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AUSTRALIA
1994

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Australian Statistician

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CANBERRA

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Preface

Year Book Australia is the principal reference work produced by the Central Office of the Australian Bureau of Statistics (ABS). It provides a comprehensive and detailed statistical review of various aspects of the economy and social conditions in Australia. In addition, it contains descriptive matter dealing with Australia's government, international relations, defence, climate, physiography, culture and environment.

The first *Official Year Book of the Commonwealth* was published in 1908, although individual Australian States and colonies had been producing year books for several decades before that. *Year Book Australia 1994* is issued under the authority of the Commonwealth Government.

With the 1994 edition it was decided to establish the practice of bringing out the *Year Book* in advance of the year of its title. In order to achieve this change it was necessary to forego a 1993 edition. In effect, this means that an annual *Year Book* is being released in 1993, and that the contents are somewhat more up-to-date than under the previous cycle of release dates.

Most of the statistics contained in this volume relate to the years ended June or December 1991 or 1992. More detailed and, in most cases, more recent statistics are available in other ABS publications. The more significant of these publications are listed at the end of the relevant chapters of the *Year Book*, while the ABS *Catalogue of Publications and Products* (1101.0) lists all current publications of the ABS.

Each year a number of *Special Articles* appear in the *Year Book*, which are listed in the Table of Contents.

I extend my thanks and appreciation to all those officers involved in the preparation of *Year Book Australia 1994* and those organisations which have kindly supplied material for inclusion in this publication.

Australian Bureau of Statistics
Canberra
September 1993

IAN CASTLES
Australian Statistician

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Much of the material contained in the *Year Book* is prepared by the staff responsible for respective fields of statistics in the Australian Bureau of Statistics, whose contribution is appreciated.

Acknowledgments

ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated; without it the wide range of statistics published by the ABS would not be available for general use by the community. Information received by the ABS is treated in strict confidence as required by the Census and Statistics Act.

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Introduction to Year Book Australia and how to use it

Year Book Australia provides a comprehensive overview of the economic and social conditions of contemporary Australia. It is a statistically oriented publication with sufficient background information to establish a context for the statistics and to assist in understanding and interpreting them.

Much of the statistics are derived from the Australian Bureau of Statistics (ABS), the official statistical agency which produces the *Year Book*. However, a great deal of statistics and background information on the various subjects is also contributed by other, predominantly government, organisations. The official nature of the sources of the contents of the *Year Book* ensures a high degree of objectivity and reliability in the picture presented of contemporary Australia.

The *Year Book* also presents some historical and international perspectives of contemporary Australia, both in individual chapters and in the sections containing historical series and international comparisons of statistics at the end of the publication.

Finding information

The contents pages at the beginning of the *Year Book* and preceding each chapter provide a guide to the broad subjects contained in each chapter. The index assists in locating information on more specific subjects. A list of special, one-off articles which have appeared in previous editions is contained at the end of the *Year Book*.

The tables and graphs in a chapter are numbered and the text is cross-referenced, as necessary, to the table or graph to which it relates.

Symbols and abbreviations

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 rounded to zero
. .	not applicable
n.p.	not available for separate publication (but included in totals where applicable)
p	preliminary — figures 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
n.e.s.	not elsewhere specified
____	break in continuity of series (where drawn across a column between two consecutive figures)
*	subject to sampling variability too high for most practical purposes.

The following abbreviations are used for the titles of the Australian States and Territories and Australia: NSW (New South Wales), Vic. (Victoria), Qld (Queensland), WA (Western Australia), SA (South Australia), Tas. (Tasmania), NT (Northern Territory), ACT (Australian Capital Territory), Aust. (Australia).

In general, the statistics in this volume relate to the State and Territories of Australia, that is, they exclude particulars of the External Territories of Australia, which, however, are specifically dealt with in Chapter 3, Territories of Australia.

Yearly periods shown as, for example, 1991 refer to the year ended 31 December 1991; those shown as, for example, 1991–92 refer to the year ended 30 June 1992. Other yearly periods are specifically indicated. The range of years shown in the table headings, for example, 1901 to 1991–92, indicates the period covered but does not necessarily imply that each intervening year is included or that the yearly period has remained the same throughout the series.

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

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

Directory for further information

While the statistics and descriptive information contained in the *Year Book* provides a comprehensive overview of Australia, they represent only a relatively small part of the total stock of statistics and other information on respective subjects available from the ABS and other organisations. The *Year Book* is aimed primarily at providing a ready and convenient source of reference, both to those familiar and unfamiliar with a particular subject. In other words, because of the range of subjects and limitations on the size of the *Year Book* it aims at breadth rather than depth of information.

However, for those requiring information in greater depth, the *Year Book* also serves as a directory to more detailed sources. To this end the source is shown for each statistical table, graph and map. Where the ABS is the source, the title and catalogue number of the relevant publication is quoted. For other sources the name of the organisation is shown, and the publication title where appropriate. Relevant ABS and other publications are also listed at the end of each chapter, together with a reference to the information services available from the offices of the ABS, listed at the front of the *Year Book*. A useful complementary publication is the ABS *Catalogue of Publications and Products* (1101.0) which lists all current publications and products of the ABS.

The Year Books or Statistical Summaries produced by the ABS for each State or Territory, respectively, provide information similar to that contained in the *Year Book Australia* but focused on the State or Territory concerned.

In many cases, the ABS can also provide information which is not published or which is historical or compiled from a variety of published and unpublished sources. Information of this kind may be obtained through the Information Consultancy Service. This information may be made available in one or more of the following forms: consultancy reports, microfiche, floppy disk, magnetic tape, computer printout or photocopy. Charges are generally made for such information. Inquiries may be made by contacting Information Services in the nearest ABS office.

The annual reports of government departments and agencies also provide a valuable source of more detailed information on the administrative and other aspects of subjects covered in the *Year Book*.

For a variety of reasons it is not possible for all statistics in the *Year Book* to relate to the latest or same year. Readers wishing to obtain or clarify the latest available statistics should contact the relevant source.

This current (76th) edition is the latest in a long series of *Year Books* extending back to the first edition in 1908. This series provides a valuable source of information on the state of Australia at any particular point in this period.

Feedback from readers

The ABS endeavours to keep the balance of the contents of the *Year Book* in line with the ever changing nature of the nation. For this reason comments on the adequacy and balance of the contents of the *Year Book* are welcomed and should be directed to the Editor of the *Year Book* at ABS Central Office, Canberra.

Chapter One

Geography and Climate

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GEOGRAPHY OF AUSTRALIA

Position and area

Australia 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 is about 3,180 kilometres, while the latitudinal distance between Cape York and South East Cape, Tasmania, is 3,680 kilometres. The longitudinal distance between Steep Point and Cape Byron is about 4,000 kilometres.

1.1 AREA, COASTLINE, TROPICAL AND TEMPERATE ZONES, AND STANDARD TIMES

	Estimated area			*Percentage of total area*		*Standard times*	
State/Territory	*Total*	*Percentage of total area*	*Length of coastline*	*Tropical zone*	*Temperate zone*	*Meridian selected*	*Ahead of GMT(a)*
	km²		km				hours
New South Wales	801,600	10.43	1,900	. .	100	150°E	10.0
Victoria	227,600	2.96	1,800	. .	100	150°E	10.0
Queensland	1,727,200	22.48	7,400	54	46	150°E	10.0
South Australia	984,000	12.81	3,700	. .	100	142°30'E	9.5
Western Australia	2,525,500	32.87	12,500	37	63	120°E	8.0
Tasmania	67,800	0.88	3,200	. .	100	150°E	10.0
Northern Territory	1,346,200	17.52	6,200	81	19	142°30'E	9.5
Australian Capital Territory	2,400	0.03	(b)35	. .	100	150°E	10.0
Australia	**7,682,300**	**100.00**	**36,735**	**39**	**61**	. .	. .

(a) Greenwich Mean Time. During daylight saving periods, an hour should be added to the times in this column. (b) Jervis Bay Territory.
Source: Bureau of Meteorology.

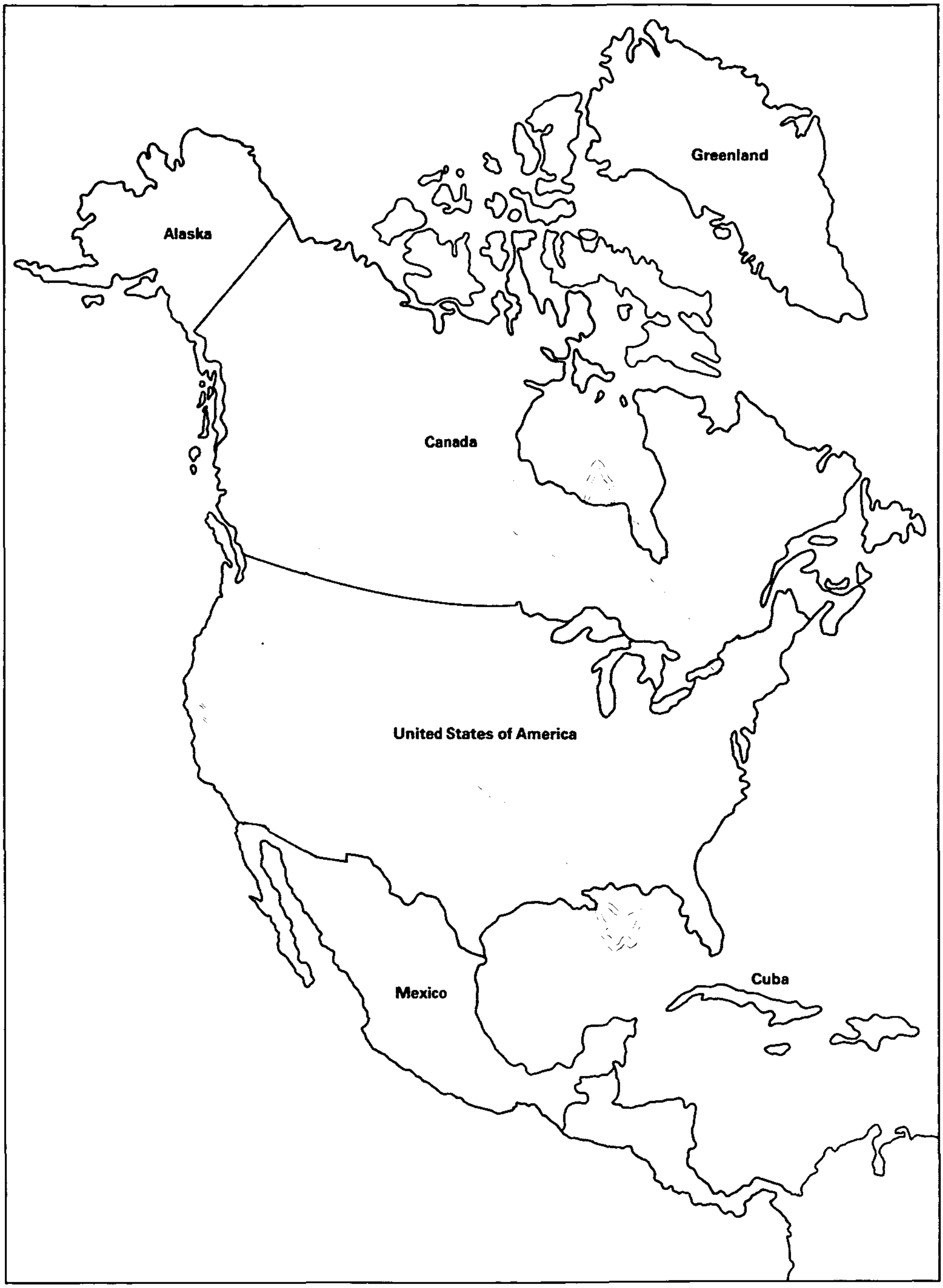
The area of Australia is almost as great as that of the United States of America (excluding Alaska), about 50 per cent greater than Europe (excluding USSR) and 32 times greater than the United Kingdom. The following table and maps show the area of Australia in relation to areas of other continents and selected countries.

1.2 AREAS OF CONTINENTS AND SELECTED COUNTRIES
('000 square kilometres)

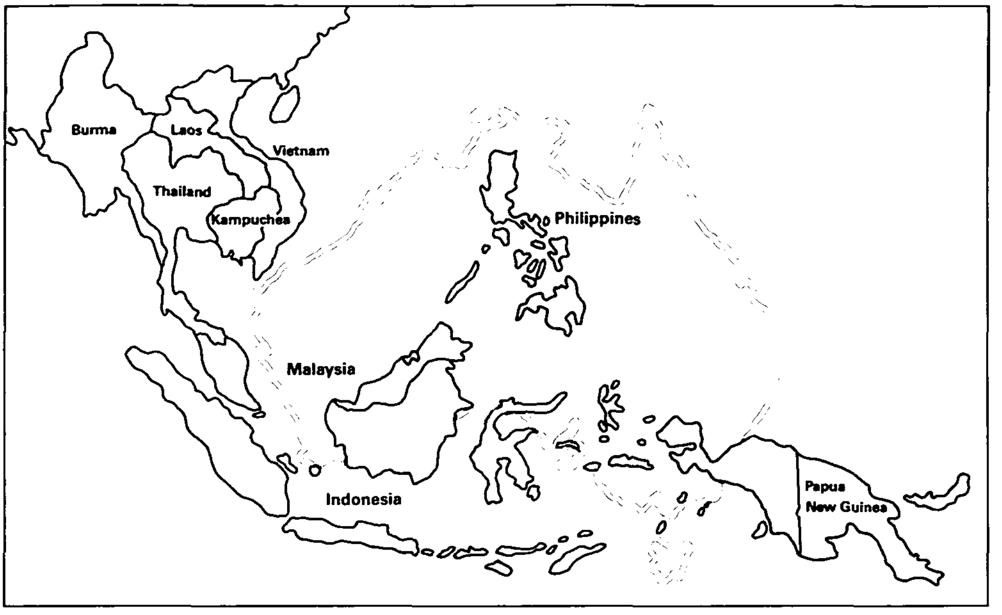
Country	*Area*	*Country*	*Area*
Continents		India	3,288
Asia	44,614		
Africa	30,319	Selected other countries	
North, Central America		Belorussia	208
and West Indies	24,247	France	544
South America	17,834	Germany	357
Europe	10,600	Indonesia	1,919
Australia and Oceania	8,504	Japan	372
		Kazakhstan	2,717
Countries (seven largest)		Papua New Guinea	462
Russia	17,073	New Zealand	269
Canada	9,976	Ukraine	604
China	9,590	United Kingdom	244
United States of America	9,363		
Brazil	8,512	**Total land mass excluding Arctic**	
Australia	**7,682**	**and Antarctic continents**	**135,774**

