territory until 30 June 1979. From that date it will be administered by a Northern Territory Department of Education which will be responsible to the Northern Territory Government.

This responsibility includes the following:

- (i) Development of curricula and materials for use in all Northern Territory schools, education research, (including matters pertaining to the assessment of student achievement, certification, registration of courses, and evaluation of programs), teacher development (pre and inservice), a variety of training programs, and the provision of educational support services to programs (including media services, library services and educational publications).
- (ii) Special programs covering the range of educational facilities and the needs of special groups, including programmes for Aborigines (bilingual education, outstation education and post-primary education), multicultural education, guidance services and services for handicapped children.
- (iii) Special projects covering the range of educational facilities in the Northern Territory, including education programs for Aborigines, migrant education and services for handicapped children.
- (iv) Planning and controlling the capital works program of educational buildings in the Northern Territory.
- (v) Administration of capital assistance to non-government schools.
- (vi) Training of Aboriginal teaching assistants. (*see also* Aboriginal Education)

Schools in the Northern Territory

At August 1978 there were 131 schools in the Northern Territory with a total school population of 27,500. Of that number 2,200 attended private schools and 1,150 attended mission schools. The total number of Aboriginal Students was 9,250.

Professional staff are recruited by the Commonwealth Teaching Service from all over Australia according to the requirements of the Northern Territory Division. No training institutions provide teachers specifically for the Northern Territory, but many colleges incorporate studies which are based on specific needs of the Northern Territory Division.

The Darwin Community College has facilities for upgrading teacher qualifications and also offers an undergraduate diploma and degree course in education.

At the Matriculation level, students sit for the examinations administered by the South Australian Public Examinations Board which are accredited by tertiary institutions throughout Australia. Leavers Certificates may be issued by individual schools to students who leave at Year 10, 11 or 12 level and special purpose certificates may be provided for students wishing to seek apprenticeships. Schools are responsible for the development of curricula up to Year 10 based on local needs. Schools are supported in this by curriculum committees, educational advisers and a range of educational services.

At Year 11 there is a range of courses prescribed as preliminary courses to Matriculation subjects, together with a range of courses not oriented to the PEB Year 12 subjects. These latter courses are school-based and need to be approved by the registration board if it is intended that they be included on the Leavers Certificate.

There are various types of primary schools in urban areas, and these provide a variety of learning environments. Open plan buildings are popular, and flexible space designs reflect the desirability of alternative approaches to teaching techniques with a multicultural and heterogeneous student population.

In smaller urban communities, area schools are yielding to population growth and new high schools and primary schools are being provided.

The two Schools of the Air in the Northern Territory, one at Katherine and one at Alice Springs, have developed individual programs and provide correspondence and radio lessons for their students. Aerial and road patrols are carried out regularly to provide teacher/student and parent contact.

Special schools are located in Alice Springs and Darwin for handicapped children. However, where appropriate, students with special needs are integrated into primary and secondary schools.

A program of exchange between Bali (Indonesia) and the Northern Territory is continuing in which two teachers from each country are exchanged for a school year, and four senior students spend up to six months in the other country.

Aboriginal education

The great majority of Northern Territory Aboriginals live away from the town centres. Education for Aboriginal children is provided in various settings, including mission schools, Government schools on or near missions, Government schools in or near Aboriginal townships, in schools on pastoral properties and on outstation or homeland centres.

There has been an increasing number of requests from outstation communities for the Department of Education to provide educational assistance. This has provided an educational challenge unlike that anywhere else in Australia. Education must be provided for the community as a whole. A small group of teachers is currently working in this field and is developing special methods to help overcome the difficulties faced by isolated outstation groups in their quest for education.

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: Yirara, Kormilda and Dhupuma. These colleges are regionally based, but situated near urban centres. They provide students from bush locations with the opportunity to become bicultural and prepare them for entry to secondary school programs in towns.

Bilingual education programs in Northern Territory schools in Aboriginal communities have attracted wide interest from within Australia and overseas. There are nineteen schools offering bilingual programs and two schools are preparing resources for programs to be introduced in the future. Many others include Aboriginal language and culture in the curriculum. Thirteen languages are now being used in the program and research programs are continuing into another three. Most of the school children are acquiring initial literacy skills in their own language. Although the major proportion of the curriculum is devoted to instruction in an Aboriginal language, a structured English course forms an integral part of the bilingual program. Experience has shown that Aboriginal children achieving functional literacy in their own language have been able to transfer these skills to English with little difficulty.

The School of Australian Linguistics, which is training Aboriginals as linguists, the Summer Institute of Linguistics, and many mission linguists work closely with officers of the Northern Territory Division of the Department of Education in the development of the Bilingual Education Program.

The Department's involvement in Technical and Further Education (TAFE) activities revolves around servicing Aboriginal education and training on site through its Adult Education Section and Student Driver Education Program.

Considerable importance attaches to the activities of adult educators whose role is to assist Aboriginal people to come to satisfying terms with their rapidly changing circumstances and their significantly increased management responsibilities. Current affairs discussions deal with the mundane administration of townships as well as with topics of international concern, such as uranium mining. Skills instruction covers the spectrum of developing communities' needs from numeracy and literacy to storekeeping and engine maintenance. The staff of twenty full-time adult education officers is supplemented by part-time instructors as and when funds are available.

Aboriginal Teacher Education

The Northern Territory Division of the Department of Education provides first and second year training courses for Teaching Assistants at the Aboriginal Teacher Education Centre at Batchelor. A first-year course is provided at the Ti-Tree annexe and on-site first-year courses are in operation at Yirrkala, Elcho Island, Maningrida and Santa Teresa. It is expected to start one at Bathurst Island early in 1979.

A third-year course is also conducted at Batchelor by lecturers from Darwin Community College.

This Division employs about 300 Aboriginal Teaching Assistants and about 30 Aboriginal Commonwealth Teaching Service members.

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. It has Schools of Business and Management, General Studies (including Teacher Education), Creative and Applied Arts, Technology and Science, Trades and Linguistics. As well as courses at a number of levels leading to awards, the College provides a wide range of non-award, general interest classes. It provides tutorial assistance in a limited range of subjects to external students enrolled at the University of Queensland. The College has established a regional campus at Alice Springs and has annexes at Katherine, Nhulunbuy and Tennant Creek. The School of Australian Linguistics is presently located at Batchelor. By October 1978 the College had recorded 9,168 enrolments for the year in the various courses offered.

To provide courses for as many people as possible the College attempts to keep admission open. In many cases there is no formal entry requirement to a course. With most award courses, mature age entry is available. The College also aims to be as flexible as possible and this is reflected in the range and content of non-award courses offered. The ability of the College to introduce new award programs is dependent on the availability of resources and these cannot be introduced at short notice.

Though the Darwin Community College's role is primarily to cater for the diverse educational and training needs of the Northern Territory it does have a national significance in that it is the first multi-level institution of its kind in Australia. Because of its unique educational nature it is constantly attracting visitors from interstate educational institutions and from overseas.

Apprenticeship training

Since March 1974, the formal training of apprentices in the Northern Territory has been co-ordinated through the Darwin Community College. Courses are conducted for the majority of trades at the Casuarina and Alice Springs campuses.

Finance

Details of receipts and outlay of the Northern Territory for the years 1972-73 to 1976-77 are shown in the following table. In this table, identifiable 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 Commonwealth Government Consolidated Revenue Fund and the following trust funds: Aborigines Benefits, Northern Territory Government Settlements Canteens, 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. Details of the financial transactions of the Darwin City Council are also incorporated in the table. Not included is revenue derived by the Commonwealth Government from income taxes, customs duties, etc. levied in the Northern Territory; expenditure by the Commonwealth Government in the Northern Territory on such items as defence, civil aviation, railways, etc.; payments to residents from the National Welfare Fund; and advances from the Aboriginal Loans Commission.

NORTHERN TERRITORY: RECEIPTS AND OUTLAY (\$'000)

| | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77p |
|---|----------------|----------------|----------------|----------------|----------------|
| RECEIPTS | | | | | |
| Taxation— | | | | | |
| Rates on land | 1,100 | 1,227 | 1,647 | 2,529 | 3,405 |
| Vehicle registration fees | 815 | 859 | 831 | 1,043 | 1,085 |
| Liquor taxes(a) | 486 | 589 | 568 | 991 | 1,137 |
| Payroll tax | 1,950 | 2,800 | 5,300 | 6,550 | 7,300 |
| Stamp duties | 184 | 330 | 259 | 326 | 412 |
| Other taxes, fees, fines, etc. | 731 | 978 | 885 | 1,315 | 1,562 |
| Interest, rent, etc. | 1,542 | 2,086 | 1,840 | 1,920 | 3,186 |
| Public enterprises income | 3,752 | 2,857 | -6,968 | -10,091 | -7,657 |
| Net sale of local authority and public corporation securities | 157 | 149 | 193 | 277 | 3,605 |
| Other receipts(b) | 1,029 | 959 | -3,798 | 3,631 | 3,103 |
| Net charge to Commonwealth budget | 122,438 | 155,676 | 284,183 | 404,783 | 390,279 |
| Total receipts | 134,184 | 168,510 | 284,940 | 413,274 | 407,417 |
| OUTLAY | | | | | |
| Final consumption expenditure— | | | | | |
| Law, order and public safety | 5,439 | 7,411 | 12,540 | 14,307 | 15,168 |
| Education | 12,818 | 19,421 | 31,037 | 39,815 | 45,174 |
| Health | 14,673 | 19,883 | 27,736 | 32,691 | 38,499 |
| Social security and welfare | 10,569 | 11,463 | 20,228 | 20,314 | 20,953 |
| Other | 18,911 | 22,344 | 74,415 | 45,612 | 40,472 |
| Expenditure on new fixed assets and stocks— | | | | | |
| Education | 12,036 | 9,005 | 12,234 | 27,745 | 23,133 |

NORTHERN TERRITORY RECEIPTS AND OUTLAY—*continued*
(\$'000)

| | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 ^p |
|--|----------------|----------------|----------------|----------------|----------------------|
| Health | 5,275 | 8,991 | 14,566 | 28,856 | 39,395 |
| Social security and welfare | 622 | 220 | 500 | 473 | 529 |
| Housing and Community amenities | 16,212 | 13,666 | 22,700 | 91,209 | 96,151 |
| Roads | 14,627 | 14,778 | 16,455 | 20,327 | 18,430 |
| Electricity, gas and water | 8,032 | 9,192 | 11,692 | 16,503 | 18,355 |
| Other | 8,895 | 9,349 | 20,009 | 26,541 | 20,647 |
| Net purchase of existing assets | 1 | 3,730 | 9,041 | 1,770 | 853 |
| Interest paid | 288 | 189 | 242 | 324 | 275 |
| Cash benefits | 257 | 64 | 1,754 | 2,997 | 326 |
| Subsidies | 506 | 657 | 237 | 106 | 455 |
| Net advances to the private sector— | | | | | |
| Housing and community amenities | 1,164 | 8,250 | -15,920 | 11,601 | 18,201 |
| Other | 68 | 2 | -1,652 | 712 | 875 |
| Net advances to public financial enterprises | - | - | 2,750 | 550 | -555 |
| Grants for private capital purposes | 3,791 | 9,895 | 21,072 | 30,821 | 10,081 |
| Total outlay | 134,184 | 168,510 | 284,940 | 413,274 | 407,417 |

(a) Estimated for years prior to 1972-73.

(b) Includes movements in cash, investments, etc.

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, police and municipal services. Education, public health and justice are the responsibilities of the Department of Education, Health and Attorney-General's. The National Capital Development Commission has the responsibility for the planning and development of the Canberra city area.

During 1974 the A.C.T. Advisory Council, which had been in existence since 1930, was replaced by the A.C.T. Legislative Assembly. The first Assembly was elected on 28 September 1974 and held its first meeting on 28 October 1974.

The Assembly is constituted under the *Legislative Assembly Ordinance* 1936, Section 10 of which defines its role as follows:

'The Assembly may advise the Minister (for the Capital Territory) in relation to any matter affecting the Territory including the making of new Ordinances or the repeal or amendment of existing Ordinances.'

The Assembly consists of 18 Members (9 from each of the electoral divisions of Canberra and Fraser) and its procedure is modelled on that of the House of Representatives. Its Members serve on a part-time basis and sittings usually take place on two evenings each fortnight. During 1978 the Assembly held 20 sittings, comprising 38 sitting days.

The Assembly normally considers (and sometimes introduces) Ordinances which are proposed for the Territory. It also passes resolutions on matters affecting the Territory. It is represented on a number of boards, authorities and committees such as the Canberra Commercial Development Authority, the A.C.T. Electricity Authority, the A.C.T. Schools Authority, the Capital Territory Health Commission, the Liquor Licensing Board the National Capital Planning Committee and the Australian Constitutional Convention.

At 30 June 1978 the population of the Australian Capital Territory was 213,000. *See also* Chapter 6, Demography.

National Capital Development Commission

The *National Capital Development Commission Act* 1957 provides for a Commission to undertake and carry out the planning, development and construction of the City of Canberra as the National

Capital of the Commonwealth. The year 1977-78 was the twenty-first year of the Commission's operations. Construction work was carried out by means of agency operations with the Department of Construction and by private consultants. Expenditure in recent years is as follows: 1973-74, \$99.7 million; 1974-75, \$147.5 million; 1975-76, \$188.5 million; 1976-77, \$204.1 million. Total expenditure in 1977-1978 was \$197.1 million comprising: land development and services \$20.9 million; water, sewerage and stormwater services and headworks \$32.5 million; housing, flats and other accommodation \$13.1 million; educational facilities \$22.4 million; roads, public transport and traffic control \$29.3 million; city works and associated facilities \$8.0 million; Commonwealth Government offices \$25.4 million; national works \$15.4 million; health and welfare facilities \$5.7 million; others \$13.6 million.

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, 28.1 per cent in 1971 and 17 per cent in 1978. Although the bulk of rented accommodation is provided by public authorities (and this situation will continue 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, Weston Creek and Tuggeranong south-west of the former city area and in Belconnen north-west of the former city area has continued to expand, and at June 1978 there were 18,337 occupied dwellings in the Woden Valley and Weston Creek area, 19,393 occupied dwellings in the Belconnen area and 5,672 occupied dwellings in the Tuggeranong area. *See also* Chapter 19, Housing and Construction.

Municipal services

Since its establishment, Canberra has been developed as a garden city. City Parks Administration of the Department of the Capital Territory maintains all established urban parklands and sportsgrounds within the city area which amounted to approximately 6,080 ha in 1977-78 an increase of approximately 280 ha on the 1976-77 total.

The Yarralumla Nursery and the Canberra Botanic Gardens are also part of the City Parks Administration.

The Nursery established in 1916, continues to propagate trees and shrubs for use in development projects, as replacements in the course of area maintenance and as free issue to new householders.

Introduction of new methods has increased productivity and improved quality of stock. During 1977-78 approximately 545,000 plants were propagated an increase of about 25,000 over the previous year.

The Botanic Gardens located on Black Mountain continues to attract large numbers of people. Attendance figures for 1977-78 exceeded 300,000 and there was a significant increase in the numbers of organised school visits. This year 6,800 student visitors were recorded, an increase of 2,400 over the previous year.

The water supply, sewerage and drainage systems in the Australian Capital Territory are under the control of the Department of Construction.

At 30 June 1978, 62,688 meters were connected to the City Water Supply. The city draws its supply through 33 reservoir installations, of which 4 are paired reservoirs from 3 storages on the Cotter River. The total capacity of these storages is 91,000 mega litres and a 125,000 mega litre storage on the Queanbeyan River.

In 1977-78, 57,040 mega litres of water were consumed in Canberra whose population was 214,450. An additional 3,630 mega litres were supplied to Queanbeyan, N.S.W. whose population was 20,000.

Canberra's sewage is disposed of through treatment works at Weston Creek, Belconnen and Fyshwick. The present treatment works will be superseded by the Lower Molonglo Water Quality Control Centre presently under construction.

As at 30 June 1978, 1,750 kilometers of sewers, 14 kilometers of rising sewerage mains, 1,909 kilometers of stormwater drains and a total length of 1,760 kilometers of water line were laid.

Production

See also the chapter 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 Australian Capital Territory and to the area of alienated and leased land. The chapter Rural Industry in Year Book No. 61 contains statistical information of these subjects. See also Chapter 1, Canberra: Fifty Years of Development, Year Book No. 49, page 123.

With minor exceptions the freehold estate of land in the Australian Capital Territory has been acquired by, and is vested in the Crown. The *Seat of Government (Administration) Act* 1910 prevents the sale or disposal of such Crown land for any estate in freehold except in the case of a contract that preceded the Act. Progressively the remaining areas of freehold land are being acquired.

Leases of land for residential commercial and other purposes in the city area are usually granted under the *City Area Leases Ordinance* 1936. Some special leases for other purposes (such as diplomatic sites or churches) are granted under the *Leases (Special Purposes) Ordinance* 1925 or the *Church Lands Leases Ordinance* 1924. Some areas outside the city area not immediately required for the development of the City or for other public purposes or where there is no intention of development are leased for agriculture or grazing under the *Leases Ordinance* 1918.

The Commonwealth 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 plus an area on Bowen Island have been leased for guest houses and holiday camps, etc. under the *Leases Ordinance* 1918, 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 field 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 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) To manage and develop plantations and hardwood forest area in the Australian Capital Territory and Jervis Bay for production of timber and arrange sales of all forest produce;
- (b) To initiate and maintain a variety of growth and environmental experiments to produce information for management decisions; and
- (c) To 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 74,000 hectares of land in the Australian Capital Territory. Of this, some 48,000 hectares carry native forest or woodland. As at 31 March 1978, the total area of coniferous plantations in the Australian Capital Territory and Jervis Bay was 14,399 hectares nett. Of 217 hectares at Jervis Bay, the majority consisted of *Pinus radiata* (Monterey Pine) and *Pinus elliotii* (Slash Pine). (Fifty-two hectares at Jervis Bay were destroyed by fire). The plantations in the Australian Capital Territory consisted mainly of *Pinus radiata* and *Pinus ponderosa* (Yellow Pine). Total area of *Pinus radiata* was 13,237 hectares.

In 1977-78 there was no commercial production of hardwood timber from the Australian Capital Territory and Jervis Bay. The volume of softwood cut was 158,000 cubic metres. The total value of this unprocessed timber unloaded at the mill (milldoor value) was \$2.9m

Agricultural, pastoral and secondary industries

In the six years since 1972-73 the number of rural establishments in the Australian Capital Territory has fallen from 172 to 114. The more important items produced in 1977-78 were: wheat for grain 398 tonnes; wool 474 tonnes; whole milk 1.1. million litres; meat (carcass weight) 10,019 tonnes. Livestock numbers at 31 March 1978 included 15,832 cattle, 119,132 sheep and 149,614 poultry.

As in the Northern Territory, the secondary industries established in the Australian Capital Territory are largely the services industries associated with the growth of the Territory.

The following table shows preliminary results of the Manufacturing Census taken in respect of the years ended 30 June 1975 and 1976.

AUSTRALIAN CAPITAL TERRITORY MANUFACTURING ESTABLISHMENTS(a)

| | | 1974-75 | 1975-76 | 1976-77 |
|---|-----|---------|---------|---------|
| Establishments operating during year | No. | 104 | 106 | 105 |
| Persons employed(b) | No. | 3,672 | 3,534 | 3,435 |
| Wages and salaries | \$m | 27.0 | 29.1 | 31.2 |
| Turnover | \$m | 94.6 | 95.7 | 102.8 |
| Opening stocks at 30 June | \$m | 8.9 | 9.3 | 10.6 |
| Closing stocks at 30 June | \$m | 10.3 | 10.2 | 11.4 |
| Purchases, transfers in and selected expenses | \$m | 46.7 | 43.9 | 46.5 |
| Value added(c) | \$m | 49.2 | 52.7 | 57.1 |

(a) From 1974-75 all manufacturing establishments owned by multi-establishment enterprises and single establishment manufacturing enterprises with four or more persons employed. (b) Average over whole year. Includes working proprietors. (c) Sales, transfers out and other operating revenue plus increase (or less decrease) in the value of stocks, less purchases, transfers in and selected expenses.

Commercial practices

There is growing awareness of consumer rights as evidenced by the increasing number of enquiries received by the A.C.T. Consumer Affairs Bureau and the wide range of consumer oriented legislation.

The Bureau receives and investigates complaints from consumers, conducts research into matters affecting consumer interests and provides information of benefit to consumers.

Control over weights and measures standards has traditionally been, and remains, a pre-requisite for fair commercial transactions. The Weights and Measures Office, periodically examines the scales and measures used for trade.

In the A.C.T., licensing is used as a means of regulating some commercial practices by establishing minimum standards of qualifications and/or experience for entry into certain occupations. These include motor vehicle dealers, stock and station and real estate agents, and pawnbrokers and second-hand dealers.

The *Co-operative Societies Ordinance* 1939 provides for the incorporation of trading societies, building societies, housing and service societies and credit unions. The Registrar is responsible for the incorporation of new societies, the registration of documents, inspections and inquiries into the working and financial situation of societies and the hearing and determination of certain disputes between a society and a member.

In Canberra there are two retail fruit and vegetable markets. These have been established and are operated and controlled by the Canberra Retail Market Trust.

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 1975 was: bitumen and concrete, 1,437 kilometres; gravel, 375 kilometres; other formed roads, 42 kilometres; total 1,854 kilometres. The Department of the Capital Territory runs the A.C.T. Omnibus service and is responsible for the regulation of transport and traffic under an A.C.T. ordinance. There are five radio broadcasting stations in the Territory: 2CY and 2CN of the national broadcasting system; two commercial stations, 2CA and 2CC; and one community station, 2XX. There are two television stations: ABC Channel 3 of the national broadcasting system and CTC Channel 7, a commercial station.

Social

See also Chapter 12, Education; Chapter 10, Health; and Chapter 11, Law and Order.

Schools

The *Education Ordinance 1937* provides for the compulsory attendance at school of children between the ages of six and fifteen years. Government schools are administered by the A.C.T. Schools Authority which became a Statutory body in January 1977. The Authority is representative of teachers, parents and the community. The A.C.T. Schools Accrediting Agency within the Authority system accredits courses and administers student assessment procedures for years 11 and 12. These procedures replaced the New South Wales Higher School Certificate examination at the end of 1976. There were 2,514 teachers in A.C.T. government schools in August 1978.

In August 1978 there were seventeen government high schools in the Australian Capital Territory, and six secondary colleges. High schools cater for years 7 to 10 and secondary colleges for years 11 and 12. Secondary students enrolled numbered 14,492.

Sixty-five schools provide courses at primary levels, three of these being in rural districts and one in the Jervis Bay area. The number of pupils enrolled in primary grades of government schools at August 1978 was 25,281.

Hartley Street Centre for physically handicapped children is located at Turner Primary School. It incorporates a pre-school section. Special units for deaf children are situated at Ainslie and Mawson Primary Schools and Telopea Park High School.

... Blind children attend Turner Primary School and partially sighted children enrol in the school nearest their home. They are provided with special equipment by the A.C.T. Schools Authority. Classes for mildly intellectually handicapped children are provided at Ainslie, Curtin South and Scullin Primary Schools, Lyneham High School and the Woden School. Three special schools (Malkara, Cranleigh, Koomari) incorporating pre-school sections serve the needs of moderately and some severely intellectually handicapped children. Ten primary schools cater for children of junior primary age who are unable to adjust to a normal class situation. One of these classes specialises in the care of children with language and communication disorders. Reading centres operate at Yarralumla and North Ainslie Primary Schools. Special English classes for migrant children are available at twenty primary schools, four high schools and one secondary college. A number of children with physical, mild intellectual, and partial hearing handicaps are being integrated into neighbourhood schools. Educational guidance services are provided by the Education Clinic and through counselling staff attached to schools.

The Introductory English Centre is attached to Telopea Park High School. It is for secondary school migrant children arriving in the Territory with no English. They attend for about three months and then return to their own school.

The sixty-nine pre-schools, including two in the Jervis Bay area and a mobile unit which visits outlying areas of the Australian Capital Territory, provide pre-school facilities for approximately 5,000 children between the ages of three and five years. Provision is made at all pre-schools for the additional enrolment of children who have minimal problems such as speech, behavioural and family problems.

... In August 1978 there were twenty-seven non-government primary schools in Canberra and nine secondary schools. At the same time, 8,316 pupils were enrolled in the primary grades of non-government schools and 6,259 pupils were enrolled in the secondary forms of non-government schools.

Other educational institutions

The Commonwealth Department of Education is responsible for the administration of technical and further education in the A.C.T., although the New South Wales Department of Technical and Further Education is continuing to provide some education services for A.C.T. Technical and Further Education (TAFE) institutions.

... The Canberra and Bruce Colleges of TAFE provide trade, post-trade, certificate and craft and leisure-type courses at their main campuses and at several annexes. At September 1977, forty-four departments in twelve schools of study enrolled 15,149 students.

... The Canberra School of Art is a tertiary institution administered by the Commonwealth Department of Education. It offers diploma studies, non-vocational courses and programs for student teachers from Canberra College of Advanced Education Teacher Education courses.

... The Canberra School of Music is administered by the Commonwealth Department of Education and provides a four-year full-time course as well as individual study in a range of instruments and voice. A new building to cater for between 1,000 and 1,200 students was opened in 1976.

The Canberra College of Advanced Education is administered by a Governing Council constituted under an Act of Parliament and offers courses in six schools—Administrative Studies, Applied Science, Liberal Studies, Teacher Education, Information Sciences and Environmental Design. Courses have a professional or vocational orientation and lead to master and bachelor degrees, and associate and graduate diplomas. An enrolment of 5,100 is expected in 1978.

The Australian National University (ANU) 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); Survey Research Centre; Centre for Continuing Education; Computer Centre; Office for Research in Academic Methods; and the National Health and Medical Research Council Social Psychiatry Research Unit.

Continuing education

The Centre for Continuing Education, which is run by the Australian National University, 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 colleges are a continuing education service of the A.C.T. Schools Authority. They provide courses leading to the award of a certificate for entry to post-secondary and tertiary institutions, and to the Public Service Qualifying Examinations. The colleges also offer a variety of craft and cultural courses.

The Canberra College of Technical and Further Education offers courses in various forms of arts and crafts including home crafts, shorthand and typing and several units in Home Science, and courses leading to the New South Wales Higher School Certificate.

The Learning Information Network provides an information directory on post-compulsory adult learning opportunities in the A.C.T. It is funded by the Department of Education.

Apprenticeship training

At 30 June 1978, 1,686 apprentices were in training in the 53 declared apprenticeship trades in the Australian Capital Territory. Apprentices were employed by 850 approved employers. During 1977–78 there were 1,108 new applications for apprenticeship. New indentures totalling 468 were registered, representing a decrease of 31 per cent in new indentures on 1976–77 totals. In this period 393 apprenticeships were completed and 226 cancelled. Trade courses at the Canberra and Bruce Colleges of TAFE are supplemented, where required, by remedial classes in mathematics and English.

Adult migrant education

Free part-time day and evening classes in English are conducted in various community centres and schools throughout Canberra. The former Narrabundah Infants' Centre has been used as the Migrant Education Centre since 1976. A special feature of the programs is a Rehabilitation through English Program designed to provide injured migrants with the necessary English for re-employment.

Accelerated English tuition on a full-time basis of 300 hours over ten weeks is available to permanent residents and *bona fide* immigrants to Australia. Selection for these courses is made by the Department of Education on the basis of economic need.

Migrants can also apply to learn English by correspondence if this is more convenient. Home tutor kits are available from the Good Neighbour Council for individual tuition in private homes.

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 30 June 1978 had an authorised establishment of 573 officers and men of various ranks. The distribution is Commissioner (1), Deputy Commissioner (1), Superintendent (5), Senior Inspector (3), Inspector First Class (9), Inspector Second Class (7), Sergeant First Class (23), Sergeant Second Class (30), Sergeant Third Class (49), Senior Constables (137), Constable First Class (159), Constables (157).

The Force is divided into three General Duties Divisions, a Criminal Investigation Division, an Administrative Services Division, a Traffic Division, a Legal Division, Internal Investigation Bureau,

Special Branch, Police College and a Services Division. These in turn are divided into a number of Sections and Units including Scientific, Breath Analysis, Fraud, Licensing, Criminal and Traffic Adjudication, Water Police, Accident Investigation, Jervis Bay, Police Youth and Citizens' Club, Rural Patrol, Search and Rescue, Underwater Recovery, Emergency Squad, Drugs, Emergency Mobile Communications, Safety Education, Process Serving, Highway Patrol, Motor Cyclists, Driver Training, Amphometer, Motor Squad, Fingerprints, Armed Offenders and Anti Hi-jacking, Information, Gazette and Operations Room. At present the Force operates from Police Stations at Civic Centre (Headquarters), Woden Town Centre, Belconnen and Jervis Bay, with Water Police Headquarters at Yarralumla Bay. The Traffic Division operates from a station situated in Lonsdale Street, Braddon and the Recruitment and Training Division operates in Ainslie Avenue, Civic Centre in a building previously known as Gorman House.

Tourism

Tourism has quickly become a major factor in the A.C.T. economy and in the planning and development of the Capital. A large-scale, Government-commissioned study conducted in 1975-76 estimated 2.5 million visitors for the year, spending \$72 million in the A.C.T. and Queanbeyan. It produced a provisional forecast of 3.8 to 4.1 million visitors to the area by 1986. Thus tourism, a labour intensive industry, will become even more economically significant to the A.C.T. Some 2.6 million visitors to the A.C.T. during 1978 were estimated to spend more than \$100m.

An inter-Departmental Working Group is examining the study data with the objective of formulating a strategy for the orderly development and operation of A.C.T. tourism in the years ahead. These functions are presently performed by the A.C.T. Government Tourist Bureau, a section of the Department of the Capital Territory, while the planning and development of tourist facilities remain the responsibility of the National Capital Development Commission.

The Tourist Bureau operates a highway reception and information centre north of the city, but has no State branch offices. Total operational costs, including salaries and overtime, will amount to approximately \$726,000 in 1978-79. Nevertheless—and bearing in mind that not only the Bureau but many of the Capital's tourist attractions are Government-owned and operated and free to the public—the benefit-cost ratio of A.C.T. tourism is believed to be quite favourable: the 1975-76 study estimated that for every dollar spent by Government, three were returned by way of indirect taxes.

Most popular features are the Australian War Memorial, which receives more than 750,000 visitors a year; Parliament House; the National Library; the Royal Australian Mint; and the mountain look-outs and reserves. Major additions to these, now under construction, will be the National Gallery and High Court Buildings and the Black Mountain Telecommunication Tower.

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 Commonwealth 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 Suspense. 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, the Canberra College of Advanced Education, A.C.T. Poker Machine Licensing Board, Canberra Commercial Development Authority, A.C.T. Totalisator Agency Board and the Capital Territory Health Commission including the Canberra and Woden Valley Hospitals. Not included are revenue derived by the Commonwealth Government from income taxes, sales tax, etc. levied in the Australian Capital Territory; outlay on items of a national character such as defence, civil aviation, railways, etc.; and payments to residents from the National Welfare Fund.

AUSTRALIAN CAPITAL TERRITORY: RECEIPTS AND OUTLAY

(\$'000)

| | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|---|---------|---------|---------|---------|---------|---------|
| RECEIPTS | | | | | | |
| Taxation— | | | | | | |
| Rates on land | 4,367 | 5,171 | 6,138 | 7,139 | 10,464 | 12,098 |
| Liquor | 387 | 459 | 589 | 710 | 984 | 1,260 |
| Motor registration and licences | 1,219 | 1,355 | 2,398 | 3,374 | 4,322 | 4,954 |

AUSTRALIAN CAPITAL TERRITORY: RECEIPTS AND OUTLAY—*continued*
(\\$'000)

| | 1971-72 | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 |
|--|----------------|----------------|----------------|----------------|----------------|----------------|
| RECEIPTS | | | | | | |
| Payroll tax | 1,967 | 3,153 | 4,149 | 9,038 | 10,761 | 11,296 |
| Stamp duties | 2,561 | 3,589 | 3,995 | 3,433 | 4,162 | 4,455 |
| Other taxes, fees, fines, etc. | 171 | 834 | 683 | 726 | 1,401 | 1,255 |
| Interest, rent, etc. | 7,708 | 11,920 | 13,744 | 13,514 | 16,919 | 21,880 |
| Income from public enterprises | 3,050 | 3,349 | 2,458 | 864 | 3,541 | 4,421 |
| Net sale of public corporation securities | 432 | -38 | -102 | -214 | 3,605 | (a)27,818 |
| Other receipts | 2,503 | 1,018 | 2,035 | 1,943 | 466(a) | -11,108 |
| Net charge to Commonwealth Government budget | 91,305 | 97,320 | 166,356 | 261,646 | 313,292 | 316,285 |
| Total receipts | 115,670 | 128,130 | 202,443 | 302,173 | 369,917 | 394,614 |
| OUTLAY | | | | | | |
| Final consumption expenditure— | | | | | | |
| Law, order and public safety | 4,670 | 6,084 | 7,390 | 10,420 | 10,156 | 13,808 |
| Education | 15,831 | 22,022 | 32,027 | 49,019 | 65,233 | 79,089 |
| Health, social security and welfare | 7,744 | 9,451 | 15,949 | 23,857 | 35,144 | 42,643 |
| Other | 19,577 | 30,205 | 29,034 | 43,046 | 48,755 | 4,915 |
| Expenditure on new fixed assets and stocks— | | | | | | |
| Education | 9,952 | 10,038 | 15,386 | 22,111 | 34,139 | 31,179 |
| Health, social security and welfare | 8,361 | 8,343 | 4,937 | 11,006 | 11,322 | 7,406 |
| Housing | -6,151 | -8,392 | -4,344 | 7,811 | 7,749 | -1,777 |
| Community and regional development | 16,945 | 19,313 | 25,668 | 36,675 | 36,467 | 35,235 |
| Protection of the environment | 2,545 | 4,888 | 8,198 | 17,301 | 27,424 | 24,277 |
| Recreation and related cultural services | 1,174 | 1,770 | 3,630 | 4,851 | 7,088 | 10,371 |
| Electricity, gas and water | 3,946 | 3,415 | 5,718 | 5,647 | 12,170 | 28,817 |
| Roads | 5,511 | 7,776 | 9,432 | 10,264 | 11,607 | 11,937 |
| Other | 13,390 | 23,293 | 23,417 | 28,426 | 43,876 | 49,803 |
| Net purchase of existing assets | -15,500 | -38,467 | -4,935 | -5,485 | -21,084 | -19,409 |
| Interest paid | 558 | 634 | 582 | 664 | 665 | 911 |
| Cash benefits | 60 | 64 | 23 | 18 | 13 | 8 |
| Subsidies | 28 | 38 | 67 | 120 | 143 | 167 |
| Net advances for housing | 26,052 | 26,601 | 29,076 | 29,796 | 29,451 | 19,480 |
| Grants for private capital purposes | 976 | 1,054 | 1,188 | 6,626 | 9,599 | 10,954 |
| Total outlay | 115,670 | 128,130 | 202,443 | 302,173 | 369,917 | 394,614 |

(a) Includes financing transactions of the Canberra Commercial Development Authority.

NORFOLK ISLAND

General description

Norfolk Island, discovered by Captain Cook in 1774, is situated in latitude 29° 02' S., longitude 167° 57' E. approximately. Its total area is approximately 3,455 hectares, the island being about 8 kilometres long and 5 kilometres wide. It is 1,676 kilometres from Sydney and 1,063 kilometres from Auckland. The coastline, which is 32 kilometres long, consists of almost inaccessible cliffs rising from the waters edge, except at Kingston in the south and the landing place at Cascade on the northern side. The climate is equable, the average daily maximum temperature varying between 16°C and 28°C, and the average annual rainfall is 1,320 millimetres. The resident population is about 1,900.

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 Home Affairs through an Administrator. The Norfolk Island Council was established pursuant to the *Norfolk Island Act* 1957 and is constituted in accordance with the provisions of the *Norfolk Island Council Ordinance* 1960. 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.

In May 1978 the Government announced that the Norfolk Island Council would be replaced by the Norfolk Island Legislative Assembly by 1 July 1979. The Assembly will have legislative and

executive powers over a specified range of matters. The Government will consider increasing these powers no later than five years after the Assembly is incorporated.

The island's Supreme Court sits as required and a Court of Petty Sessions exercises both civil and criminal jurisdiction.

The Territory Administration is financed from an annual Commonwealth grant which in 1977-78 amounted to \$126,000, and from local revenue which for 1977-78 totalled \$2,020,732. A further \$288,214 was provided by the Commonwealth during the year for the restoration and maintenance of historic structures.

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 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. At present, accommodation consists of flats and hotels as well as licensed and unlicensed guest houses. 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 Commonwealth Government provides service 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 \$7.7 million in 1977-78. The major proportion (\$3.7 million) in 1977-78 came from Australia and the Pacific Islands, while New Zealand supplied \$1.3 million. Exports in 1977-78 amounted to \$0.9 million. Exports to Australia and the Pacific Islands, the principal market, amounted to \$0.5 million, while exports to New Zealand amounted to \$0.2 million. No duties are chargeable on goods imported into Australia from Norfolk Island if (i) the goods are produced or manufactured in Norfolk Island and shipped direct to Australia, and (ii) not goods which, if manufactured or produced in Australia, would be subject to excise duty.

Three shipping companies operate services to Norfolk Island at approximately monthly intervals, linking the Island with Australia, New Zealand and other islands in the South Pacific area.

A passenger and air freight service between Sydney and Norfolk Island is operated by East-West Airlines Ltd six times a week, and more frequently in peak periods. Air New Zealand Limited provides a service five times a week to the Island from Auckland. A light aircraft charter service operates between the island and Brisbane.

There are approximately 80 kilometres of motor roads 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 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 students enrolled at 30 June 1978 was 291.

Some bursaries, subject to a means test, are available for pupils who wish to attend a mainland school either to continue their studies beyond the School Certificate level or to undertake high school

courses not available on the Island. A limited number of trainee scholarships are available for pupils who have left school and wish to undertake apprenticeships 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 the court is exercised by one judge sitting in court or, to the extent that 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 Commonwealth Government in 1913 its revenue has been supplemented by annual grants from the Commonwealth Government, internal revenue alone not being 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)

| | 1972-73 | 1973-74 | 1974-75 | 1975-76 | 1976-77 | 1977-78 |
|---------------------------------------|------------|--------------|--------------|--------------|--------------|--------------|
| REVENUE | | | | | | |
| Government grant | 120 | 120 | 126 | 126 | 126 | 126 |
| Customs duty | 180 | 319 | 410 | 387 | 403 | 472 |
| Liquor profit | 107 | 121 | 149 | 184 | 207 | 233 |
| Company fees | 164 | 145 | 198 | 178 | 208 | 237 |
| Sale of stamps | 107 | 175 | 348 | 297 | 425 | 550 |
| Vehicle registration and licence fees | 23 | 42 | 43 | 44 | 52 | 73 |
| Government advance (repayable) | 90 | - | - | - | - | - |
| All other | 83 | 115 | 134 | 166 | 258 | 330 |
| Total revenue | 874 | 1,037 | 1,408 | 1,382 | 1,679 | 2,021 |
| EXPENDITURE | | | | | | |
| Administration | 204 | 233 | 240 | 472 | 645 | 704 |
| Education services | 126 | 165 | 146 | 209 | 245 | 291 |
| Health and welfare services | 91 | 85 | 98 | 176 | 164 | 250 |
| Repairs and maintenance | 132 | 149 | 211 | 200 | 227 | 251 |
| Postal services | 58 | 108 | 150 | n.a. | n.a. | n.a. |
| Capital works and services | 197 | 63 | 128 | 429 | 170 | 124 |
| Miscellaneous services | 30 | 32 | 104 | 125 | 133 | 413 |
| Total expenditure | 838 | 835 | 1,077 | 1,611 | 1,584 | 1,782 |

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. 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.

In 1957, as part of the International Geophysical Year (IGY), twelve nations co-operated in research programs covering a broad range of scientific pursuits. The outstanding co-operation between nations in the Antarctic during the IGY gave rise to discussions which resulted in the Antarctic Treaty. On 1 December 1959 the Antarctic Treaty was signed by the nations that had been active in Antarctica during the IGY, including all of those with territorial claims. The original signatories were Argentina, Australia, Belgium, U.K., Chile, France, Japan, New Zealand, Norway, South Africa, the U.S.S.R., and U.S.A. The Treaty entered into force for Australia on 23 June 1961. The Treaty, *inter alia*, reserves the Antarctic area south of 60° S latitude for peaceful purposes, provides for international co-operation in scientific investigations and research, and preserves for the duration of the Treaty the *status quo* with regard to territorial sovereignty, rights and claims.

The original signatories of the Treaty, the Consultative Parties, meet at about two yearly intervals at Antarctic Treaty Consultative Meetings. Only Consultative Parties may participate in the Consultative Meetings. Nine Consultative Meetings have been held since the Treaty was signed, the first being held in Canberra in 1961.

The Treaty makes provision for other states to accede to it. Since 1959, seven nations have acceded: Brazil, Poland, German Democratic Republic, Czechoslovakia, Romania, Denmark and the Netherlands. The Treaty also makes provision in Article IX (2) for acceding nations to become Consultative Parties "... during such times as the Contracting Party demonstrates its interest in Antarctica by conducting substantial research activity there, such as the establishment of a scientific station, or the despatch of a scientific expedition". In July 1977 Poland was acknowledged by the Consultative Parties to have fulfilled the requirements established in Article IX (2) of the Antarctic Treaty and, as a consequence, to have the right to appoint representatives to participate in the Consultative Meetings. Poland subsequently attended the Ninth Antarctic Treaty Consultative Meeting.

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 2,768 kilometres north-west of Perth and 3,685 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 airport, the Administration and the community of mainland-recruited employees; Home Island, where the Cocos Malay community is located; 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.

The main atoll 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 nine months 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 22°C and 32°C, and the average yearly rainfall is about 2,513 mm. There are occasional violent storms. The estimated population at 30 June 1978 was 435.

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 titled the *Cocos Islands Act 1955* and by the *Cocos (Keeling) Islands Act 1955* of the Commonwealth 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 Minister for Home Affairs. An Administrator was appointed to administer the Territory on behalf of Australia on 23 July 1975 under the *Cocos Administration Ordinance*. This Ordinance provides for an upgrading of the level of Government representation in the Territory. Until 23 July 1975 an official Representative appointed by the Minister under the then *Official Representative Ordinance 1955* exercised such powers and functions in relation to the Territory as were delegated to him by the Minister under the *Cocos (Keeling) Islands Act 1955* or were otherwise conferred on him under that Act 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*. 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.

On 16 June 1977, the Government announced its policy directed towards the political, social and economic advancement of the people of Cocos.

The policy provisions include: land rights for Cocos Islanders on Home Island; a form of representative local government; freedom of movement and association; improved education and living standards, and facilitation of Australian citizenship to residents seeking it.

As a step towards establishing a representative form of local government an interim Cocos Malay advisory council was elected on 18 March 1978.

On 2 July 1978, the Minister for Home Affairs announced that the Commonwealth had agreed to purchase from Mr John Clunies-Ross the whole of his interests in the Cocos (Keeling) Islands, with the exception of his residence and an associated dwelling. Future arrangements include the transfer of the village area of land, and the establishment of a Cocos Malay co-operative to enable the community to run the copra plantation and engage in construction contracts with the Commonwealth and in other business.

Transport and communication

There is an airport of international standard at West Island, controlled by the Administrator under licence from the Department of Transport. There is a regular Perth-Cocos (Keeling) Islands-Christmas Island-Perth charter service every 2 weeks. Under charter arrangements, a shipping service operates to the Territory at intervals of about six months. A two-way radio telephone service between West Island and Perth is maintained by the Administration. There are local postal and telephone services, and a non-commercial broadcasting station.

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 Perth. Christmas Island covers an

area of about 135 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, the prevailing winds coming from the south-east to east-south-east from May to December, and occasionally shifting round to between north and west from December to April (the wet season). The average yearly rainfall is about 2,673 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.

Economy

The economy of the Territory is based entirely on the mining and extraction of phosphate. During the year ended 30 June 1978, 1,137,240 tonnes of phosphate rock, 122,450 tonnes of phosphate dust and 15,957 tonnes of citraphos dust were produced. To minimise the impact on the environment of mining the British Phosphate Commission (BPC), which acts as managing agents for the Christmas Island Phosphate Commission, have adopted a program of land reclamation and maintain a plant nursery for reforestation.

Population

Some 3,094 people (2,190 males and 904 females) were resident on the island at 30 June 1978. There is no indigenous population and many of the 2,500 Asian residents were either born in the Territory or have arrived over the past thirty years. Under the provisions of the Christmas Island Act, most are Australian citizens.

Education

From January 1975, the Government implemented in the Territory a series of new education arrangements which based the education system on an Australian curriculum. A summary of the previous arrangements are given in Year Book No. 60, page 1088, and in earlier issues.

Under the new arrangements, the Christmas Island Area School provides pre-school, primary and secondary education. The Christmas Island Technical School conducts trades and commercial courses, and provides adult education classes and supervision of correspondence courses from the Western Australian Education Department's Technical Extension Service. At 30 June 1978, 589 children were enrolled at the Area School. At the end of 1978, the approved teaching staff establishments were 45 at the Area School and 5 at the Technical Education Centre.

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 and an Official Representative was appointed to administer the Territory. In 1968 an Administrator was appointed, replacing the Official Representative and upgrading the level of Government representation. Responsibility for the administration and government of the Territory rests with the Minister for Home Affairs and the Administrator manages day to day affairs in the Territory 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.

Transport and communication

Transport to and from the Island is maintained by vessels operated under charter by the British Phosphate Commissioners as managing agents for the Christmas Island Phosphate Commission.

An air charter arranged by the Department of Home Affairs provides a fortnightly service to and from the island out of Perth via the Cocos Islands. The BPC operate a fortnightly air charter between Singapore or Kuala Lumpur and the island, and ships which they own or charter run between the island and ports in Australia, New Zealand, Singapore and Malaysia.

The Territory has its own radio broadcasting station, police force, postal service and philatelic bureau. A radio-telephone and teleprinter service operates between the island and the mainland, and links with Singapore and ships at sea.

CORAL SEA ISLANDS

The Coral Sea Islands Territory comprises scattered reefs and islands, often little more than sandbanks, spread over a sea area of 1,035,995 square kilometres with only a few square kilometres of land area. The territory lies between the Great Barrier Reef and longitude 157°10'E and between latitude 12° and 24°S. Some of the better known islands in the territory are Cato Island, Chilcott Islet in the Coringa Group and the islands of the Willis Group.

The islands, or cays, are formed largely of coral and sand and some have a cover of grassy or scrub-type vegetation. Large populations of sea birds nest and breed in the area.

History

About one hundred years ago guano workers camped on a number of the islands collecting manure deposited by the sea birds. But isolation, a lack of permanent fresh water and the limited size of the cays discouraged subsequent permanent occupation.

The Australian Government based its claim to the Coral Sea Islands on numerous acts of sovereignty since early this century and asserted its sovereignty by enacting the *Coral Sea Islands Act 1969* (which declared the Coral Sea Islands to be a territory of Australia).

Installations

A lighthouse has been erected on Bougainville Reef and beacons operate on the Frederick and Lihou Reefs. A three-man meteorological Station has provided a service on Willis Island since 1921 and there are eight automatic weather stations scattered throughout the territory.

Most of the islands have been surveyed and the area is visited regularly both by Royal Australian Navy vessels and maintenance vessels of the Bureau of Meteorology.

Administration

By ordinance the laws of the Australian Capital Territory apply in the Coral Sea Islands Territory.

The Minister for Home Affairs is responsible for matters affecting the Territory.

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 1949 where possible, with earlier tenth years back to 1901. 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 xii 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 | Females | Persons | | | No. | Rate(d) | | No. | Rate(d) | No. | Rate(d) | No. | Rate(e) |
| 1901 . . . | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 |
| 1911 . . . | 2,005 | 1,820 | 3,825 | 56.6 | 17.8 | 28 | 7.3 | — | 103 | 27.2 | 46 | 12.2 | 10.7 | 103.6 |
| 1921 . . . | 2,382 | 2,192 | 4,574 | 74.3 | 77.7 | 39 | 8.8 | 1 | 122 | 27.2 | 48 | 10.7 | 8.4 | 68.5 |
| 1931 . . . | 2,799 | 2,712 | 5,511 | 82.1 | 17.3 | 47 | 8.6 | 1 | 136 | 25.0 | 54 | 9.9 | 9.0 | 65.7 |
| 1941 . . . | 3,333 | 3,220 | 6,553 | 61.9 | -10.8 | 39 | 6.0 | 2 | 119 | 18.2 | 57 | 8.7 | 5.0 | 42.1 |
| | | | (f) | (g) | | | | | | | (h) | (h) | | |
| 1949 . . . | 3,599 | 3,545 | 7,144 | 63.3 | 5.2 | 75 | 10.6 | 3 | 135 | 18.9 | 71 | 10.0 | 5.3 | 39.7 |
| | | | (f) | (g) | | | | | | | (h) | (h) | | |
| 1949 . . . | 4,047 | 3,998 | 8,046 | 106.0 | 150.0 | 73 | 9.2 | 7 | 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 | 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 | 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 | 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 | 202 | 22.9 | 80 | 9.1 | 4.7 | 23.3 |
| 1954 . . . | 4,598 | 4,492 | 9,090 | 120.5 | 68.2 | 71 | 7.9 | 7 | 202 | 22.5 | 82 | 9.1 | 4.5 | 22.5 |
| 1955 . . . | 4,714 | 4,598 | 9,312 | 125.6 | 97.3 | 72 | 7.8 | 7 | 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 | 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 | 220 | 22.9 | 85 | 8.8 | 4.7 | 21.4 |
| 1958 . . . | 5,026 | 4,921 | 9,947 | 138.8 | 65.4 | 74 | 7.5 | 7 | 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 | 227 | 22.6 | 89 | 8.9 | 4.9 | 21.5 |
| 1960 . . . | 5,253 | 5,139 | 10,392 | 141.9 | 90.1 | 75 | 7.3 | 7 | 230 | 22.4 | 88 | 8.6 | 4.6 | 20.2 |
| | (i) | (i) | (i) | (i) | | | | | | | | | | |
| 1961 . . . | 5,374 | 5,268 | 10,643 | 151.8 | 61.5 | 77 | 7.3 | 7 | 240 | 22.8 | 89 | 8.5 | 4.7 | 19.5 |
| 1962 . . . | 5,740 | 5,376 | 10,846 | 144.4 | 62.5 | 79 | 7.4 | 7 | 237 | 22.2 | 93 | 8.7 | 4.8 | 20.4 |
| 1963 . . . | 5,572 | 5,484 | 11,055 | 141.3 | 71.6 | 81 | 7.4 | 8 | 236 | 21.6 | 95 | 8.7 | 4.6 | 19.5 |
| 1964 . . . | 5,683 | 5,597 | 11,280 | 129.1 | 99.3 | 86 | 7.7 | 8 | 229 | 20.6 | 101 | 9.0 | 4.4 | 19.1 |
| 1965 . . . | 5,794 | 5,712 | 11,505 | 123.7 | 104.9 | 94 | 8.2 | 9 | 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 | 10 | 224 | 19.3 | 105 | 9.0 | 4.2 | 18.7 |
| 1967 . . . | 5,992 | 5,920 | 11,912 | 126.6 | 91.9 | 100 | 8.5 | 10 | 229 | 19.4 | 103 | 8.7 | 4.2 | 18.3 |
| 1968 . . . | 6,108 | 6,037 | 12,146 | 131.4 | 113.1 | 106 | 8.8 | 11 | 241 | 20.0 | 110 | 9.1 | 4.3 | 17.8 |
| 1969 . . . | 6,238 | 6,169 | 12,407 | 143.7 | 129.0 | 112 | 9.2 | 11 | 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 | 258 | 20.6 | 113 | 9.0 | 4.6 | 17.9 |
| | | | | | | | | | | | | | | |
| 1971 . . . | 6,572.0 | 6,498.1 | 13,070.1 | 165.7 | 103.6 | 118 | 9.1 | 13 | 276 | 21.4 | 111 | 8.6 | 4.8 | 17.3 |
| 1972 . . . | 6,676.7 | 6,607.2 | 13,283.9 | 155.2 | 56.3 | 114 | 8.6 | 16 | 265 | 20.1 | 110 | 8.3 | 4.4 | 16.7 |
| 1973 . . . | 6,777.7 | 6,712.8 | 13,490.5 | 136.9 | 67.5 | 113 | 8.4 | 16 | 248 | 18.5 | 111 | 8.3 | 4.1 | 16.5 |
| 1974 . . . | 6,885.3 | 6,824.2 | 13,709.5 | 129.3 | 87.2 | 111 | 8.1 | 18 | 245 | 18.0 | 116 | 8.5 | 4.0 | 16.1 |
| 1975 . . . | 6,948.0 | 6,901.3 | 13,849.3 | 124.0 | 13.5 | 104 | 7.6 | 24 | 233 | 16.9 | 109 | 7.9 | 3.3 | 14.3 |
| 1976 . . . | 7,014.3 | 6,976.9 | 13,991.2 | 115.1 | 25.6 | 110 | 7.9 | 61 | 228 | 16.4 | 113 | 8.1 | 3.2 | 13.8 |
| 1977 . . . | 7,097.7 | 7,065.8 | 14,163.5 | 117.5 | 54.8 | 105 | 7.5 | 45 | 226 | 16.1 | 109 | 7.7 | 2.8 | 12.3 |

(a) At 31 December. (b) Excess of arrivals over departures. Minus sign (-) indicates excess of departures over arrivals. From 1 July 1971 net migration has been defined as the excess of overseas arrivals over overseas departures, classified as permanent and long-term (long term includes visits to or absences from Australia lasting one year or longer). (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 for grain | | | Oats for grain | | | Barley for grain | | | 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 |
| 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 | 8.61 | 1.21 | 1,241 | 1.28 | 1.03 | 2,535 | 3.07 | 1.21 | 78 | 0.21 | 2.74 |
| 1972-73 | 7.60 | 6.59 | 0.87 | 995 | 0.74 | 0.74 | 2,140 | 1.73 | 0.81 | 59 | 0.14 | 2.34 |
| 1973-74 | 8.95 | 11.99 | 1.34 | 1,182 | 1.11 | 0.94 | 1,894 | 2.40 | 1.27 | 46 | 0.11 | 2.32 |
| 1974-75 | 8.31 | 11.36 | 1.37 | 897 | 0.87 | 0.98 | 1,826 | 2.51 | 1.38 | 51 | 0.13 | 2.59 |
| 1975-76 | 8.56 | 11.98 | 1.40 | 988 | 1.14 | 1.16 | 2,329 | 3.18 | 1.37 | 47 | 0.13 | 2.81 |
| 1976-77 | 8.96 | 11.67 | 1.30 | 995 | 1.07 | 1.08 | 2,321 | 2.85 | 1.23 | 53 | 0.14 | 2.72 |
| 1977-78p | 9.97 | 9.32 | 0.93 | 1,080 | 1.00 | 0.92 | 2,811 | 2.39 | 0.85 | 48 | n.y.a. | n.y.a. |

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 |
| 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 | 153 | 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 | 14.6 |
| 1968-69 | 428 | 1,728 | 4.04 | 46 | 811 | 17.7 | 230 | 18,708 | 81.3 | 58 | 236 | 16.7 |
| 1969-70 | 428 | 1,514 | 3.54 | 43 | 762 | 17.6 | 213 | 15,784 | 74.2 | 61 | 288 | 15.7 |
| 1970-71 | 349 | 1,303 | 3.74 | 39 | 774 | 20.1 | 221 | 17,645 | 80.0 | 64 | 250 | 13.4 |
| 1971-72 | 341 | 1,245 | 3.66 | 40 | 822 | 20.3 | 234 | 19,391 | 83.0 | 67 | 289 | 14.2 |
| 1972-73 | 453 | 1,224 | 2.70 | 37 | 721 | 19.7 | 242 | 18,928 | 78.3 | 69 | 266 | 14.3 |
| 1973-74 | 325 | 1,034 | 3.22 | 34 | 649 | 19.0 | 226 | 19,278 | 85.4 | 70 | 295 | 15.1 |
| 1974-75 | 216 | 669 | 3.10 | 38 | 742 | 19.7 | 253 | 20,418 | 80.7 | 71 | 361 | 13.8 |
| 1975-76 | 230 | 738 | 3.21 | 34 | 696 | 20.6 | 257 | 21,959 | 85.5 | 70 | 356 | 14.5 |
| 1976-77 | 287 | 891 | 3.10 | 34 | 728 | 21.5 | 288 | 23,344 | 81.0 | 71 | 383 | 15.0 |
| 1977-78p | 321 | n.y.a. | n.y.a. | 34 | n.y.a. | n.y.a. | 295 | 23,493 | 79.6 | 73 | n.y.a. | 16.8 |

(a) Cane cut for crushing.

(b) Excludes Northern Territory.

PRIMARY INDUSTRIES—continued

PASTORAL, DAIRYING, ETC.

| Year ended 30 June— | Livestock(a) | | | | Wool (b)(c) | Butter | Cheese | Meat(d) | | | Total meat |
|---------------------------|--------------|--------|-------|------|----------------|----------------|----------------|------------------|--------------------|----------------|----------------|
| | Horses | Cattle | Sheep | Pigs | | | | Beef and veal | Mutton and lamb | Pigmeat | |
| | mil. | mil. | mil. | mil. | '000 tonnes | '000 tonnes | '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. | n.a. |
| 1912 | 2.3 | 11.8 | 97 | 1.1 | 362 | (e)96 | (e)7.2 | n.a. | n.a. | n.a. | n.a. |
| 1922 | 2.4 | 14.4 | 86 | 1.0 | 328 | (e)121 | (e)14.8 | 345 | 222 | 51 | 618 |
| 1932 | 1.8 | 12.3 | 111 | 1.2 | 457 | 177 | 14.3 | 355 | 312 | 72 | 739 |
| 1942 | 1.6 | 13.6 | 125 | 1.4 | 529 | 170 | 30.6 | 542 | 378 | 124 | 1,043 |
| 1950 | 1.1 | 14.6 | 113 | 1.1 | 518 | 176 | 45.5 | 616 | 364 | 92 | 1,072 |
| 1951 | 1.0 | 15.2 | 116 | 1.1 | 507 | 167 | 45.0 | 662 | 279 | 87 | 1,027 |
| 1952 | 0.9 | 14.9 | 118 | 1.0 | 490 | 137 | 41.3 | 591 | 287 | 86 | 964 |
| 1953 | 0.9 | 15.2 | 123 | 1.0 | 581 | 170 | 47.4 | 686 | 401 | 84 | 1,171 |
| 1954 | 0.8 | 15.6 | 127 | 1.2 | 565 | 162 | 49.8 | 716 | 371 | 85 | 1,171 |
| 1955 | 0.8 | 15.8 | 131 | 1.3 | 582 | 194 | 45.9 | 731 | 394 | 101 | 1,227 |
| 1956 | 0.8 | 16.5 | 139 | 1.2 | 643 | 212 | 39.3 | 763 | 386 | 95 | 1,245 |
| 1957 | 0.7 | 17.3 | 150 | 1.3 | 710 | 196 | 45.9 | 828 | 373 | 90 | 1,290 |
| 1958 | 0.7 | 16.9 | 149 | 1.4 | 650 | 179 | 36.6 | 804 | 428 | 103 | 1,336 |
| 1959 | 0.7 | 16.3 | 153 | 1.3 | 722 | 197 | 44.5 | 921 | 500 | 104 | 1,525 |
| 1960 | 0.6 | 16.5 | 155 | 1.4 | 762 | 201 | 45.7 | 764 | 583 | 102 | 1,449 |
| 1961 | 0.6 | 17.3 | 153 | 1.6 | 737 | 185 | 47.9 | 643 | 584 | 109 | 1,336 |
| 1962 | 0.6 | 18.0 | 158 | 1.7 | 770 | 202 | 56.6 | 804 | 596 | 122 | 1,522 |
| 1963 | 0.5 | 18.5 | 159 | 1.4 | 759 | 206 | 59.6 | 929 | 603 | 116 | 1,648 |
| 1964 | 0.5 | 19.1 | 165 | 1.5 | 810 | 207 | 59.2 | 1,001 | 595 | 113 | 1,710 |
| 1965 | 0.5 | 18.8 | 171 | 1.7 | 809 | 206 | 62.6 | 1,026 | 594 | 122 | 1,743 |
| 1966 | n.a. | 17.9 | 158 | 1.7 | 754 | 209 | 59.6 | 946 | 608 | 135 | 1,690 |
| 1967 | 0.5 | 18.3 | 164 | 1.8 | 799 | 222 | 69.8 | 879 | 596 | 142 | 1,617 |
| 1968 | n.a. | 19.2 | 167 | 2.1 | 803 | 196 | 70.5 | 904 | 665 | 150 | 1,718 |
| 1969 | n.a. | 20.6 | 175 | 2.3 | 885 | 198 | 74.8 | 935 | 680 | 162 | 1,777 |
| 1970 | 0.5 | 22.2 | 180 | 2.4 | 926 | 223 | 76.3 | 1,010 | 755 | 174 | 1,940 |
| 1971 | n.a. | 24.4 | 178 | 2.6 | 890 | 203 | 77.6 | 1,047 | 825 | 182 | 2,054 |
| 1972 | n.a. | 27.4 | 163 | 3.2 | 882 | 195 | 80.9 | 1,168 | 956 | 194 | 2,319 |
| 1973 | n.a. | 29.1 | 140 | 3.3 | 735 | 185 | 93.4 | 1,438 | 713 | 236 | 2,388 |
| 1974 | n.a. | 30.8 | 145 | 2.5 | 701 | 175 | 95.8 | 1,322 | 467 | 211 | 2,000 |
| 1975 | n.a. | 32.8 | 152 | 2.2 | 793 | (f)161 | (f)98.6 | 1,547 | 527 | 118 | 103.5 |
| 1976 | n.a. | 33.4 | 149 | 2.2 | 754 | 148 | 112.6 | 1,840 | 588 | 174 | 2,602 |
| 1977 | n.a. | 31.5 | 135 | 2.2 | 717 | 118 | 103.5 | 1,988 | 549 | 185 | 2,722 |
| 1978 | n.a. | 29.4 | 131 | 2.2 | 677 | 112 | 115.5 | 2,129 | 511 | 198 | 2,839 |

(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. (f) From 1974-75 excludes the production of certain small producers.

STATISTICAL SUMMARY: AUSTRALIA

PRIMARY INDUSTRY—continued

MINERALS

FORESTRY

| Year ended 31 December— | Copper (a) | Gold (a) | Lead (a) | Zinc (a) | Iron ore | Black coal | Brown coal | Crude oil | Year ended 30 June— | Sawn output of Aust. grown timber |
|----------------------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|--------------|------------------------|---|
| | '000 tonnes | '000 grams | '000 tonnes | '000 tonnes | mil. tonnes | mil. tonnes | mil. tonnes | '000 cu m | | '000 cu m |
| 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 |
| 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 | 243.2 | 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 | 198 | 1965 | 3,615 |
| 1965 | 91.8 | 27,298 | 367.9 | 354.8 | 6.8 | 52.9 | 417 | 417 | 1966 | 3,558 |
| 1966 | 111.3 | 28,521 | 370.8 | 375.3 | 11.1 | 56.0 | 539 | 539 | 1967 | 3,448 |
| 1967 | 91.8 | 25,049 | 381.8 | 407.0 | 17.3 | 59.0 | 1,208 | 1,208 | 1968 | 3,476 |
| 1968 | 109.6 | 24,316 | 388.8 | 422.4 | 26.6 | 64.2 | 2,206 | 2,206 | 1969 | (d)3,325 |
| 1969(e) | 125.3 | 22,713 | 417.7 | 444.4 | 32.5 | 43.3 | (f)23.1 | 2,238 | 1970 | (d)3,386 |
| 1970(e) | 142.3 | 20,496 | 459.4 | 502.0 | 45.1 | 48.5 | (f)23.9 | 4,872 | 1971 | 3,438 |
| 1971(e) | 173.0 | 19,108 | 416.4 | 444.1 | 57.1 | 49.7 | (f)22.8 | 14,937 | 1972 | 3,367 |
| 1972(e) | 171.9 | 23,253 | 420.8 | 497.5 | 62.1 | 53.5 | (f)23.3 | 19,038 | 1973 | 3,408 |
| 1973(e) | 198.7 | 20,002 | 385.0 | 507.0 | 74.6 | 59.8 | (f)24.1 | 20,669 | 1974 | 3,336 |
| 1974(e) | 246.7 | 16,271 | 370.4 | 441.3 | 91.5 | 59.3 | (f)26.4 | 23,096 | 1975 | 3,230 |
| 1975(e) | 235.6 | 15,061 | 416.5 | 508.2 | 98.2 | 70.1 | (f)27.3 | 23,096 | 1976 | 3,228 |
| 1976(e) | 218.3 | 16,901 | 396.7 | 479.3 | 92.7 | 69.3 | (f)29.2 | 23,839 | 1977p | 3,468 |
| 1977(e) | 211.3 | 15,305 | 415.3 | 475.5 | 95.6 | 76.0 | (f)31.0 | 24,555 | 1978p | 3,538 |
| 1978(e) | 221.1 | 21,321 | 415.0 | 482.5 | 90.3 | 78.9 | (f)30.5 | 25,323 | | |

(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. (f) Includes brown coal used for briquette production.