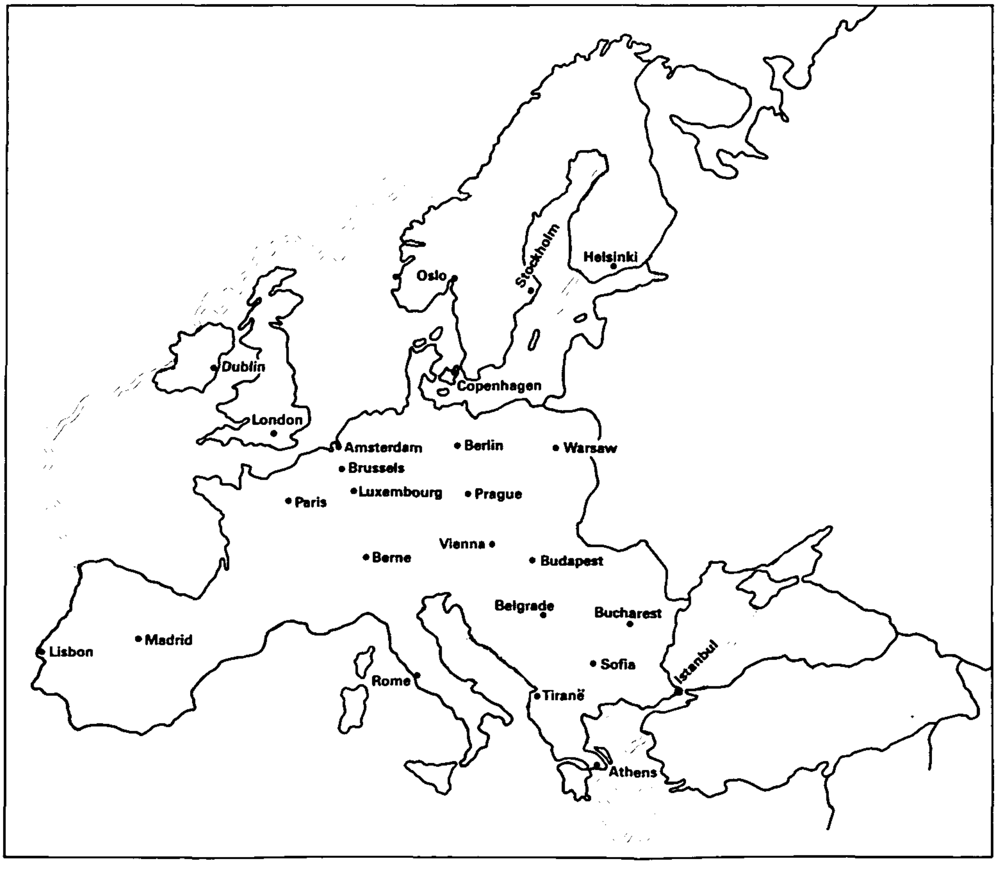
Source: Encyclopedia Britannica and The World Book Encyclopedia.

FIGURE 1.3


Greenland
Alaska
Canada
United States of America
Mexico
Cuba

FIGURES 1.4 AND 1.5





Landforms and their history

Australia is the lowest, flattest, and, apart from Antarctica, the driest of the continents. Unlike Europe and North America, where much of the landscape dates back to 20,000 years ago when great ice sheets retreated, the age of landforms in Australia is generally measured in many millions of years. This fact gives Australia a very distinctive physical geography.

The continent can be divided into three parts — the Western Plateau, the Central Lowlands and the Eastern Highlands.

The Western Plateau consists of very old rocks (some over 3,000 million years old), and much of it has existed as a landmass for over 500 million years. Several parts have individual 'plateau' names (for example, Kimberley, Hammersley, Arnhem Land, Yilgarn). In the Perth area, younger rocks along a coastal strip are separated from the rest by the Darling Fault escarpment. The Nullabor Plain is virtually an uplifted sea floor, a limestone plain of Miocene age (about 25 million years).

The Central Lowlands stretch from the Gulf of Carpentaria through the Great Artesian Basin to the Murray–Darling Plains. The Great Artesian Basin is filled with sedimentary rocks which hold water that enters in the wetter Eastern Highlands.

Much of the centre of Australia is flat, but there are numerous ranges (for example, Macdonnels, Musgrave) and some individual mountains of which Ayers Rock (Uluru) is the best known. Faulting and folding in this area took place long ago, the area was worn to a plain, the plain uplifted and then eroded to form the modern ranges on today's plain. In looking at Ayers Rock the remarkable thing is not how it got there, but that so much has been eroded from all around, leaving it there.

In the South Australian part of the Central Lowlands fault movements are more recent, and the area can be considered as a number of blocks that have been moved up and down to form a series of 'ranges' (Mt Lofty, Flinders Ranges) and 'hills' (such as the Adelaide Hills) with the downfaulted blocks occupied by sea (for example, Spencer Gulf) or lowlands including the lower Murray Plains.

The Eastern Highlands rise gently from central Australia towards a series of high plateaus, and even the highest part around Mt Kosciusko (2,230 metres) is part of a plateau.

There are a few younger faults and folds, such as the Lake George Fault near Canberra, and the Lapstone Monocline near Sydney.

Some plateaus in the Eastern Highlands are dissected by erosion into rugged hills, and the eastern edges of plateaus tend to form high escarpments. Many of these are united to form a Great Escarpment that runs from northern Queensland to the Victorian border. Australia's highest waterfalls (Wollombi on the Macleay, Wallaman Falls on a tributary of the Herbert, Barron Falls near Cairns, and Wentworth Falls in the Blue Mountains) all occur where rivers flow over the Great Escarpment. For most of its length the Great Divide (separating rivers flowing to Central Australia from rivers flowing to the Pacific) runs across remarkably flat country dotted with lakes and airstrips, and there is no 'Great Dividing Range'. In eastern Victoria, however, the old plateau has been eroded into separate High Plains (such as Dargo High Plain), mostly lying south of the Divide which here runs across rugged country.

The present topography results from a long landscape history which can conveniently be started in the Permian, about 290 million years ago, when much of Australia was glaciated by a huge ice cap. After the ice melted, parts of the continent subsided and were covered with sediment to form sedimentary basins such as the Great Artesian Basin. By early Cretaceous times, about 140 million years ago, Australia was already so flat and low that a major rise in sea level divided it into three landmasses as the shallow Cretaceous sea spread over the land.

In the following Tertiary times Australia can be regarded as a landscape of broad swells varied by a number of sedimentary basins (Murray, Gippsland, Eucla, Carpentaria, Lake Eyre and other basins). These slowly filled up and some are now sources of coal or oil. The Eastern Highlands were uplifted about this time.

Throughout the Tertiary, volcanoes erupted in eastern Australia. Some individual volcanoes were the size of modern Vesuvius, and huge lava plains covered large areas. Volcanic activity continued up to a few thousand years ago in Victoria and Queensland. Australia's youngest volcano is Mt Gambier in South Australia, about 6,000 years old.

Between 55 and 10 million years ago Australia drifted across the surface of the earth as a plate, moving north from a position once adjacent to Antarctica. There have been many changes in the climate of Australia in the past, but oddly these are not due to changing latitude. Even when Australia was close to the South Pole the climate was warm and wet, and this climate persisted for a long time despite changes in latitude. It was probably under this climate that the deep weathered, iron-rich profiles that characterise much of Australia were formed. Aridity only seems to have set in after Australia reached its present latitude, and the northern part was probably never arid.

Today a large part of Australia is arid or semi-arid. Sand dunes are mostly longitudinal, following the dominant wind directions of a high pressure cell. The dunes are mostly fixed now. Stony deserts or gibber plains (covered with small stones or 'gibbers') are areas without a sand cover and occupy a larger area than the dunefields. Salt lakes occur in many low positions, in places following lines of ancient drainage. They are often associated with lunettes, dunes formed on the downwind side of lakes. Many important finds of Aboriginal prehistory have been made in lunettes. Despite the prevalence of arid conditions today, real aridity seems to be geologically young, with no dunes or salt lakes older than a million years.

The past few million years were notable for the Quarternary ice age. There were many glacial and interglacial periods (over 20) during this time, the last glacial about 20,000 years ago. In Tasmania there is evidence of three different glaciations — the last glaciation, one sometime in the Quaternary, and one in the Tertiary. In mainland Australia there is evidence of only the last glaciation, and the ice then covered only 25 square kilometres, in the vicinity of Mt Kosciusko.

The broad shape of Australia is caused by earth movements, but most of the detail is carved by river erosion. Many of Australia's rivers drain inland, and while they may be eroding their valleys near their highland sources, their lower courses are filling up with alluvium, and the rivers often end in salt lakes which are dry for most of the time. Other rivers reach the sea, and have dissected a broad near-coast region into plateaus, hills and valleys. Many of the features of the drainage pattern of Australia have a very long history, and some individual valleys have maintained their position for hundreds of millions of years. The salt lakes of the Yilgarn Plateau in Western Australia are the remnants of a drainage pattern that was active before continental drift separated Australia from Antarctica.

During the last ice age, sea level was over 100 metres lower than it is today, and rivers cut down to this low level. When sea level rose again the lower valleys were drowned. Some make fine harbours (for example, Sydney Harbour), whilst others have tended to fill alluvium, making the typical lowland valleys around the Australian coast.

Coastal geomorphology is also largely the result of the accumulation of sediment in drowned coasts. In some areas, such as Ninety Mile Beach (Victoria) or the Coorong (South Australia), there are simple accumulation beaches. In much of the east there is a characteristic alternation of rocky headland and long beach, backed by plains filled with river and marine sediments.

The offshore shape of Australia, revealed in isobath contours, results mainly from the pattern of break-up of the super-continent of which Australia was once a part. There is a broad continental shelf around most of Australia, bounded by a steeper continental slope, except in New South Wales where the continental shelf is very narrow. The Queensland coast is bounded by a broad plateau on which the Great Barrier Reef has grown in only the last two million years. In South Australia the continental shelf is grooved by submarine canyons.

The Australian landforms of today are thus seen to result from long-continued processes in a unique setting, giving rise to typical Australian landscapes, which in turn provide the physical basis for the distribution and nature of biological and human activity in Australia.

Rivers and lakes

The rivers of Australia may be divided into two major classes, those of the coastal margins with moderate rates of fall and those of the central plains with very slight fall. Of the rivers of the east coast, the longest in Queensland are the Burdekin and the Fitzroy, while the Hunter is the largest coastal river of New South Wales. The longest river system in Australia is the Murray–Darling which 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 length of the Murray is about 2,520 kilometres and the Darling and Upper Darling together are also just over 2,000 kilometres long. The rivers of the north-west coast of Australia, for example, the Murchison, Gascoyne, Ashburton, Fortescue, De Grey, Fitzroy, Drysdale and Ord, are of considerable size. So also are those rivers in the Northern Territory, for example, 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.

There are many types of lake in Australia, the largest being drainage sumps from the internal rivers. In dry seasons these lakes finally become beds of salt and dry mud. The largest are Lake Eyre 9,500 square kilometres, Lake Torrens 5,900 square kilometres and Lake Gairdner 4,300 square kilometres.

Other lake types are glacial, most common in Tasmania; volcanic crater lakes predominantly in Victoria and Queensland; fault angle lakes, of which Lake George near Canberra is a good example and coastal lakes formed by marine damming of valleys.

CLIMATE OF AUSTRALIA

The island continent of Australia features a wide range of climatic zones, from the tropical regions of the north, the arid expanses of the interior, to the temperate regions of the south.

Widely known as 'The Dry Continent', the land mass is relatively arid, with 80 per cent having a median rainfall less than 600 millimetres per year and 50 per cent less than 300 millimetres. Seasonal fluctuations can be great, with temperatures ranging from above 50°C to well below zero. However, 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 the surrounding oceans.

Although the climate can be described as predominantly continental, the insular nature of the land mass produces modifications to the general continental pattern.

Australia can be host to any of nature's disasters, particularly droughts, floods, tropical cyclones, severe storms and bushfires.

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. Periodic north-west cloud bands in the upper levels of the atmosphere over the continent may interact with southern systems to produce rainfall episodes, particularly over eastern areas. 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 intertropical convergence zone, resulting in a hot rainy season. Southward dips of the monsoonal low pressure trough sometimes spawn tropical depressions, and may prolong rainy conditions over northern Australia for episodes up to three weeks at a time.

Tropical cyclones develop over the seas around northern Australia in summer between November and April. Their frequency of occurrence and the tracks they follow vary greatly from season to season. On average, about three cyclones per season directly affect the Queensland coast, and about three affect the north and north-west coasts. Tropical cyclones approaching the coast usually produce very heavy rain and high winds in coastal areas. Some cyclones move inland, losing intensity but still producing widespread heavy rainfall.

The climate of eastern and northern Australia is influenced by the Southern Oscillation (SO), seesawing of atmospheric pressure between the northern Australian/Indonesian region and the central Pacific Ocean. This oscillation is the second most important cause of climatic variation after the annual seasonal cycle, over eastern and northern Australia. The strength of the Southern Oscillation is determined by the Southern Oscillation Index (SOI) which is a measure of the difference in sea level atmospheric pressure between Tahiti in the central Pacific and Darwin, northern Australia. At one extreme of the oscillation, the pressure is abnormally high at Darwin and abnormally low at Tahiti. Severe and widespread drought over eastern and northern Australia generally accompanies this extreme. These conditions generally commence early in the year, last for about 12 months, and have a re-occurrence period of 2 to 7 years.

The above extreme is generally immediately preceded or followed by the opposite extreme where pressures at Darwin are abnormally low and those at Tahiti are abnormally high. In this case, rainfall is generally above average over eastern and northern Australia.