SECONDARY INDUSTRIES FACORIES(a)

| Year ended 30 June— | Net value of production(d) | | | | | | | | | | Value of | |
|------------------------|----------------------------|----------------------------|-------------------------------------|-------------------------|------------------------------------|-------------------|----------|---------------|----------------|---------------|-----------------------------------|---------------------------------|
| | Number | Persons employed (b) | Salaries and wages paid(c) | Chem- icals, etc. | Indus- trial metals, etc. | Textiles, etc. | Clothing | Food, etc. | Paper, etc. | All groups | Plant and mach- inery(e) | Land and build- ing(f) |
| | | '000 | '000 | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m |
| 1902(f) | | (g) | (g) | | | | n.a. | n.a. | | | | |
| 1912(f) | | 14.5 | 312 | 55 | 2.2 | 24.1 | 150 | 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 | 57.4 | 19.2 | 222.0 | 243.1 | 213.2 |
| 1942 | | 27.0 | 725 | 360 | 59.6 | 239.8 | 42.0 | 106.4 | 34.2 | 633.0 | 338.4 | 312.7 |
| 1950 | | 41.6 | 917 | 772 | 81.3 | 492.5 | 85.9 | 115.4 | 86.0 | 1,323.1 | 571.2 | 519.1 |
| 1951 | | 43.1 | 969 | 983 | 105.4 | 654.0 | 109.2 | 143.5 | 109.5 | 1,687.7 | 673.2 | 605.6 |
| 1952 | | 45.8 | 978 | 1,224 | 127.4 | 826.2 | 113.2 | 162.2 | 136.4 | 2,049.7 | 820.3 | 719.0 |
| 1953 | | 47.7 | 933 | 1,270 | 135.7 | 842.6 | 129.7 | 165.6 | 136.6 | 2,165.7 | 987.1 | 828.9 |
| 1954 | | 49.6 | 990 | 1,410 | 164.6 | 936.6 | 157.1 | 187.1 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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. |
| 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. |
| 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. |
| 1973 | | 36.4 | 1,298 | 5,820 | 885.5 | 4,337.7 | 376.8 | 563.9 | 1,943.5 | 915.4 | 10,746.0 | n.a. |
| 1974 | | 37.1 | 1,338 | 7,177 | 1,076.2 | 5,529.4 | 481.1 | 676.1 | 2,126.0 | 1,110.5 | 13,149.2 | n.a. |
| 1975(i) | | 27.0 | 1,245 | 8,531 | 1,172.2 | 6,635.8 | 409.2 | 696.8 | 2,650.5 | 1,279.4 | 15,246.4 | n.a. |
| 1976(i) | | 27.5 | 1,200 | 9,472 | 1,261.7 | 7,084.9 | 542.3 | 841.7 | 3,074.1 | 1,391.4 | 16,921.0 | n.a. |
| 1977(i) | | 26.7 | 1,176 | 10,531 | 1,458.9 | 8,098.6 | 563.2 | 893.7 | 3,501.1 | 1,616.1 | 19,237.5 | 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 382). (i) All manufacturing establishments owned by multi-establishment enterprises and single establishment manufacturing enterprises with four or more persons employed.

PRIMARY INDUSTRIES GROSS VALUE OF PRODUCTION OF PRIMARY INDUSTRIES

| Year ended 30 June— | Total | | | | | | | | | Total primary excluding mining |
|---------------------|--------------------|----------|----------|---------|-----------------|------------------|---------|----------|---------|---|
| | Crop production | Pastoral | Dairying | Poultry | Bee- farming | Agri- culture | Hunting | Forestry | Fishing | |
| | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m |
| 1902 | 47.6 | 54.4 | 15.2 | 4.0 | 0.2 | 121.4 | n.a. | (a)5.6 | (b) | 127.0 |
| 1912 | 77.6 | 105.4 | 32.2 | 8.0 | 0.2 | 223.4 | n.a. | 9.6 | 2.2 | 235.2 |
| 1922 | 163.8 | 150.2 | 70.6 | 18.0 | 0.2 | 402.8 | n.a. | 18.2 | 2.8 | 423.8 |
| 1932 | 149.0 | 123.1 | 66.1 | 17.1 | 0.2 | 355.5 | 3.2 | 15.4 | 3.3 | 377.4 |
| 1942 | 201.0 | 198.7 | 91.1 | 24.8 | 0.9 | 516.4 | 10.8 | 23.3 | 4.2 | 554.7 |
| 1950 | 563.5 | 744.3 | 202.2 | 67.0 | 1.7 | 1,578.6 | 12.8 | 50.7 | 9.8 | 1,651.9 |
| 1951 | 557.0 | 1,510.5 | 221.0 | 74.9 | 1.9 | 2,365.3 | 14.4 | 62.2 | 11.3 | 2,453.2 |
| 1952 | 664.3 | 899.6 | 260.6 | 97.0 | 1.7 | 1,923.3 | 14.8 | 82.7 | 13.3 | 2,034.1 |
| 1953 | 765.9 | 1,115.0 | 337.7 | 109.7 | 2.4 | 2,330.8 | 12.6 | 86.6 | 15.8 | 2,445.8 |
| 1954 | 743.9 | 1,115.3 | 347.1 | 109.9 | 3.2 | 2,319.4 | 11.5 | 94.7 | 17.7 | 2,443.3 |
| 1955 | 679.3 | 1,058.7 | 363.9 | 103.0 | 3.2 | 2,208.0 | 11.2 | 99.1 | 19.5 | 2,337.8 |
| 1956 | 769.9 | 1,036.2 | 395.7 | 107.6 | 3.9 | 2,313.2 | 13.4 | 110.0 | 19.6 | 2,456.2 |
| 1957 | 704.3 | 1,356.1 | 376.8 | 110.0 | 5.1 | 2,552.3 | 13.4 | 115.2 | 23.1 | 2,704.0 |
| 1958 | 681.7 | 1,089.8 | 370.7 | 110.9 | 3.8 | 2,256.9 | 13.7 | 114.1 | 22.8 | 2,407.5 |
| 1959 | 919.9 | 1,076.1 | 400.7 | 109.6 | 3.8 | 2,509.9 | 14.3 | 116.4 | 24.5 | 2,665.1 |
| 1960 | 820.7 | 1,275.2 | 425.4 | 119.7 | 5.1 | 2,646.1 | 15.4 | 108.1 | 27.2 | 2,796.8 |
| 1961 | 1,071.4 | 1,130.6 | 409.5 | 130.2 | 3.8 | 2,745.4 | 14.8 | 108.4 | 28.5 | 2,897.1 |
| 1962 | 1,008.3 | 1,187.3 | 412.5 | 121.7 | 4.0 | 2,733.9 | 13.3 | 100.1 | 31.7 | 2,879.0 |
| 1963 | 1,136.6 | 1,287.1 | 439.4 | 123.6 | 3.5 | 2,990.2 | 12.8 | 101.6 | 34.1 | 3,138.7 |
| 1964 | 1,228.4 | 1,562.7 | 463.5 | 138.2 | 6.0 | 3,398.9 | 15.0 | 108.0 | 35.4 | 3,557.3 |
| 1965 | 1,320.0 | 1,454.5 | 505.3 | 137.4 | 5.1 | 3,422.3 | 14.6 | 116.3 | 42.4 | 3,595.6 |
| 1966 | 1,181.3 | 1,467.8 | 508.0 | 154.6 | 4.3 | 3,316.0 | 15.6 | 120.3 | 45.8 | 3,497.7 |
| 1967 | 1,639.3 | 1,486.1 | 523.8 | 171.6 | 4.0 | 3,824.7 | 13.5 | 117.7 | 48.8 | 4,004.7 |
| 1968 | 1,268.8 | 1,395.2 | 504.1 | 169.3 | 4.6 | 3,342.1 | 12.1 | 118.8 | 58.5 | 3,531.5 |
| 1969 | 1,717.3 | 1,536.8 | 513.7 | 176.2 | 3.0 | 3,947.0 | 12.1 | 119.5 | 63.0 | 4,141.6 |

(a) Includes Fishing. (b) Included in Forestry.

PRIMARY INDUSTRIES—continued

The classification categories 'Pastoral', 'Dairying', 'Poultry' and 'Bee-farming' employed in the previous table have been replaced by a more appropriate commodity classification. Direct comparison with figures for previous years is not possible.

GROSS VALUE OF PRODUCTION OF PRIMARY INDUSTRIES

| Year ended 30 June— | Crops | Livestock slaughtering and other disposals(a) | Livestock products | Total Agriculture | Forestry | Fishing | Hunting |
|------------------------|---------|--|-----------------------|----------------------|----------|---------|---------|
| | \$m | \$m | \$m | \$m | \$m | \$m | \$m |
| 1970 | 1,453.8 | 1,007.7 | 1,268.6 | 3,730.1 | 125.0 | 63.3 | 12.5 |
| 1971 | 1,490.8 | 1,009.9 | 1,079.0 | 3,579.7 | 137.2 | 77.2 | 10.2 |
| 1972 | 1,597.6 | 1,134.4 | 1,235.6 | 3,967.7 | 151.2 | 92.1 | 10.2 |
| 1973 | 1,582.4 | 1,542.2 | 1,832.5 | 4,957.1 | 170.6 | 100.7 | 12.1 |
| 1974 | 2,858.7 | 1,696.0 | 1,857.0 | 6,411.7 | 193.3 | 109.3 | 12.5 |
| 1975 | 3,206.0 | 1,019.2 | 1,652.8 | 5,878.0 | 212.6 | 107.7 | 13.8 |
| 1976 | 3,249.5 | 1,246.4 | 1,679.5 | 6,175.5 | 227.1 | 146.6 | 18.0 |
| 1977 | 3,204.1 | 1,684.8 | 1,884.8 | 6,773.7 | 251.5 | 205.9 | 23.5 |
| 1978p | 2,953.0 | 1,981.0 | 1,904.0 | 6,838.0 | | 489.0 | |

(a) Includes adjustment for net exports (overseas and interstate) of live animals.

| GROSS VALUE OF PRODUCTION | | | | BUILDING | | | WAGES AND PRICES | | | |
|---------------------------|----------------------------|--------------------|----------------|-------------------------------|---------|---|----------------------------|---|--|--|
| Year ended 30 June— | Mining and quarrying | Manu- facturing | Grand total | New dwellings completed(a) | | Value of work done on all buildings(b) | Year ended 31 December— | Weekly wage rates index adult males(c) | Retail price index numbers six State capital cities combined(d) | |
| | | | | number | value | | | | | |
| | \$m | \$m | \$m | '000 | \$m | \$m | | | | |
| 1902 | 44.0 | (e)58.2 | 229.2 | n.a. | n.a. | n.a. | 1901 | n.a. | 88 | |
| 1912 | 46.6 | (e)108.3 | 390.1 | n.a. | n.a. | n.a. | 1911 | n.a. | 100 | |
| 1922 | 40.0 | 225.0 | 688.8 | n.a. | n.a. | n.a. | 1921 | n.a. | (h)168 | |
| 1932 | 27.0 | 220.0 | 504.8 | n.a. | n.a. | n.a. | 1931 | n.a. | 145 | |
| 1942 | 66.8 | 633.0 | 1,115.0 | n.a. | n.a. | n.a. | 1941 | 38.5 | 167 | |
| 1949 | 96.7 | 1,137.5 | 2,287.7 | 52.7 | 150.9 | n.a. | 1949 | 59.7 | 240 | |
| 1950 | 104.7 | 1,323.1 | 2,813.8 | 57.0 | 184.7 | n.a. | 1950 | 71.5 | 262 | |
| 1951 | 142.3 | 1,687.7 | 3,965.4 | 69.3 | 255.6 | n.a. | 1951 | 85.8 | 313 | |
| 1952 | 194.4 | 2,049.7 | 3,911.4 | 80.1 | 354.1 | n.a. | 1952 | 96.7 | 367 | |
| 1953 | 219.3 | 2,165.7 | 4,374.5 | 80.2 | 394.5 | n.a. | 1953 | 99.2 | 383 | |
| 1954 | 209.8 | 2,454.1 | 4,644.2 | 77.6 | 398.2 | n.a. | 1954 | 101.6 | 386 | |
| 1955 | 236.2 | 2,731.0 | 4,832.5 | 82.1 | 444.2 | n.a. | 1955 | 105.2 | 394 | |
| 1956 | 265.0 | 3,001.4 | 5,226.1 | 78.5 | 452.5 | n.a. | 1956 | 110.8 | 419 | |
| 1957 | 280.0 | 3,244.2 | 5,713.5 | 68.4 | 419.5 | n.a. | 1957 | 112.4 | 429 | |
| 1958 | 253.6 | 3,457.4 | 5,547.4 | 74.6 | 463.0 | 811.6 | 1958 | 114.3 | 435 | |
| 1959 | 236.7 | 3,685.2 | 5,952.7 | 84.2 | 527.3 | 864.9 | 1959 | 122.0 | 443 | |
| 1960 | 252.3 | 4,161.1 | 6,580.2 | 90.0 | 571.0 | 1,001.6 | 1960 | 125.7 | 459 | |
| 1961 | 278.1 | 4,349.8 | 6,815.0 | 94.5 | 627.4 | 1,130.8 | 1961 | 129.5 | 471 | |
| 1962 | 274.5 | 4,394.6 | 6,823.5 | 86.3 | 593.2 | 1,076.9 | 1962 | 129.8 | 469 | |
| 1963 | 291.0 | 4,795.2 | 7,472.6 | 87.7 | 610.2 | 1,140.7 | 1963 | 133.0 | 472 | |
| 1964 | 327.7 | 5,270.0 | 8,372.1 | 96.7 | 685.8 | 1,323.9 | 1964 | 140.4 | 483 | |
| 1965 | 400.1 | 5,896.8 | 9,041.4 | 112.7 | 823.0 | 1,555.9 | 1965 | 144.3 | 502 | |
| 1966 | 443.9 | 6,251.9 | 9,295.7 | 112.8 | 869.9 | 1,681.2 | 1966 | 152.4 | 517 | |
| 1967 | 515.5 | 6,877.0 | 10,390.8 | 111.9 | 914.8 | 1,745.4 | 1967 | 159.3 | 534 | |
| 1968 | 568.1 | 7,430.9 | 10,553.5 | 120.2 | 1,022.8 | 1,914.3 | 1968 | 173.4 | 548 | |
| 1969 | (f)749.2 | (f)7,468.5 | | 130.7 | 1,182.1 | 2,195.4 | 1969 | 183.6 | 564 | |
| 1970 | (f)1,042.6 | (f)8,277.8 | | 142.2 | 1,379.4 | 2,556.7 | 1970 | 191.9 | 586 | |
| 1971 | (f)1,289.5 | (g)n.a. | | 142.1 | 1,478.9 | 2,815.6 | 1971 | 218.0 | 621 | |
| 1972 | (f)1,428.3 | (f)9,696.6 | | 143.8 | 1,628.7 | 3,132.4 | 1972 | 239.8 | 658 | |
| 1973 | (f)1,597.3 | (f)10,725.9 | | 150.6 | 1,845.5 | 3,542.4 | 1973 | 275.1 | 720 | |
| 1974 | (f)1,996.1 | (f)13,149.1 | | 150.0 | 2,143.0 | 4,214.9 | 1974 | 373.8 | 829 | |
| 1975 | (f)2,669.1 | (f)15,231.6 | | 141.1 | 2,454.2 | 4,713.3 | 1975 | 417.6 | 954 | |
| 1976 | (f)3,068.3 | (f)16,921.0 | | 132.0 | 2,808.6 | 5,590.5 | 1976 | 479.0 | 1,083 | |
| 1977 | (f)3,561.8 | (f)19,587.7 | | 144.8 | 3,635.1 | 6,445.5 | 1977 | 520.0 | 1,216 | |
| 1978 | n.y.a. | n.y.a. | | 128.9 | 3,595.6 | 6,509.9 | 1978 | 567.1 | 1,313 | |

(a) Series commenced 1945–46. Partly estimated before July 1951, and excludes Northern Territory before July 1954. (b) Building by private contractors, government authorities and owner builders. (c) At 31 December, Base; year 1954=100, weighted average. Excludes rural industry. (d) 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. (e) Year ended previous December. (f) Value added from 1968–69. (g) Manufacturing census was not conducted. (h) November.

OVERSEAS TRADE
TOTALS **PRINCIPAL EXPORTS(a)**

| <i>Year ended 30 June—</i> | <i>Imports</i> | <i>Exports</i> | <i>Coal(b)</i> | <i>Wool(c)</i> | <i>Barley</i> | <i>Wheat</i> | <i>Petroleum products</i> | <i>Flour(d)</i> |
|----------------------------|----------------|----------------|----------------|----------------|---------------|--------------|---------------------------|-----------------|
| | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m |
| 1902(i) | 76 | 100 | n.a. | 30 | n.a. | 6 | n.a. | n.a. |
| 1912(i) | 122 | 158 | 2 | 52 | — | 13 | — | 3 |
| 1922 | 188 | 256 | 2 | 96 | 1 | 57 | — | 11 |
| 1932 | 104 | 216 | 1 | 74 | 3 | 38 | — | 8 |
| 1942 | 348 | 338 | 1 | 112 | — | 9 | — | 8 |
| 1950 | 1,076 | 1,227 | — | 618 | 13 | 124 | — | 53 |
| 1951 | 1,488 | 1,964 | — | 1,253 | 18 | 148 | — | 66 |
| 1952 | 2,107 | 1,350 | 1 | 636 | 22 | 111 | — | 66 |
| 1953 | 1,028 | 1,743 | 2 | 788 | 38 | 104 | — | 75 |
| 1954 | 1,363 | 1,657 | 3 | 805 | 30 | 62 | 1 | 60 |
| 1955 | 1,687 | 1,548 | 2 | 693 | 21 | 90 | 2 | 41 |
| 1956 | 1,642 | 1,564 | 2 | 653 | 21 | 93 | 6 | 39 |
| 1957 | 1,438 | 1,986 | 4 | 930 | 25 | 120 | 6 | 43 |
| 1958 | 1,584 | 1,636 | 7 | 720 | 19 | 57 | 11 | 29 |
| 1959 | 1,593 | 1,623 | 5 | 578 | 34 | 77 | 15 | 26 |
| 1960 | 1,854 | 1,875 | 9 | 742 | 23 | 123 | 21 | 30 |
| 1961 | 2,175 | 1,938 | 15 | 649 | 29 | 205 | 24 | 38 |
| 1962 | 1,769 | 2,155 | 27 | 720 | 30 | 285 | 25 | 35 |
| 1963 | 2,163 | 2,152 | 22 | 733 | 10 | 217 | 29 | 31 |
| 1964 | 2,373 | 2,782 | 32 | 926 | 18 | 362 | 20 | 42 |
| 1965 | 2,905 | 2,651 | 51 | 781 | 18 | 297 | 11 | 37 |
| 1966 | 2,939 | 2,721 | 63 | 757 | 12 | 264 | 9 | 25 |
| 1967 | 3,045 | 3,024 | 72 | 840 | 22 | 361 | 30 | 23 |
| 1968 | 3,264 | 3,045 | 85 | 739 | 7 | 343 | 33 | 24 |
| 1969 | 3,469 | 3,374 | 117 | 827 | 18 | 258 | 26 | 22 |
| 1970 | 3,881 | 4,137 | 164 | 803 | 23 | 338 | 27 | 21 |
| 1971 | 4,150 | 4,376 | 195 | 593 | 51 | 433 | 38 | 20 |
| 1972 | 4,008 | 4,893 | 238 | 633 | 73 | 419 | 45 | 13 |
| 1973 | 4,121 | 6,214 | 291 | 1,262 | 39 | 273 | 41 | 12 |
| 1974 | 6,085 | 6,914 | 348 | 1,248 | 68 | 517 | 95 | 20 |
| 1975 | 8,083 | 8,673 | 721 | 815 | 187 | 1,028 | 145 | 49 |
| 1976 | 8,240 | 9,601 | 1,063 | 1,032 | 201 | 922 | 144 | 39 |
| 1977 | 10,411 | 11,646 | 1,282 | 1,587 | 223 | 863 | 190 | 26 |
| 1978 | 11,167 | 12,245 | 1,457 | 1,289 | 122 | 1,013 | 224 | 22 |

PRINCIPAL EXPORTS(a)—continued

| <i>Year ended 30 June—</i> | <i>Butter(c)</i> | <i>Hides and skins</i> | <i>Meats(f)</i> | <i>Fruit(g)</i> | <i>Sugar</i> | <i>Lead and lead alloys unworked (h)</i> | <i>Ores and concentrates</i> | |
|----------------------------|------------------|------------------------|-----------------|-----------------|--------------|--|------------------------------|-----|
| | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m |
| 1902(i) | 3 | 3 | 5 | — | — | n.a. | — | — |
| 1912(i) | 9 | 6 | 9 | 1 | — | 3 | — | 8 |
| 1922 | 16 | 6 | 11 | 6 | — | 4 | — | 1 |
| 1932 | 21 | 5 | 13 | 10 | 5 | 5 | — | — |
| 1942 | 16 | 12 | 28 | 11 | 5 | 14 | — | 2 |
| 1950 | 51 | 30 | 70 | 30 | 28 | 34 | — | 12 |
| 1951 | 38 | 54 | 61 | 38 | 30 | 43 | — | 21 |
| 1952 | 10 | 34 | 71 | 44 | 14 | 52 | — | 40 |
| 1953 | 41 | 40 | 132 | 61 | 43 | 50 | — | 39 |
| 1954 | 33 | 39 | 114 | 68 | 63 | 46 | — | 26 |
| 1955 | 50 | 39 | 127 | 68 | 62 | 47 | — | 28 |
| 1956 | 59 | 42 | 119 | 67 | 49 | 49 | — | 38 |
| 1957 | 53 | 49 | 100 | 53 | 58 | 63 | — | 51 |
| 1958 | 32 | 51 | 111 | 72 | 70 | 43 | — | 42 |
| 1959 | 51 | 47 | 194 | 73 | 64 | 38 | — | 33 |
| 1960 | 58 | 64 | 177 | 64 | 53 | 33 | — | 44 |
| 1961 | 41 | 54 | 145 | 61 | 70 | 33 | — | 54 |
| 1962 | 49 | 64 | 179 | 74 | 68 | 38 | — | 48 |
| 1963 | 49 | 74 | 226 | 73 | 91 | 35 | — | 44 |
| 1964 | 57 | 92 | 244 | 92 | 157 | 50 | — | 54 |
| 1965 | 67 | 80 | 286 | 86 | 113 | 61 | 0.8 | 77 |
| 1966 | 58 | 89 | 228 | 107 | 94 | 67 | 2.7 | 88 |
| 1967 | 65 | 86 | 286 | 95 | 100 | 54 | 46.0 | 100 |
| 1968 | 47 | 62 | 285 | 105 | 98 | 63 | 103.0 | 123 |
| 1969 | 41 | 75 | 291 | 92 | 122 | 66 | 179.5 | 143 |
| 1970 | 53 | 88 | 426 | 88 | 116 | 106 | 277.8 | 205 |
| 1971 | 48 | 71 | 438 | 100 | 150 | 30 | 374.3 | 231 |
| 1972 | 49 | 80 | 569 | 89 | 211 | 68 | 375.5 | 226 |
| 1973 | 62 | 189 | 867 | 117 | 250 | 83 | 439.1 | 239 |
| 1974 | 42 | 148 | 801 | 105 | 223 | 121 | 498.7 | 309 |
| 1975 | 34 | 102 | 450 | 91 | 645 | 130 | 706.5 | 423 |
| 1976 | 64 | 142 | 679 | 96 | 570 | 111 | 771.0 | 528 |
| 1977 | 38 | 239 | 896 | 99 | 637 | 166 | 902 | 674 |
| 1978 | 44 | 244 | 1,128 | 115 | 537 | 194 | 921 | 702 |

(a) Australian produce. (b) Anthracite, bituminous and sub-bituminous (except briquettes). (c) Includes greasy wool, slip, wool scoured and carbonised, wool exported on skins. (d) Flour, plain white. (e) Includes concentrates and ghee. (f) Includes sausage casings, natural. (g) Includes juices and fruit preparations. (h) Includes silverlead. (i) Year ended previous December.

STATISTICAL SUMMARY: AUSTRALIA

OVERSEAS TRADE—continued

PRINCIPAL IMPORTS

| <i>Year ended 30 June—</i> | <i>Vegetable foodstuffs, etc.</i> | <i>Apparel, etc.</i> | <i>Oil, etc.</i> | <i>Metals, etc.</i> | <i>Rubber</i> | <i>Paper, etc.</i> |
|----------------------------|---|--------------------------|----------------------|-------------------------|---------------|------------------------|
| | \$m | \$m | \$m | \$m | \$m | \$m |
| 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 |
| 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 |

| <i>Year ended 30 June—</i> | <i>Food and live animals</i> | <i>Beverages and tobacco</i> | <i>Crude materials, inedible, except fuels</i> | <i>Mineral fuels, lubricants and related materials</i> | <i>Animal and vegetable oils and fats</i> | <i>Chemicals</i> | <i>Manu- factured goods classified chiefly by materials</i> | <i>Machinery and transport equipment</i> | <i>Miscel- laneous manu- factured articles</i> | <i>Com- modities and trans- actions of merchan- dise trade not elsewhere classified</i> |
|--------------------------------|--------------------------------------|--------------------------------------|--|--|---|------------------|---|--|--|---|
| | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m |
| 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 | 158 | 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 |
| 1974 | 237 | 65 | 415 | 377 | 28 | 580 | 1,404 | 2,091 | 721 | 108 |
| 1975 | 302 | 75 | 390 | 724 | 43 | 786 | 1,496 | 3,059 | 961 | 125 |
| 1976 | 275 | 90 | 387 | 807 | 42 | 709 | 1,460 | 3,177 | 1,045 | 160 |
| 1977 | 455 | 99 | 471 | 996 | 54 | 926 | 1,891 | 3,980 | 1,354 | 105 |
| 1978 | 531 | 122 | 477 | 1,157 | 66 | 1,009 | 1,993 | 4,118 | 1,484 | 124 |

(a) Year ended previous December.

TRANSPORT AND COMMUNICATION
SHIPPING

| Year ended 30 June— | Vessels on overseas voyages | | | | | | Vessels on interstate voyages | | | | | |
|---------------------------|-----------------------------|----------------|---------|----------------|----------------|-------------------------|----------------------------------|-------------------------|---------|----------------|-------------------------------|-------------------------|
| | Entered | | Cleared | | Overseas cargo | | | | Entered | | Interstate cargo loaded | |
| | No. | Net tonnage | No. | Net tonnage | Discharged | | Loaded | | No. | Net tonnage | | |
| | | mil. tons | | mil. tons | mil. tonnes | mil. cubic metres | mil. tonnes | mil. cubic metres | | mil. tons | mil. tonnes | mil. cubic metres |
| 1902 | (a) | (a) | (a) | (a) | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| 1912(b) | 2,081 | 5.0 | 2,093 | 5.0 | n.a. | n.a. | n.a. | n.a. | 5,000 | 6.8 | n.a. | n.a. |
| 1922 | 1,567 | 4.6 | 1,544 | 4.5 | (c)2.4 | | (c)5.8 | | 4,897 | 6.4 | (c)5.5 | |
| 1932 | 1,519 | 5.7 | 1,538 | 5.7 | 2.1 | 1.0 | 6.0 | 0.8 | 3,958 | 5.5 | 3.1 | 1.1 |
| 1942 | 1,276 | 5.2 | 1,268 | 5.6 | 3.8 | 2.0 | 2.9 | 1.5 | 4,860 | 6.6 | 8.2 | 2.2 |
| 1949 | 1,706 | 7.5 | 1,780 | 7.5 | 5.9 | 2.9 | 5.5 | 1.5 | 3,091 | 4.7 | 6.3 | 1.3 |
| 1950 | 1,942 | 8.7 | 1,965 | 8.7 | 7.8 | 4.1 | 5.1 | 1.6 | 3,228 | 5.3 | 6.5 | 1.7 |
| 1951 | 1,911 | 8.6 | 1,992 | 8.7 | 9.2 | 4.5 | 5.5 | 1.5 | 3,301 | 5.8 | 6.8 | 1.5 |
| 1952 | 2,038 | 9.0 | 2,098 | 9.3 | 9.9 | 5.3 | 4.6 | 1.4 | 3,750 | 7.9 | 7.8 | 1.5 |
| 1953 | 1,988 | 8.7 | 2,053 | 8.9 | 7.9 | 3.2 | 6.1 | 1.6 | 4,555 | 9.2 | 8.6 | 1.4 |
| 1954 | 2,054 | 8.9 | 2,073 | 8.9 | 8.7 | 3.2 | 5.9 | 1.5 | 4,759 | 9.6 | 9.3 | 1.7 |
| 1955 | 2,245 | 9.9 | 2,260 | 10.1 | 11.2 | 3.9 | 6.2 | 1.6 | 4,644 | 9.4 | 10.4 | 1.7 |
| 1956 | 2,425 | 11.2 | 2,457 | 11.1 | 12.6 | 3.9 | 6.8 | 1.8 | 4,626 | 9.5 | 11.8 | 1.5 |
| 1957 | 2,628 | 11.8 | 2,662 | 11.8 | 12.8 | 3.1 | 8.9 | 1.6 | 4,805 | 9.5 | 12.1 | 1.5 |
| 1958 | 2,656 | 12.4 | 2,598 | 12.1 | 13.9 | 3.3 | 7.5 | 1.7 | 5,127 | 9.8 | 12.8 | 1.3 |
| 1959 | 2,706 | 12.9 | 2,757 | 13.1 | 14.5 | 3.0 | 8.8 | 1.7 | 5,012 | 9.5 | 12.5 | 1.2 |
| 1960 | 2,976 | 14.5 | 2,969 | 14.4 | 15.7 | 3.7 | 10.3 | 1.7 | 5,004 | 9.5 | 13.1 | 1.5 |
| 1961 | 3,382 | 17.3 | 3,396 | 17.0 | 17.5 | 4.3 | 14.0 | 1.8 | 4,860 | 9.6 | 13.9 | 1.7 |
| 1962 | 3,599 | 18.9 | 3,611 | 18.8 | 17.8 | 3.1 | 17.5 | 1.8 | 5,032 | 9.8 | 13.9 | 1.3 |
| 1963 | 3,411 | 19.0 | 3,351 | 18.6 | 19.8 | 3.8 | 15.7 | 1.8 | 4,845 | 9.7 | 14.6 | 1.2 |
| 1964 | 3,714 | 20.7 | 3,763 | 20.9 | 21.1 | 4.5 | 20.1 | 2.1 | 5,067 | 10.1 | 15.9 | 1.4 |
| 1965 | 3,813 | 21.7 | 3,788 | 21.7 | 23.6 | 5.0 | 20.8 | 2.2 | 5,263 | 13.2 | 16.6 | 1.6 |
| 1966 | 3,929 | 23.0 | 4,029 | 23.3 | 24.5 | 4.7 | 22.1 | 2.3 | 5,480 | 15.1 | 16.4 | 1.7 |
| 1967 | 3,977 | 27.4 | 4,017 | 27.6 | 27.5 | 4.7 | 33.2 | 2.2 | 4,937 | 15.3 | 15.9 | 2.0 |
| 1968 | 3,972 | 30.1 | 4,013 | 30.3 | 28.0 | 5.3 | 42.0 | 2.4 | 5,159 | 15.7 | 17.5 | 2.1 |
| 1969 | 4,390 | 36.4 | 4,360 | 36.2 | 29.8 | 5.9 | 55.8 | 2.3 | 5,269 | 15.8 | 18.8 | 2.2 |
| 1970 | 4,971 | 44.5 | 5,053 | 44.6 | 28.7 | 5.8 | 78.1 | 2.4 | 4,834 | 17.7 | 20.8 | 2.3 |
| 1971 | 5,476 | 50.8 | 5,578 | 51.4 | 21.8 | 5.7 | 101.8 | 3.0 | 4,967 | 23.7 | 24.9 | 2.5 |
| 1972 | 5,439 | 53.1 | 5,447 | 53.5 | 19.5 | 5.9 | 108.0 | 3.2 | 5,491 | 27.0 | 26.4 | 2.8 |
| 1973 | 5,647 | 62.6 | 5,631 | 62.0 | 20.2 | 6.1 | 132.4 | 3.5 | 5,215 | 28.8 | 28.0 | 2.9 |
| 1974 | 5,975 | 72.0 | 5,909 | 71.5 | 23.1 | 7.6 | 150.5 | 3.1 | 5,073 | 28.4 | 29.5 | 3.0 |
| 1975 | 6,230 | 80.3 | 5,254 | 80.3 | 21.9 | 8.0 | 164.9 | 2.9 | 4,594 | 25.9 | 28.5 | 3.1 |
| 1976 | 5,772 | 75.0 | 5,824 | 75.4 | 19.7 | 7.2 | 156.1 | 2.5 | 4,015 | 22.8 | 28.2 | 2.9 |
| 1977 | 5,830 | 79.7 | 5,823 | 79.5 | 20.6 | 7.8 | 164.9 | 2.2 | 3,906 | 22.1 | 28.5 | 2.0 |

(a) Separate details not available. Total entrances and clearances for year ended December 1901, 4,028 vessels, 6.5 million tons. (b) Year ended previous December. (c) Tons weight plus tons measurement.

TRANSPORT AND COMMUNICATION—continued

GOVERNMENT RAILWAYS(a)

REGULAR INTERNAL AIR SERVICES

| Year ended 30 June— | Route kilo- metres (b) | Train kilo- metres | Pas- senger journeys | Freight- tonnes carried | Freight net tonne- kilo- metres | Kilo- metres flown | Passengers | | Freight | | Mail | |
|------------------------|---------------------------------|--------------------------|----------------------------|-------------------------------|---|--------------------------|-------------------|-----------------------------------|-------------------------|---------------------------|-------------------------|---------------------------|
| | | | | | | | Embark- ations | Pas- senger kilo- metres | Tonnes up- lifted | Tonne- kilo- metres | Tonnes up- lifted | Tonne- kilo- metres |
| 1902 . . . | '000 | mil. | mil. | mil. | mil. | mil. | '000 | mil. | '000 | mil. | '000 | mil. |
| 1912 . . . | 20.6 | 61.5 | 115 | 15.7 | n.a. | .. | .. | .. | .. | .. | .. | .. |
| 1922 . . . | 27.0 | 88.8 | 228 | 25.9 | n.a. | .. | .. | .. | .. | .. | .. | .. |
| 1932 . . . | 37.7 | 90.3 | 335 | 32.0 | n.a. | .. | .. | .. | .. | .. | .. | .. |
| 1942 . . . | 43.5 | 102.7 | 303 | 26.5 | n.a. | 1.4 | 6 | 5 | 0.04 | n.a. | 0.02 | n.a. |
| 1949 . . . | 43.8 | 142.4 | 475 | 39.5 | n.a. | 12.6 | 151 | 122 | 1.2 | 1.5 | n.a. | 0.7 |
| 1950 . . . | 43.5 | 148.5 | 507 | 42.1 | 10,158 | 56.6 | 1,409 | 911 | 33.9 | 25.0 | 1.6 | 1.3 |
| 1951 . . . | 43.5 | 150.3 | 505 | 41.3 | 10,143 | 58.7 | 1,500 | 950 | 44.8 | 32.6 | 2.6 | 2.0 |
| 1952 . . . | 43.5 | 142.7 | 476 | 41.6 | 10,264 | 65.5 | 1,685 | 1,077 | 53.9 | 39.6 | 2.9 | 2.2 |
| 1953 . . . | 43.1 | 150.3 | 501 | 45.0 | 11,046 | 67.3 | 1,829 | 1,162 | 52.2 | 39.0 | 2.4 | 1.9 |
| 1954 . . . | 43.1 | 142.7 | 498 | 44.7 | 10,750 | 62.9 | 1,706 | 1,073 | 52.3 | 39.7 | 2.1 | 1.8 |
| 1955 . . . | 42.8 | 150.5 | 511 | 47.6 | 11,370 | 66.0 | 1,772 | 1,130 | 63.0 | 47.7 | 2.1 | 1.8 |
| 1956 . . . | 42.8 | 152.6 | 517 | 48.5 | 11,929 | 70.0 | 1,918 | 1,233 | 71.4 | 54.0 | 2.1 | 1.9 |
| 1957 . . . | 42.6 | 154.8 | 515 | 47.6 | 11,894 | 70.3 | 2,020 | 1,333 | 76.6 | 56.8 | 2.3 | 2.0 |
| 1958 . . . | 42.6 | 153.0 | 499 | 48.3 | 12,203 | 67.8 | 2,125 | 1,434 | 68.1 | 53.0 | 2.3 | 2.0 |
| 1959 . . . | 42.5 | 145.3 | 494 | 46.0 | 11,132 | 65.2 | 2,123 | 1,447 | 63.5 | 48.2 | 2.4 | 2.0 |
| 1960 . . . | 42.3 | 146.9 | 485 | 48.8 | 11,970 | 64.9 | 2,235 | 1,519 | 57.0 | 42.0 | 2.4 | 2.2 |
| 1961 . . . | 42.2 | 140.2 | 479 | 52.0 | 13,091 | 69.5 | 2,660 | 1,823 | 59.3 | 42.6 | 4.4 | 3.8 |
| 1962 . . . | 42.0 | 149.7 | 463 | 56.3 | 14,370 | 68.1 | 2,639 | 1,786 | 57.2 | 41.2 | 5.4 | 4.5 |
| 1963 . . . | 41.2 | 149.0 | 461 | 56.5 | 14,427 | 66.3 | 2,666 | 1,802 | 51.9 | 38.1 | 5.7 | 4.7 |
| 1964 . . . | 41.0 | 149.6 | 465 | 56.8 | 15,131 | 70.3 | 2,833 | 1,965 | 53.9 | 41.3 | 5.9 | 4.9 |
| 1965 . . . | 40.5 | 155.3 | 471 | 62.7 | 17,170 | 78.8 | 3,257 | 2,266 | 57.3 | 44.5 | 6.4 | 5.5 |
| 1966 . . . | 40.3 | 155.5 | 464 | 65.9 | 18,224 | 84.2 | 3,764 | 2,638 | 63.5 | 49.5 | 7.0 | 5.9 |
| 1967 . . . | 40.2 | 151.7 | 460 | 65.5 | 18,050 | 88.5 | 4,158 | 2,947 | 69.0 | 54.9 | 7.8 | 6.7 |
| 1968 . . . | 40.3 | 150.8 | 455 | 69.6 | 18,832 | 91.3 | 4,425 | 3,174 | 74.4 | 58.6 | 8.7 | 7.5 |
| 1969 . . . | 40.5 | 152.1 | 453 | 72.2 | 20,054 | 91.3 | 4,668 | 3,420 | 77.2 | 61.8 | 8.5 | 7.6 |
| 1970 . . . | 40.4 | 151.0 | 447 | 77.0 | 21,463 | 97.1 | 5,185 | 3,865 | 81.6 | 66.5 | 9.0 | 8.0 |
| 1971 . . . | 40.3 | 156.3 | 450 | 83.7 | 23,973 | 106.6 | 5,911 | 4,511 | 90.8 | 74.5 | 9.6 | 8.7 |
| 1972 . . . | 40.3 | 156.3 | 453 | 87.3 | 25,206 | 114.6 | 6,340 | 4,974 | 91.4 | 78.0 | 9.9 | 9.3 |
| 1973 . . . | 40.3 | 153.7 | 404 | 88.7 | 25,403 | 113.0 | 6,629 | 5,134 | 89.9 | 74.2 | 10.1 | 9.3 |
| 1974 . . . | 40.5 | 152.0 | 377 | 92.5 | 26,582 | 118.6 | 7,503 | 5,685 | 94.4 | 81.5 | 10.1 | 9.8 |
| 1975 . . . | 40.4 | 151.2 | 374 | 97.0 | 28,329 | 131.8 | 8,858 | 6,812 | 112.7 | 98.3 | 9.9 | 9.3 |
| 1976 . . . | 40.6 | 150.6 | 340 | 103.5 | 29,792 | 135.5 | 9,393 | 7,374 | 107.8 | 97.9 | 9.6 | 9.0 |
| 1977 . . . | 40.8 | 150.1 | 317 | 104.4 | 30,809 | 130.1 | 9,315 | 7,281 | 106.1 | 97.5 | 9.7 | 9.1 |
| 1977 . . . | n.y.a. | n.y.a. | n.y.a. | n.y.a. | n.y.a. | 122.9 | 9,349 | 7,330 | 108.1 | 96.3 | 9.6 | 9.1 |

(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— | Tram trolley- bus and bus services (a) | Motor vehicles on the register (b)(l) | | | | Telephones | | | Broadcasting and television licences in force (b) | | |
|------------------------|--|--|------------------------------------|-----------------|--|---------------------------------------|---------------------------------------|---------------------------------------|---|------------------------------|-----------------------------|
| | | Motor cars and station wagons | Com- mercial vehicles (c) | Motor cycles | Total motor vehicles (including motor cycles) | Postal matter dealt with (d) | Instru- ments in service (b) | Services in operation (b)(e) | Tele- grams (f) | Broad- cast listeners' | Tele- vision viewers' |
| | mil. | '000 | '000 | '000 | '000 | mil. articles | '000 | '000 | mil. | '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 | 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 | .. |
| 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 | 2,664 | 3,913 | 2,704 | (j)23.2 | 2,670 | 2,758 |
| 1971 . . . | 561 | 3,935 | 961 | 144 | 5,039 | 2,685 | 4,152 | 2,857 | (j)21.2 | 2,699 | 2,845 |
| 1972 . . . | 503 | 4,141 | 996 | 180 | 5,317 | 2,649 | 4,400 | 2,978 | (j)20.2 | 2,758 | 2,939 |
| 1973 . . . | 516 | 4,362 | 1,041 | 210 | 5,613 | 2,691 | 4,659 | 3,147 | (j)20.4 | 2,814 | 3,013 |
| 1974 . . . | 528 | 4,604 | 1,090 | 259 | 5,953 | 2,656 | 5,000 | 3,361 | (j)20.7 | (k)2,851 | (k)3,022 |
| 1975 . . . | 528 | 4,858 | 1,140 | 278 | 6,277 | 2,516 | 5,267 | 3,539 | (j)18.5 | .. | .. |
| 1976 . . . | 514 | 5,073 | 1,215 | 293 | 6,581 | 2,209 | 5,502 | 3,700 | (j)12.9 | .. | .. |
| 1977 . . . | 510 | 5,243 | 1,280 | 296 | 6,818 | 2,198 | 5,835 | 3,907 | (j)10.4 | .. | .. |

(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) Tram passenger journeys only before 1942. (j) Excludes telegrams received from overseas. These particulars are no longer available. (k) Television viewer and broadcast listener's licences were abolished on 17 September 1974. (l) Estimates of the number of vehicles on the register from June 1972 to June 1976 were revised following the results of the September 1976 Census of Motor Vehicles.

STATISTICAL SUMMARY: AUSTRALIA

NATIONAL ACCOUNTS
GROSS DOMESTIC PRODUCT

| Year— | At current prices | | | At constant prices(a) | | | |
|---------|-------------------|-------|--------|-----------------------|-----------------------|----------------------|----------------------|
| | (b) | (c) | (d) | 1953-54 prices(d) | 1959-60* prices(d) | 1966-67 prices(d) | 1974-75 prices(d) |
| | \$m | \$m | \$m | \$m | \$m | \$m | \$m |
| 1900-01 | 419 | .. | .. | .. | .. | .. | .. |
| 1938-39 | 1,847 | 1,860 | .. | .. | .. | .. | .. |
| 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 | 4,324 | 7,258 | .. | .. | .. |
| 1949-50 | .. | .. | 5,099 | 7,849 | .. | .. | .. |
| 1950-51 | .. | .. | 6,773 | 8,318 | .. | .. | .. |
| 1951-52 | .. | .. | 7,267 | 8,485 | .. | .. | .. |
| 1952-53 | .. | .. | 8,242 | 8,468 | .. | .. | .. |
| 1953-54 | .. | .. | 9,010 | 9,010 | 10,448 | .. | .. |
| 1954-55 | .. | .. | 9,597 | 9,487 | 11,078 | .. | .. |
| 1955-56 | .. | .. | 10,394 | 10,016 | 11,628 | .. | .. |
| 1956-57 | .. | .. | 11,318 | 10,268 | 11,849 | .. | .. |
| 1957-58 | .. | .. | 11,571 | 10,428 | 12,105 | .. | .. |
| 1958-59 | .. | .. | 12,428 | 11,341 | 12,997 | .. | .. |
| 1959-60 | .. | .. | 13,695 | 11,970 | 13,695 | 16,329 | .. |
| 1960-61 | .. | .. | 14,564 | .. | 14,128 | 16,869 | .. |
| 1961-62 | .. | .. | 14,897 | .. | 14,269 | 17,070 | .. |
| 1962-63 | .. | .. | 16,054 | .. | 15,158 | 18,175 | .. |
| 1963-64 | .. | .. | 17,805 | .. | 16,279 | 19,442 | .. |
| 1964-65 | .. | .. | 19,558 | .. | 17,519 | 20,803 | .. |
| 1965-66 | .. | .. | 20,501 | .. | 17,735 | 21,167 | .. |
| 1966-67 | .. | .. | 22,533 | .. | 18,871 | 22,534 | 41,369 |
| 1967-68 | .. | .. | 24,031 | .. | .. | 23,405 | 43,080 |
| 1968-69 | .. | .. | 27,108 | .. | .. | 25,479 | 46,842 |
| 1969-70 | .. | .. | 29,969 | .. | .. | 27,011 | 49,501 |
| 1970-71 | .. | .. | 33,100 | .. | .. | 28,224 | 52,293 |
| 1971-72 | .. | .. | 36,920 | .. | .. | 29,466 | 54,569 |
| 1972-73 | .. | .. | 41,923 | .. | .. | 30,839 | 56,617 |
| 1973-74 | .. | .. | 50,709 | .. | .. | 32,654 | 59,843 |
| 1974-75 | .. | .. | 60,682 | .. | .. | 32,966 | 60,682 |
| 1975-76 | .. | .. | 71,364 | .. | .. | .. | 62,301 |
| 1976-77 | .. | .. | 82,471 | .. | .. | .. | 64,773 |
| 1977-78 | .. | .. | 90,220 | .. | .. | .. | 65,669 |

(a) For a description of constant price estimates, see *Australian National Accounts*, op. cit. pp 15 and 104. (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 1976-77*, Australian Bureau of Statistics, and, for the last five years, the Budget Paper No. 9, *National Income and Expenditure 1976-77*.

NATIONAL ACCOUNTS
GROSS FIXED CAPITAL EXPENDITURE

| Year | At current prices | | At constant prices(a) | | | |
|---------|-------------------|--------|-----------------------|----------------------|----------------------|----------------------|
| | (b) | (c) | 1953-54 prices(c) | 1959-60 prices(c) | 1966-67 prices(c) | 1974-75 prices(c) |
| | \$m | \$m | \$m | \$m | \$m | \$m |
| 1900-01 | 56 | .. | .. | .. | .. | .. |
| 1938-39 | 298 | (316) | .. | .. | .. | .. |
| 1939-40 | .. | .. | .. | .. | .. | .. |
| 1940-41 | .. | .. | .. | .. | .. | .. |
| 1941-42 | .. | .. | .. | .. | .. | .. |
| 1942-43 | .. | .. | .. | .. | .. | .. |
| 1943-44 | .. | .. | .. | .. | .. | .. |
| 1944-45 | .. | .. | .. | .. | .. | .. |
| 1945-46 | .. | .. | .. | .. | .. | .. |
| 1946-47 | .. | .. | .. | .. | .. | .. |
| 1947-48 | .. | .. | .. | .. | .. | .. |
| 1948-49 | .. | 792 | 1,350 | .. | .. | .. |
| 1949-50 | .. | 1,064 | 1,652 | .. | .. | .. |
| 1950-51 | .. | 1,524 | 2,049 | .. | .. | .. |
| 1951-52 | .. | 1,938 | 2,194 | .. | .. | .. |
| 1952-53 | .. | 1,937 | 1,983 | .. | .. | .. |
| 1953-54 | .. | 2,128 | 2,128 | 2,511 | .. | .. |
| 1954-55 | .. | 2,353 | 2,294 | 2,698 | .. | .. |
| 1955-56 | .. | 2,567 | 2,380 | 2,811 | .. | .. |
| 1956-57 | .. | 2,667 | 2,380 | 2,819 | .. | .. |
| 1957-58 | .. | 2,856 | 2,499 | 2,951 | .. | .. |
| 1958-59 | .. | 3,022 | 2,614 | 3,085 | .. | .. |
| 1959-60 | .. | 3,405 | 2,886 | 3,405 | 3,947 | .. |
| 1960-61 | .. | 3,671 | .. | 3,569 | 4,160 | .. |
| 1961-62 | .. | 3,706 | .. | 3,556 | 4,151 | .. |
| 1962-63 | .. | 4,009 | .. | 3,832 | 4,462 | .. |
| 1963-64 | .. | 4,496 | .. | 4,224 | 4,916 | .. |
| 1964-65 | .. | 5,246 | .. | 4,785 | 5,556 | .. |
| 1965-66 | .. | 5,721 | .. | 5,075 | 5,909 | .. |
| 1966-67 | .. | 6,008 | .. | 5,159 | 6,008 | 11,078 |
| 1967-68 | .. | 6,528 | .. | .. | 6,350 | 11,770 |
| 1968-69 | .. | 7,256 | .. | .. | 6,810 | 12,620 |
| 1969-70 | .. | 7,913 | .. | .. | 7,117 | 13,251 |
| 1970-71 | .. | 8,767 | .. | .. | 7,428 | 13,978 |
| 1971-72 | .. | 9,601 | .. | .. | 7,616 | 14,307 |
| 1972-73 | .. | 10,055 | .. | .. | 7,498 | 14,082 |
| 1973-74 | .. | 11,753 | .. | .. | 7,940 | 14,481 |
| 1974-75 | .. | 14,194 | .. | .. | 7,769 | 14,194 |
| 1975-76 | .. | 16,915 | .. | .. | .. | 14,640 |
| 1976-77 | .. | 19,161 | .. | .. | .. | 14,728 |
| 1977-78 | .. | 20,868 | .. | .. | .. | 14,799 |

(a) For a description of constant price estimates, see *Australian National Accounts*, *op cit* pp 15 and 104.

(b) 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.

(c) *Australian National Accounts 1976-77*, Australian Bureau of Statistics, and for the last five years, the Budget Paper No. 9, *National Income and Expenditure, 1977-78*. The figure of \$316m for gross fixed capital expenditure in 1938-39 is based on a reconstruction of earlier estimates; and is approximately consistent with the present Australian National Accounts series.

| PRIVATE FINANCE | | | | | | |
|---------------------|---|--------------------------|----------|----------|--|---------------------------|
| NOTE ISSUE | | | | | BANKING | |
| | | Trading banks | | | Savings banks | |
| | | Australian note issue | Advances | Deposits | Bank clearings | Depositors balances(d) |
| Year ended 30 June— | | (a) | (b) | (b) | (c) | |
| | | \$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(c) | |
| 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 |
| 1975 | . | 2,557 | 11,205 | 14,936 | 10,095 | (e)12,869 |
| 1976 | . | 2,921 | 12,576 | 16,955 | 13,368 | 14,823 |
| 1977 | . | 3,291 | 14,035 | 19,094 | 14,879 | 16,365 |
| 1978 | . | 3,670 | 15,777 | 19,746 | 17,624 | 18,046 |

(a) Last Wednesday in June. (b) June quarter up to and including 1942; weekly average for month of June from 1947 onwards. (c) Weekly average, June month. (d) End of June. (e) Data from June 1975 have been revised to reflect a change in accounting procedures by one bank.

PRIVATE FINANCE—continued

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 |
| 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 | 32,420 | 2,471 | 1,329 | 8,344 | 33,749 |
| 1972 | 6,143 | 37,879 | 2,389 | 1,442 | 8,532 | 39,321 |
| 1973 | 5,856 | 44,376 | 2,319 | 1,551 | 8,777 | 45,927 |
| 1974 | 6,536 | 52,249 | 2,174 | 1,580 | 8,711 | 53,829 |
| 1975 | 6,588 | 60,896 | 2,030 | 1,602 | 8,618 | 62,498 |
| 1976 | 6,521 | 69,965 | 1,872 | 1,634 | 8,394 | 71,600 |
| 1977 | 6,469 | 81,237 | 1,706 | 1,627 | 8,175 | 82,864 |

(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.

PUBLIC FINANCE

COMMONWEALTH GOVERNMENT

STATE

GOVERNMENT SECURITIES ON ISSUE(a)

| Year ended 30 June— | Consolidated revenue fund | | Net loan fund expenditure (b) | Taxation collections | Consolidated revenue fund | | Net loan fund expenditure (b) | Taxation collections | Commonwealth Government Securities on Issue(a) | | | | |
|------------------------|---------------------------|-------------|-------------------------------|----------------------|---------------------------|-------------|-------------------------------|----------------------|--|--------|--------|-----------|--------------|
| | Revenue | Expenditure | | | Revenue | Expenditure | | | Government | State | Total | Over-seas | In Australia |
| | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m | \$m |
| 1902 | 23 | 8 | .. | 18 | 56 | 58 | 19 | 5 | .. | 429 | 429 | n.a. | n.a. |
| 1912 | 41 | 29 | 2 | 32 | 83 | 82 | 33 | 11 | 12 | 557 | 569 | 388 | 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 |
| 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 | 7,138 |
| 1958 | 2,648 | 2,648 | 90 | 2,338 | 1,210 | 1,224 | 314 | 256 | 3,670 | 4,686 | 8,356 | 1,248 | 7,100 |
| 1959 | 2,592 | 2,592 | 132 | 2,283 | 1,280 | 1,295 | 338 | 276 | 3,512 | 4,988 | 8,499 | 1,319 | 7,186 |
| 1960 | 2,877 | 2,877 | 119 | 2,519 | 1,399 | 1,404 | 357 | 320 | 3,334 | 5,301 | 8,635 | 1,389 | 7,242 |
| 1961 | 3,277 | 3,277 | 83 | 2,871 | 1,511 | 1,513 | 384 | 335 | 3,215 | 5,630 | 8,845 | 1,413 | 7,438 |
| 1962 | 3,283 | 3,283 | 182 | 2,858 | 1,609 | 1,617 | 395 | 394 | 3,119 | 5,963 | 9,082 | 1,424 | 7,655 |
| 1963 | 3,371 | 3,371 | 274 | 2,907 | 1,694 | 1,696 | 405 | 438 | 3,121 | 6,314 | 9,434 | 1,522 | 7,917 |
| 1964 | 3,809 | 3,809 | 226 | 3,247 | 1,829 | 1,829 | 438 | 496 | 3,172 | 6,691 | 9,863 | 1,545 | 8,314 |
| 1965 | 4,418 | 4,418 | 167 | 3,819 | 1,947 | 1,965 | 477 | 549 | 3,134 | 7,091 | 10,225 | 1,529 | 8,697 |
| 1966 | 4,879 | 4,879 | (c)260 | 4,221 | 2,094 | 2,119 | 492 | 591 | 3,145 | 7,495 | 10,639 | 1,505 | 9,138 |
| 1967 | 5,228 | 5,228 | (c)362 | 4,492 | 2,286 | 2,289 | 516 | 664 | 3,275 | 7,934 | 11,209 | 1,532 | 9,675 |
| 1968 | 5,760 | 5,760 | (c)499 | 4,952 | 2,463 | 2,468 | 540 | 753 | 3,600 | 8,317 | 11,917 | 1,558 | 10,358 |
| 1969 | 6,086 | 6,086 | (c)236 | 5,528 | 2,689 | 2,700 | 574 | 860 | 3,682 | 8,831 | 12,512 | 1,698 | 10,813 |
| 1970 | 6,979 | 6,979 | (c)446 | 6,380 | 3,010 | 3,028 | 615 | 961 | 3,885 | 9,320 | 13,205 | 1,580 | 11,625 |
| 1971 | 7,838 | 7,838 | (c)439 | 7,183 | 3,457 | 3,483 | 628 | 1,009 | 3,801 | 9,691 | 13,492 | 1,546 | 11,946 |
| 1972 | 8,688 | 8,688 | (c)218 | 7,939 | 4,035 | 4,050 | 896 | 1,414 | 3,808 | 10,227 | 14,035 | 1,442 | 12,592 |
| 1973 | 9,278 | 9,278 | (c)281 | 8,470 | 4,675 | 4,704 | 973 | 1,780 | 3,963 | 10,781 | 14,744 | 1,265 | 13,479 |
| 1974 | 11,976 | 11,976 | (c)239 | 10,917 | 5,481 | 5,514 | 868 | 2,206 | 4,088 | 11,219 | 15,306 | 1,032 | 14,274 |
| 1975 | 15,391 | 15,391 | (c)1,785 | 14,211 | 7,109 | 7,187 | 1,097 | 2,791 | 5,956 | 11,814 | 17,770 | 1,182 | 16,587 |
| 1976 | 19,713 | 19,713 | 2,277 | 16,938 | 8,774 | 8,736 | 1,379 | 3,467 | 9,010 | 11,328 | 20,338 | 1,325 | 19,013 |
| 1977 | 21,436 | 21,436 | 1,912 | 19,770 | 10,258 | 10,231 | 1,465 | 3,973 | 11,192 | 12,099 | 23,290 | 1,871 | 21,420 |
| 1978 | 23,455 | 23,455 | 2,461 | 21,501 | 11,400 | 11,429 | 1,506 | 4,303 | 13,992 | 12,931 | 26,923 | 3,635 | 23,287 |

(a) At 30 June. Expressed in Australian currency equivalents at ruling rates of exchange.
ced under the United States Defence Credits Arrangements.

(b) Loan expenditure on works and services.

(c) Includes expenditure finan-

SOCIAL

PENSIONS, BENEFITS, ETC.

| Year ended 30 June— | Age and invalid pensions (including Wives' Allowances Pensions) | | | Family allowances(a) | | Widow's pensions | | Unemployment benefits | |
|------------------------|--|------------------|-----------------|----------------------|----------------|------------------|-----------------|-------------------------------|-----------------|
| | Pensioners (b) | No. of wives (c) | Amount paid (d) | No. of children (b) | Allowance paid | Pensioners (b) | Amount paid (d) | No. on benefit—weekly average | Amount paid (d) |
| | '000 | '000 | \$m | '000 | \$m | '000 | \$m | '000 | \$m |
| 1902 | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| 1912 | 90 | .. | 4.3 | .. | .. | .. | .. | .. | .. |
| 1922 | 147 | .. | 10.8 | .. | .. | .. | .. | .. | .. |
| 1932 | 261 | .. | 22.3 | .. | .. | .. | .. | .. | .. |
| 1942 | 341 | .. | 38.5 | 910 | 22.6 | .. | .. | .. | .. |
| 1950 | 414 | 13 | 89.1 | 1,836 | (e)60.7 | 43 | 8.8 | 13 | 2.5 |
| 1951 | 417 | 12 | 99.0 | 2,389 | 87.2 | 42 | 9.7 | 1 | (f) |
| 1952 | 426 | 11 | 119.6 | 2,518 | 93.2 | 41 | 11.2 | 2 | (f) |
| 1953 | 451 | 12 | 144.8 | 2,624 | (e)106.5 | 41 | 12.7 | 30 | 9.1 |
| 1954 | 478 | 12 | 162.6 | 2,717 | 101.5 | 41 | 13.2 | 14 | 5.0 |
| 1955 | 510 | 13 | 176.0 | 2,789 | 105.1 | 42 | 13.7 | 4 | 1.4 |
| 1956 | 535 | 13 | 203.3 | 2,876 | (e)120.8 | 43 | 15.4 | 4 | 1.4 |
| 1957 | 554 | 13 | 218.4 | 2,978 | 114.1 | 45 | 17.7 | 12 | 4.2 |
| 1958 | 574 | 12 | 243.2 | 3,074 | 117.5 | 47 | 19.7 | 24 | 9.8 |
| 1959 | 598 | 12 | 259.1 | 3,172 | (e)135.1 | 50 | 21.6 | 28 | 11.9 |
| 1960 | 619 | 13 | 294.0 | 3,252 | 125.1 | 52 | 24.3 | 21 | 9.0 |
| 1961 | 651 | 14 | 315.9 | 3,340 | (e)148.6 | 55 | 26.9 | 22 | 8.9 |
| 1962 | 691 | 14 | 360.5 | 3,420 | 132.8 | 57 | 30.2 | 53 | 25.3 |
| 1963 | 711 | 15 | 375.5 | 3,458 | 135.4 | 58 | 31.4 | 40 | 21.3 |
| 1964 | 725 | 16 | 399.9 | 3,631 | (e)168.8 | 62 | 41.6 | 26 | 13.5 |
| 1965 | 736 | 16 | 426.6 | 3,711 | 172.8 | 65 | 47.0 | 14 | 6.8 |
| 1966 | 744 | 17 | 442.4 | 3,763 | 176.4 | 69 | 50.0 | 15 | 7.8 |
| 1967 | 764 | 19 | 481.8 | 3,835 | (e)199.3 | 73 | 56.4 | 21 | 11.2 |
| 1968 | 797 | 19 | 514.0 | 3,891 | 187.9 | 75 | 61.1 | 21 | 11.2 |
| 1969 | 827 | 20 | 558.6 | 3,996 | 193.3 | 78 | 69.1 | 18 | 9.3 |
| 1970 | 913 | 23 | 642.0 | 4,079 | (e)220.1 | 87 | 81.8 | 13 | 8.9 |
| 1971 | 942 | 23 | 702.3 | 4,156 | 198.5 | 90 | 90.5 | 15 | 10.8 |
| 1972 | 972 | 24 | 818.5 | 4,235 | 216.6 | 93 | 104.6 | 29 | 26.0 |
| 1973 | 1,081 | 41 | 1,072.4 | 4,239 | (e)253.9 | 106 | 140.5 | 40 | 46.6 |
| 1974 | 1,184 | 47 | 1,372.4 | 4,261 | 225.4 | 115 | 181.0 | 34 | 58.2 |
| 1975 | 1,266 | 51 | 1,918.9 | 4,284 | 224.9 | 121 | 241.4 | 117 | 251.7 |
| 1976 | 1,342 | 59 | 2,536.4 | 4,293 | (e)265.5 | 129 | 325.3 | 192 | 513.9 |
| 1977 | 1,408 | 69 | 2,994.6 | 4,302 | 1,023.3 | 139 | 370.2 | 216 | 618.1 |
| 1978 | 1,469 | 78 | 3,532.3 | 4,304 | 1,038.1 | 150 | 439.5 | 266 | 794.1 |

(a) Previously child and student endowment. (b) At 30 June. (c) Wives' allowance commenced on 8 July 1943 and was replaced by wives' pension on 5 October 1972. (d) Includes expenditure on additional pension/benefit for children. (e) Five 12-weekly payments made during the year instead of the normal four. (f) Less than \$0.05 million.