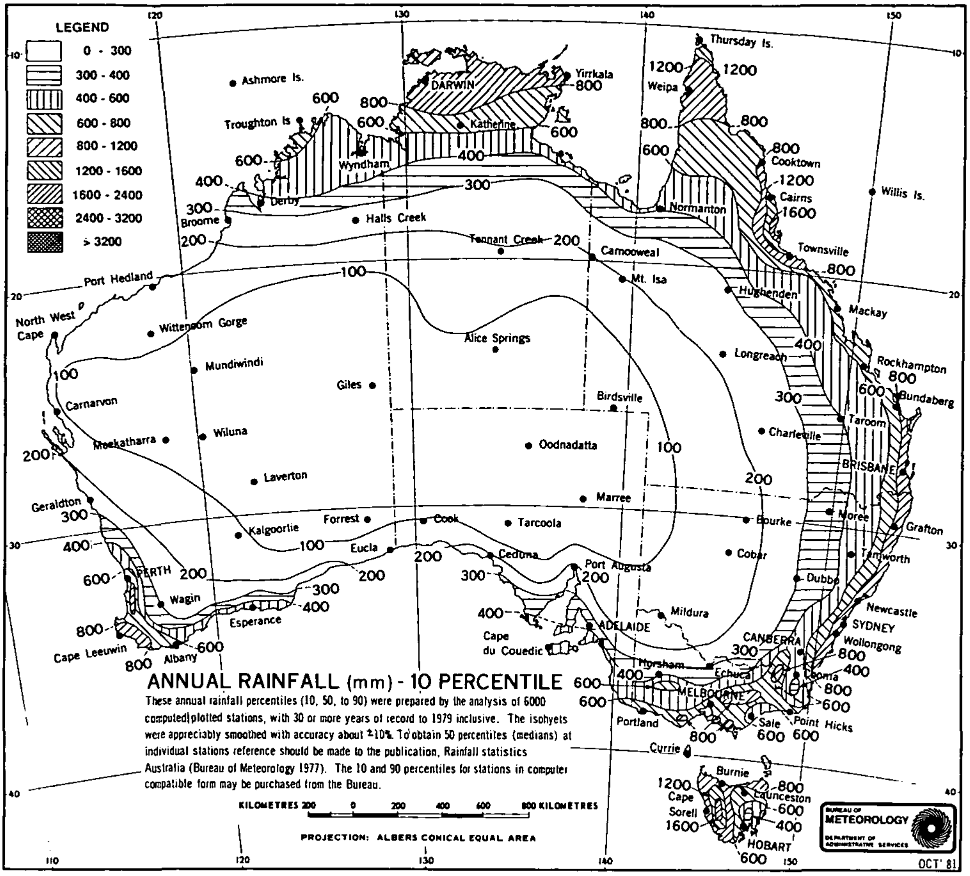
The SO is linked to sea surface temperatures (SSTs) in the Pacific Ocean. Dry extreme SO years are accompanied by above normal SSTs in the central and/or eastern equatorial Pacific and vice versa. Dry extreme years are called El Nino years. Wet extreme years are called La Nina years.

Rainfall and other precipitation

Annual. The annual 10, 50 and 90 percentile rainfall maps are shown on figures 1.6, 1.8 and 1.9 respectively. The area of lowest rainfall is in the vicinity of Lake Eyre in South Australia, where the median (50 percentile) rainfall is only about 100 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 cause widespread flooding.

The region with the highest median annual rainfall is the east coast of Queensland between Cairns and Cardwell, where Tully has a median of 4,048 millimetres (63 years to 1987 inclusive). The mountainous region of western Tasmania also has a high annual rainfall, with Lake Margaret having a median of 3,565 millimetres (76 years to 1987 inclusive). In the 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.

FIGURE 1.6



NOTE: 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.
Source: Bureau of Meteorology.

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.

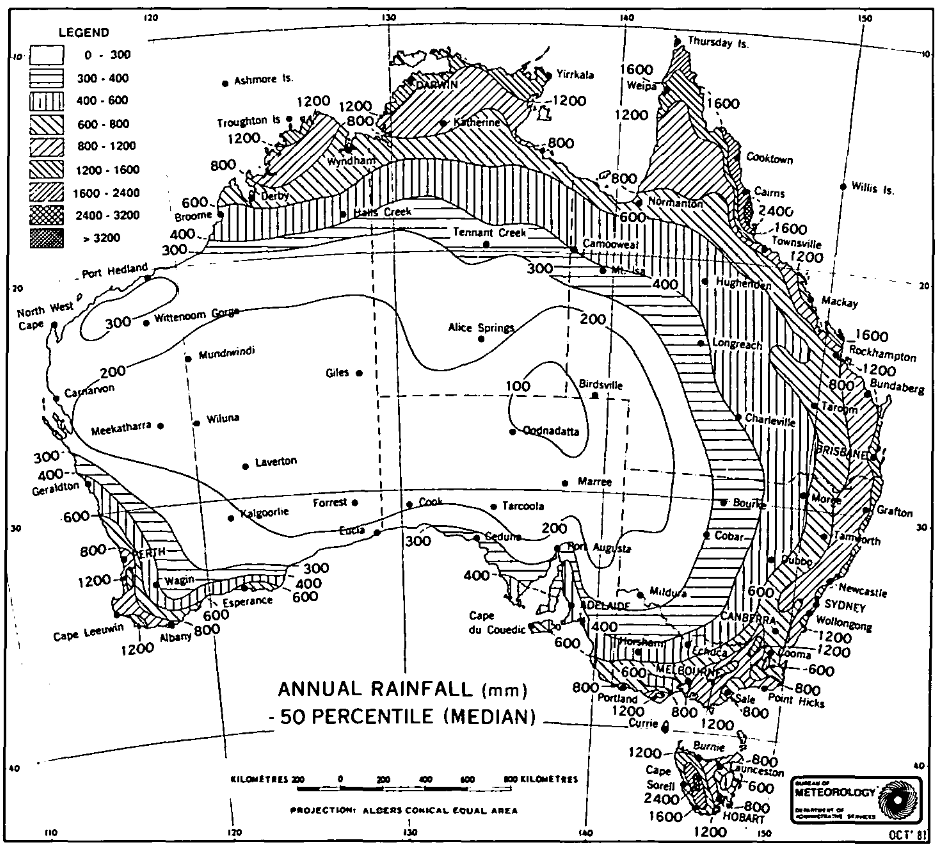
The following table shows the area distribution of median annual rainfall.

1.7 AREA DISTRIBUTION OF MEDIAN ANNUAL RAINFALL
(per cent)

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

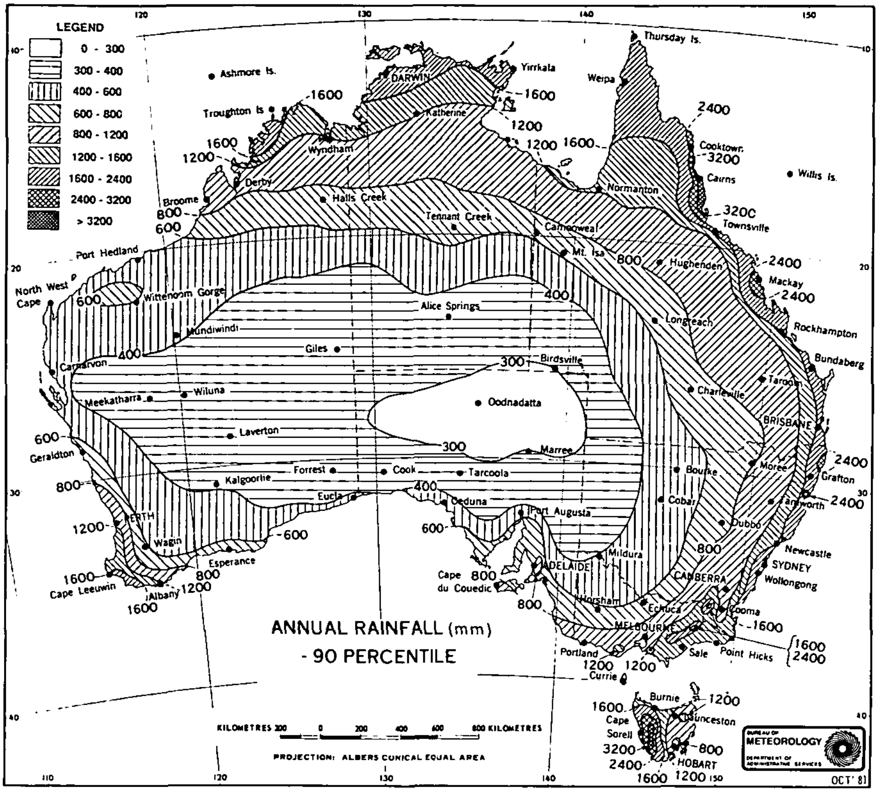
(a) Includes Australian Capital Territory.
Source: Bureau of Meteorology.

FIGURE 1.8



Source: Bureau of Meteorology.

FIGURE 1.9



Source: Bureau of Meteorology.

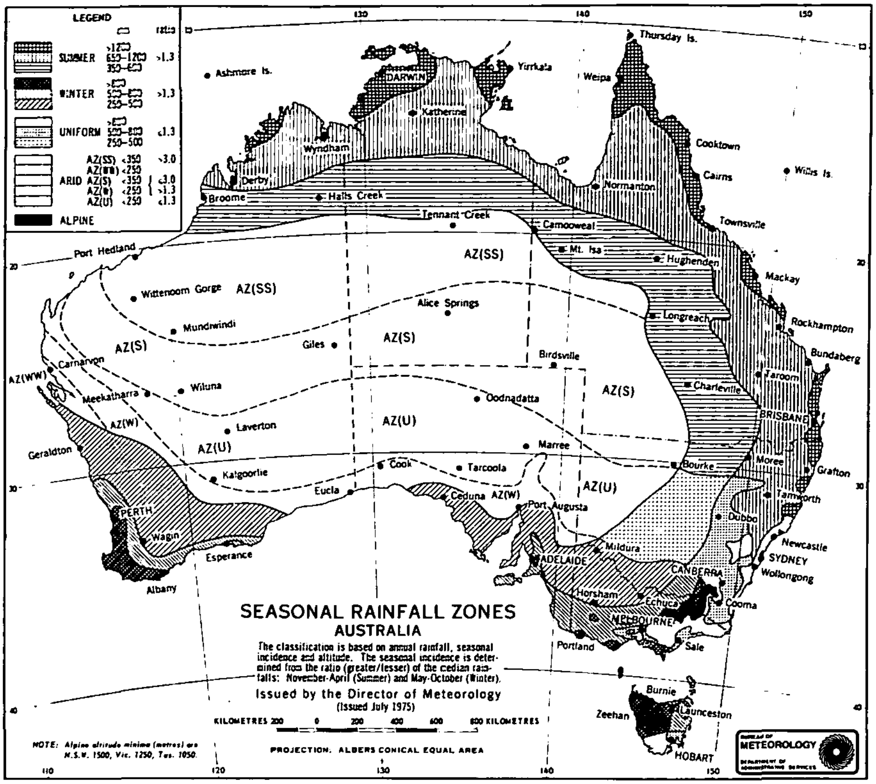
Seasonal. As outlined above, the rainfall pattern of Australia is strongly seasonal in character with a winter rainfall regime in the south and a summer regime in the north.

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. The parameters are median annual rainfall and seasonal rainfall incidence. Figure 1.10 is a reduced version of the seasonal rainfall zones arising from this classification (*see* Bureau of Meteorology publication *Climatic Atlas of Australia, 1988*).

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 southern Tasmania;
- marked wet winter and dry summer of south-west Western Australia and, to a lesser extent, much of the remainder of southern Australia directly influenced by westerly circulation; and

FIGURE 1.10



Source: Bureau of Meteorology.

- arid area comprising about half 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.

The seasonal rainfall classification (*Climatic Atlas of Australia, 1988*) can be further reduced to provide a simplified distribution of seven climatic zones as shown in figure 1.11.

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 indices of rainfall variation based on several techniques have been used to compile maps showing main features of the variability of annual rainfall over Australia.

One index for assessing the variability of annual rainfall is given by the ratio of the 90–10 percentile range to the 50 percentile (median value), that is:

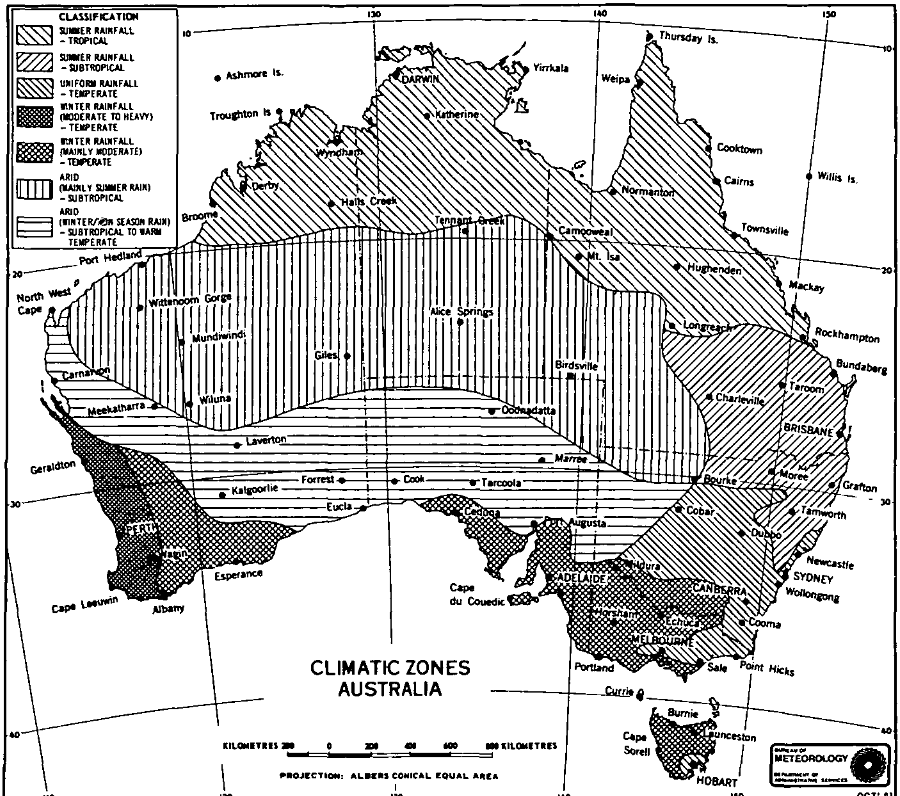
$$\text{Variability Index} = \left\{\frac{90\text{–}10}{50}\right\} \text{ percentiles.}$$

Variability based on this relationship (Gaffney 1975 and Lee and Gaffney 1986) is shown in figure 1.12. The region of high to extreme variability shown in figure 1.12 lies mostly in the arid zones with summer rainfall incidence, AZ (S) defined on figure 1.10. 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 extreme variations in rainfall from year to year: at Onslow (Western Australia), annual totals varied from 15 millimetres in 1912 to 1,085 millimetres in 1961 and, in the four consecutive years 1921 to 1924, the annual totals were 566, 69, 682 and 55 millimetres respectively. At Whim

Creek (Western Australia), where 747 millimetres have been recorded in a single day, only 4 millimetres 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 7,898 millimetres in 1950 to 2,486 millimetres in 1961.