SOCIAL—continued
PENSIONS, BENEFITS, ETC.—continued

| Year ended 30 June— | Hospital and nursing home benefits— amount paid | Medical benefits— amount paid | Pharma- ceutical benefits— amount paid | Total Australian Government expenditure on pensions, benefits, etc.(a) | Disability pensions paid to veterans and dependants | | Service pensions paid to veterans and dependants | |
|------------------------|---|--|--|---|---|----------------|--|----------------|
| | | | | | 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 |
| 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 | 35 | 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 |
| 1975 | 292.8 | 243.6 | 262.3 | 3,691.0 | 514 | 314.1 | 122 | 155.2 |
| 1976 | 254.1 | 86.1(c) | 283.8 | 4,658.4 | 499 | 340.1 | 142 | 218.9 |
| 1977 | 195.4 | 1.7(c) | 234.9 | 5,925.4 | 485 | 371.5 | 164 | 283.3 |
| 1978 | 188.5 | 0.2(c) | 256.0 | 6,794.8 | 463 | 419.0 | 189 | 372.1 |

(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. (c) Medical benefits applicable to the period after 1 October 1975 are no longer paid from the National Welfare Fund.

| EDUCATION | | | | | | POLICE AND PRISONS | | | | |
|-----------|------------|--------|----------------|--------|------------------|--------------------|---------|---------------------|----------|--|
| Year(a) | Schools | | | | | Police (c) | Prisons | Convicted prisoners | | |
| | Government | | Non-government | | Universities (b) | | | | | |
| | Schools | Pupils | Schools | Pupils | Number | | | | Students | |
| | '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 | 10.8 | 9.7 | 71 | 3.5 | |
| 1949 | 7.9 | 971 | 1.8 | 293 | 8 | 31.8 | 11.1 | 71 | 3.8 | |
| 1950 | 7.8 | 1,027 | 1.9 | 310 | 8 | 30.6 | 11.5 | 70 | 4.0 | |
| 1951 | 7.6 | 1,078 | 1.9 | 326 | 8 | 31.7 | 11.9 | 70 | 4.2 | |
| 1952 | 7.6 | 1,145 | 1.9 | 348 | 8 | 29.6 | 12.6 | 69 | 4.8 | |
| 1953 | 7.6 | 1,206 | 2.0 | 366 | 8 | 28.8 | 12.7 | 70 | 4.8 | |
| 1954 | 7.6 | 1,275 | 2.0 | 388 | 9 | 29.4 | 12.6 | 71 | 4.8 | |
| 1955 | 7.6 | 1,337 | 2.1 | 410 | 9 | 30.8 | 12.9 | 72 | 5.1 | |
| 1956 | 7.7 | 1,357 | 2.1 | 432 | 9 | 34.4 | 13.5 | 73 | 6.0 | |
| 1957 | 7.7 | 1,425 | 2.1 | 453 | 9 | 36.6 | 14.1 | 73 | 6.4 | |
| 1958 | 7.8 | 1,496 | 2.0 | 471 | 9 | 41.5 | 14.5 | 73 | 6.6 | |
| 1959 | 7.8 | 1,558 | 2.1 | 489 | 9 | 47.2 | 14.9 | 74 | 6.6 | |
| 1960 | 7.9 | 1,613 | 2.1 | 511 | 9 | 53.4 | 15.3 | 77 | 6.8 | |
| 1961 | 7.9 | 1,664 | 2.1 | 527 | 9 | 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 | 7.9 | 1,799 | 2.2 | 565 | 10 | 76.2 | 17.2 | 74 | 7.7 | |
| 1965 | 7.8 | 1,855 | 2.2 | 580 | 11 | 83.3 | 17.6 | 74 | 7.7 | |
| 1966 | 7.8 | 1,919 | 2.2 | 583 | 13 | 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 | 15 | 116.8 | 20.3 | 77 | 9.3 | |
| 1971 | 7.4 | 2,197 | 2.2 | 611 | 15 | 123.8 | 21.0 | 79 | 9.5 | |
| 1972 | 7.4 | 2,229 | 2.2 | 612 | 15 | 128.7 | 22.2 | 80 | 9.8 | |
| 1973 | 7.3 | 2,241 | 2.2 | 613 | 15 | 133.1 | 23.1 | 85 | 9.1 | |
| 1974 | 7.3 | 2,258 | 2.2 | 618 | 17 | 142.9 | 24.4 | 90 | 7.6 | |
| 1975 | 7.3 | 2,298 | 2.1 | 621 | 18 | 148.3 | 25.7 | n.a. | 7.8 | |
| 1976 | 7.3 | 2,335 | 2.1 | 625 | 18 | 154.0 | 26.3 | n.a. | 8.0 | |
| 1977 | 7.3 | 2,364 | 2.1 | 631 | 19 | 158.4 | 27.4 | n.a. | 8.1 | |
| 1978 | 7.4 | 2,371 | 2.1 | 639 | 19 | 160.0 | n.y.a. | n.a. | n.y.a. | |

(a) Years ended at varying dates for education statistics. Years ended 30 June for Police and Prisons. (b) A university is counted for the first time when it enrolls its first student and not from the date it was founded. (c) Excludes Commonwealth Police.

DIARY OF PRINCIPAL ECONOMIC EVENTS, JANUARY 1978 TO DECEMBER 1978

The diary records major announcements by Commonwealth and State governments which concern the Australian economy. Included are announcements on interest rates, taxation, capital raisings, tariff protection and industry assistance. Also included are significant announcements by the Australian Reserve Bank relating to Australian banking, monetary policy, etc, and by private and public enterprises relating to major investment plans, prices, etc. It also records national wage case decisions announced by the Arbitration Commission. In some instances closely related items have been recorded together against the first relevant date.

January 1978

- 1 The State Governments, excluding Western Australia, introduced new Payroll Tax provisions. Western Australia introduced the new provisions on 1 December 1977. The new provisions include raising the new payroll tax exemption levels to \$60,000 in all states except Queensland where the exemption level was raised to \$100,000. In addition, the level of wages at which the full payroll tax rates begin to apply would be levels of \$100,000 in Victoria, South Australia and Western Australia, \$120,000 in Queensland and \$150,000 in New South Wales. New provisions, based on the New South Wales approach, were introduced in the Territories on 1 July 1978.
The Commonwealth rebates for full-time apprenticeship training were increased. The increases include raising the living-away-from-home allowances from \$17.60 to \$19.80 a week for first year apprentices and from \$6.80 to \$7.60 a week for second year apprentices; increasing the off-the-job training rebate from \$5.50 a day to \$6 a day. The rebates are to be indexed annually.
- 6 The Commonwealth Government announced that it would defer any Australian shipments of uranium until the middle of February while members of unions involved in the uranium industry participated in a poll conducted by the Australian Council of Trade Unions (ACTU). On 10 February, a special meeting of unions affiliated with the ACTU decided to allow existing uranium contracts to be honoured but to ban any new uranium mining until they were satisfied that there were adequate safeguards. The Waterside Workers' Federation endorsed the ACTU decision on 7 March 1978 and lifted bans on handling uranium which had been imposed during 1977. On 5 March, the President of the ACTU stated that the ban on new mining included any new mines required to be opened to meet existing contracts and that Aboriginal demands must be met. On 1 June, the Commonwealth Government announced that the Minister for Trade and Resources would be responsible for determining the terms and conditions relating to the duration of contracts, the quantity of uranium to be sold under contract, the method of shipment, the price and the manner of payment and the use to which the uranium would be put by the purchaser.
- 12 The Commonwealth Government announced that increased tariff protection was to be given to the manufacturers in luggage and forklift truck industries for a period of 18 months. The increased tariffs on luggage were not to apply to imports from New Zealand and developing countries.
- 15 The Commonwealth Government announced the timetable for the abolition of Commonwealth estate and gift duty. Legislation would provide that no estate duty be payable on the estate of a person dying on or after 21 November 1977 in respect of property passing to the spouse, a child or a parent of the deceased person. No gift duty would be payable on property given on or after that date by a person to his or her spouse, child or parent. On 1 July 1979, Commonwealth estate and gift duty would be completely abolished.
- 20 A special cash loan of \$150 million to finance defence expenditure was subscribed by the Reserve Bank. The securities were issued at 108.1 per cent with interest of 10.2 per cent for November 1994 maturity and 109.20 per cent with interest of 10.2 per cent for October 1996 maturity.

February 1978

- 1 The new personal income tax scheme, under which the general rebate of \$676 was replaced by a zero tax rate on the first \$3,750 of taxable income, came into effect.
- 2 The Commonwealth Government announced that \$26.5 million would be provided for the eradication of the diseases bovine brucellosis and tuberculosis. \$20m was made available for the vaccination and testing campaign and \$6.5 million for compensation to producers whose cattle are compulsorily destroyed.
The Commonwealth Government announced that savings banks and trading banks were to make a general reduction of 0.5 percentage points in interest rates charged on new and existing housing loans, and similar reductions in rates paid on some deposit accounts.
- 3 The Commonwealth Government deferred, for a further twelve months, the repayment of Commonwealth loans made through State Governments to co-operative fruit canneries in 1976.
- 8 The Commonwealth Government announced that it would continue the current temporary assistance to the brandy industry and re-examine assistance to this industry in light of the outcome of the 1978 grape harvesting season.
- 10 Australian Savings Bonds Series 11 was introduced with an interest rate of 9.0 per cent; 0.25 percentage points lower than the rate offered on the previous series. Net raisings by Australian Savings Bonds Series 10 were \$28 million.
The Commonwealth Government announced new maximum rates for semi-government loans involving reductions of 0.6 percentage points and 0.7 percentage points on previous interest rates.
- 12 The Commonwealth Government announced that it would contribute \$200 million to a five year national water resources program.
- 13 The Commonwealth Government announced that it had completed negotiations to borrow ¥50 billion (\$A183 million) through a public bond issue in Tokyo. The twelve year loan was issued at 99.30 per cent to yield 6.685 per cent to maturity.
- 15 A Commonwealth Government conversion offer opened to holders of \$316.4 million worth of securities maturing on 15 February 1978, with the rates offered being 0.7 to 1.0 percentage points lower than the previous interest rates. The offer closed on 28 February with a net conversion of \$312.8 million.
- 21 The New South Wales Government announced policy guidelines on foreign equity controls for mineral ventures. Under this policy the minimum Australian equity in new mining ventures is set at 51 per cent, with the government reserving the right to vary previously determined conditions if there is a significant change in the ownership of a company operating an existing venture.
The Commonwealth Government signed a trade agreement with Brazil. On 23 February, Broken Hill Pty Ltd (BHP) announced that it had obtained a contract for the supply of 4.5 million tonnes of coking coal to Brazil's main steel producer. The contract is worth approximately \$250 million.
- 28 The Commonwealth Government announced that it had used some of its US dollar reserves to purchase 100 million of Special Drawing Rights (SDR) with the International Monetary Fund (IMF), in order to bring its holdings of SDR's to the level required under provisions in the IMF's Articles of Agreement.
The Arbitration Commission granted a partial wage indexation rise in all Federal award wages of 1.5 per cent for wages up to \$170 per week and a flat \$2.60 rise for wages above this level. (The Consumer Price Index for the December quarter increased by 2.3 per cent.) The increase became effective from the first pay period on or after 28 February 1978.

March 1978

- 1 The Commonwealth Government announced the commencement of operation of the Industrial Relations Bureau.

- 2 The Commonwealth Government announced that it extended the underwriting arrangements for the dairy industry during the 1977-78 season including the application of arrangements to whole milk powder export contracts at a base rate of \$700 per tonne and a maximum rate of \$715 per tonne. These rates were to apply from 1 January to 30 June 1978. On 29 March, the maximum rate was increased to \$760 per tonne f.o.b. bulk basis for approved export contracts.
- 3 The Commonwealth Government announced that the 20 per cent investment allowance had been extended for a further two years to June 1985. In the case of plant ordered but not operational by June 1985, one year would be allowed for the equipment to become operational.
- 9 The New South Wales Government announced that Yorkstar Motors Pty Ltd would supply it with 550 Mercedes-Benz buses, worth \$40 million, over a period of two years.
- 14 The New South Wales postal drivers began a strike over the Cooma-Bombala mail run. A total of 4,000 postal workers were progressively stood down as a result of the strike. They were reinstated on 29 March 1978 when the 600 drivers returned to work.
- 16 The Commonwealth Government announced that it would provide an assistance package for the local heavy commercial vehicle industry (vehicles over 2.72 tonnes gross vehicle mass) including payment of bounty assistance for the production of at least some components, the setting of import duties at 25 per cent on trailers and special purpose vehicles up to 10.16 tonnes GVM.
The Australian Wool Corporation announced that it had completed negotiations to borrow a total of \$100 million from the Chase Manhattan Bank and the Commonwealth Trading Bank to finance wool stocks held overseas.
- 17 The Commonwealth Government announced that it had extended the operation of the *Book Bounty Act* (1969) until 31 December 1979.
- 20 The Commonwealth Government announced that the Reserve Bank had told trading banks that during the tax rundown period they could lend in response to genuine demands beyond the current weekly indicatory level.
- 21 The Western Australian Government announced that it would advance \$15 million to the State's building societies to offset the seasonal fall in deposits in the last quarter of the financial year.
- 22 The Commonwealth Government announced that it had completed negotiations for a \$US350 million (\$A302 million) Eurodollar note issue. The notes were issued at par, carry an annual interest rate of 8.0 per cent and mature on 1 April 1982.
- 31 Consequent upon Australia's purchase in July 1976 of 332.5 million of SDR's under the IMF's Compensatory Financing Facility, Australia repurchased the Australian currency equivalent of 85.6 million of SDR's from the IMF. This was required by the provisions for early repurchase under the Fund's existing Articles of Agreement. Foreign currencies and SDR's were used to repurchase the SDR's involved in the Compensatory Financing Facility.

April 1978

- 2 The Commonwealth Government announced that a Small Business Advisory Council had been established to provide a link between small businesses and the Commonwealth Government. On 19 April, the Commonwealth Government announced a number of new initiatives for the development of small businesses. These included the formation of a small business training committee and the conduct of a survey of about 10,000 small businesses throughout Australia.
- 3 The Reserve Bank reduced the Statutory Reserve Deposit (SRD) ratio from 6.5 per cent to 5.5 per cent.
- 10 The Esso-BHP consortium announced that it was planning the development of the West Kingfish and Cobia oil fields in the Bass Strait, involving investment of about \$1,000 million during the next decade.
- 13 The Commonwealth Government announced that a number of measures would be introduced to boost Australian exports, including two export incentive schemes estimated to cost about \$100 million in 1978-79, continuation of the present export market development grant in an amended form and the expansion of the Trade Commissioner Service.

- The Commonwealth Government announced that its proposed additional annual appropriations for 1977-78, totalling \$365 million, comprised \$283 million for administrative and ordinary annual services and \$82 million for capital works and services.
- 20 The Commonwealth Government announced that it had completed arrangements to raise SF 50 million (\$A23.2 million) in Switzerland with the interest rate being 3.7 per cent for a term of four years.
- Comalco Ltd announced that the company would proceed with the construction of a new aluminium smelting complex at Gladstone, Queensland, at a cost of more than \$400 million.
- Woodside Petroleum Ltd announced that it expected to be involved in exploration programs worth about \$165 million in the next three years with Woodside meeting 50 per cent of total expenditure from internal sources of funds.
- 21 The Commonwealth Government announced that tariff quota arrangements would be continued on a number of items in the apparel, textile and footwear industries and extended to a number of new items. Under the arrangements, special New Zealand Australia Free Trade Agreement quotas apply to New Zealand imports within established global quota ceilings. The arrangements for apparel and textile products apply till 31 August 1979 and those for footwear products till 30 June 1979.

May 1978

- 3 The Reserve Bank reduced the SRD ratio from 5.5 per cent to 4.0 per cent.
- 15 A Commonwealth Government conversion offer opened to holders of \$530 million of Commonwealth securities maturing on 15 May 1978. The offer closed on 31 May 1978. The long term bond rate was trimmed from 9.2 per cent, set in February 1978, to 9.1 per cent. Dates to maturity of the securities offered ranged from 2 years 4 months to 18 years 5 months.
- 17 The Commonwealth Government announced details of a Tobacco Stabilisation Plan to operate for the five years 1979 to 1983 with a marketing quota for procured leaf in 1979 of 15.3 million kg. An average reserve price is to be established each year, based on the current price of \$3.62 per kg and movements in particular costs.
- 24 The Commonwealth Government announced that it would increase the bounty assistance for the metal working machine tools industry from \$2 million to \$8 million annually.
- 25 The Commonwealth Government announced that negotiations had been completed for a \$US250 million (\$A222 million) public bond issue on the New York capital market with \$175 million being accounted for by 8.45 per cent five year bonds priced at par and \$75 million by 9.125 per cent fifteen year bonds priced at 99.625 per cent.
- 30 The Commonwealth Government announced that negotiations had been completed for a DFL 300 million (\$A117 million) syndicated bank borrowing by the Government in the Netherlands carrying an interest rate of 7.625 per cent and being for a term of 10 years.
- The Commonwealth Government announced that a package allocation of \$48.7 million would be made for improvements to migrant services over the next three years covering English language teaching, communication, etc.

June 1978

- 6 The Arbitration Commission granted the full wage indexation increase, in all Federal award wages, of 1.3 per cent based on the rise in the consumer price index in the March quarter 1978. The increase would become effective from the first pay period beginning on or after 7 June 1978.
- 7 The Commonwealth Government announced that the target gross intake of immigrants for the year 1978-79 would be 90,000 compared with the target of 70,000 for each of the previous two years.
- 8 The Commonwealth Government announced that it would introduce an additional 5 per cent tax on the taxable income of non-resident companies. The tax would apply to that part of the tax year falling after 4 November 1977 and to subsequent years.

The Commonwealth Government announced several changes to the foreign investment guidelines introduced in April 1976. New guidelines include a minimum of 25 per cent Australian equity with an agreement to increase this to 51 per cent, subject to acquiescence by the company, major shareholder interests and the Government. This policy excludes uranium projects and is subject to the requirements of the Foreign Takeovers Act. The Government also announced a number of measures to streamline exchange control procedures, such as lifting the embargo on non residents' deposits and purchase of fixed interest securities with maturities of less than six months.

- 12 In Queensland, 2,300 coal miners commenced a strike over a log of wage claims including demands for a productivity bonus. The miners voted to return to work on 27 July 1978.
- 15 The Western Australian Government announced that two contracts, worth \$25.5 million in total, had been let for the upgrading of a major section of the Transcontinental Railway.
- 20 Telecom Australia announced plans to spend approximately \$100 million over the next 12 years to upgrade country telephone services in Queensland.
- 28 Australian Newsprint Mills Holdings Ltd announced that it had decided to proceed with the development of a \$155 million mainland newsprint mill at Albury, New South Wales.
BHP Ltd announced plans to spend \$60 million on renovating its newest blast furnace at the Port Kembla steel works.
- 29 The New South Wales Government announced that construction of a coal loader for Port Kembla, estimated to cost \$60 million, would begin before the end of 1978.
- 30 The Commonwealth Government announced that it would raise the minimum floor price for wool to a market indicator level of 298 cents per kg clean for the 1978-79 season (the 1977-78 season's minimum floor price was 284 cents per kg clean) and also continue the floor price scheme into 1979-80 at not less than 298 cents per kg clean.

The Commonwealth Government announced details of new guidelines for the Loan Council under which the Council could consider proposals for financing infra-structure that involved special additions to normal borrowing programs or overseas borrowing by semi-government authorities where finance could not reasonably be accommodated within resources normally available to the government and the authority. On 6 November the Loan Council approvals to borrow overseas funds in line with these guidelines totalled \$1,767 million.

July 1978

- 1 The Commonwealth Government introduced a new crude oil import parity price that would apply from 1 July to 31 December 1978. In accordance with the crude oil policy announced in August 1977, producers in 1978-79 would receive import parity for the first six million barrels of oil produced from each field or 20 percent of production from each field, whichever is greater.
The Commonwealth Government introduced changes to the personal income tax schedules for 1978-79 (resulting from tax indexation) with the minimum taxable income rising from \$3,750 to \$3,893.
The Commonwealth Government introduced the 1978-79 marketing arrangements for the dairy industry by applying a system of selective underwriting for prescribed dairy products. On 25 August, the government announced that underwriting quotas on skim milk powder and casein produced directly from the manufacture of butter in 1978-79 would be removed and that the total manufacture of these products would be underwritten at \$441 and \$1,096 per tonne respectively.
- 3 The Commonwealth Government announced that the Apple and Pear Stabilisation Scheme would be extended to cover the 1979 and 1980 seasons.
- 6 The Commonwealth Government announced that imports of sheet steel would be restricted to 162,500 tonnes during 1978-79, 37 per cent less than in the previous year.
The Commonwealth Government announced that duties ranging from 25 per cent to 30 per cent would be imposed on imported whitegoods with higher temporary protection on most goods for up to 6 years.

- 17 The Commonwealth Government announced several changes in assistance for the ball and roller bearings industry including a long-term rate of duty of 25 per cent for precision-ground steel ball bearings and parts (previously 28 per cent), and tapered roller bearings and parts (previously 19 per cent) and a long term rate of duty of 15 per cent for all other goods under reference.
- 27 The Commonwealth Government announced that negotiations had been completed in Switzerland for a SF 400 million (\$A195 million) syndicated bank loan with Credit Suisse. The loan matures in eight years and carries an interest rate of 4.0 per cent.
- 30 The Commonwealth Government announced that the 1978 global quota for imports of passenger motor vehicles would be reduced from 94,000 units to 88,000 units in line with the Government's policy of preserving 80 per cent of the market for local producers.

August 1978

- 1 Shell Australia Ltd announced plans to spend more than \$35 million on upgrading part of its oil refinery at Geelong, Victoria.
- 8 Australian Savings Bonds Series 12 was introduced with an interest rate of 9.0 per cent; the same rate as offered by the previous series. Net raisings by Australian Savings Bonds Series 11 were \$91.3 million.
The yield to maturity on 26 week Treasury Notes was reduced by 0.044 percentage points to 8.705 per cent whilst the yield on 13 week Treasury Notes remained constant at 8.353 per cent.
- 9 Brisbane brewery workers commenced a campaign of rolling strikes over wage claims. The workers began a full-time stoppage on 23 October and returned to work on 29 November.
- 14 A Commonwealth Government cash loan, in conjunction with a conversion offer to holders of \$441 million of securities maturing on 15 August 1978, opened with the yields being 0.05 to 0.1 percentage points lower than previous rates. The cash loan closed on 21 August with net raisings of \$780 million. The conversion offer closed on 31 August with holders of securities converting \$419 million.
- 15 The Commonwealth Government Budget was presented with total budgeted outlays increasing by 7.7 per cent to \$28,870 million and total receipts increasing by 11 per cent to \$26,057 million in 1978-79, leaving a deficit of \$2,813 million—this being \$521 million less than the deficit for 1977-78; the domestic deficit decreasing by \$782 million to \$1,669 million in 1978-79. The main features of the budget included a temporary surcharge of 1.5 per cent on personal income tax during 1978-79; a change in the pricing policy for all Australian-produced crude oil under which crude oil would be priced to refineries at import parity levels, with an increase in the crude oil levy to take up the difference between that price and the average price received by crude oil producers under the existing pricing formula; the abolition of both the health insurance levy and compulsory health insurance from 1 November 1978 (from this date all eligible residents will be entitled to a government funded refund of 40 per cent of the schedule medical fee or the schedule fee less \$20 per service whichever is greater).
- 17 The Commonwealth Government introduced a new assistance package for the heavy commercial vehicle industry, including a 20 per cent bounty on locally produced axles, gear boxes, etc and a reduction in duties on completely-built-up heavy commercial vehicles from 25 per cent to 22.5 per cent. The package will operate until December 1984.
- 25 The Commonwealth Government announced that negotiations had been completed for DFL300 million (\$A120 million) direct bank borrowing in the Netherlands with Algemene Bank Nederland NV for a term of fifteen years with an interest rate of 8.25 per cent.
- 28 The Commonwealth Government announced that it would continue to apply the tariff quota restrictions on imported brandy, introduced in September 1977, until the Industries Assistance Commission completes its investigation of the industry.
- 29 The Commonwealth Government announced that it had amended the banking (savings bank) regulations to reduce from 45 per cent to 40 per cent the proportion of depositors' balances required to be held by savings banks in prescribed liquid assets and public sector securities.

September 1978

- 1 The Commonwealth Government introduced additional import quota allocations for textile and apparel items for the period to 28 February 1979.
- 5 The New South Wales Government Budget for 1978-79 was presented with total outlays increasing by 6.5 per cent to \$3,510 million and total receipts increasing by 6.4 per cent to \$3,508 million, leaving a deficit of \$2 million. This compares to a deficit of \$0.7 million in 1977-78.
- 6 The Commonwealth Government announced that it had completed negotiations in West Germany with the Deutsche Bank for a Deutsche Mark public bond issue of DM250 million (\$A110 million) and a direct bank loan of DM50 million (\$A22 million). The public bond issue, carrying a coupon rate of 6.0 per cent (issued at par), will mature in ten years whilst the direct bank loan will mature in 1986.
- 12 The South Australian Government Budget for 1978-79 was presented with total outlays increasing by 6.6 per cent to \$1,270.6 million and total receipts increasing by 8.9 per cent to \$1,270.6 million, leaving a balanced budget. This compares to a deficit of \$24.9 million in 1977-78.
- 12 The Tasmanian Government Budget for 1978-79 was presented with total outlays increasing by 8.4 per cent to \$488.4 million and total receipts increasing by 9.5 per cent to \$486.4 million, leaving a deficit of \$2 million. This compares to a deficit of \$6.4 million in 1977-78.
The Reserve Bank announced that the major trading banks would replenish their Term Loan Funds and Farm Development Loan Funds by \$90 million and \$45 million respectively. The replenishment would come in part from a reduction in the SRD ratio from 4.0 per cent to 3.5 per cent, effective 13 September 1978, and in part by a transfer from other assets held by banks.
- 13 The Victorian Government Budget for 1978-79 was presented with total outlays increasing by 9.2 per cent to \$3,121.9 million and total receipts increasing by 9 per cent to \$3,116.3 million, leaving a deficit of \$5.6 million. This compares to a surplus of \$0.4 million in 1977-78.
- 19 The Western Australian Government Budget for 1978-79 was presented with both total outlays and receipts increasing by 10.7 per cent to \$1,451.1 million, leaving, as with the previous year, a balanced budget.
- 21 The Queensland Government Budget for 1978-79 was presented with total outlays increasing by 5.7 per cent to \$1,920.4 million and total receipts increasing by 5.73 per cent to \$1,920.0 million, leaving a deficit of \$0.4 million. This compares to a deficit of \$0.9 million in 1977-78.
- 26 The Primary Industry Bank of Australia, with a refinancing role and investment terms of eight to thirty years, commenced operation. On 15 October, the Commonwealth Government announced that an amount of \$30 million would be made available from the Income Equalisation Deposits Trust Account on an initial interest rate of 5.0 per cent per annum. Loans made by banks and refinanced by the Primary Industry Bank will carry maximum interest rates to borrowers of 10.5 per cent per annum for loans of less than \$100,000 and 12.5 per cent for loans of \$100,000 or more.
BHP announced that the Bass Strait oil partners Esso-BHP would proceed with development of the main Cobia oilfields at a total cost of \$200 million.
- 27 The Commonwealth Government announced that the present tariff rate of 65 per cent on imported orange juice would continue to apply to the end of February 1979.
- 29 The Commonwealth Government introduced tariff quotas on a range of hosiery, knitted underwear and sleepwear.

October 1978

- 4 The Commonwealth Government announced that the general duties on imports of certain carpets and carpet tiles would be increased from 25 per cent to 30 per cent.
- 17 The Commonwealth Government announced that it would tentatively increase the quota on imported cars from 88,000 units in 1978 to 90,000 units in 1979.

The Commonwealth Government announced that it had set the duty payable on most products of the printing industry at 25 per cent and would phase down the present book bounty from one third of the production cost to 25 per cent by the end of 1986.

- 18 The Commonwealth Government announced that negotiations had been completed for a Y40 billion (\$A187 million) government bank loan in Japan carrying an interest rate of 7.1 per cent and to be repaid in nine semi-annual instalments commencing in 1984 (giving an average life of 8 years).

The Commonwealth Government announced several modifications to the price monitoring capacity of the Prices Justification Tribunal (PJT) including the removal of the present requirement for companies with an annual turnover in excess of \$30 million to notify the PJT of price changes; only companies which have been the subject of a PJT inquiry within the preceding twelve months will be required to notify the PJT of price changes. The Minister's approval will be required before the Tribunal can hold a public inquiry.

The Commonwealth Government announced modifications to the Local Content Plan for Motor Vehicles including a provision whereby from 1 July 1978 to 31 December 1979 entrants would be able to adjust local content calculations by allowing a twelve month lag in the application of exchange rates. Also reversion control procedures would be abolished from 1 January 1979, along with the associated excess content concession.

- 23 The Commonwealth Government announced that negotiations had been completed for a Y40 billion (approx. \$A187 million) institutional loan in Japan carrying an interest rate of 7.6 per cent to be repaid in eleven semi-annual instalments commencing in 1993 (providing an average life of 17.5 years).
- 24 The Commonwealth Government announced the introduction of an export policy covering raw materials. Importers intending to negotiate new or existing contracts will be required to obtain government approval before making any offers, responding to any offers or entering into any commitments. On 26 October, it was announced that spot sales would be excluded from the new policy.
- 31 The Commonwealth Government announced that the new maximum interest rates for borrowing by local and semi-government authorities would be reduced by 0.2 percentage points.

November 1978

- 1 Australian Savings Bonds Series 13 was introduced with an interest rate of 8.75 per cent; 0.25 percentage points lower than that on Series 12. Net raising by Australian Savings Bonds Series 12 were approximately \$27 million.
The yield to maturity on 26 week Treasury Notes was reduced by 0.087 percentage points to 8.618 per cent whilst the yield on 13 week Treasury Notes remained constant at 8.353 per cent.
- 2 The Commonwealth Government announced that it has offered China a \$50 million line of credit through the Export Finance and Insurance Corporation to finance the purchase of Australian technology and equipment.
The Commonwealth Government announced that it had approved grants of \$5.7 million to encourage coal research, development and demonstration projects.
- 7 Telecom Australia announced that it had let initial contracts to build a new switching centre at North Sydney in New South Wales, costing more than \$72 million.
- 8 The major trading banks reduced by 0.5 percentage points the interest rates applying to new term and farm development loans of less than \$100,000 and reduced the maximum interest rate on new personal instalment loans from 7.75 per cent (flat) to 7.50 per cent (flat). On 1 December the banks reduced the interest rates on overdrafts drawn under limits of less than \$100,000 by 0.5 percentage points to 10 per cent.
- 15 The Commonwealth Government introduced a conversion offer to holders of \$626 million of securities with the yields offered being 0.15 to 0.20 percentage points below those offered on comparable stocks issued in the August cash and conversion loan. The offer closed on 30 November with a net conversion of \$579 million.

- 17 The Reserve Bank announced that savings banks would reduce interest rates on most new and existing home loans by 0.5 percentage points. However, rates of 9.5 per cent or less on some existing savings bank loans would not be reduced.
- 22 The Commonwealth Government announced that negotiations had been completed for a Y50 billion (\$A227 million) institutional loan in Japan involving two tranches. The first tranche for Y30 billion (\$A136 million) is in five year bonds repayable at maturity and carrying an interest rate of 5.6 per cent (issued at 99.75 per cent) whilst the second tranche for Y20 billion (\$A91 million) is in 10 year bonds carrying an interest rate of 6.5 per cent with repayments commencing in 1984, giving an average term to maturity of nine years.
The Commonwealth Government announced that it had approved the building of a new and permanent Parliament House in Canberra estimated to cost \$151 million over the next ten years.
- 29 The New South Wales Government announced that it would introduce a \$17 million scheme to help the employment of young people. The scheme includes stepping up its involvement with the Special Youth Employment Training Program by employing 1,500 school leavers, 500 more than last year.

December 1978

- 1 The Commonwealth Government increased the home consumption price for Australian standard white wheat by \$5.45 to \$116.61 per tonne.
- 5 The Export Finance and Insurance Corporation announced that it was prepared to provide approximately \$60 million to a number of Australian companies competing internationally for a range of contracts with the Indonesian Government.
- 12 The Arbitration Commission granted the full wage indexation increase of 4.0 per cent to all Federal award wages effective from the first pay period beginning on or after 12 December 1978. This was the first of the new six monthly indexation decisions with this increase relating to the movement in the Consumer Price Index for the half-year to September 1978.
- 14 The Commonwealth Government announced that it would introduce several measures concerned with youth employment including the commencement of a new voluntary Youth Community Service Scheme, increasing the budget allocation of the Community Youth Support Scheme by \$3.26 million to \$12.26 million and creating a Youth Advisory Group.
- 15 The Commonwealth Government announced the import duty rates to apply to timber, timber products, plywood and veneer. Rates include 15 per cent on square dressed timber, 22.5 per cent on other dressed timber and mouldings and 15 per cent on veneer sheets.
- 18 The Organisation of Petroleum Exporting Countries announced that world oil prices would increase by 15 per cent in 1979. The current price per barrel would rise from \$11.21 to \$11.77 on 1 January 1979 with the price progressively increasing to \$12.84 by 1 October 1979.
- 19 The Commonwealth Government announced that tariffs on most imported jewellery would be reduced from the present rate of 34 per cent to 25 per cent over a six year period.
- 20 The Electricity Commission of New South Wales announced that it had ordered two coal-burning boilers from Japan, worth approximately \$135 million, for the Eraring power project.

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**, 675Decimal, **52**, 671Pre-decimal, **52**, 671pre-federation, **51**, 812Commercial and Industrial Bureau of the Board of Trade, **17**, 1037

Commonwealth

Bank, **11**, 815Savings Bank, **10**, 789Compulsory military training, **12**, 1001Constitution Acts (conspectus), **13**, 928Contingents, Australian-New Zealand and Sudan Campaigns, South Africa, China and 1914-18 Wars, **12**, 1019Control of prices during and since the 1939-45 War, **37**, 458Coolgardie water scheme, **6**, 576Co-operation of producers and of consumers in Australia, **17**, 581Copper-mining, history of, **5**, 498Cost of living inquiry, 1910-11, **5**, 1167Country Roads Board, Victoria, **15**, 526Currency, decimal (*see* Decimal currency)Currency, international, **13**, 1146Customs Tariff, 1914, **11**, 603**Daylight** saving, **36**, 1119Decimal coinage, **15**, 719, **52**, 671Decimal currency, **51**, 809; **52**, 671Decimal Currency Committee, 1959, report, summary of conclusions and recommendations, **49**, 835Defence legislation, special (1914-18 War), **15**, 930Designs, **12**, 1174Development of telecommunications in Australia, **59**, 378Diphtheria, **16**, 1031Disease, transmission by mosquitoes, **22**, 506Disposals Commission, Commonwealth, **39**, 1289Droughts in Australia, **45**, 51; **54**, 995**Education**, primary—early history, **2**, 880Electricity generation (maps), **39**, 1171Electric power generation and distribution, **39**, 1149*Enemy Contracts Annulment Act* 1915 (text), **8**, 1095Enemy patents and trade marks, **13**, 1104Eucalypts, Australian, chemical products of, **10**, 92Eucalyptus timbers, Australian, **10**, 85

Exploration of Australia

account, **2**, 20maps, **8**, 35**Factories** and Shops, Acts and Regulations (conspectus), **16**, 540Fauna of Australia, **2**, 111

Federal

Capital City—map and designs for layout (*see also* 'Canberra' and 'Seat of Government'), **5**, 1139Capital Territory—structure and scenery of (*see also* 'Canberra' and 'Seat of Government'), **22**, 627movement in Australia, **1**, 17Ferries in Australia, **25**, 199

Financial Agreement between Commonwealth and States (full text)

as affected by further agreements to 3 July 1934, **31**, 21as affected by further agreements to 15 November 1944, **37**, 685summary of main provisions, **50**, 952Financial crisis (1929), **30**, 983Fisheries, Commonwealth Department of, **14**, 333Flora 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

* Also—1955, No. 43, page 912; 1948, No. 39, page 908.

- 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
- 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, 212**
- Rent control (1939-45 War), 37, 1197**
- Research in Australia, outline of, 52, 645; 53, 650**
- Returned Soldiers' Settlement Acts, 1914-18 War (conspectus), 13, 1018**
- Rivers of Australia, 2, 67**
- Roads, history of, in Australia, 60, 385**
- School children in Australia and other countries (comparison), 5, 1132**
- Science and technology in Australia, 49, 781**
- Scientific societies, 22, 454**
- Seat of Government, 4, 1134**
- Seismology 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, 179**
- Sheep: distribution, March 1963* (map), 50, 1049**
- Shipping and shipbuilding activities, Commonwealth Government, 22, 256**
- Snowy Mountains Scheme, 42, 1103**
- Soil conservation, 49, 1003**
- Soils of Australia, 52, 873**
- Softwood plantations, 59, 880**

* *Also*—1955, No. 43, page 911; 1948, No. 39, page 907; 1938-39, No. 34, page 452; 1924-25, No. 22, page 659.

- Standard times in Australia, **39**, 65
 Standardisation of railway gauges (*see also* Railways, non-conformity of gauge, and Unification of gauge (railways)), **53**, 440; **56**, 353
 Statistical Conference, 1906, **1**, 12
 Statisticians, Third Conference of British Commonwealth, 1951, **39**, 1320
 Statistics, development of State, **1**, 1
 Sugar bounties, **6**, 394
 Suicide 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**, 504
 Sylvicultural nurseries and plantations, **6**, 451
Taxation Acts (conspectus), **14**, 722
 Technical Training Scheme, war-time, Commonwealth, **39**, 240
 Telecommunications in Australia, development of, **59**, 378
 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**, 362

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 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 v-x).

Aboriginal

- affairs, responsibility for, 179
- community services, 645
- Conference, National, 180
- education, 655
- Education Committee, National 231
- education, Commonwealth Government grants for, 254
- land and land rights, 645
- legal status, 645
- policy, 644, 645
- population, 83
- school children, 222
- Secondary Grants Scheme, The, 227
- society, traditional, 1
- studies, 622
- Study Grants Scheme, 227
- welfare, 179
- women, fertility of, 83

Aboriginals, 75

- special programs for, 646
- and Torres Strait Islanders, 83
- housing for, 418

Accidents

- mining, 363
- road traffic, 455, 456

Accommodation

- for the aged, 175
- tourist, 637

Acts of the Parliament

- Commonwealth, 51
- States, 51

Administration of minerals, 353

Administrative Appeals Tribunal, 213

Administrative law, recent developments in, 213

Administrators, 42

Adult Migrant Education Program, 226

Adult Secondary Education Assistance Scheme, The, 227

Advanced Education

- Australian Council on Awards In, 228
- Colleges of (*see* Colleges of Advanced Education)
- Council, 621

Advances to home purchasers, 420-424

Aerial agriculture, 311

Aerodromes, 461

Age at death, 93

Age distribution of the population, 82

Age pensions, 166

- associated payments, 164
- eligibility criteria, 164
- income test, 165, 166
- rates of, 165

Age pensioners

- age of, 166

Age

- pyramid of population, 82
- specific birth rates, 89
- specific death rates, 92

Aged and disabled persons homes, grants for, 174, 175

Aged, homes for the, 174

Aged, housing for the, 417, 418

Aged persons homes, 174

Aged Persons Hostels Act 1972, 174

Agencies, welfare, 178

Agents-General for the States, 73

Agricultural

- Bank of Tasmania, 422, 423
- Census, 257, 258, 268
- Commodities produced, gross value of, 262, 263, 264
- Commodities produced, indexes of, 262
- Economics, Bureau of, 622
- enterprises, 258
 - economic performance, 260
 - estimated value of operations, 259
 - financial statistics, 260
 - legal status, 259
- establishments, 258, 260
 - nature of operation, 260
- Finance Survey, 258
- industries, regulation of, 313
- machinery on rural holdings, 312
- research, 613

Agriculture

- aerial, 311
- statistical collections of, 258

Aid

- bilateral, 68, 71
- community, 178
- legal, 212

Air services

- commuter, 459
- internal, 680
- interstate, 459
- intrastate, 459

Air transport, 458-461

- accidents involving casualties, 461
- control of, 459
- international organisations, 460
- registrations, licences, etc., 461

Aircraft

- of the Royal Australia Air Force, 60
- Stores, 598

Airline

- passengers, international, 460
- services, domestic, 459

Airways facilities, 461

Alienation and occupation of crown lands, 267

All manufacturing industry index, 115

Allowances

- family, 170
- maternity, 170

Alumina industry, developments in, 375

Animals, live, exports of, 299

Animal quarantine, 194

Annual leave, 155

Ansett Airlines of Australia, 459

Antarctic

- Expedition, Australasian, 4
- Research Expeditions, Australian, 620
- Territory, Australian, 7, 67, 667
- Treaty, 620

Anti-dumping duties, 573

ANZUS, 53, 66

- Treaty, 65

Apparent consumption of

- foodstuffs, 265, 266
- fruit, 285, 288
- vegetables, 282, 283

- Appeals to the High Court, 210
- Appeals to the Privy Council, 210
- Appeals Tribunal, 172
- Apple and Pear Corporation, the Australian, 286
- Apple and pear
 - export charge, 539
 - levy, 539
- Apprenticeship assistance scheme, 137
- Archives, 633, 634
 - of State government, 634
- Area of rural holdings, 268
- Army, Australian (*see* Australian Army)
- Arrivals and departures, from/to overseas, 99, 100
- Art galleries, 629
- Artificial limb and appliance service, 188
- Arts
 - Council of Australia, The, 625
 - festivals, 627
 - financial assistance to the, 625
- ASEAN, 65, 70
 - overseas trade with, 592, 593
- Ashmore and Cartier Islands, 6
- Asian Development Bank, 65, 69, 71, 605
- Assessable income for taxation
 - allowable deductions, 524
 - individuals, 524
- Assistance
 - for Isolated Children Scheme, 227
 - to less developed countries, 68-72, 623
 - to ship building, 433
- Astronomy, 623
- Atomic Energy, 355, 359, 619
- Australasian Antarctic Expedition, 4
- Australia
 - annexation of, 3
 - composition of, 6
 - Council, The, 625, 626
 - government funds allocated to, 626
 - discovery by
 - Captain Cook, 2
 - the English, 2
 - the Dutch, 2
 - the Portuguese, 1
 - the Spanish, 2
 - geology of, 353
 - pre-history, 1
- Australian
 - Academy of Science, 615
 - Academy of Technological Sciences, 615
 - agricultural industries, regulation of, 313
 - Alps, 17
 - and New Zealand Association for the Advancement of Science, 615
 - Antarctic Territory, 7, 667
 - Apple and Pear Corporation, 286
 - Archives, 633, 634
 - Army
 - development of, 58
 - higher organisation of, 58
 - training, 59
 - Atomic Energy Commission, 355, 619
 - mineral industry research, 359
 - Broadcasting Commission, 471
 - Broadcasting Tribunal, 471
 - Capital Territory, 4
 - adult migrant education, 662
 - agricultural, pastoral and secondary industry, 660
 - apprenticeship training, 662
 - Commissioner for Housing Loan, 423, 424
 - Australian—*continued*
 - Capital Territory—*continued*
 - continuing education, 662
 - education, 227
 - educational institutions, 661, 662
 - Electricity Authority, 407
 - electricity supply, 407, 408
 - federal authority outlay on education, 250
 - finance, 663, 664
 - forestry, 659
 - general description, 657
 - housing, 658
 - housing loans, 423, 424
 - housing schemes, 419
 - irrigation, 352
 - land, 659
 - law, order and public safety, 662, 663
 - municipal services, 658
 - production, 659, 660
 - public health legislation, recent developments, 203
 - sale of government houses, 423, 424
 - schools, 661
 - tourism, 663
 - transfer to the Commonwealth, 6
 - transport and communication, 660
 - water conservation, 352
 - Conciliation and Arbitration Commission, 140
 - Council for Educational Research, 228
 - Council of Salaried and Professional Associations, 162
 - Council of Trade Unions, 162
 - Council on Awards in Advanced Education, 228
 - Dental Standards Laboratory, 198
 - Drug Evaluation Committee, 199
 - Education Council, 228
 - Elizabethan Theatre Trust, 625
 - Environment Council, 617
 - Export Commodity Classification, 583
 - Film Commission, 628
 - Forestry Council, 319
 - Government assistance to forest operations, 317
 - Heritage Commission, 626
 - Import Commodity Classification, 583
 - Industrial Court, 211
 - Industrial Research and Development Incentives Board, 616
 - Industry Development Corporation, 498
 - Institute of Aboriginal Studies, 622
 - Institute of Criminology, 622
 - Institute of Marine Science, 620
 - Law Reform Commission, 213
 - Legal Aid Office
 - criteria for provisions of aid, 212
 - functions of, 212
 - locations of offices of, 212
 - Manufacturing Council, 613
 - Maritime College, 231
 - Marriage Act* 1961-1973, 95
 - Meat and Livestock Corporation, 300
 - functions of, 300
 - Meat Board, 300
 - Meat Industry Conference, 300
 - Mineral Development Laboratories, 359
 - missions overseas
 - commissions 73
 - embassies, 72
 - high commissions, 72
 - other, 73
 - National Antarctic Research Expeditions, 620

Australian—continued

- National Gallery, 629
- National Line, 433
- National Railways Commission, 445
- National Scientific and Technological Library, 618
- National Trusts, 626, 627
- National University Archives of Business and Labour, 634
- notes in circulation, 475
- Numerical Meteorology Research Centre, 617
- Postal Commission, 509
 - employment in postal services, 464
 - functions of, 462
 - mail delivery network, 464
 - overseas mail, 466
 - postal articles handled, 464, 465
 - revenue and expenditure, 463
 - special services, 465
 - transactions affecting fixed assets, 463
- production of processed vegetables, 284
- Radiation Laboratory, 198
- registered trading vessels, 443
- Research Grants Committee, 616, 621
- Resources Development Bank Limited, 483
- Road Research Board, 458
- Savings Bonds, 561
- Science and Technology Council, 613
 - functions of, 614
- Shipbuilding Board, 433
- Shipping Commission, 433, 509
- soils, 309
- Standard Commodity Classification, 580
- Standard Industrial Classification, 114, 115, 258, 383, 395
- Stevedoring Industry Authority, 434
- Stock Exchanges, 503
- Telecommunications Commission, 509
 - functions of, 466
 - funds, statement of, 467
 - revenue and expenditure, 466, 467
- Tourist Commission, 637
- Trade Commissioner Service, 73, 579
- trading vessels, 438
- Transport Advisory Council, 431
- War Memorial Library, 632, 633
- Water Resources Council, 341, 617
- Wheat Board, 271, 509
- Wheat Growers' Federation, 272
- Wool Corporation, 303
- Wool Realisation Commission, 301
- Authorised money market corporations*, 486
- Authorised short-term money market dealers*, liabilities, assets and interest rates, 487
- Average unit gross values*, 262
 - of commodities produced, indexes, of, 265
- Average weekly earnings*, 143, 144
 - and hours, full-time, non-managerial employees, 148, 149
 - male, 143
 - per employed male unit, 144
- Average weekly overtime, full-time, non-managerial employees*, 152
- Aviation activity, 461
- Awards for overseas study, 227
- Awards, wage, 140
- Baas-Becking Geobiological Research Laboratory**, 359
- Bacon, 298
 - ham and canned meat, export of, 299
- Balance of payments*, 576, 603-609
 - capital account, 604, 606, 608
 - current account, 604, 605, 607
 - description of, 603, 604
- Balance of trade*, 582
- Ballet, 627, 628
- Banking, 683
- Bankruptcy, 213
 - Federal Court of, 211
 - proceedings, 214
- Banks, 477-484
 - savings, 482, 501
 - Sir Joseph, 3
 - trading, 479-482, 501
- Barley, 276, 277
- Boards, 277
 - for grain
 - area cropped, 277
 - exports, 277
 - production, 277
 - marketing, 277
- Barometer, 32, 33, 34, 35, 36, 37, 38, 39
- Barriers to trade, non-tariff, 575
- Bauxite and alumina industry, developments in*, 375
- Beef, 298
 - industry, 299
 - Incentive Payments Scheme, purpose of, 301
- Beekeeping, 307, 308
- Beeswax exports, 308
- Belgium-Luxembourg, overseas trade with, 591
- Benefits
 - hospital, 194
 - medical, 194
 - sickness, 171, 172
 - special, 172
 - unemployment, 171, 172
- Betting, 505
- Bilateral
 - aid, 68, 71
 - trade agreements, 576
- Biological Standards Laboratory, 199
- Birth order of nuptial confinements, 87
- Birth rates
 - age specific, 89
 - crude, 85
- Births, 86
 - crude rates of, 85
 - live, 86, 87
 - nuptiality, 86
 - plurality, 87
 - sex, 86
- Black coal industry, developments, in, 376
- Boats used in fishing, 325, 326
- Bonds
 - inscribed, 561
 - savings, 561
- Book publishing, 630
- Borrowing, public sector, 560-563
- Botanical gardens, 617, 634, 635
 - and zoological gardens, 634, 635
- Botany Bay, 3
- Bounties
 - on manufacture, 379
 - for shipbuilding, 433
- Bremer, Captain James, J. Gordon, 3

- Broadcasting, 470-472
 - Commission, Australian, 471
 - Service, Overseas, 471
 - services, 471, 472
 - stations, 471
 - commercial, 470
- Brussels Nomenclature, 535
- Budget, receipts and outlay, 508
- Building, 676
 - activity, 424-428
 - employment on, 428
- Building societies, permanent, 484, 501
- Buildings
 - value of, 427
- Burbury, Sir Stanley Charles, K.C.V.O., K.B.E., K.St.J., 42
- Bureau of
 - Agricultural Economics, 622
 - Customs, 574, 575
 - Meteorology, 9, 10, 31, 617
 - Mineral Resources, Geology and Geophysics, mineral industry research by, 359, 360
 - Transport Economics, 431, 622
- Buses, 451
- Business Archives Council of Australia, 634
- Butter
 - production and exports, 307
 - wholesale prices of, 307
- By-law provisions of the tariff, 573
- Canada, overseas trade with, 592, 593
- Cancer, 207
- Canned fruit, 286
- Canning-fruit charge, 539
- Capital assistance grants to the States, 520
- Capital flows, private, 599
- Cargo
 - container, 440
 - discharged and loaded, 440
- Cartier and Ashmore Islands, 6
- Cattle
 - milk, 305
 - numbers
 - Australia, 293
 - world, 293
 - purpose of, 293
- Census,
 - manufacturing, 383
 - population, 75, 125
 - retail, 396
- Censuses, economic, 382
- Central Grain Research Laboratory, 272
- Central labour organisations, 162
- Cereal grains, 290
 - a perspective, 271
 - summer, 270
 - winter, 270
- Cerebrovascular disease, 207
- Chamber music, 628
- Cheese
 - production and exports, 307
 - wholesale prices, 307
- Chicken meat levy, 539
- Chickens hatched, 296
- Chief of Defence Force Staff, 54
- Chiefs of Staff Committee, The, 54
- Child care, Commonwealth Government grants for, 256
- Child welfare, 178
- Children
 - joint custody of, 212
 - of the marriage, 98
- Children's rights and welfare, 212
- China, overseas trade with, 593
- Christmas Island, 7, 668
 - education, 669
 - general, 668, 669
 - history and administration, 669
 - phosphate deposits, 669
 - transport and communication, 669
- Citizenship, persons granted Australian, 104
- Civilian labour force, 132
- Clear days, 32, 33, 34, 35, 36, 37, 38, 39
- Climate, general, 10
- Climatic controls
 - May-October, 11
 - November-April, 11
- Climatic data
 - for capital cities, 31
 - Adelaide, 34
 - Brisbane, 35
 - Canberra, 37
 - Darwin, 33
 - Hobart, 39
 - Melbourne, 38
 - Perth, 32
 - Sydney, 36
- Climatic discomfort, 11
- Clouds, 32, 33, 34, 35, 36, 37, 38, 39
- Coal
 - black, 376
 - Board
 - Joint, 355
 - Queensland, 355
- Coarse grains, 276
- Coastal radio stations, 472
- Coastal trade, 432
- Cocos (Keeling) Islands, 7, 667
 - general, 667, 668
 - history and administration, 669
 - transport and communication, 669
- Coin issued, value of, 475
- Collection of trade statistics, 581-583
- Colleges of Advanced Education, 224
 - Commonwealth Government grants to, 253
 - students commencing courses, 238
 - student enrolments, 239
 - students, completed courses, 240
 - teaching staff, 240
 - types of courses, 224
- Colombo Plan, 65, 68, 72, 199
 - scientific training, 623
- Colonies, creation of
 - New South Wales, 3
 - New Zealand, 5
 - Queensland, 5
 - South Australia, 4
 - Tasmania, 4
 - Victoria, 5
 - Western Australia, 4
- Colour television, 472
- Commercial
 - broadcasting stations, 470
 - exploitation of fisheries resources, 323
 - theatre organisations, 627
- Commissioner for Housing Loan, Australian Capital Territory, 423
- Commission of Inquiry into Transport to and from Tasmania, 434
- Committee of Inquiry into Education and Training, 229
- Committee on Nurse Education and Training, 231
- Commodity Classification, Australian Standard, 580

Commonwealth

- Bank of Australia, 476
- Banking Corporation, 509
- Constitution, 41
- Constitution Act, 7
- Development Bank of Australia, 483
- Employment Service, 137, 230
 - functions of, 137
 - organisation of, 137
 - persons registered with, 137
- Government
 - assistance to States, 167, 176
 - assistance to welfare organisations, 174
 - budget, 507
 - deficit, financing of, 509
 - Departments, 50
 - expenditure on social security services, 163, 164
 - expenditure on tuberculosis, 198
 - grants to
 - the International Agency for Research on Cancer, 202
 - the National Heart Foundation of Australia, 201
 - public health organisations, 201, 202
 - the Red Cross Blood Transfusion Service, 201
 - the Royal Flying Doctor Service, 201
 - the States, 246
 - for Aboriginal education, 254
 - for child-care and pre-school education, 256
 - for child migrant education, 255
 - for Colleges of Advanced Education, 253
 - for recurrent expenditure on educational research, 255
 - for schools, 252
 - for teachers' colleges, 253
 - for technical education, 253
 - for universities, 254
 - the World Health Organisation, 202
 - health advisory organisations, 198-200
 - public finance, 685
 - responsibility for education in the
 - Australian Capital Territory, 227
 - Northern Territory, 227
 - securities, 509
 - subsidies and grants to the States for paramedical services, 200
 - taxation, 522
- legislation
 - for economic management, 476
 - for financial institutions, 477
- of Australia, establishment of, 5
- Ombudsman, 213
- Parliament, The, 44
- Parliament
 - annual salaries and allowances, 49
 - changes in size of, 46
 - duration of, 45
 - elections, 46
 - House of Representatives, 47
 - Senate, 47
 - legislation, course of, 51
 - members, 49
 - numbers in, 46
 - qualifications for franchise (voting), 45
 - qualifications for membership, 45
 - recent elections, 45

Commonwealth—*continued*

- Parliamentary Library, 633
- Police Force, 215
- Rehabilitation Service, functions of, 173
- responsibilities in education, 221
- Scientific and Industrial Research Organisation, 317, 318, 319, 341, 380
 - activities of, 618
 - Advisory Council, 616
 - functions of, 618, 619
 - mineral industry research, 360
- Serum Laboratories, 198
- subsidies and grants to the States, Home Nursing Subsidy Scheme, 200
- Communication, 681
- Community
 - aid, 178
 - recreation, 636
- Commuter air services, 459
- Companies
 - income tax assessment, 533
 - insurance, 500
 - pastoral finance, 489
 - private, 531, 532
 - public, 531, 532
- Compassionate allowances, 173
- Components of the labour force, 125
- Compulsory education, 221
- Concessional tax rebates, 526
- Conciliation and Arbitration Commission, 140
- Conciliation and Arbitration, industrial, 139, 140
- Conference of Directors-General of Education, 228
- Confinements, 87
 - nuptial, 87, 88
- Coniferous timber, 316
- Conservation
 - of places and articles of national importance, 626, 627
 - soil, 310, 616
- Consolidated Revenue Fund, 507, 509
- Constant prices, estimates at, 567
- Constitution, The, 163, 179, 193, 209, 227, 324, 476, 573, 657
 - Alteration (Aboriginals) 1967, 75
 - financial provisions of, 507
- Construction (other than building), 428, 429
- Consular activities, Australia, 67
- Consumer price index, 107-112
 - 'basket of goods', 108
 - changes in quality of goods, 108
 - earlier series, 108
 - index population, 107
 - periodic revision of, 108
 - weighting pattern, 107
- Consumer (retail) prices, index numbers of, 112
- Consumption of
 - dairy products, 307
 - meat and meat products, 300
- Container cargo, 440
- Contents of metallic minerals produced, 367
- Continental Shelf (Living Natural Resources) Act, 324
- Control of
 - air transport, 459
 - mineral exploration, 354
 - mineral exports, 355
 - mining, 353
 - petroleum exploration
 - off-shore, 354
 - on-shore, 354
 - shipping, 432-435

- Controls on imports, 574
- Convicted prisoners, 220
- Cook, Captain James, 2, 3, 4
- Copyright, 214
- Coral Sea Islands, 7, 670
- Corporate trading enterprises, 566
- Correspondence tuition, schools 223
- Cotton, 280
 - area cropped, 280
 - exports, 280
 - production, 280
- Council of
 - Australian Government Employee Organisations, 162
 - Defence, The, 54
 - Professional Associations, 162
- Councils of the Tertiary Education Commission, 621
- Counselling, 212
 - services for marriage problems, 212
- Courses available at
 - Colleges of Advanced Education, 224
 - Universities, 225
- Courts of Marine Inquiry, 433
- Cowen, His Excellency Sir Zelman, A.K., G.C.M.G., K.St.J., Q.C., 42
- Crafts, 630
- Credit Unions, 501
 - income and expenditure, 486
 - liabilities and assets, 486
 - operations of, 486
- Cremation, 208
- Crematorium, 208
- Crime reported to police, 215
- Crimes
 - breaking and entering, 217
 - cleared and persons involved, 216
 - fraud, 217
 - homicide, 216
 - motor vehicle theft, 217
 - rape, 217
 - robbery, 217
 - serious assault, 217
- Criminology, Australian Institute of, 622
- Crops, 268-292 (*see also* specific crops)
 - area, 269, 270
 - area irrigated, 311
 - gross value, 270
 - production, 270
- Crown lands, 267
- Crude
 - birth rate, 85
 - wood,
 - exports, 322
 - imports, 322
- Crustaceans, 323, 325, 326
 - processing of, 329, 330
 - production, 328
- Cultural organisations, 625, 626
- Currency, 475
- Current defence policy, 53
- Current issues in education, 229-231
- Curriculum Development Centre, 228
- Custody and maintenance, 212
- Customs
 - Bureau of, 574, 575
 - duties, 535, 536, 598
 - Tariff, 573
- Cutler, Sir Arthur Roden, V.C., K.C.M.G., K.C.V.O., C.B.E., K.St.J., 42
- Cyclones, tropical, 11
- Dairy industry, developments in, 305, 306
- Dairy products
 - consumption, 307
 - exports, 307
- Dairying, 305-307
 - Research and Promotion Levy, 538
- Dampier, William, 2
- Dams, large, numbers of, 339
- Dams and reservoirs, 337-339
 - New South Wales, 337
 - Northern Territory, 338
 - projected, 338
 - Queensland, 337
 - Tasmania, 337
 - under construction, 338
 - Victoria, 337
 - Western Australia, 337
- Darling, Lieutenant-General Sir Ralph, 3
- Darwin Community College, 655
- Death
 - age at, 93
 - crude rate of, 85
 - rates, 95
 - age-specific, 92
 - true, 95
- Deaths, 85
 - causes of, 207
 - infant, 93
 - perinatal, 93, 208
- Debenture subscription, 504
- Decentralisation, 379
- Defence
 - Committee, The, 54
 - co-operation, 56
 - with Indonesia, 56
 - with Malaysia and Singapore, 56
 - with Papua New Guinea, 56
 - with other countries, 57
 - Department of, 53
 - employment in, 55
 - force activities overseas, 57
 - Force Development Committee, 54
 - force, permanent, 55, 56
- Forces
 - Australian Army, 58
 - educational courses, 61
 - purchasing of supplies for, 63
 - Royal Australian Air Force, 59, 60
 - Royal Australian Navy, 57
 - Staff, Chief of, 54
- function, expenditure on, 54
- manpower, 55
- orientated activities
 - Department of Productivity, finance for, 63
 - personnel employed, 63
- policy, current, 53
- production, 62
 - aircraft, guided weapons and electronics supply, 63
 - munitions supply, 63
- representation overseas, 57
- reserve forces, 56
 - personnel strengths of, 56
- science, 620, 624
 - and technology, 61
- Science and Technology Organisation, The, 61
 - functions of, 61
 - laboratories of, 61
 - Military Studies and Operational Analysis, Division of, 61

- Defence—*continued*
 - Science and Technology Organisation—*continued*
 - Policy and Program Planning, Division of, 61
 - service homes, 412
 - Service Homes Act, 413, 414
 - Service Homes Corporation, 181, 413
 - Delivered Meals Subsidy Act* 1970, 176
 - Demography statistics, 671
 - Dental standards, 199
 - Department of
 - Defence, 53
 - central administration, 53
 - powers and functions of the Secretary, 53
 - Foreign Affairs, 72
 - Health, 195, 198, 200
 - functions of, 193
 - Pathology and Laboratory Service, 198
 - Housing and Construction (Housing Division), Tasmania, 419, 422
 - Primary Industry, 322
 - Productivity, 63
 - defence production functions of, 62
 - Science and the environment, 615, 620, 621, 623
 - Antarctic Division, 620
 - role of, 615
 - Social Security, 177, 200
 - role of, 177
 - Transport, 458
 - Veterans' Affairs, 181, 187-190, 200, 204
 - functions of, 181, 182
 - activities of, 188
 - Dependants of veterans, medical treatment for, 187
 - Determination of rates of pay, 139
 - Developing countries, 573, 576
 - Development of Australian rural industries, 257
 - Development banks, 483
 - Developments in the uranium industry, 377
 - Diplomatic
 - or Consular Service, 42
 - representation
 - to Australia
 - embassies, 73
 - high commissions, 73
 - overseas, 72
 - Direct investment, 600
 - receivable from abroad, 603
 - Disability and dependants' pensions, 182-185
 - annual liability for, 184
 - classes of, 182-185
 - eligibility for, 182
 - miscellaneous, 185
 - number of, 184
 - and amount paid, 182-185
 - rates of, 182
 - Disability pensions for incapacitated veterans, 184
 - Disabled persons, homes for, 174
 - Disease control, 193
 - Disposal of crown lands, 267
 - Disputes, industrial, 156-160
 - Dissolution of marriage, 97, 98
 - Divorce, 86, 97-99, 211
 - age at, 97, 98
 - children of the marriage, 98
 - crude rates of, 97
 - provisions for, 97
 - types of, 97
 - Domestic factor incomes, 565
 - Domestic production account, 566, 568
 - Domiciliary nursing care benefit, 196
 - Double orphan's pension, 171
 - Drainage divisions, 335
 - Dried fruits
 - imports, 286
 - levy, 539
 - Dried grapes, 288
 - Dried vine fruits
 - consumption, 288
 - exports, 288
 - levy, 539
 - Drivers' and riders' licences, 454
 - Drought incidence, 30
 - Drought year, 30
 - Droughts, 30
 - Drug
 - evaluation, 199
 - offences, 218, 219
 - cleared, 218
 - number of charges, 219
 - prosecutions and convictions, 219
 - Drugs, 218, 219
 - Dwellings
 - for Aged pensioners Scheme, 412
 - in rural areas, 410
 - unoccupied, 409, 410
 - in urban areas, 410
 - Earnings and hours, 139
 - of employees (distribution and composition), May 1978
 - coverage, 144
 - definitions, 144
 - reliability of estimates, 146
 - scope of survey, 144
 - survey design, 144
 - of employees, October 1977
 - coverage, 150
 - definitions, 150
 - reliability of estimates, 150
 - scope of survey, 150
 - Economic
 - censuses, 382
 - management, legislation for, 476
 - management of private finance, 476
 - and Social Commission for Asia and the Pacific (ESCAP), 65, 70, 341
 - transactions, 565
 - Education, 228, 229, 687
 - administrative structure at the national level, 227
 - cash benefits paid by federal authorities, 247
 - Commonwealth responsibilities, 221
 - compulsory, 221
 - co-ordinating agencies
 - government, 228
 - non-government, 228
 - current issues in, 229-231
 - financial assistance for, 226
 - migrant, 226
 - outlay by local authorities, 251
 - outlay by State authorities, 251
 - pre-school, 222
 - primary and secondary, 222, 223
 - Research and Development Committee, 228
 - State responsibilities, 221
 - technical and further, 224, 235-238
 - in the Australian Capital Territory, Commonwealth Government responsibility for, 227
 - in the Northern Territory, Commonwealth Government responsibility for, 227