Variability of rainfall in eastern Australia is strongly linked to the Southern Oscillation — *see* under Climatic controls. High SOI values relate to above average rainfall over eastern Australia, and low SOI values relate to below average rainfall over the area. Table 1.13 illustrates the significance of this SOI/rainfall relationship.

FIGURE 1.11

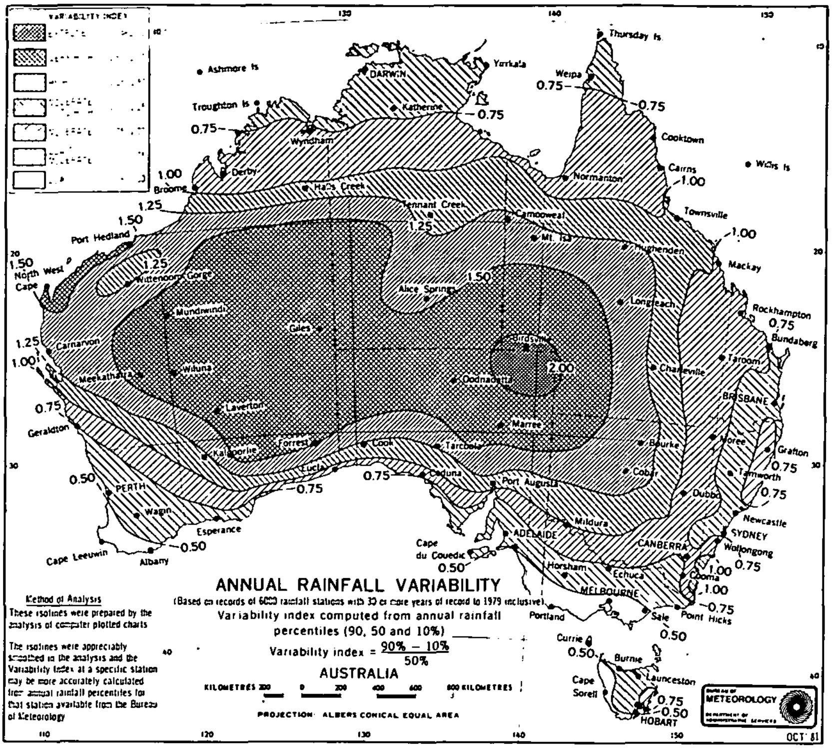


CLASSIFICATION	SEASONAL CHARACTERISTICS SUMMER	WINTER
Summer Rainfall - Tropical	Heavy periodic rains (heavier in coastal & highland areas) Hot generally Humid in coastal areas	Generally rainless Mild to warm Dry
Summer Rainfall - Subtropical	Heavy periodic rains (heavier in coastal & highland areas) Mainly hot Humid in highlands & coastal areas	Some significant rain Mild
Uniform Rainfall - Temperate	Mainly reliable rain Warm to hot	Mainly reliable rain Cool to cold
Winter Rainfall (moderate to heavy) - Temperate	Irregular rain, mostly light Warm to hot	Reliable rain (moderate to heavy) Cool to mild
Winter Rainfall (mainly moderate) - Temperate	Mostly light irregular rain Warm to hot	Reliable rain (mainly moderate) Cool to cold
Arid (mainly summer rain) - Subtropical	Variably rain Hot to extreme Very dry	Mainly irregular light rain Mild to warm Dry
Arid (winter or non-seasonal rain) - Warm Temperate to Subtropical	Very irregular rain Hot to extreme Very dry	Variable rain, mainly light Cool to mild Dry

[Reference:- Climatic Atlas of Australia, Map set 5, Bureau of Meteorology 1975]

Source: Bureau of Meteorology.

FIGURE 1.12



Source: Bureau of Meteorology.

1.13 AVERAGE AREA OF EASTERN AUSTRALIA(a) WITH ANNUAL RAINFALL IN SPECIFIED RANGES BY SOUTHERN OSCILLATION INDEX RANGE

SOI range	*Number of years (1913–91(b))*	*Average SOI*	*Percentage of area within percentile limits* ≤30 *percentile*	*31–70 percentile*	*>70 percentile*
<–10	4	–12.8	47.0	30.8	22.2
–5 to –10	11	–7.4	46.7	37.6	15.7
0 to –5	18	–2.2	33.3	40.7	26.0
+5 to 0	28	2.2	25.5	49.5	25.0
+10 to +5	8	8.0	10.3	24.4	65.3
>+10	4	14.0	3.8	28.7	67.5

(a) Queensland, New South Wales, Victoria and Tasmania. (b) 1914, 1915, 1921, 1927, 1931 and 1932 not included due to missing monthly data.
Source: Bureau of Meteorology.

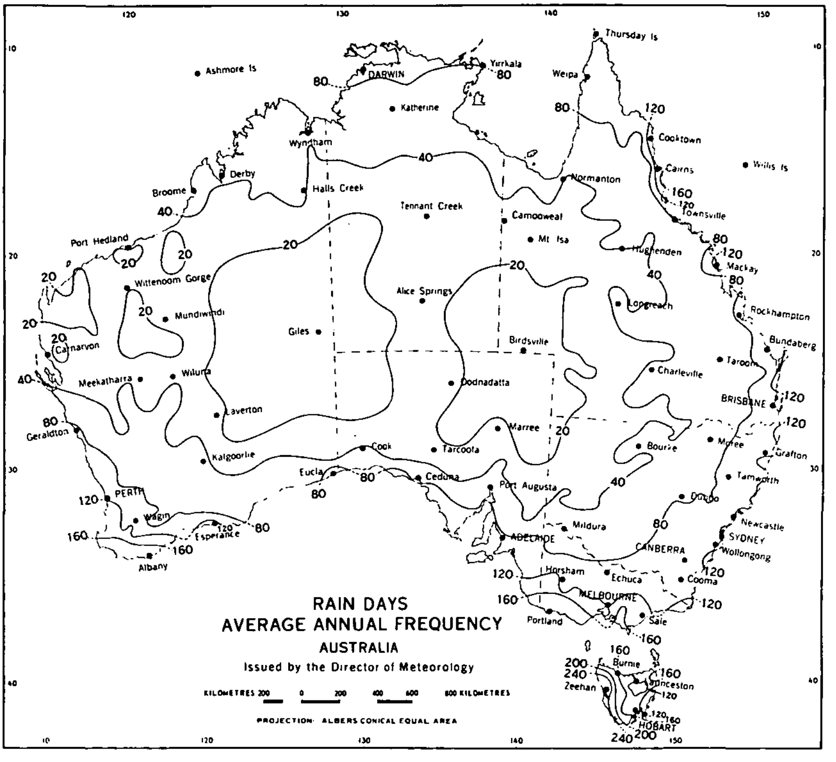
Rainday frequency. The average number of days per year with rainfall of 0.2 millimetres or more is shown in figure 1.14.

The frequency of raindays exceeds 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 raindays 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 raindays per year. In the high rainfall areas of northern Australia the number of raindays 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 table 1.15.

FIGURE 1.14



Source: Bureau of Meteorology.

1.15 HIGHEST RAINFALL INTENSITIES IN SPECIFIED PERIODS

Station	Period of record	Years of complete records	Period in hours 1	3	6	12	24
			mm	mm	mm	mm	mm
Adelaide	1897–1979	79	69	133	141	141	141
Alice Springs	1951–1986	36	75	87	108	133	150
Brisbane	1911–1987	77	88	142	182	266	327
Broome	1948–1983	36	112	157	185	313	353
Canberra	1938–1982	37	40	57	67	76	120
Carnarvon	1956–1982	27	44	63	83	95	108
Charleville	1953–1987	35	42	66	75	111	142
Cloncurry	1953–1981	23	59	118	164	173	204
Darwin (Airport)	1953–1987	35	89	138	214	260	291
Esperance	1963–1979	15	23	45	62	68	79
Hobart	1911–1985	75	28	56	87	117	168
Meekatharra	1953–1982	30	33	67	81	99	112
Melbourne	1873–1986	100	76	83	86	97	130
Mildura	1953–1986	34	49	60	65	66	91
Perth	1946–1983	37	31	37	48	64	80
Sydney	1913–1987	71	121	194	200	244	340
Townsville	1953–1987	34	88	158	235	296	319

Source: Pluviograph records in Bureau of Meteorology archives.

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 below. 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 annual rainfalls are listed by State in the table 1.17.

1.16 HIGHEST DAILY RAINFALLS

State	Station	Date	Amount
			mm
New South Wales	Dorrigo (Myrtle Street)	21.2.1954	809
	Lowanna (Yalamurra)	22.4.1974	662
Victoria	Tanybryn	22.3.1983	375
	Nowa Nowa (Wairawa)	11.3.1906	275
Queensland(a)	Beerwah (Crohamhurst)	3.2.1893	907
	Finch Hatton PO	18.2.1958	878
South Australia	Motpena	14.3.1989	273
	Nilpena	14.3.1989	247
Western Australia	Roebourne (Whim Creek)	3.4.1898	747
	Broome (Kilto)	4.12.1970	635
Tasmania	Cullenswood	22.3.1974	352
	Mathinna	5.4.1929	337
Northern Territory	Roper Valley Station	15.4.1963	545
	Angurugu (Groote Eylandt)	28.3.1953	513

(a) Bellenden Ker (Top Station) has recorded a 24 hour total of 960 mm from 3 p.m. to 3 p.m. on the 3rd and 4th January 1979. The standard daily rainfall period is 9 a.m. to 9 a.m.

Source: Bureau of Meteorology.

1.17 HIGHEST ANNUAL RAINFALLS

State	*Station*	*Year*	*Amount*
			mm
New South Wales	Tallowwood Point	1950	4,540
Victoria	Falls Creek SEC	1956	3,739
Queensland	Bellenden Ker (Top Station)	1979	11,251
South Australia	Aldgate State School	1917	1,853
Western Australia	Armadale (Jarrahdale PO)	1917	2,169
Tasmania	Lake Margaret	1948	4,504
Northern Territory	Elizabeth Downs	1973	2,966

Source: Bureau of Meteorology.

Thunderstorms and hail. A thunderday at a given location is a calendar day on which thunder is heard at least once. Figure 1.18 shows isopleths (isobronts) of the average annual number of thunderdays which vary from 74 per year near Darwin to less than 10 per year over parts of the southern regions. Convectional processes during the summer wet season cause high thunderstorm incidence in northern Australia. The generally high incidence of thunderdays (40–60 annually) over the eastern upland areas is caused 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). Large 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. In some years, snow falls in the altitude range of 500–1,000 metres. 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 Mount Kosciusko (2,228 metres) small areas of snow may persist through summer but there are no permanent snowfields.

Temperature

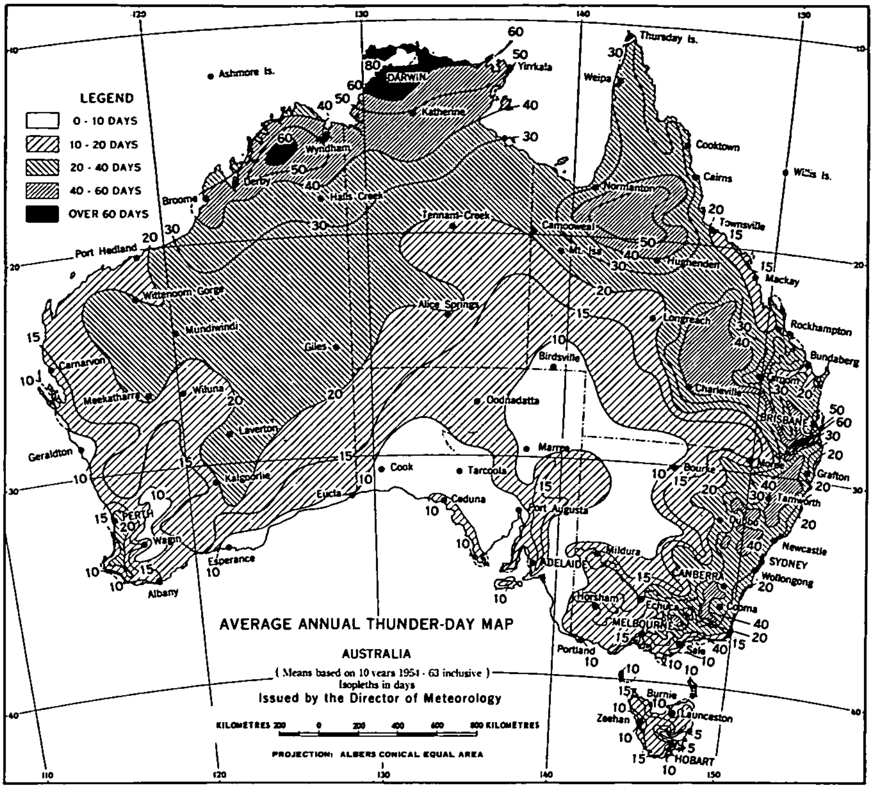
Average temperatures. Average annual air temperatures, as shown in figure 1.19, range from 28°C along the Kimberley coast in the extreme north of Western Australia to 4°C in the alpine areas of south-eastern Australia. Although annual temperature may be used for broad comparisons, monthly temperatures 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 figures 1.20 to 1.23 inclusive.

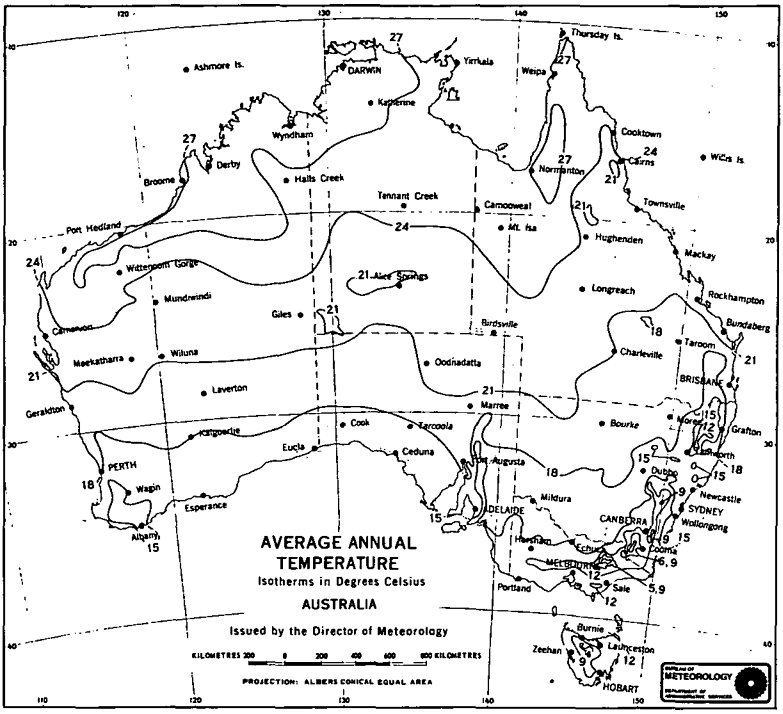
In January, average maximum temperatures exceed 35°C over a vast area of the interior and exceed 40°C over appreciable areas of the north-west. The consistently hottest part of Australia in terms of summer maxima is around Marble Bar in Western Australia (150 kilometres south-east of Port Hedland) where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

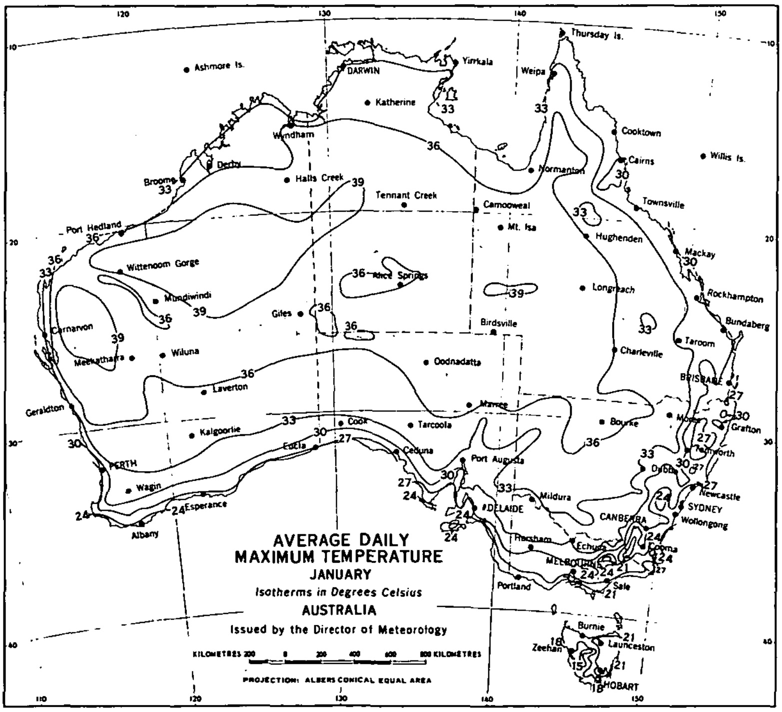
FIGURE 1.18



Source: Bureau of Meteorology.

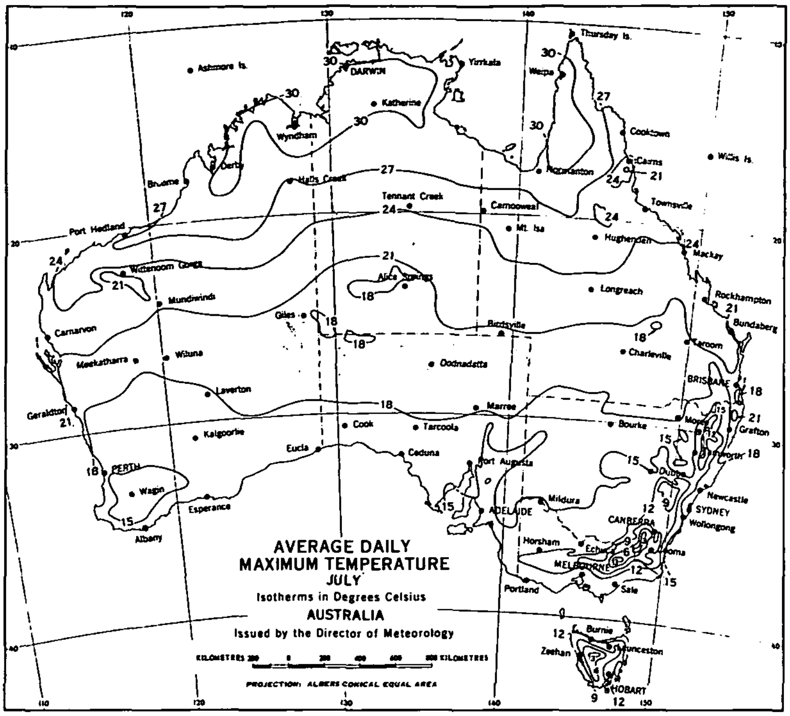
FIGURES 1.19 AND 1.20

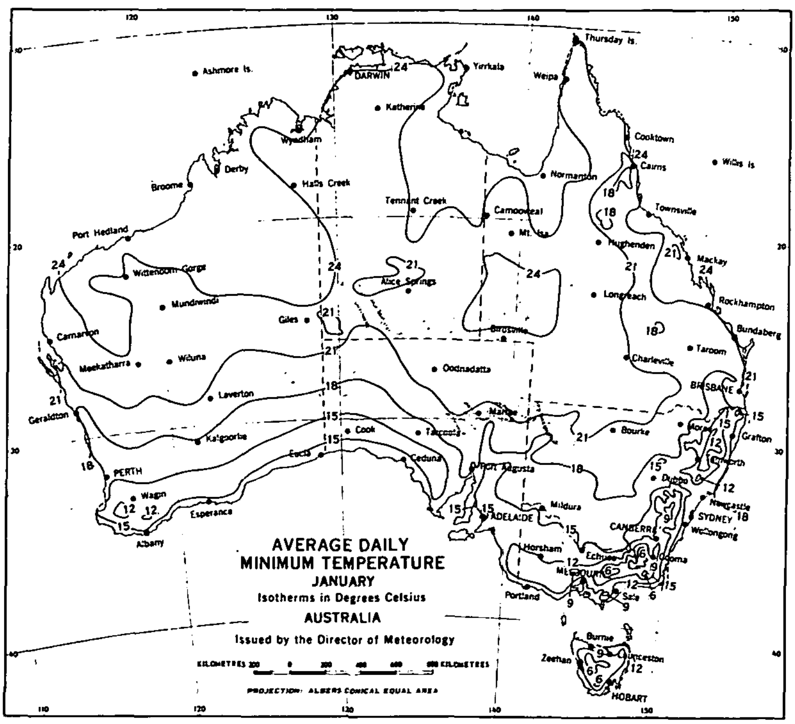




Source: Bureau of Meteorology.

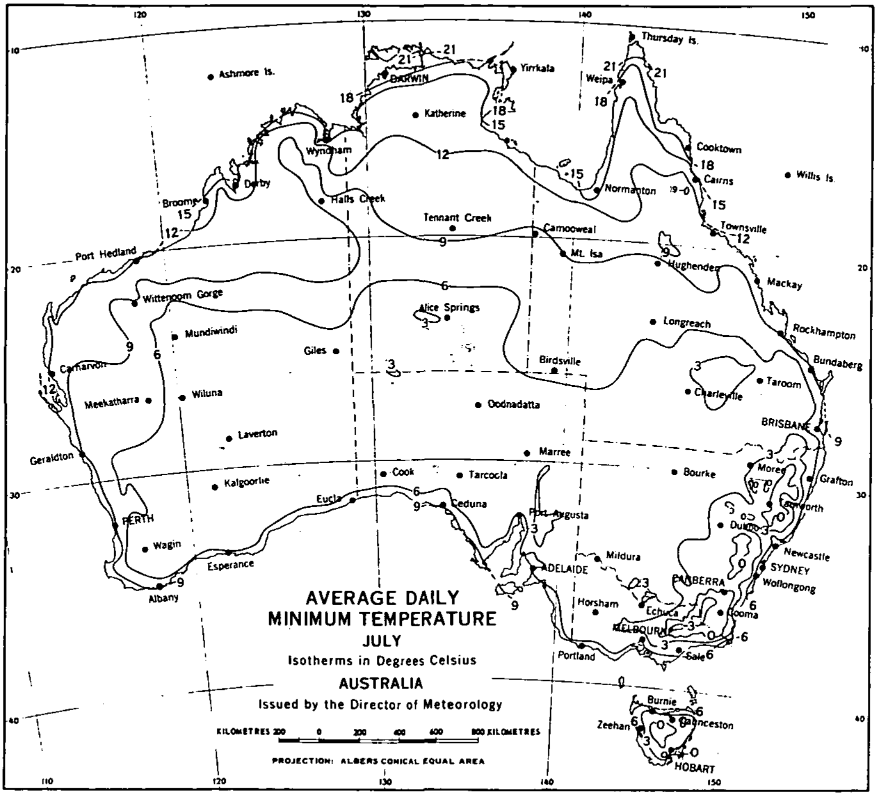
FIGURES 1.21 AND 1.22





Source: Bureau of Meteorology.

FIGURE 1.23



Source: Bureau of Meteorology.

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 discontinuties 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.

Average monthly minima. In January, average minima range from 27°C on the north-west coast to 5°C in the alpine areas of the south-east. In July, average minima fall below 5°C in areas south of the tropics (away from the coasts). Alpine areas record the lowest temperatures; the July average is as low as −5°C.

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 following table.

1.24 EXTREME MAXIMUM TEMPERATURES

Station	*°C*	*Date*	*Station*	*°C*	*Date*
New South Wales			Western Australia		
Bourke	52.8	17.1.1877	Eucla	50.7	22.1.1906
Wilcannia	50.0	11.1.1939	Mundrabilla	49.8	3.1.1979
Menindee	49.7	10.1.1939	Forrest	49.8	13.1.1979
Victoria			Madura	49.4	7.1.1971
Mildura	50.8	6.1.1906	Tasmania		
Swan Hill	49.4	18.1.1906	Bushy Park	40.8	26.12.1945
Queensland			Hobart	40.8	4.1.1976
Cloncurry	53.1	16.1.1889	Northern Territory		
Winton	50.7	14.12.1888	Finke	48.3	2.1.1960
Birdsville	49.5	24.12.1972	Jervois	47.5	3.1.1978
South Australia			Australian Capital Territory		
Oodnadatta	50.7	2.1.1960	Canberra (Acton)	42.8	11.1.1939
Marree	49.4	2.1.1960			
Whyalla	49.4	2.1.1960			

Source: Bureau of Meteorology.

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 on 14 July 1945 and 22 August 1947. 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 temperature of −4.3°C has been recorded, and at Swansea, on the east coast of Tasmania, the temperature has fallen as low as −5.0°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 (−5.0°C). Even very close to the tropical coastline, temperatures have fallen to 0°C, a low recording being −0.8°C for Mackay.

1.25 EXTREME MINIMUM TEMPERATURES

Station	*°C*	*Date*	*Station*	*°C*	*Date*
New South Wales			Western Australia		
Charlotte Pass	−22.2	14.7.1945	Booylgoo Springs	−6.7	12.7.1969
Kiandra	−20.6	2.8.1929	Wandering	−5.7	1.6.1964
Perisher Valley	−19.5	23.7.1979	Tasmania		
Victoria			Shannon	−13.0	30.6.1983
Mount Hotham	−12.8	30.7.1931	Butlers Gorge	−13.0	30.6.1983
Omeo	−11.7	15.6.1965	Tarraleah	−13.0	30.6.1983
Hotham Heights	−11.1	15.8.1968	Northern Territory		
Queensland			Alice Springs	−7.5	12.7.1976
Stanthorpe	−11.0	4.7.1895	Tempe Downs	−6.9	24.7.1971
Warwick	−10.6	12.7.1965	Australian Capital Territory		
Mitchell	−9.4	15.8.1979	Gudgenby	−14.6	11.7.1971
South Australia					
Yongala	−8.2	20.7.1976			
Yunta	−7.7	16.7.1976			
Ernabella	−7.6	19.7.1983			

Source: Bureau of Meteorology.

Table 1.25 shows extreme minimum temperatures recorded at specified stations, including the lowest recorded in each State.

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-west 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. Marble Bar is the only station in the world where temperatures of more than 37.8°C (100°F) have been recorded on as many as 161 consecutive days (30 October 1923 to 7 April 1924).

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.

The Kimberley district of Western Australia is the consistently hottest part of Australia in terms of annual average maximum temperature. Wyndham, for example, has an annual average maximum of 35.6°C.

Other aspects of climate

Frost can cause serious losses of agricultural crops, and numerous climatic studies have been made in Australia relating to specific crops cultivated in local areas.

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 −11.0°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 in the Northern Territory and most of the north Queensland coasts.

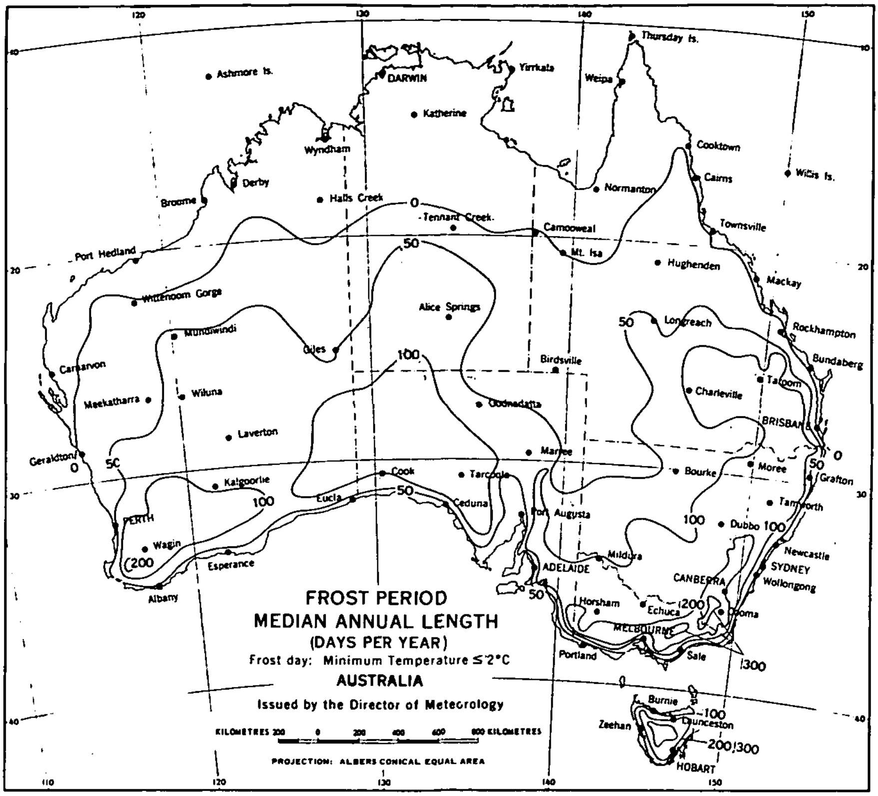
Regions in which frosts may occur at any time of the year comprise most of Tasmania, large areas of the tablelands of New South Wales, much of inland Victoria, particularly the north-east, and a small part of the extreme south-west of Western Australia. Over most of the interior of the continent, and 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 figure 1.26.