- Educational
 - courses, Defence Forces, 61
 - institutions
 - number of, 232
 - students enrolled at, 232
 - Research, Australian Council for, 228
 - research, Commonwealth Government grants for, 255
 - Scientific and Cultural Organization (UN), 341
- EEC, overseas trade with, 593
- Effective exemption from tax, 527, 528
- Egg
 - Board, 308
 - exports, 309
 - products, 308
 - pulp, export, 309
- Eggs,
 - consumption, 308
 - production, 308
- Elections, 46
- Electoral redistribution, 46
- Electric power,
 - capacity and production in South Australia, 406
 - current and future development in Victoria, 404
 - distribution, 399
 - future development in Queensland, 406
 - generation, 399
 - resources, location of, 399
 - Western Australia, 406, 407
- Electricity
 - Authority of New South Wales, The, 402
 - Commission of New South Wales, 402
 - and gas establishments, 389
 - and gas industries, 389, 390
 - generation
 - New South Wales, 402
 - Queensland, 405
 - Victoria, 404
 - and distribution in New South Wales, 402, 403
 - legislation in Queensland, 405
 - in New South Wales, future developments, 403
 - supply
 - Australian Capital Territory, 407, 408
 - Northern Territory, 408
 - transmission
 - New South Wales, 402
 - and distribution, Queensland, 405
 - and supply, Victoria, 404
 - Trust of South Australia, 406
- Embassies, Australian, 72
- Emergency service organisations, 62
- Employed, the, 125
 - persons
 - definition of, 126
 - hours worked, 133
- Employee organisations registered under Industrial Arbitration Acts, etc., 161
- Employees
 - definition of, 145
 - full-time, non-managerial, 147, 148, 149
 - non-managerial, 145, 148, 149, 151, 152
- Employer organisations registered under Industrial Arbitration Acts, etc., 161
- Employers'
 - organisations,
 - Federal, 161
 - State, 161
- Employment
 - in Defence, 55
 - in fisheries, 326
 - in forestry, 319, 320
- Employment—*continued*
 - in manufacturing establishments, 385
 - on new buildings, 428
 - rural, 312
 - Service, Commonwealth, 136–138, 230
 - and training, 137
- Employment status
 - by birthplace and period of arrival in Australia, 131
 - of civilian population, 128
- Enterprise, 258
- Enterprises
 - agricultural, *see* Agricultural enterprises
 - corporate trading, 566
 - financial, 566
 - foreign, 599
 - multi-establishment, 384
 - public, 541, 542
 - public financial, 509
- Environmental protection, 617
- Environment
 - Council, Australian, 617
 - program of the United Nations, 341
- Equipment
 - for the Defence Force, 55
 - used in fisheries, 325, 326
- Establishment, 258
- Establishments
 - agricultural, *see* Agricultural establishments
 - electricity and gas, 389
 - manufacturing, 383, 388
 - stocks of, 387
 - mining, 363
 - retail, 397
 - timber industry, 320
- Estate duty, 534, 535
- Estimated value of operations, 257, 258
- Ethnic Affairs, 180
- Exchange control, 574
- Excise, 599
 - duties, 537
 - revenue, 537
- Expectation of life at selected ages, 94
- Expenditure
 - on education, 244–256
 - in the private sector, 245
 - in the public sector, 245, 246
 - on general repatriation benefits, 188
 - on gross domestic product, 568
 - household, 119, 120
- Export
 - awards, 575
 - of bacon, ham and canned meat, 299
 - charges, 538
 - Commodity Classification, Australian, 583
 - contracts for sugar, 281
 - controls, 574
 - education, 574
 - Finance and Insurance Corporation, The, 575
 - incentives, 574
 - Market Development Grants, 574
 - Price Index, 112, 116
 - promotion, 576
 - restrictions, 574
 - trade for rural industries, 257
- Exports, 677
 - of Australian produce, 581
 - of flour, 275
 - by industrial group, 589
 - of major commodities, 588

- Exports—continued**
 of minerals and mineral products, 371, 372
 valuation of, 582
 value at constant prices, 610, 611
 value of major commodities, 587
External territories, 6, 7
- Family**
 allowances, 170
 number of children and students, 170
 rates, 170
 Court of Australia, 211
 guidelines of, 211
 Law Act, 211, 212
 provisions for legal aid, 211
 welfare, 178
Fauna and flora resources, 617
Feature films, 629
Federal authorities
 advances to the States, 517, 520, 521
 cash benefits to persons, 197, 515
 covered by the Budget, 509
 expenditure on new fixed assets, 514
 final consumption expenditure, 513
 general purpose grants, 518, 519
 grants to the States, 517, 518
 outlay, purpose of, 512
 receipts, 522–546
 receipts and outlay, 510, 511
 subsidies, 515
Federal awards, wage rates, 140
Federal Court
 of Australia
 jurisdiction of, 211
 organisation of, 211
 of Bankruptcy, 211
Federal courts, 209–212
Federation, 5
Female weekly wage rates
 indexes of, 142
 for industry groups, 142
Ferries, 451
Fertilisers, 309
 imports of, 311
 phosphate, 357
 production of, 311
Fertility, 86, 88–90
 of Australian marriages, 89, 90
 rates, 88
Film
 censorship, 629
 Commission, Australian, 628
 and Television School, 223, 628
Films, 628, 629
 feature, 629
Finance
 companies, 489, 500
 amount financed, 489
 assets and liabilities, 488
 balances outstanding, 489
 income and expenditure, 488
 housing, 500
 operations of, 487
Financial assistance
 for the arts, 625
 for education, 226, 227
 post-secondary education, 226
 primary and secondary education, 226, 227
 to States for education, 226
Financial Corporations Act 1974, 476
Financial corporations, 476
 assets, 490
 operations and liabilities, 490
 statistics, 489
Financial enterprises, 566
Financial institutions, 477
 non-banking, 477
 regulation of, 477
Financial market,
 developments in the, 476
Financiers
 general, 489
 intragroup, 489
Fish, 323, 325, 326
 processing of, 329
 production, 328
Fisheries
 Act, 324
 administration, 324, 325
 objectives of, 324
 employment in, 326
 equipment used in, 325, 326
 products
 consumption of, 330
 domestic marketing of, 330
 exports of, 331
 imports of, 331
 non-edible
 exports of, 332
 imports of, 332
 production of, 327–330
 research, 324, 325
 aims of, 325
 resources, 323
 exploitation of, 323
Fishing
 boats, 326
 persons employed on, 326
 operations, pearl culture, pearl and trochus-shell, 329
Flood rainfall, incidence of, 26
Floods, 26
Flora and fauna resources, 617
Flour, exports of, 275
Fodder crops, 289
Fog, 32, 33, 34, 35, 36, 37, 38, 39
Foodstuffs, apparent consumption of, 265, 266
Foreign
 Affairs, Department of, 72
 control in Australian industry, 609, 610
 enterprises, 599
 investment, inflow of, 601
Forest
 administration, 317–319
 authorities, State, 318
 production, 319, 320
 research, 317–319
Forested areas, extent of, 315
Forestry, 319
 activities
 in the States, 318
 in the Territories, 318
 education, 318, 319
 employment in, 319, 320
 objects of, 315
 softwood operations, 317
 and Timber Bureau, 315, 319
Forests, 315, 316
 ownership of, 316
 State, 268
 types of, 315

- France, overseas trade with, 593
 Fringe benefits available to pensioners, 169
 Frost, 23
 frequency, 23, 24
 length of period of, 24
 variability, 24
 Fruit, 284-286
 apparent consumption of, 285
 canned, 285, 286
 canning charge, 539
 crops, area planted, 285
 exports, 286
 gross value of production, 285
 Growing Reconstruction Scheme, 286
 imports, 286
 industry
 marketing, 286
 regulation of, 286
 processed, 285
 production of, 285
 value of, 285
 products, 285
 value of exports, 286
 value of production, 286
 varieties grown, 284
 Full-time
 employees
 definition of, 145
 non-managerial, average weekly hours paid for, 149
 weekly earnings, 153
 workers, 152
 Funeral benefits to pensioners, 169

Gardens,
 botanical 617, 634, 635
 zoological, 634, 635
General
 Agreement on Trade and Tariffs (GATT), 576
 aviation activity, 461
 fertility rates, 88
 financiers, 489
 government, 566
 insurance organisations
 expenditure, 497
 premiums and claims, 497
 Geobiological research, 359
 Geography, physical, Australia 9-40
 Geology of Australia, 353
 Germany, Federal Republic of, overseas trade with, 593
 Gift duty, 535
 Global radiation, 25, 27
 variability, 25
Government
 general, 566
 housing authorities, 500
 leaders, Commonwealth and State, 44
 munitions factories, 63
 outlay on social security and welfare, 163, 164
 railways, 444-450, 680
 developments in standardisation, 445
 employees, wages and salaries, 450
 freight carried, 447
 freight net tonne-kilometres, 448
 gross earnings, 448, 449
 rolling stock, 446
 route-kilometres open, 444, 445
 surplus or deficit, 449
 systems, 445
 Government—*continued*
 railways—*continued*
 train-kilometres, 447
 working expenses, 449
 rental houses, sale of in the Australian Capital Territory, 423, 424
 schools, students by age and sex, 235
 sector, 605, 606
 securities, 560-562
 on issue, 685
 tram and bus services, 451, 452
 Governor-General, 41
 powers and functions, 41
Governors,
 holders of office, 42
 powers and functions, 42
 Grades in government schools, 234
Grain
 cereal, *see* cereal grains
 coarse, 276
 Research Laboratory, Central, 272
 sorghum, 277
 area cropped, 277
 exports, 277
 production, 277
 Grants Commission, special grants to the States, 520
Grants
 for aged or disabled persons homes, 175
 made under Aged Persons Hostels Act, 174, 175
 paid under Handicapped Persons Assistance Act, 175, 176
 to the States for educational purposes, 248, 249
Grapes
 climatic requirements, 287
 dried, 287
 Grapevines, 286-289
 Greasy wool, 301
Gross
 domestic product, 565, 568
 at factor cost, 565
 fixed capital expenditure, 570
 national expenditure, 565
 reproduction rate, 89
 value of agricultural commodities produced, 262-264
 value of livestock slaughtering, 300
Groundwater, 334
 supplies, 334
 usage, 334
 use with surface water, 335

Hail, 17
Ham and bacon, 298
Handicapped
 Children's Benefit, 175, 176
 child's allowance, 171
 Persons Assistance Act 1974, 175
 persons, training for, 175, 176
 welfare services for the, 178
Hansenide hospitals, 204
Hansen's disease, 204
Hay, 290
Head of household, 120
Health
 advisory organisations, 198-200
 benefits, 194
 Commonwealth Department of, 198, 200
 Department of, 193, 195
 Insurance Levy, 528

Health—continued

- and Medical Research Council, National, 198, 616, 621
- program grants, 196
- service organisations, 198
- services, 193
- services by voluntary agencies, 178

Heard Island and McDonald Islands, 7, 666

Heart disease, 207

Heat waves, 22

Heritage Commission, The Australian, 626

High Commissions, Australian, 72

High Court of Australia

- appeals to the, 210

- jurisdiction of, 209

- organisation of, 209

Higher defence machinery, 54

Higher defence organisation, 53

Hindmarsh, Captain R. N., 4

Historic Memorials Committee, 627

Home

- Finance Trust, 421

- Loans Scheme, Northern Territory, 423

- nursing subsidy scheme, 200

- sales scheme, Northern Territory, 423

- Savings Grant Scheme, 415, 416

Homeless Persons Assistance Act, 176

Homes

- for the aged, 174

- for aged and disabled persons, grants for, 174, 175

- defence service, 412

- for disabled persons, 174

Honey

- exports, 308

- levy, 308, 539

Hong Kong, overseas trade with, 594

Hops, 290, 291

Hospital

- and Allied Services Advisory Council, 200

- benefits, 194

- morbidity statistics, 205

Hospitals

- hansende, 204

- and Health Services Commission, The, 200

- public and private, 204

- psychiatric, 205

- repatriation, 187, 188, 204

Hostel-type accommodation for the aged, 174, 175

Hourly wage rates, males and females, 143

House of Representatives, elections for, 47

Household

- expenditure, 119, 120

- by household composition, 123

- by household income, 121

- by region, 122

- by States and Territories, 122

- surveys, 119

- data collection and processing, 119

- definitions, 119, 120

- reliability of results, 120

- scope and coverage, 119

- summary of results, 121-123

- income, 119, 565

- spending patterns, 107

Households, 566

Houses for the disadvantaged and handicapped, 417

Housing

- for Aborigines, 418

- accommodation, welfare, 419

- for the aged, 417, 418

Housing—continued

- Agreement, 1973-74, 411, 412

- Agreement (servicemen), 411

- authorities, 417-419

- government, 500

- Commission of New South Wales, 417

- Commission of Victoria, 417, 418

- Commission Sales Scheme, Northern Territory, 423

- finance, 500

- for construction of new dwellings, 502

- for purchase of established dwellings, 502

- for purchase of new dwellings, 502

- value of loans approved, 502

- Government activities, 410-420

- loans

- Australian Capital Territory, 423

- Insurance Corporation, 416

- insurance scheme, 416

- interest deduction scheme, 416

- rental activities of government authorities, 419, 420

- schemes

- Australian Capital Territory, 419

- Northern Territory, 419

Human quarantine, 193

Humidity, 32, 33, 34, 35, 36, 37, 38, 39

Hydro-Electric Commission, Tasmania, 407

Hydro-electricity, 342, 343

- in New South Wales, 403

Immigration, effect on population, 76, 77

Immigrant welfare, 178, 180

Immunist campaigns, 198

Import

- clearances, 598

- dutiable, 598

- Commodity Classification, Australian, 583

- controls, 574

- licensing, 574

Imports, 678

- merchandise

- degree of manufacture, 590

- economic class, 590

- of minerals and mineral products, 371, 372

- value at constant prices, 587

- valuation of, 582

- value of major commodity groups, 610

Income

- distribution, 155

- earnings and hours, 139

- earnings and hours, surveys of, 144

- household, 120

- taxable, 524

- tax assessment

- companies, 533

- individuals, 530-531

- tax

- instalments refund, 534

- payable on specified incomes, 529

- rates for individuals, 528-531

- taxes

- collected, 533

- companies, 531-533

- rates of, 532

- individual, 523-528

- general rates, 1978-79, 529

Index

- all manufacturing industry, 115
- numbers of consumer (retail) prices in various countries, 112
- Indexes**
 - of agricultural commodities produced, 262
 - of average unit gross values of commodities produced and output, 265
 - of farm production, *see* Indexes of agricultural commodities produced
 - of female weekly wages rates for industry groups, 142
 - of minimum weekly and hourly rates of wage, 141
 - price, 107-117
 - quantum, 262
 - of agricultural commodities produced and output, 262
 - retail price, 111
 - of weekly wage rates for industry groups, 142
- Indian Ocean, 66
- Indonesia
 - defence co-operation with, 56
 - overseas trade with, 594
- Industrial**
 - conciliation and arbitration, 139, 140
 - determination of rates of pay, 139
 - Federal tribunals, 139
 - State tribunals, 139
 - court, 211
 - Design Council of Australia (IDCA), 381
 - disputes, 156-160
 - causes of, 159
 - duration of, 159
 - estimated loss in wages, 156
 - methods of settlement, 159
 - number of, 156
 - workers involved, 156
 - working days lost, 156, 157-160
 - research and development, 615
 - tribunals, 143
- Industries**
 - Assistance Commission, 272, 279, 433, 574, 576
 - secondary, 675
- Industry, 258**
 - development, 498
 - aid for, 499
 - petroleum, 376
 - policy advice, 613
 - research organisations, 621
 - wheat, development of, 271
 - wine, 288
- Infant welfare centres, 204
- Infants, supervision and care of, 204
- Inflow of**
 - foreign investment in enterprises, 601
 - direct foreign investment in enterprises, 601
- Inscribed stocks and bonds, 561
- Instalment credit for retail sales, 499
- Institute of Child Health, The, 199
- Institutional loans, 600
- Insurance, 477**
 - companies, 500
 - general, 497
 - life, 490, 684
 - organisations, general, 497
- Integrated Agricultural Register, 258
- Inter-Government Maritime Consultative Organisation, 432
- Internal**
 - migration, 84, 85
 - surveys, 84
 - travel, 639
- International**
 - airline,
 - passengers, 459
 - traffic, 460
 - air service agreements, 460
 - Bank for Reconstruction and Development, 605
 - Civil Aviation Organization, 460
 - Commission on Irrigation and Drainage, 341
 - Labour Organisation, 162, 432
 - Lead-Zinc Study Group, 361
 - Monetary Fund, 509, 604, 606
 - Movements, 99-105
 - relations, 65-73
 - Antarctica, 67
 - Consular activities, 67
 - importance to mineral industry, 361, 362
 - Law of the Sea, 67
 - nuclear issues, 67
 - research activities, 622-624
 - reserves, 609
 - scientific organisations, Australia's participation in, 622
 - Subscriber Dialling, 468
 - telecommunication traffic, 469
 - Tin Agreement, 361
 - Water organisations, 341
 - Wheat Agreement, 274
- Interstate**
 - air services, 459
 - migration, 85
 - shipping
 - movement of coastal vessels, 437
 - movement of overseas vessels, 437
- Intragroup financiers, 489
- Intrastate air services, 459
- Invalid pensioners, by age, 166
- Invalid pensions, 166
 - and associated payments, 164
 - eligibility criteria, 164
- income test, 165
- rates of, 165
- Investment, 604**
 - foreign, 599-603
 - outflow of Australian, 602
 - portfolio, 600
- Invisibles, 604, 605
- Ionospheric Prediction Service, 618
- Iran, overseas trade with, 594
- Iron ore, industry, developments in, 376
- Irrigation,**
 - and Drainage, International Commission on, 341
 - in the Australian Capital Territory, 352
 - in New South Wales, 343, 344
 - in the Northern Territory, 350-352
 - in Queensland, 345, 346
 - in South Australia, 347, 348
 - in Tasmania, 349, 350
 - in Victoria, 344, 345
 - in Western Australia, 348, 349
 - on rural holdings, 312
 - water, sources of, 312
- Italy, overseas trade with, 595
- Japan, overseas trade with, 595**
- Jervis Bay, 4, 6
- Job vacancies**
 - registered with the Commonwealth Employment Service, 138
 - surveys of, 138
- Joint Coal Board, 355
- Joint custody of children, 212

- Keeling Islands, *see* Cocos (Keeling) Islands
 Korea, Republic of, overseas trade with, 595
 Kennedy Round, The, 575
 Kuwait, overseas trade with, 595
 Kyle, Air Chief Marshal Sir Wallace Hart, G.C.B., K.C.V.O., C.B.E., D.S.O., D.F.C., K.St.J., 42
- Labour force**
 the, 125, 144
 civilian, 132
 components of, 125
 definition of, 126
 estimates of the, 125
 participation rates, 129
 supplementary surveys, 135, 136
 survey, the, 126
 coverage of, 126
 non-sampling errors, 127
 reliability of estimates, 127
- Labour organisations in Australia, 160-162
 Labour turnover, 139
 Lamb, 298
 Lambing, 295
 Lambs and sheep, 294
- Land**
 tenure, 267
 trusts, 498
 utilisation in Australia, 268
- Large dams, numbers of, 339
- Law**
 enforcement in respect of drugs, 218
 reform, 213
 of the Sea, 67
- Leaders of the**
 Government, Commonwealth and State, 44
 Opposition, Commonwealth and State, 44
- Leave, long service, 155
- Legal**
 aid, 212
 minimum rates of pay, 139
- Legislative provisions relating to drugs, 218
- Legislature**
 Commonwealth, 41
 State, 41
- Legislative power, 41
- Leprosy (Hansen's disease), 204
- Less developed countries
 Australia's official development assistance to, 68-72
 sponsorship of students from, 68, 70, 72
- Levy, on chicken meat, 539
- Libraries, 631-633**
 Colleges of Advanced Education, 633
 Universities, 633
- Library, Scientific and Technological, 618
- Licences, drivers' and riders', 452, 454
- 'Life. Be in It' Program, 636
- Life**
 complete expectation at selected ages, 94
 expectancy, 94, 95
 insurance, 490, 684
 business, 493
 offices
 liabilities and assets, 491
 revenue and expenditure, 492
 tables, 94
- Linseed, 278, 279
- Literature, 630, 631
 Board, The, 630
- Live**
 animals, exports of, 299
 births, 86, 87
 nuptiality, 86
 plurality of, 87
 sex, 86
- Livestock, 292-301**
 slaughtered for human consumption, 298
 slaughterings, gross value of, 300
 Slaughter Levy, 301, 539
- Living-away-from-home allowance, 524
- Loan-raising overseas by the Government, 604
- Loans, for purchasing or building homes, 420-424
- Local authorities, 550-553**
 borrowings, 562
 receipts and outlay, 552, 553
- Local government**
 authorities; area, population, dwellings, rates and penalties for ordinary services, 550
 powers of, 550
- Local value of commodities, 262
- Long-service leave, 155
- Lotteries, 504
- Lupins, 279
- McDonald Islands and Heard Island, 6, 729**
- Machinery, agricultural, 312**
- Macquarie Island, 4**
- Maintenance, 212**
 and custody, 212
 and repairs to buildings, 428
- Maize, 278**
 area cropped, 278
 exports, 278
 production, 278
- Malaysia**
 defence co-operation with, 56
 overseas trade with, 595
- Male average weekly earnings, 143
- Management of water resources, role of federal, State and local authorities, 342
- Manufacture, bounties on, 379
- Manufacturing**
 Census, 383
 commodities, principal, 391-395
 Council, Australian, 613
 establishments, 383, 388
 employment in, 385
 timber industry, 320
 value added, 388
 value of turnover, 386
 industry statistics
 1901-1967-68, 382
 from 1968-69, 382-383
 principal commodities produced, 391-395
- Marine science, 620**
- Market Advisory Services, 580**
- Marketing costs, 262**
- Marriage, 86, 97**
 Act, 1961-1973, Australian, 95
 age at, 96
 counselling, 212
 dissolution of, 97-99
 duration of, 96
 marital status at, 95
 rates, 95, 97
- Marriages, 95-97**
 crude rates of, 86
- Masters and seamen, 432**
- Maternity allowances, 170**

- Matrimonial
 - Causes Act 1959-1966, 97
 - property, disputes about, 212
- 'Meals-on-Wheels', 176
- Mean
 - (or average) earnings, definition of, 146
 - weekly earnings, 152
- Meat
 - and Livestock Corporation, Australian, 300, 301
 - and meat products, consumption of, 300
 - Board, Australian, 300
 - exports, 299
 - production, 297-301
- Median
 - earnings, definition of, 146
 - weekly earnings, 152
- Medibank, 194
- Private, 195
- Medical,
 - benefits, 194
 - expenses, 526
- Melbourne
- Members of Commonwealth ministries, 43
- Mental Health Institutions, 205
- Merchandise trade, overseas, 585
- Meteorological research, 617
- Meteorology
 - Bureau of, 9, 10, 31, 617
 - research, 617
- Metric Conversion Board, 621
- Migrant
 - education, 226
 - Commonwealth Government grants for, 255
 - Program, Adult, 226
 - settlement, 180
 - welfare services, 180, 181
- Migration
 - internal, 84-85
 - interstate, 85
 - to Australia, 101-103
- Milk
 - cattle, 305
 - production, 306
 - utilisation, 306
 - whole, 306
- Mineral
 - deposits, 353
 - development and research, 359-361
 - exploration
 - control of, 354
 - other than petroleum, 369
 - exports, control of, 355
 - industry
 - Commonwealth Government assistance to, 356-358
 - income taxation concessions, 356
 - recent developments in, 374-377
 - research, 359-361
 - by private enterprise, 360, 361
 - by universities, 360
 - State government assistance to, 358, 359
 - prices, 373, 374
 - processing and treatment, 370, 371
 - production, 364-368
 - value of, 367, 368
 - resources, 353
 - Resources, Geology and Geophysics, Bureau of, 359, 360
 - rights, 353
 - royalties, 354
- Minerals
 - administration of, 353
 - and mineral products
 - exports of, 371, 372
 - imports of, 371, 372
 - of economic significance, 353
 - quantity produced, 364-366
- Minimum
 - hourly rates of pay, indexes of, 141
 - wage, 140
 - wage rates, 140
 - weekly rates of pay, indexes of, 141
- Mining
 - accidents, 363
 - control of, 353
 - establishments, 363
 - industry, foreign control of, 369
 - leases, 268
- Ministeries, Commonwealth Government, 1901 to 1977, 43
- Ministry of Housing, Victoria, 417
- Miscellaneous crops, 289-292
- Molluscs, edible, 323, 324
 - processing of, 329, 330
 - production, 329
- Monetary institutions
 - 'non-official', 605, 606
 - official, 605, 606
- Monetary sector, 605, 606
- Money, 475, 476
 - market, 486
 - corporations, 487
 - dealers, short-term, 487
 - volume of, 475, 476
- Mortality, 91-94
 - general, 91
- Motor vehicles
 - census, 453
 - on register, 453
 - registration, 453
 - usage, survey of, 452
- Movements, international, 99-105
- Multi-establishment enterprises, 384
- Multilateral trade, 575
- Municipal tram and bus services, 451, 452
- Munitions factories, government, 63
- Murrumbidgee Irrigation Area, 343
- Museums, 617, 630
- Mushrooms, 291
 - canned, bottled or dried
 - imports, 291
 - production, 291
- Music, 628
 - chamber, 628
- Mutton, 298
- Mutual funds, 498
- National
 - Aboriginal Conference, 180
 - Aboriginal Education Committee, 231
 - accounts, 682
 - framework of, 566
 - sectors of, 566
 - Acoustic Laboratories, The, 198
 - Aeronautics and Space Administration (U.S.), 623
 - Apprenticeship Assistance Scheme, 137
 - Association
 - of Australian State Road Authorities, 458
 - of Testing Authorities (NATA), 381
 - Biological Standards Laboratory, 199

National—continued

- Broadcasting Service
 - program facilities of, 471
 - technical facilities of, 471
 - capital account, 566, 567, 569
 - Capital Development Commission, 657, 658
 - Coal Research Advisory Committee, 360
 - Debt Sinking Fund, 560
 - disposable income, 565
 - Employment and Training Scheme, 137
 - Energy Advisory Committee, 613
 - expenditure, gross, 565
 - Health and Medical Research Council, 198, 616, 621
 - health
 - benefits, 194
 - service organisations, 198
 - services, 193
 - Heart Foundation, government grants to, 201
 - income, 565
 - and expenditure accounts, 565-567
 - and expenditure
 - main aggregates at current prices, 571
 - reliability of estimates, 567
 - revision of estimates, 567
 - and outlay account, 566, 567
 - Library of Australia, 631
 - parks, 617
 - Parks and Wildlife Commission and Service, 617
 - servicemen, re-establishment benefits, 190
 - Television Service, The, 472
 - Therapeutic Goods Committee, 200
 - Water Resources Assessment Program, 351
- Natural
- Disasters Organisation, 62
 - increase of population, 77, 85
 - crude rates of, 85
 - resources, development and utilisation, 616
- Navigation Act, provisions of, 432
- Netherlands, overseas trade with, 596
- Net reproduction rate, 89
- New
- capital raisings, 502
 - dwellings other than houses, 425, 426
 - houses
 - material of outer walls, 425
 - number of, 424, 425
 - money, 503
 - motor vehicles, registration of, 454
- New South Wales
- area, 4
 - creation of, 4
 - dams and reservoirs, 337
 - Electricity Authority of, 402
 - Electricity Commission of, 402
 - electricity generation and distribution, 402, 403
 - extension of, westwards, 3
 - future developments in electricity, 403
 - Housing Commission, 417
 - hydro-electricity, 403
 - irrigation, 343, 344
 - public health legislation, recent developments in, 202
 - Queensland Border Rivers Agreement, 343
 - water conservation, 343, 344
- New Zealand, 4
- overseas trade with, 596
 - reciprocal social service agreements, 172, 173
- Nickel industry, developments in, 377
- Non-banking financial institutions, 477
- Non-container cargo, 440

- Non-government
- railways, 450
 - schools, students, age and sex of, 235
 - teachers colleges, 225
- Non-managerial employees, 145, 148, 149, 151, 152
- Non-merchandise overseas trade, 582, 585
- 'Non-official' monetary institutions, 605, 606
- Non-private dwellings, 409
- Non-response biases, 120
- Non-sampling errors, 127
- Non-tariff barriers to trade, 575
- Norfolk Island, 6, 664
- administration, 664, 665
 - economic activity, 665
 - education, 665, 666
 - finance, 666
 - general, 664
 - judiciary, 666
 - trade, transport and communication, 665
- Northern Territory
- Aboriginals, 644-646
 - administration, 643, 644
 - air services, 653
 - apprenticeship training, 656
 - area, 5, 643, 644
 - climate, flora and fauna, 644
 - dams and reservoirs, 338
 - education, 227, 654-656
 - electricity supply, 408
 - federal authority outlay on education, 250
 - finance, 656, 657
 - fishing, 650
 - forestry, 649, 650
 - home loans scheme, 423
 - home sales scheme, 423
 - Housing Commission Sales Scheme, 423
 - housing schemes, 419
 - irrigation, 350-352
 - land tenure, 646
 - legislation, 643, 644
 - manufacturing establishments, 651
 - mining, 649
 - National Parks and Reserves, 651
 - overseas trade, 652
 - pastoral and agricultural industries, 646-648
 - physical geography, 644
 - population, 644
 - posts, telegraph, telephone, radio and television, 653
 - production, 646-650
 - public health legislation, recent developments in, 203
 - railways, 652
 - roads, 652, 653
 - schools, 654
 - secondary industries, 650, 651
 - shipping, 653
 - tourism, 651
 - transfer to Commonwealth, 5
 - water conservation, 350-352
- Notifiable diseases
- cases notified, 206
 - methods of prevention and control, 205, 206
- Nuclear issues, 67
- Number of
- dwellings, 409
 - manufacturing establishments, 388
- Numbers, Commonwealth Government ministers, 44
- Nuptial confinements, 87, 88
- Nurse education and training, 231
- Nurseries, 291, 292