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 days 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.

More strictly, a frost is taken as corresponding to a minimum screen temperature of 2.2°C or less. A light frost is said to occur when the screen minimum temperature is greater than 0°C but less than or equal to 2.2°C. A heavy frost corresponds to a minimum temperature of 0°C or less.

FIGURE 1.26



Source: Bureau of Meteorology.

Table 1.27 includes the average annual frequency of minima of 2.2°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 20.4 days, at Alice Springs 32.7, Charleville 32.3, Canberra 101.1 and Essendon Airport (Melbourne) 14.2.

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.

1.27 FROST FREQUENCY

Station	Period of record	Elevation (metres)	Average number of frosty nights ≤2.2°C	Average number of heavy frosts ≤0°C
Adelaide Airport	1956–90	6.0	5.8	0.8
Alice Springs	1942–90	537.0	31.7	12.2
Ballan	1957–68	442.0	62.3	20.5
Birdsville	1957–90	47.0	4.3	0.3
Brisbane Airport	1950–90	4.0	0.2	0.0
Canberra Airport	1940–90	571.0	99.8	62.1
Ceduna Airport	1943–90	15.0	18.2	4.0
Charleville Airport	1943–90	306.0	31.7	12.6
Essendon Airport (Melbourne)	1940–70	86.0	14.2	2.6
Hobart	1944–90	55.2	11.4	1.6
Kalgoorlie Airport	1943–90	360.0	20.4	4.7
Kiandra	1957–68	1,395.4	228.3	176.7
Mount Gambier Airport	1943–90	63.0	24.4	6.3
Perth Airport	1945–90	20.0	2.9	0.2
Walgett	1957–89	132.0	22.4	5.3

Source: Bureau of Meteorology.

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 15.7).

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 (21.5) and Yongala, South Australia (41.8). At Alice Springs the annual average frequency is 11.9.

Humidity. Australia is a dry continent in terms of the water vapour content or humidity of the air and this element may be compared with evaporation to which it is related. Humidity is measured at Bureau of Meteorology observational stations by a pair of dry and wet-bulb thermometers mounted in a standard instrument screen. These measurements enable moisture content to be expressed by a number of parameters, the most commonly known being relative humidity.

Relative humidity at a given temperature is the ratio (expressed as a percentage) of actual vapour pressure to the saturated vapour pressure at that temperature. As a single measure of human discomfort, relative humidity is of limited value because it must be related to the temperature at the time.

Since the temperature at 9 a.m. approximates the mean temperature for the day (24 hours), the relative humidity at 9 a.m. may be taken as an estimate of the mean relative humidity for the day. Relative humidity at 3 p.m. occurs around the warmest part of the day on the average and is representative of the lowest daily values. Relative humidity on average is at a maximum in the early morning when air temperature is minimal.

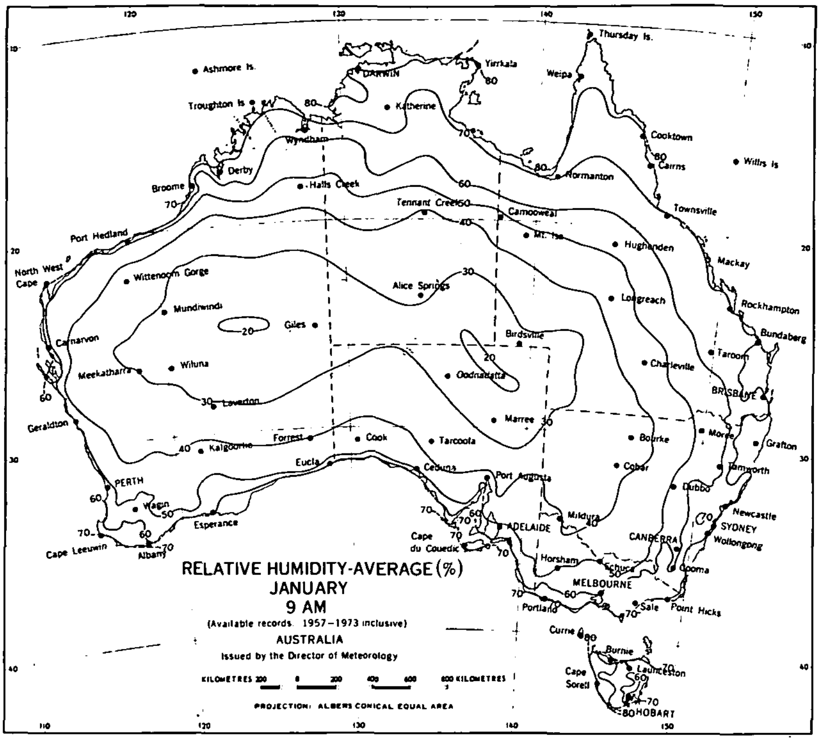
Relative humidity isopleths for January and July at 9 a.m. and 3 p.m. shown in figures 1.28 to 1.31 are extracted from the *Climatic Atlas of Australia, 1988.*

The main features of the relative humidity pattern are:

- over the interior of the continent there is a marked dryness during most of the year, notably towards the northern coast in the dry season (May–October);
- the coastal fringes are comparatively moist, although this is less evident along the north-west coast of Western Australia where continental effects are marked;

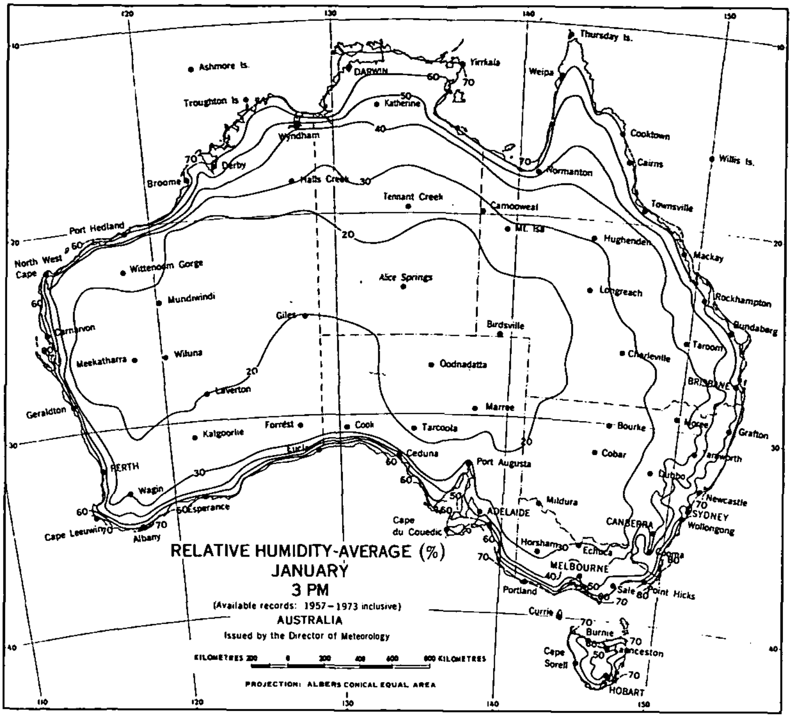
- in northern Australia, the highest values occur during the summer wet season (December–February) and the lowest during the winter dry season (June–August); and
- in most of southern Australia the highest values are experienced in the winter rainy season (June–August) and the lowest in summer (December–February).

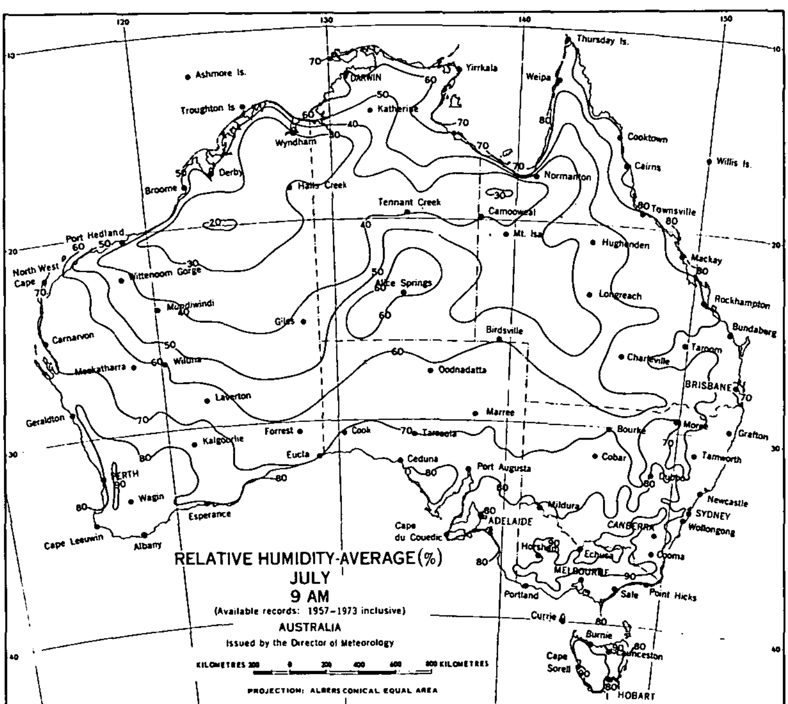
FIGURE 1.28



Source: Bureau of Meteorology.

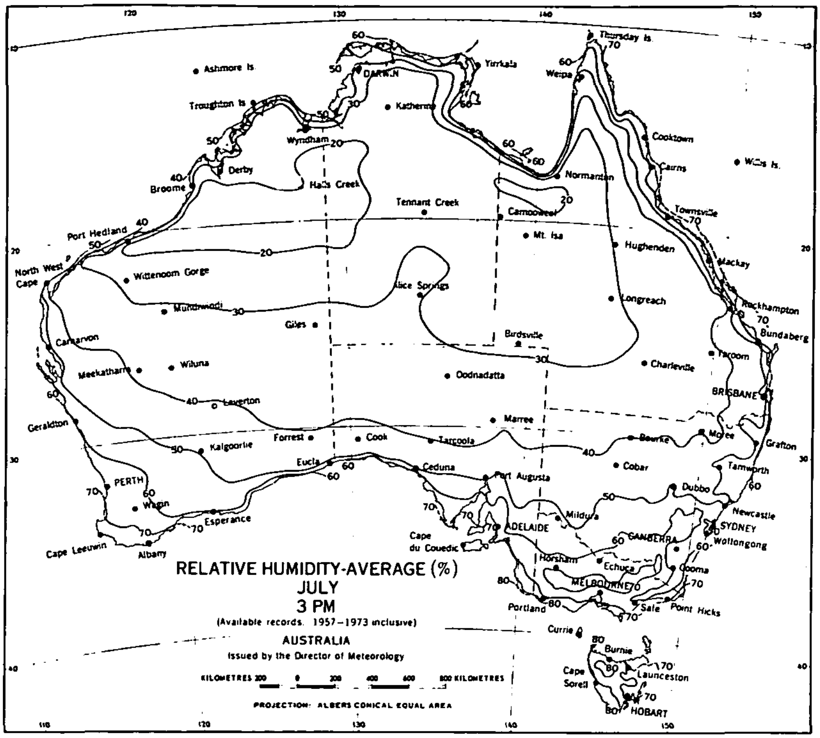
FIGURES 1.29 AND 1.30





Source: Bureau of Meteorology.

FIGURE 1.31



Source: Bureau of Meteorology.

The tables below contain average relative humidity at 9 a.m. and 3 p.m. for each month and the year, for selected stations.

1.32 AVERAGE RELATIVE HUMIDITY AT 9 A.M. (per cent)

Station	*Period of record*	*Jan.*	*Feb.*	*Mar.*	*Apr.*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Year*
Alice Springs	1941–91	33	39	40	45	56	65	59	46	34	30	28	30	42
Armidale	1907–91	63	69	70	73	78	80	77	71	61	57	56	57	68
Broome	1939–91	70	73	69	56	49	48	47	44	47	53	58	64	56
Carnarvon	1945–91	59	57	56	57	59	69	69	63	54	51	53	57	59
Ceduna	1939–91	53	60	60	66	76	81	80	75	63	54	50	52	64
Charleville	1942–91	46	52	52	54	63	71	66	56	44	40	37	39	52
Cloncurry	1939–75	52	60	52	45	47	51	45	37	31	31	31	40	43
Esperance	1969–91	57	59	64	69	74	77	77	74	68	61	59	57	67
Halls Creek	1944–91	51	55	45	34	35	34	30	25	22	24	29	40	36
Kalgoorlie	1939–91	44	50	53	59	68	74	75	66	54	47	44	43	56
Katanning	1957–91	56	63	66	74	83	88	88	86	80	68	59	55	72
Kiandra	1907–74	61	66	72	79	84	89	90	87	76	67	62	62	75
Marble Bar	1937–91	44	47	40	33	39	43	39	32	26	26	26	32	36
Mildura	1946–91	50	55	59	70	82	88	86	79	67	57	52	48	66
Mundiwindi	1938–81	31	35	34	37	44	53	49	39	28	23	22	23	35
Thursday Island	1950–91	84	86	85	82	81	81	80	78	75	73	73	78	80
Townsville	1940–91	72	75	73	69	68	67	67	63	60	61	63	67	67

Source: Bureau of Meteorology.

1.33 AVERAGE RELATIVE HUMIDITY AT 3 P.M. (per cent)

Station	*Period of record*	*Jan.*	*Feb.*	*Mar.*	*Apr.*	*May*	*June*	*July*	*Aug.*	*Sept.*	*Oct.*	*Nov.*	*Dec.*	*Year*
Alice Springs	1941–91	20	23	23	25	31	34	30	24	19	18	18	19	23
Armidale	1909–91	44	47	47	47	52	56	52	47	41	42	40	41	46
Broome	1939–91	65	66	59	43	38	36	33	33	42	52	57	60	49
Carnarvon	1945–91	59	58	57	56	52	53	52	52	51	53	54	58	54
Ceduna	1939–91	42	44	44	45	50	54	55	50	44	43	40	42	46
Charleville	1942–91	7	32	32	31	36	39	35	29	23	23	21	23	29
Cloncurry	1939–75	32	38	34	29	29	30	26	22	20	19	19	24	27
Esperance	1969–91	56	57	57	56	58	60	59	56	57	56	57	57	57
Halls Creek	1944–91	33	37	31	25	26	25	22	18	17	17	20	26	25
Kalgoorlie	1939–91	24	29	31	37	43	49	47	39	30	27	25	23	·33
Katanning	1957–91	29	33	37	47	56	66	66	62	55	44	36	30	46
Kiandra	1912–74	50	52	55	61	70	75	78	73	62	58	54	51	62
Marble Bar	1937–91	25	28	24	23	26	28	25	20	17	16	16	19	23
Mildura	1946–91	26	29	33	40	51	57	55	47	39	33	28	26	39
Mundiwindi	1938–81	19	22	21	22	27	32	28	22	15	13	13	14	20
Thursday Island	1951–91	78	81	79	74	71	69	67	65	64	64	65	71	71
Townsville	1940–91	66	67	65	60	57	52	51	51	52	55	57	60	58

Source: Bureau of Meteorology.

Relative humidity is dependent on temperature and if the water content of the air remains constant, relative humidity decreases with increasing temperature. For instance Perth, for January, has a mean 9 a.m. relative humidity of 50 per cent, but for 3 p.m., when the mean temperature is higher, the mean relative humidity is 41 per cent.

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.

Figures 1.34 and 1.35 show the average global radiation for the months of January and July.

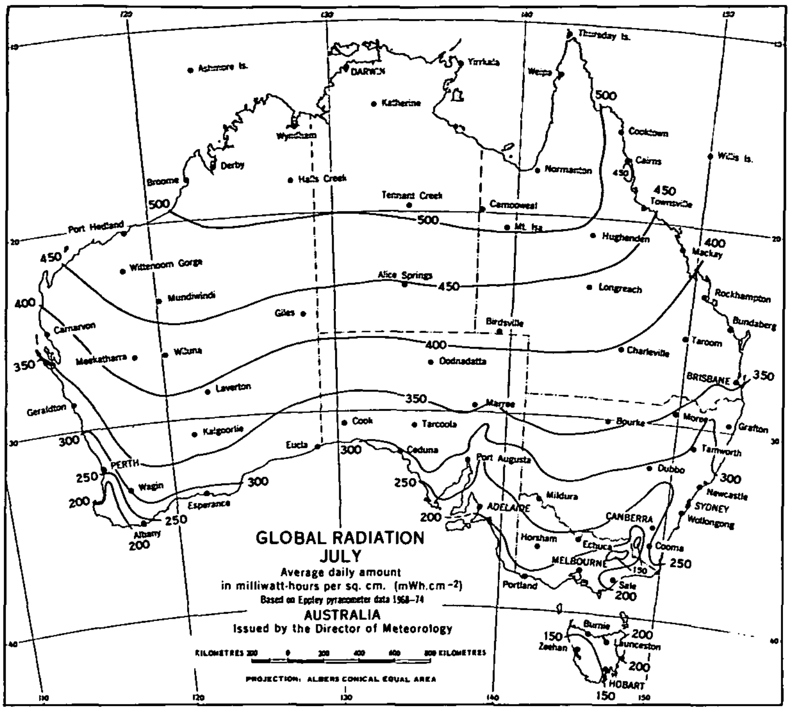
A high correlation exists between daily global radiation (figures 1.34 and 1.35) and daily hours of sunshine (figures 1.37 and 1.38). On the north-west coast around Port Hedland, where average daily global radiation is the highest for Australia (640 milliwatt hours), average daily sunshine is also highest, 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 amounts for the two months are comparable.

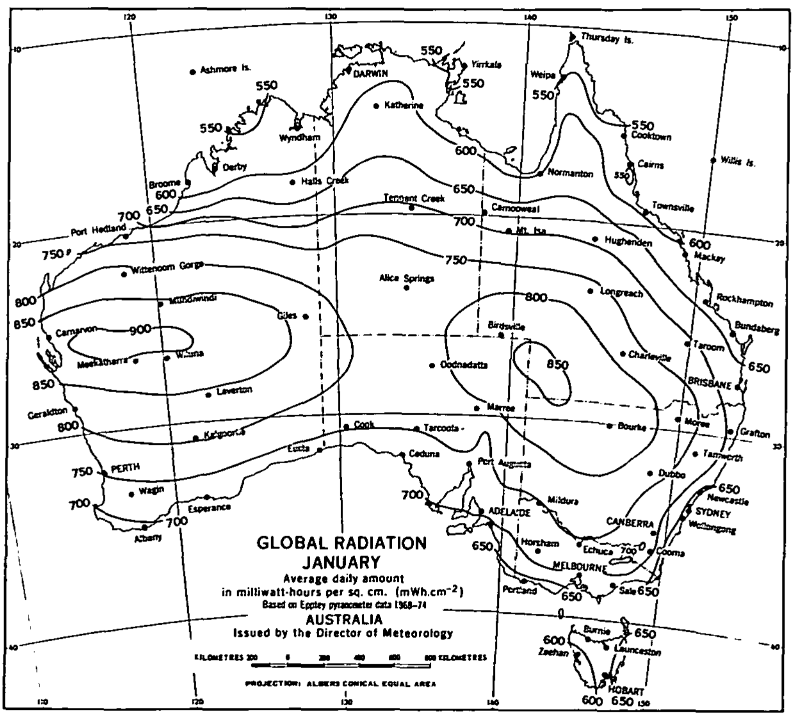
Sunshine as treated here refers to bright or direct sunshine. Australia receives relatively large amounts of sunshine although seasonal cloud formations have a notable effect on its spatial and temporal distribution. Cloud cover reduces both incoming and outgoing radiation and thus affects sunshine,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

Average daily sunshine (hours) in January and July based on all available data to August 1974 is shown in figures 1.37 and 1.38. Sunshine for April and October and annual amounts are included in the *Climatic Atlas of Australia, 1988.* In areas where there is a sparsity of data, estimates of sunshine derived from cloud data are used. Most of the continent receives more than 3,000 hours of sunshine a year, or nearly 70 per cent of the total possible. In central Australia and the mid-west coast of Western Australia, totals slightly in excess of 3,500 hours occur. Totals of less than 1,750 hours occur on the west coast and highlands of Tasmania; this amount is only 40 per cent of the total possible per year (about 4,380 hours).

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

FIGURES 1.34 AND 1.35





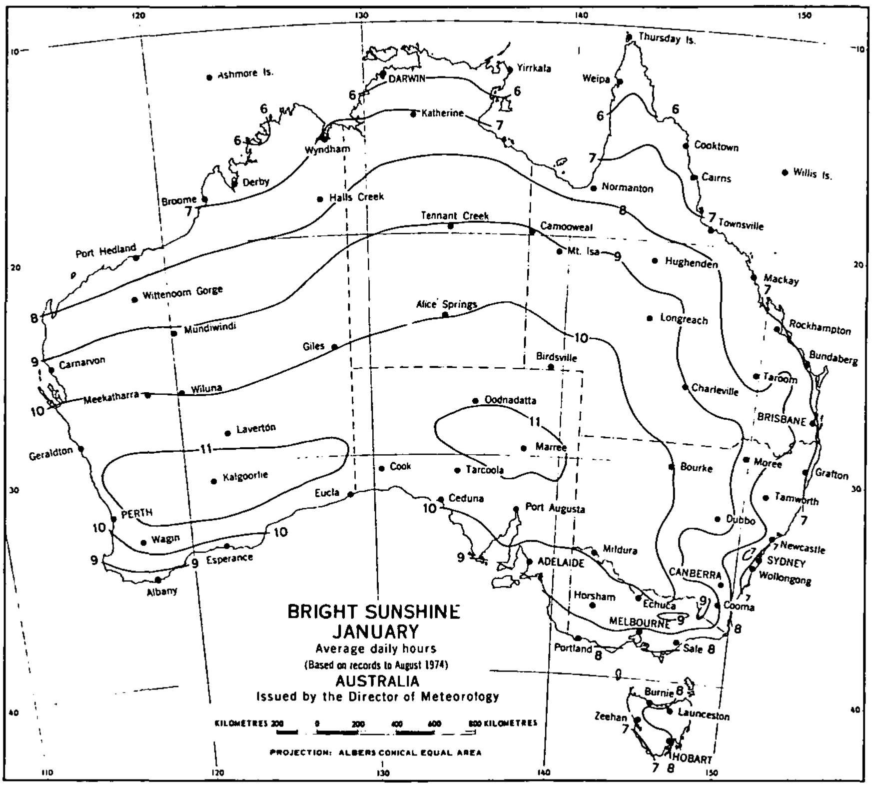
Source: Bureau of Meteorology

1.36 BRIGHT SUNSHINE, VARIABILITY OF DAILY HOURS
(20, 50 and 80 percentile values)

Station	*Period of record*	*January percentile* 20	50	80	*July percentile* 20	50	80
Adelaide	1955–86	6.8	11.9	13.3	1.1	4.0	7.3
Alice Springs	1954–86	7.8	11.8	13.0	7.6	10.4	10.7
Brisbane	1951–85	2.6	8.4	11.5	4.5	9.0	9.9
Canberra	1978–86	7.0	11.3	12.7	2.4	6.4	8.3
Darwin	1951–86	1.5	5.9	9.4	9.8	10.6	10.9
Hobart	1950–86	4.3	8.7	12.1	1.5	4.4	7.2
Melbourne	1955–86	5.5	9.9	12.6	0.8	3.6	6.3
Perth	1942–86	9.2	12.0	12.7	2.5	5.4	8.6
Sydney	1955–86	1.9	8.1	11.6	3.2	7.5	9.3
Townsville	1943–86	3.0	9.0	11.3	6.7	10.0	10.6

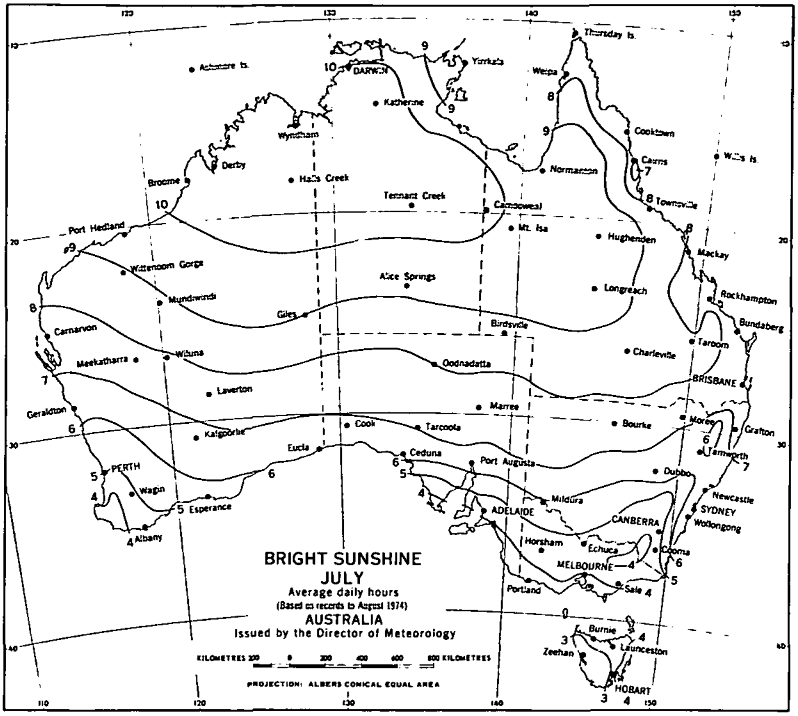
Source: Bureau of Meteorology.

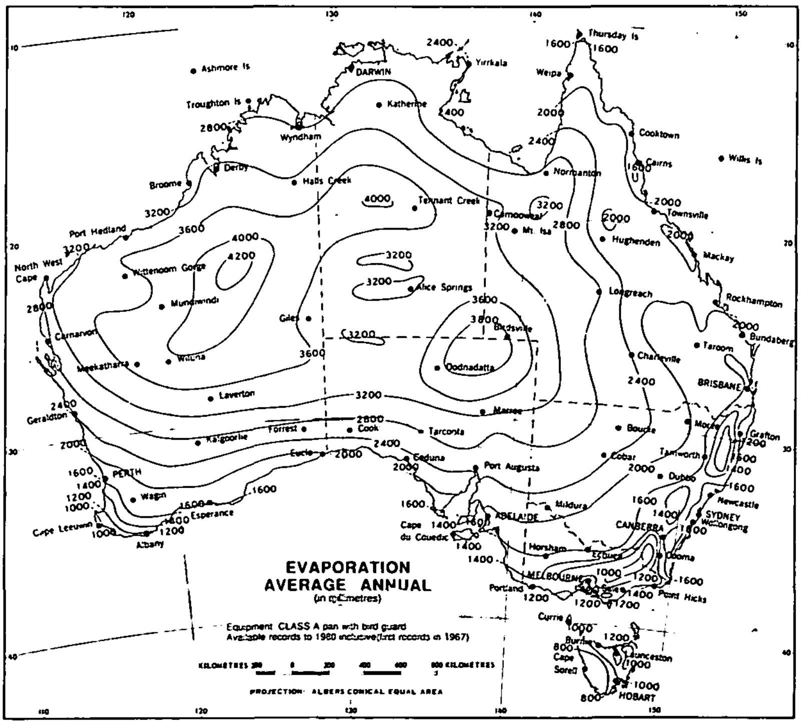
FIGURE 1.37



Source: Bureau of Meteorology.

FIGURES 1.38 AND 1.39





Source: Bureau of Meteorology.

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

Average January, July and annual (Class A) pan evaporation is mapped in figures 1.39, 1.40 and 1.41 respectively. Evaporation maps for other months of the year and a more comprehensive commentary are given in the *Climatic Atlas of Australia, 1988.*

Due to the relatively short records at some stations, the maps may not be representative of climate averages in some areas. Dashed isopleths on the maps over some coastal fringes to aid interpolation do not represent evaporation from ocean surfaces or expanses of water.

Evaporation varies markedly with exposure of the instrument. Sheltering from wind and shading of pans cause local variations in measured evaporation of as much as 25 per cent. Instruments near expanses of water such as coastal inlets, rivers, reservoirs or irrigation systems may record lower evaporation than the surrounding country due to local effects on meteorological elements, notably humidity. Such reductions are about five to ten per cent.