- Nursing
care, domiciliary benefits, 196
home benefits and payments, 195, 196
homes, religious and charitable, 196
- Nutrients, 267
- Oats, 276
area cropped, 276
exports, 276
production, 276
- Official
monetary institutions, 605, 606
reserve assets, 603, 604, 606, 609
- Oil, Australian crude, 356, 357
- Oilseed crops
area, 280
gross value, 280
production, 280
trends in production, 278-280
- Oilseeds, 278-280
- Ombudsman, 213
- Opera, 627
- Opposition leaders, Commonwealth and State governments, 44
- Orchestras, 628
- Ordinary time
earnings and hours, full-time non-managerial employees, 152
earnings, definition of, 145
hours, definition of, 145
- Ord River Irrigation Project, 348
- Ores and concentrates, exported, 373
- Organisation for Economic Co-operation and Development, 66, 227, 341
- Orography, 26
- Other schooling arrangement, correspondence tuition, 223
- Outflow of Australian investment, 602
- Outlay
on education
federal authorities, 247, 248
public authorities, 246
State authorities, 251
by federal authorities, main components, 513-521
of State authorities, main components, 547, 548
- Output and capacity of hydro-electric scheme, Tasmania, 407
- Overseas
arrivals and departures, 99, 100
Broadcasting Service, 471
cargo loaded and discharged, 441-443
shipping
country of registration of vessel, 437
vessels entered and cleared, 437
students, 243
number of private, 244
number of sponsored, 244
number of trainee, 244
study, awards for, 227
Telecommunications Commission (Australia), 468, 509
charges, 469
establishments, 469
international consultation, 468, 469
satellites, 469
submarine cables of, 469
trade, 583, 584
commodities traded with major partners, 592-597
- Overseas—*continued*
trade—*continued*
legislation affecting, 573
non-merchandise, 582
by State, 598
with
ASEAN, 592, 593
Belgium-Luxembourg, 592, 593
Canada, 592-593
China (excluding Taiwan Province), 593
EEC, 593
France, 593
Germany, Federal Republic of, 593
Hong Kong, 594
Indonesia, 594
Iran, 594
Italy, 595
Japan, 595
Korea, Republic of, 595
Kuwait, 595
Malaysia, 595
Netherlands, 596
New Zealand, 596
Papua New Guinea, 596
Saudi Arabia, 597
Singapore, Republic of, 597
United Kingdom, 597
United States of America, 597
U.S.S.R., 597
various countries, 591
transactions account, 566, 567, 570
travel, 639-642
visitors, 640-642
- Papua New Guinea
defence co-operation with, 56
overseas trade with, 596
- Paramedical services
Commonwealth Government
grants for, 200
subsidies for, 200
- Parks, national 617
- Parliamentary government, 41
outlay on, 50
- Parliaments of the States, membership by party affiliation, 49
- Partnerships and trusts, 531
- Part-time workers, 152
- Pastoral finance companies, 489
- Pasture improvement, 310
- Pastures, area irrigated, 311
- Patent Office Library, 632
- Patents, 214
- Payments to States by Commonwealth Government for home care, senior citizens' centres and welfare officers, 177
- Payroll tax, 143, 540, 541
returns, 143
- Peanuts, 279
- Pearl shell, 324
- Pearls, 326
- Pensioner funeral benefits granted, 169
- Pensioners,
fringe benefits available to, 169
widow, 167
- Pensions
age, *see* age pensions
benefits, 685, 686
double orphans', 171

Pensions—continued

- disability and dependants', 182–185
- schemes, 494
 - public authorities, 495
- service, 185–187
- widow, 167, 168

Perinatal

- deaths, 208
- mortality, 93

Permanent building societies, 501

- income and expenditure, 485
- liabilities and assets, 484
- operations of, 484

Permanent Defence Force

- composition of, 56
- personnel strengths of, 55

Permanent settlement in Australia, restrictions on, 101**Personal care subsidies paid under Aged and Disabled Persons Homes Act, 174****Persons**

- killed or injured in road traffic accidents, ages of, 456
- registered for employment with the Commonwealth Employment Service, 138

Petroleum

- exploration, 354, 369, 370
 - control of, 354
- industry, developments in, 376
- search subsidy, 356

Pharmaceutical benefits, 197**Phillip, Captain (later Governor), 3, 4****Phosphate**

- fertilisers, 357
- Fertilisers Bounty Act 1963, 357
- industry, developments in, 377

Physical geography, Australia 9–40**Pigmeat, 298****Pigs, 295, 296****Plant quarantine, 194****Plantations, 316, 317**

- area of, 316
- ownership of, 317

Police

- primary duties of, 215
- Force, Commonwealth, 215
- and prisons, 687

Political parties, 48**Pollution, prevention of, 432****Population, 75**

- Aboriginal, 83
- age distribution of, 80
- age groups, 82
- age pyramid, 82
- Australian born, 81
- Census, 125
 - history of the, 75
 - topics covered in the, 75
- components of growth, 77
- composition of, 80
- distribution by marital status, 81
- estimates, 76
- general characteristics of, 80–83
- growth, effect of migration on, 101
- location of, 79
- masculinity of, 83
- natural increase, 77, 85
- overseas born, 81
- projections of, 77, 78
- size and growth of, 76

Population—continued

- of States, 80
- of Territories, 80
- Survey, The, 125, 190
- survey, quarterly, 152

Pork, 298**Portability of social service payments, 169****Portfolio investment, 600****Postal Commission, Australia, *see* Australian Postal Commission****Postal and Telecommunications Department, 472**

- functions of, 462

Postgraduate awards, 227**Post natal care, 204****Potato marketing, 282****Potatoes, 282****Potatoes, Australian production of, 283****Poultry, 296****industry**

- development of, 298
- levy, 539
- slaughtered for human consumption, 298

Pre-natal care, 204**Pre-school education, 222**

- Commonwealth Government grants for, 256

Prevention of pollution by oil, of Australian coast, waters and reefs, 432**Price**

- collection for Consumer Price Index, 108
- index of materials used in building other than house building, 113, 114
- index of materials used in house building, 112, 113
- index of materials used in manufacturing industry, 114, 115
- indexes, 107
 - of articles produced by manufacturing industry, 115
 - derivation of items and weights, 115
 - prices used, 115
 - scope and composition, 115
 - statistics of, 115, 116
 - wholesale, 112–116

Prices, 676

- Justification Tribunal, 117–119
- retail, 107

Pricing of Australian crude oil, 356, 357**Primary****industries**

- agriculture, 672
- forestry, 674
- gross value of production, 675, 676
- minerals, 674
- pastoral, dairying, etc, 673
- Industry, Department of, 322
- production taxes and charges, 538, 539
- schools, 222
- and secondary education, 222

Principal crops and pastures fertilised, 309, 310**Prisoners**

- convicted, 220
- and ex-prisoners, welfare of, 178

Prisons, 687**Private**

- capital flows, 599
- companies, 531, 532
- contract built houses, 426, 427
- dwellings, 409
- finance, 683

- Private—*continued*
 finance—*continued*
 economic management of, 476
 regulation of, 476
 foreign investment, 599–603
 forestry, 318
 health insurance, 195
 hospitals, 204
 industry, research in, 620, 621
 Overseas Student Program, 243
 pension funds, 494
 sector, 605, 606
 Privy Council, 210
 Processed fruit, 285
 and products, production of, 285
 Processing errors, 121
 Proclaimed or declared roads, 457
 Production
 of bacon, ham and canned meat, 298
 principal commodities, 391–395
 valuation of, 383
 Productivity, 381
 Department of, 62, 63
 Products of mineral origin, production of, 371
 Project SCORE, 616, 618
 Prosecutions and convictions for drug offences, 219
 Psychiatric hospitals, 205
 Public
 authority
 pension schemes, 495
 superannuation schemes, 495
 companies, 531, 532
 debt, 560
 enterprises, 541, 542
 finance
 Commonwealth Government, 685
 State government, 685
 financial enterprises, 509
 health organisations, Commonwealth Government
 grants to, 201, 202
 hospitals, 204
 sector borrowing, 560–563
 Public authorities
 expenditure on new fixed assets, 556
 final consumption expenditure, 554
 outlay, 558
 receipts, 558
 receipts and outlay, 554, 555
 taxation, 557
- Qantas, 460, 509
 Quantity of minerals produced, 364–366
 Quantum indexes, 262, 264
 Quarantine, 193, 205
 animal, 194
 human, 193
 plant, 194
 Quarterly population survey, 152
 Queen Elizabeth, the Second, 41
 Queensland
 area, 5
 Coal Board, 355
 creation of, 5
 dams and reservoirs, 337
 electricity
 generation, 405
 legislation, 405
 transmission and distribution, 405
 Housing Commission, The, 418, 421
 Queensland—*continued*
 irrigation in, 345, 346
 public health legislation, recent developments in, 202,
 203
 State Electricity Commission of, 405
 water conservation in, 345, 346
 Quotas, 272, 281
 tariff, 574
- Radiocommunication stations, 470
 Railway
 development, 444
 gauges, 444
 Railways, 444
 government, *see* government railways
 non-government, 450
 Rainday frequency, 15, 16
 Rainfall, 11–17, 26, 32, 33, 34, 35, 36, 37, 38, 39
 annual, 11–13
 deficiency, 26
 distribution, 13
 effectiveness, 14
 highest daily, 17
 intensity, 15, 17
 seasonal, 13, 14
 variability, 14, 15, 16
 Ramsay, Commodore Sir James Maxwell, C.B.E., D.S.C.,
 42
 Rapeseed, 279
 Rates, local government, 550
 Rates of
 family allowance, 170
 income tax, individuals, 528–531
 pay
 determination of, 139
 legal minimum, 139
 sickness benefits, 171
 unemployment benefits, 171
 wages, 140
 Rebates, taxation, 525–527
 Receipts
 by federal authorities, main components of, 522–546
 of State authorities, main components, 548
 Recent developments in the mineral industry, 374–377
 Reciprocal social service agreements
 with New Zealand, 172
 with United Kingdom, 173
 Recreation, community, 636
 Red Cross Blood Transfusion Service, Commonwealth
 Government grants to, 201
 Redistribution, electoral, 46
 Re-exports, 581
 Referendums, 48
 Refugee arrivals, 104
 Refugees, 103, 104
 Registered building societies, 484
 Regular
 overseas services, operations of, 461
 servicemen, re-establishment benefits, 190
 Rehabilitation, 178
 Relations with
 Asia and the Pacific, 65
 China, 65
 Commonwealth, the, 67
 Japan, 65
 Soviet Union, 65
 The United States, 65
 Western Europe, 66
 other countries, 66

- Religious and charitable nursing homes, 196
- Repairs and maintenance to buildings, 428
- Repatriation
 - benefits, 181, 188, 189
 - expenditure on, 188
 - Commission, 181
 - general hospitals, 188
 - treatment of community patients, 187
 - hospitals, 187, 188
 - and institutions, eligibility for treatment in, 187
 - institutions, 187
 - total expenditure on, 182
- Reproduction rate, gross, 89
- Research, 615
 - activities, international, 622-624
 - agricultural, 613
 - and development, 613
 - expenditure on, 616
 - incentives, industrial, 616
 - industrial, 615
 - forest, 317-319
 - grain, 272
 - grants, 616, 621
 - in private industry, 620, 621
 - in universities and colleges, 621
 - meteorology, 617
 - mineral industry, 359-361
 - organisations, associated with education institutions, 622
 - organisations, industry, 621
 - projects, social welfare, 177, 178
 - scientific, 613, 623
 - social sciences, 622
 - space, 623
 - studentships and fellowships, 623
 - water resources, 341
- Reserve
 - assets, official, 603, 604, 606, 609
 - Bank of Australia, 476, 509, 604
 - and short term money market, 486
 - central banking business, 478
 - functions of, 477, 478
 - liabilities and assets, 478
 - note issue department, 478
 - policy, 478
 - rural credits department, 478
- Reserves, international, 609
- Reservoirs and dams, 337-339
- Response errors, 121
- Retail
 - census, 396
 - establishments, 397
 - price indexes
 - 1901 to 1977, 111
 - previous, 111
 - prices, 107
 - sales
 - at constant prices, 397, 398
 - value of, 397
 - surveys, 397
 - trade, 396-398
- Revenue from taxation, 507
- Review of Overseas Cargo Shipping Legislation, 435
- Rice, 278
 - area cropped, 278
 - exports, 278
 - production, 278
- River Murray Commission, 342
- Rivers and Water Supply Commission, Tasmania, 350
- Road
 - Research Board, Australian, 458
 - traffic accidents, 455
 - transport, 681
 - users killed or injured, types of, 456
- Roads
 - proclaimed or declared, 457
 - used for general traffic, 457
- Royal
 - Australian Air Force
 - aircraft of the, 60
 - higher organisation of, 60
 - structural organisation of, 60
 - training, 60
 - Australian Navy
 - development of, 57
 - Fleet Air Arm, 58
 - higher organisation of, 57
 - ships, construction and repair, 58
 - training and entry, 58
 - Flying Doctor Service, Commonwealth Government
 - grants to, 201
- Rural
 - areas, dwellings in, 410
 - Bank of New South Wales, Sale of Homes Agency, 420
 - employment, 313
 - establishments
 - area of, 268
 - irrigation on, 312
 - improvement, 309
 - industries
 - development of, 257
 - export trade of, 257
- Safflower, 279
- Salaries and Professional Associations, Australian Council of, 162
- Salaries, 386
 - Commonwealth Government ministers, 44
- Salary and wage earners, 125
- Sales,
 - retail, 397
 - tax, 537, 538
- Salvage of wrecks, 432
- Saudi Arabia, overseas trade with, 597
- Savings banks, 501
 - branches and agencies, 483
 - liabilities and assets, 482
 - operations of, 482
- Scheduled domestic airline services, 459
- Scheme of Parliamentary government, 41
- School
 - dental services, 245
 - medical services, 245
 - of Public Health and Tropical Medicine, The, 199
 - organisation and operation, 221, 222
 - year, 222
- Schools, 233-235
 - categories of, 233
 - Commission, 221, 223, 226
 - Commonwealth Government grants for, 252
 - compulsory education, 221
 - for the handicapped, 223
 - funding of, 221
 - general characteristics of, 221
 - government
 - age and sex of students, 235
 - grades in, 234

- Schools—*continued*
 non-government, 235
 number of, 233
 number of students at, 233
 number of teachers at, 233
 of the air, 223
 primary, 222
 secondary, 223
 students, age of, 235
- Science, 613, 614
 and technology
 bilateral arrangements, 623
 defence, 61
 and the Environment, Department of, 615, 620, 621, 623
 Australian Academy of, 615
 in Australia, history of, 613
- Sciences, Technological, Australian Academy of, 615, Scientific
 and Industrial Research Organization,
 Commonwealth, 317, 318, 319, 341, 380. *See also*
 under Commonwealth
 and technological information services, 618
 research, 613
 with high-altitude balloons, 624
- Seaman, Mr Keith Douglas, 42
- Seat belts, 455
- Secondary
 Allowances Scheme, 226
 industries, factories, 675
 schools, 223
- Securities, Commonwealth Government, 509
- Security
 Council of the United Nations, 66
 of Australia, 53
- Seismology, 624
- Senate, 46, 47
 Representation of the N.T. and A.C.T. in, 46
 (Representation of Territories) Act 1973, 46
- Services
 establishments, educational courses, 61
 pensions, 185
 amount paid 187
 annual liability, 185
 class of, 186
 number in force, 186
 Canteen Trust Fund, The, 190, 191
- Settlement of returned service personnel on the land, 271
- Settler arrivals
 age of, 102
 marital status of, 103
 number of, 102
- Share subscription, 503
- Sheep, 293
 and lambs, 294
 and wool industry, 295
 numbers, 294, 302
 world, 294
- Sheltered
 employment allowances and associated payments, 166
 workshops, 176
- Shipbuilding, 433
 assistance, 433
 bounty, 433
 subsidy, 433
- Ship passengers, 432
- Shipping, 679
 cargo discharged and loaded, 440
 casualties, 443
 conferences, 445
 control of, 432-435
 interstate, 437, 438
 statistics, collection and presentation, 435-436
- Ships
 and shipping, 432
 of the Royal Australian Navy, 57
- Ships' stores, 598
- Shipyards, 433
- Short term money market, 486, 487
- Sickness benefits, 172
 and associated payments, eligibility criteria, 171
 rates of, 171
- Silage, 290
- Silver, lead and zinc, industry developments in, 376
- Singapore
 defence co-operation with, 56
 overseas trade with, 597
- Single establishment manufacturing enterprises, 384, 388
- Slaughterings, 297-301
- Snow, 17
- Snowy Mountains Hydro-electric Authority, 509
 Power Act 1949, 400
 Scheme, 342, 400-402
 map of, 401
- Snowy-Murray Development, 400, 401
- Snowy-Tumut Development, 400, 401
- Social
 needs, studies of, 178
 science research, 622
 security, and welfare
 cash benefits paid by Commonwealth Government, 163
 government outlay on, 164
 Security, Department of, 177, 200
 security services, Commonwealth Government
 expenditure on, 163
 welfare, 177-179
 research projects, 178
 work, 178
- Soil
 conservation, 310
 resources, 616
- Soils, 309
- Soldiers' Children Education Scheme, 189, 190
- Sources of irrigation water, 312
- South Australia
 area, 4
 creation of, 4
 Electricity Trust of, 406
 Housing Trust, The, 418
 Sales Scheme, 421, 422
 irrigation in, 347, 348
 public health legislation, developments in, 203
 State Bank of, 422
 water conservation, 347, 348
- Sovereign, 41
- Soybeans, 279
- Space
 research, 623
 tracking stations, 623
- Special
 benefit, 172
 bonds, 561
 Broadcasting Service, 470
 schools for the handicapped, 223
- Spending patterns, household, 470

- Sports development, 636
- Standard error
 - for agricultural enterprises, 260
 - for earnings and hours of employees (distribution and composition) surveys, 146, 150
 - of household expenditure surveys, 120
 - of labour force survey, 127
 - of weekly earnings of employees, August 1977, 153
- Standard hours of work, 143
- Standard Industrial Trade Classification, 114, 115
- Standards Association of Australia, The, 380, 381
- Standardisation of manufacturing, 380, 381
- Standing Committee on Soil Conservation, 616
- State authorities, 543-549
 - and local authorities, outlay on education, 251
 - borrowings, 562
 - expenditure on new fixed assets, 548
 - final consumption expenditure, 544, 545
 - finance, coverage of, 543
 - receipts of, 548
 - receipts and outlay, 544-546
 - taxation, 549
- State
 - awards, wage rates, 140
 - Bank of South Australia, 422
 - Consolidated Revenue Funds, 543
 - Electricity Commission
 - of Queensland, 405
 - of Victoria, 403, 404
 - Energy Commission of Western Australia, 406
 - fisheries authorities, 325
 - forest authorities, 318
 - forests, 268
 - government
 - archives, 634
 - health activities, 202, 203
 - public finance, 685
 - governors, 41, 42
 - housing authorities, 417-419
 - Housing Commission of Western Australia, 418, 419, 422
 - legislation, for financial institution regulation, 477
 - public health legislation and administration, 202
 - responsibilities in education, 221
 - softwood forestry operations, 317
- States
 - capital assistance grants to, 520
 - Commonwealth Government
 - assistance to, 167, 176
 - grants to, 246
 - Grants
 - (Deserted Wives) Act 1968, 176
 - (Home Care) Act, 177
 - payments by Commonwealth Government to, 176
 - population of, 80
- Statistical collections, agriculture, 258
- Stevedoring industry, 433
- Stillbirths, 94
- Stirling, Lieutenant-Governor, 4
- Stock exchange, 503
- Stocks
 - inscribed, 561
 - of manufacturing establishments, 387
 - of wool, 303
- Student assistance schemes, 243
- Students
 - age of, 235
 - at universities, 241, 242
 - number of, 233
 - overseas, 243, 244
- Subscriber Trunk Dialling, 470
- Subsidiaries, 600
- Subsidy, shipbuilding, 433
- Sugar, 280-282
 - apparent consumption, 281
 - area harvested, 281
 - cane,
 - area harvested, 281
 - production, 281
 - yield, 281
 - export contracts, 281
 - exports of, 281
 - markets, 281
 - production, 281
- Sunflower, 279
- Sunshine, 32, 33, 34, 35, 36, 37, 38, 39
- Superannuation schemes, 494
 - public authority, 495
- Superphosphate usage, 310
- Supervision and care of infant life, 204
- Supply of nutrients available for consumption, 267
- Supporting parents
 - age, 168
 - benefit, 169
- Supporting parent's benefit, 168
- Surface water
 - measurement, Northern Territory, 351
 - supplies, 334
 - use with ground water, 335
 - yield of, 334
- Surveys
 - household expenditure, 119-123
 - of income, earnings and hours, 144
 - of motor vehicle usage, 454
- Tariffs
 - anti-dumping duties of, 574
 - barriers to trade, 575
 - by-law provisions of, 573
 - concessions, 576
 - declared preference countries, 573
 - and developing countries, 573
 - general rates of, 573
 - preferential rates, 573
 - quotas, 574
 - 'Generalised System of Preferences', 576
- Tasman, Abel Janzoon, 2
- Tasmania
 - annexation of, 4
 - area, 4
 - creation of, 4
 - dams and reservoirs, 338
 - Hydro-Electric Commission, 407
 - irrigation in, 349, 350
 - output and capacity of hydro-electric system, 407
 - Rivers and Water Supply Commission, 350
 - water conservation in, 349, 350
- Tasmanian Freight Equalisation Scheme, 434
- Tax
 - effective exemption from, 527, 528
 - instalment deductions, 523
 - payroll, 143, 540, 541
 - rebates, concessional, 526
 - sales, 537, 538
 - wool, 538
- Taxable income, 524

- Taxation
 - Commonwealth Government, 522
 - deductions
 - gifts, 525
 - interest payments on housing loans, 525
 - living-away-from-home allowance, 524
 - subscriptions, 525
 - rebates, 525-527
 - revenue, 507
- Taxes on income, 522, 523
 - companies, 531-533
 - individuals, 523
- Teacher education, 225, 226
 - course content, 225
 - scholarships, 225
- Teachers
 - colleges, non-government, 225
 - numbers of, 233
 - supply of and demand for, 229
- Teaching staff at universities, 242, 243
- Technical education, Commonwealth government grants for, 253
- Technical and further education, 224, 236
 - academic stream of enrolment, 236
 - colleges, 224
 - Council, 621
 - teachers in academic streams, 238
 - types of enrolments and fields of study, 237
- Technology, 613, 614, 622
- Telecommunications Commission, Australian, *see* Australian Telecommunications Commission
- Telegrams, 468
- Telephone
 - calls
 - local, 468
 - trunk line, 468
 - instruments in service, 467
 - services, 467
- Television, 472
 - and Film School, 223, 628
 - colour, 472
 - service, 472
 - stations, 470, 472
 - translator, 472
- Telex services, 468
- Temperature, 18, 22, 32, 33, 34, 35, 36, 37, 38, 39
 - average monthly maxima, 18
 - extreme
 - maxima, 22
 - minima, 22
- Temperatures, average, 18-21
- Terminating building societies, 422, 485, 501
- Terra Australis, 1
- Territories, population of, 80
- Tertiary Education
 - Assistance Scheme, The, 227
 - Commission, 231, 616
- Theatre, 625
- Therapeutic Goods Advisory Committee, 199
- Thunder, 32, 33, 34, 35, 36, 37, 38, 39
- Thunder-day, 17, 19
- Thunderstorms, 17
- Timber, 315, 320
 - exports of, 322
 - imports of, 322
 - production, 321
 - products, 320, 321
- Tobacco, 290
 - area cropped, 290
 - charge, 538
- Tobacco--*continued*
 - overseas trade, 290
 - production, 290
- Total fertility rate, 88
- Tourism, 636, 637
- Tourist
 - accommodation, 637
 - Commission, Australian, 637
- Trade
 - agreements, bilateral, 576
 - balance of, 582
 - Commissioners, 73, 579
 - Commissioner Service, 73, 579
 - displays, fairs, exhibitions, 580
 - marks and designs, 214
 - missions, 580
 - Practices Act 1974, 435
 - Practices Tribunal, 435
 - representation in Australia, 73, 581
 - representation overseas
 - Australian Trade Commissioner Service, 73, 579
 - marketing officers, 580
 - trade correspondents, 580
 - services, 579
 - statistics, collection of, 581-583
 - unions, 160
 - federal, 161
 - numbers of members, 160, 161
 - number of, 160
 - membership of, 160
 - State, 161
 - Unions, Australian Council of, 162
 - wholesale, 396
- Trading banks, 501
 - advances and deposits, 481
 - branches and agencies, 481
 - debts to customers' accounts, 482
 - interest rates, 481
 - liabilities and assets, 479
 - operations of, 479
- Tram and bus services, government and municipal, 451, 452
- Trams and trolley buses, 450
- Trans-Australia Airlines, 459, 509
- Transition from secondary education to employment, 229, 230
- Transport, 431
 - air, *see* Air transport
 - Department of, 458
 - Economics, Bureau of, 431, 622
- Travel, overseas, 639-642
- Treaties, 67
- Trochus shell, 324
- Tropical cyclones, 11
- True death rate, 95
- Trusts, 531
 - and funds, transactions of, 498
 - Funds, 543
 - land, 498
- Tuberculosis, 197
- Types of crops grown, 270
- Ultrasonic Institute, The, 198
- Underground water supplies, 346
- Undistributed profits of subsidiaries, 600
- Unemployed, 125
 - persons, 134
 - age and birthplace, 135
 - definition of, 126
 - duration of unemployment, 135

- Unemployment
 - benefits, 171
 - and associated payments, eligibility criteria, 171
 - rates of, 171
 - rates, graph, 130
- United Kingdom
 - overseas trade with, 597
 - reciprocal social service agreements, 173
- United Nations, 66, 199
 - Australia's involvement in, 66, 69
 - Economic and Social Commission for Asia and the Pacific (ESCAP), 65, 70
 - Educational, Scientific and Cultural Organisation, 341
 - Environment Program, 341
 - Security Council, 66
 - World Water Conference, 341
- Unit trusts, 498
- Universities, 241-243
 - and colleges, research in, 621
 - Commonwealth government grants for, 254
 - full and part-time students, 241
 - students commencing degree courses, 241
 - students completing degree courses, 242
 - students completing post-graduate diploma courses, 242
 - teaching staff, 242, 243
 - types of courses, 225
- University and college libraries, 633
- Unoccupied dwellings, 409, 410
- Unsecured notes, 503
- Uranium industry, developments in, 375
- Urban areas, 268
 - dwellings in, 410
- U.S.A., overseas trade with, 597
- U.S.S.R., overseas trade with, 597
- Utilisation
 - of land in Australia, 268
 - of power from Snowy Mountains Hydro-electric Scheme, 401
- Valuation of
 - imports, 582
 - production, 383
- Value added, 383
- Value of
 - buildings, 427
 - fruit production, 285
 - minerals produced, 367, 368
 - turnover in manufacturing establishments, 386
 - viticulture, 287
- Van Diemen's Land, 2
 - area, 4
- Veal, 298
- Vegetables, 282-284
 - apparent consumption of, 282
 - for human consumption, 282
 - area cropped, 283
 - production of, 283
 - value of exports, 283
 - value of production, 283
 - processed, Australian production of, 284
- Vehicle, total annual kilometres, 453
- Vessels, Australian registered, 443
- Veterans' affairs, 181-190
- Veterans' Affairs, Department of, 181, 187-190, 200, 204
- Veterans
 - dependants of, 187
 - medical treatment for, 187
- Victoria
 - area, 5
 - creation of, 5
 - dams and reservoirs, 337
 - electricity
 - generation, 404
 - transmission and supply, 404
 - Housing Commission of, 417, 421
 - irrigation in, 344, 345
 - Ministry of Housing, 417
 - public health legislation, recent developments in, 202
 - State Electricity Commission of, 403
 - water conservation in, 344, 345
- Victorian Water Commission, 345
- Visual Arts Board, 629
- Vital statistics, 85-99
 - crude rates, 85
- Viticulture
 - area sown, 288
 - production, 288
 - value of, 288
- Volume of money, 475, 476
- Voluntary agencies
 - and the government, 178
 - in the 19th century, 178
 - role of, 178
 - welfare, 178
- Wage
 - and salary earners, 125
 - awards, 140
 - minimum, 140
 - rates
 - hourly, 143
 - weekly, 141, 142
- Wages
 - and prices, 676
 - and salaries of employees in manufacturing establishments, 386
 - rates of, 140
- War Memorial, 633
- Water conservation in
 - Australian Capital Territory, 352
 - New South Wales, 343, 344
 - Northern Territory, 350-352
 - Queensland, 345, 346
 - South Australia, 347, 348
 - Tasmania, 349, 350
 - Victoria, 344, 345
 - Western Australia, 348, 349
- Water management, 340
 - attitudes to, 340
 - policy and goals, 340
- Water quality, 339
 - conditions affecting, 339
- Water Resources
 - Commission, 343
 - Council, Australian, 341, 617
- Water resources
 - continuing assessment of, 341
 - determinants of, 333
 - management of, 333, 340
 - research, 341
- Water supplies, underground, 346
- Water, surface, 334
- Weekly
 - earnings, 152, 153, 154
 - average, 143, 144, 148, 149
 - definition of, 145, 150

*Weekly—continued**earnings—continued*

- of all employees, 147
- of employees (distribution), August 1977, 152
- reliability of estimates, 153
- of full-time employees, 153
- hours paid for, definition of, 145
- wage rates, 141, 142
 - female, 142
 - indexes of, 142
 - for industry groups, 141, 142

Weighted average minimum weekly wage rates, 141

Weighted average standard hours of work, 143

Welfare

- agencies, 177
 - voluntary, 178
- centres, infant, 204
- child, 178, 212
- family, 178
- housing accommodation, 419
- of immigrants, 178, 180
- of prisoners and ex-prisoners, 178
- organisations, Commonwealth Government assistance to, 174
- services
 - to the handicapped, 178
 - to migrants, 180, 181
- social, 177-179
- youth, 178
- and social security, government outlay on, 164

Western Australia

- annexation of, 3
- area, 4
- creation of, 4
- dams and reservoirs, 337
- electric power, 406, 407
- irrigation in, 348, 349
- public health legislation, recent developments in, 203
- State Energy Commission of, 406
- State Housing Commission of, 418, 419, 422
- water conservation, in, 348, 349

Whale processing, 330

Whales, 324

Whaling, 326, 330

Act, 325

Wheat, 271

- area cropped, 273
- Board, Australian, 271, 509
- delivery quota plan, 272
- exports, 274, 275
- grown for grain
 - area cropped, 273
 - disposal of, 273
 - production, 273
- home consumption price, 274
- industry development of, 271
- monthly export price, 274
- pools, 274
- production, 273
- quality, 272
- receivals, by Australian Wheat Board, 273
- stabilisation, 272
- standards, 272
- varieties, 272
- world, 271, 272, 276

Whole milk

- gross value of, 306
- production, 306
- utilisation, 306

Wholesale

- price indexes, 112-116
 - of articles produced, 115
 - collection of prices, 108
 - of materials used, 114
- trade, 396

Widow pensioners,

- age, 167
- categories of, 167

Widows' pensions, 168

- and associated payments, 167, 168
- current rates of, 167
- eligibility criteria, 167, 168
- income test, 167

Wind, 32, 33, 34, 35, 36, 37, 38, 39

- average speeds, 26
- prevailing directions at Australian capitals, 26
- roses, 26, 28, 29

Winds, 26

Wine, 288, 289

- consumption, 289
- exports, 289
- grape charges, 539
- industry, 288
- production, 289

Winnecke, Sir Henry Arthur, K.C.M.G., K.C.V.O., O.B.E., K.St.J., Q.C., 42

Wood chips, 321

Wood, crude

- exports of, 322
- imports of, 322

Wool, 301-305

- consumption, 303, 304
- Corporation, The, 303, 304
- functions of, 304
- exports, 304
- greasy, 301
- industry, 295
- marketing, 304, 305
- prices, 303
- production, 301, 302
- world, 294
- receivals, 303
- taxable, 303
- Statistical Service, 301
- tax, 538

Workers, part-time, 152

World

- cattle numbers, 293
- Health Organisation, 206
- Meteorological organisation, 341
- sheep numbers, 294
- Water Conference, of the United Nations, 341
- wheat, 271, 272
 - area cropped, 276
 - production, 276
 - wool production, 294
- Wrecks and salvage, 432

Yield of surface water, 334

Youth

- affairs, 636
- welfare, 178

Zoological gardens, 634, 635