The Class A pan instruments have a wire mesh bird guard, which reduces the measured evaporation. An estimate of the unguarded average Class A pan evaporation for any locality may be derived by applying a seven per cent increase to the value interpolated from the maps.

Average annual Class A pan evaporation ranges from more than 4,000 millimetres over central Western Australia to less than 1,000 millimetres in alpine areas of south-east Australia and in much of Tasmania.

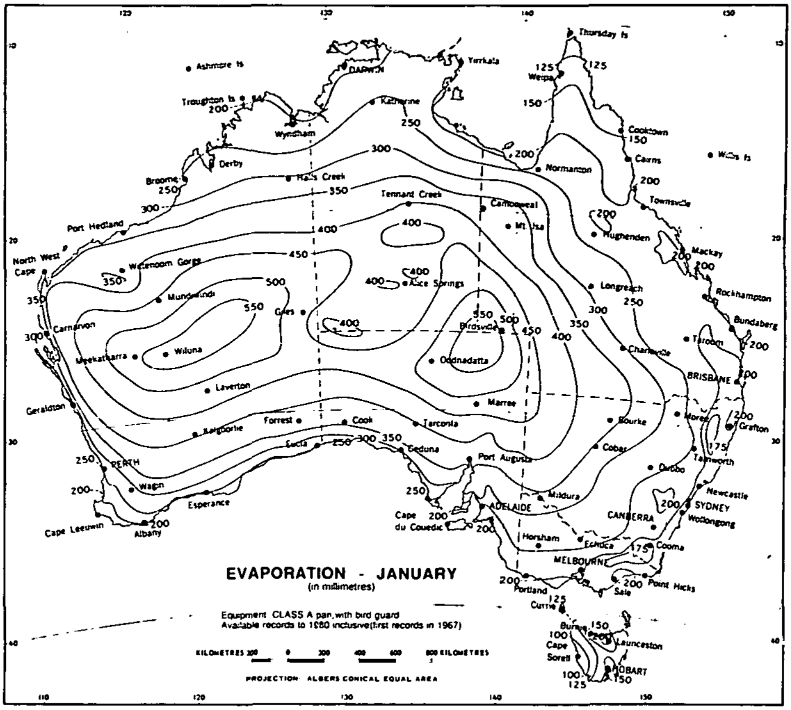
In areas south of the tropics, average monthly evaporation follows seasonal changes in solar radiation, giving highest evaporation in December and January, and lowest in June and July. In the tropics, onset of summer brings increasing cloudiness and higher humidity, causing reduced evaporation in these months. Maximum evaporation in tropical areas occurs around November on average, but high evaporation is sustained when summer rains are delayed or are persistently below average.

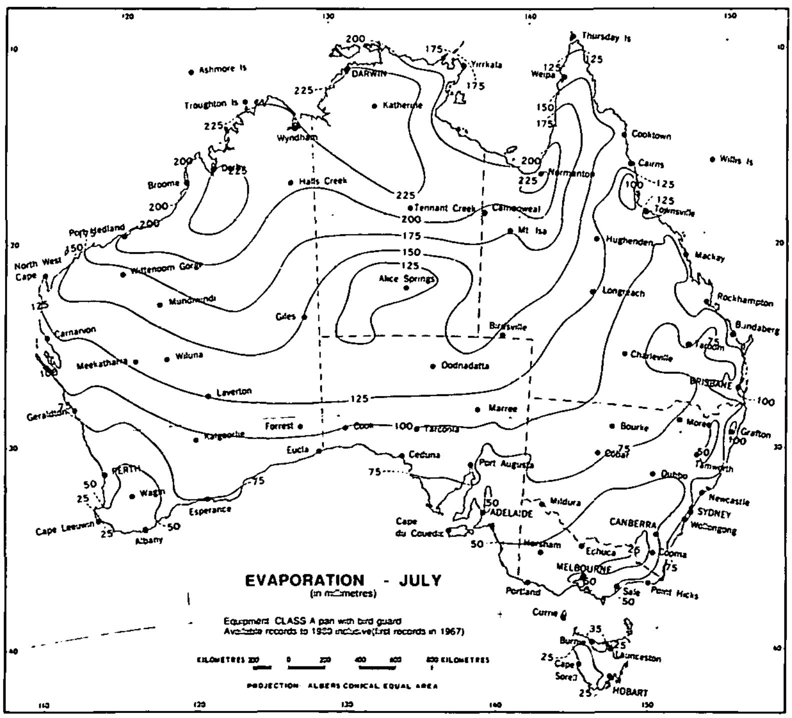
Cloud. Seasonal changes in cloudiness vary with the distribution of rainfall. In the southern parts of the continent, particularly in the coastal and low lying areas, the winter months are generally more cloudy than the summer months. This is due to the formation of extensive areas of stratiform cloud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

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

Fog in Australia tends to be greater in the south than the north, although parts of the east coastal areas are relatively fog prone even in the tropics. Incidence is much greater in the colder months, particularly in the eastern uplands. Fog may persist during the day but rarely until the afternoon over the interior. The highest fog incidence at a capital city is at Canberra which has an average of 47 days per year on which fog occurs, 29 of which are in the period of May to August. Brisbane averages 20 days of fog per year. Darwin averages only 2 days per year, in the months of July and August.

FIGURES 1.40 AND 1.41





Source: Bureau of Meteorology.

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 figures 1.42 to 1.45 inclusive, extracted from *Climatic Atlas of Australia, 1988.*

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.

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 5.4 kilometres per hour.

The highest wind speeds and wind gusts recorded in Australia have been associated with tropical cyclones. The highest recorded gust was 259 kilometres per hour at Mardie (near Onslow), Western Australia on 19 February 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.

Droughts. Drought, in general terms, refers to an acute deficit of water supply to meet a specified demand. 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. Demands for water are very diverse, hence the actual declaration of drought conditions for an area will generally also depend on the effects of a naturally occurring water deficit on the principal local industries.

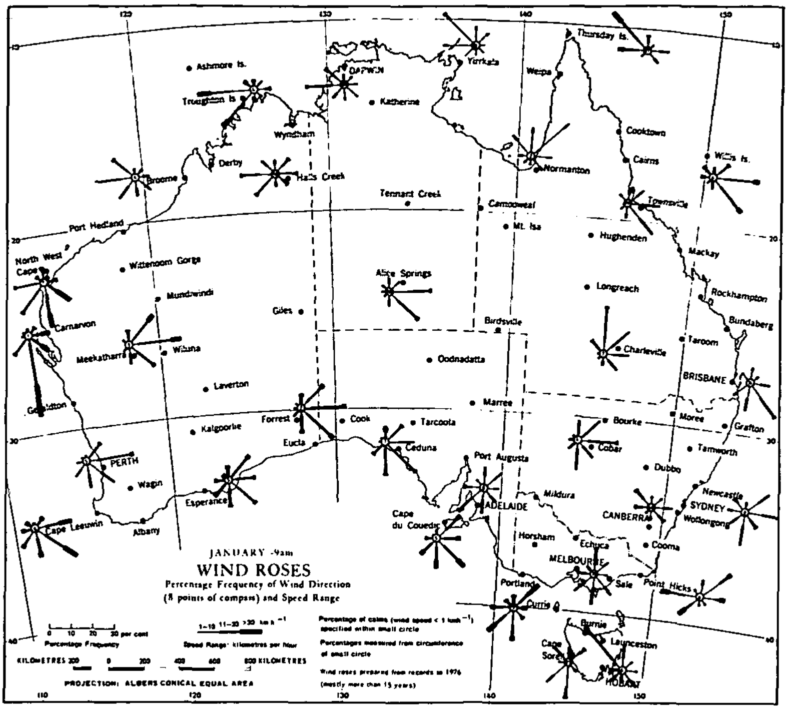
Since the 1860s there have been nine major Australian droughts. Some of these major droughts could be described as periods consisting of a series of dry spells of various lengths, overlapping in time and space, and totalling up to about a decade. The drought periods of 1895–1903, 1958–68 and 1982–83 were the most devastating in terms of their extent and effects on primary production. The remaining major droughts occurred in 1864–66 (and 1868), 1880–86, 1888, 1911-16, 1918–20 and 1939–45.

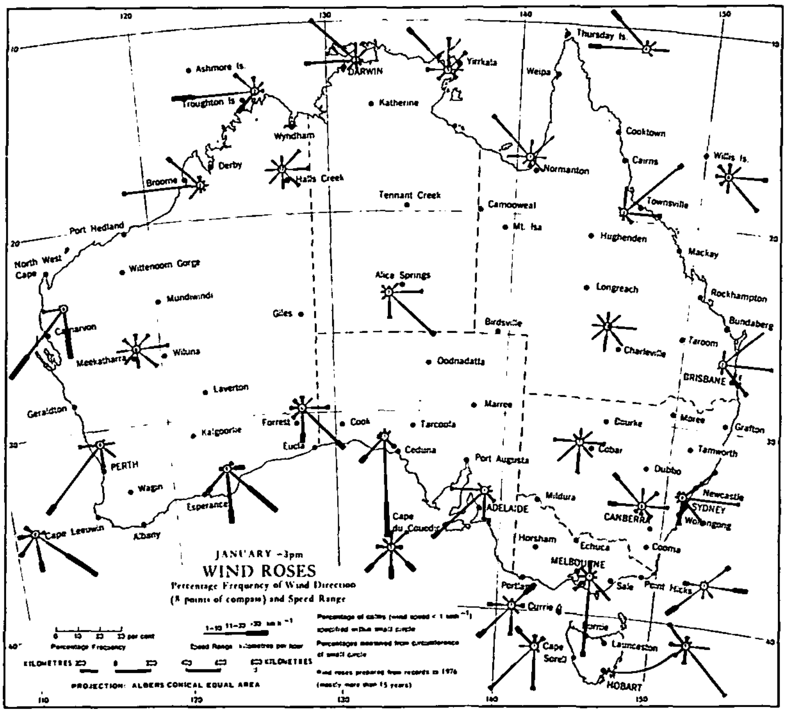
In this same period, several droughts of lesser severity caused significant losses over large areas of some States. They occurred in 1922–23 and 1926–29, 1933–38, 1946–49, 1951-52, 1970–73 and 1976.

South-eastern Australia (New South Wales, southern Queensland, Victoria, Tasmania and the settled parts of South Australia) contains about 75 per cent of the nation's population, and droughts affecting this region have a markedly adverse impact on the economy. There have been eight severe droughts in south-eastern Australia since 1888, and these were encompassed within the major Australian droughts specified previously, except for the severe drought in 1972–73. Drought definitions and the area of coverage and length of these droughts, together with related information may be obtained from *Year Book Australia 1988.*

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 caused by summer rains, they may occur in any season.

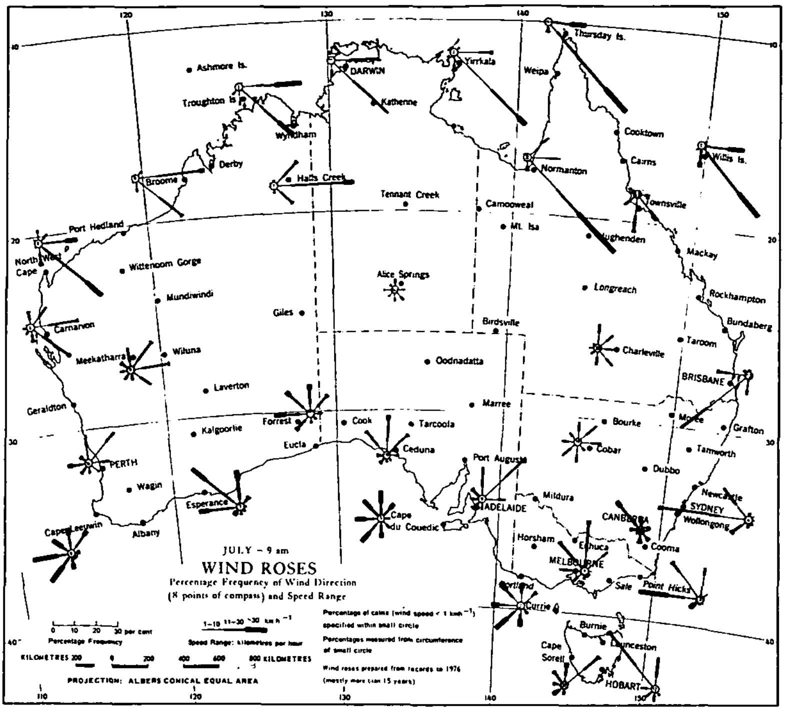
FIGURES 1.42 AND 1.43

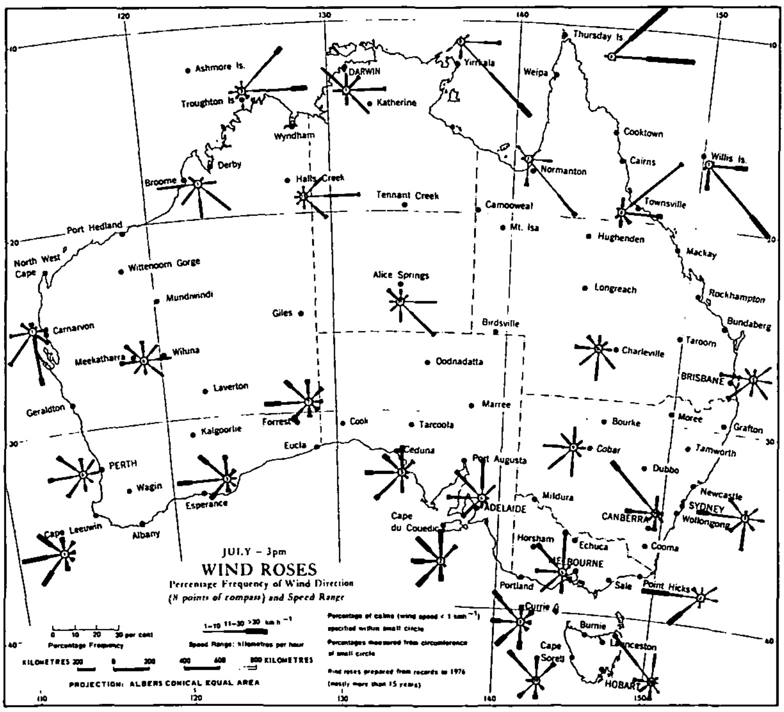




Source: Bureau of Meteorology.

FIGURES 1.44 AND 1.45





Source: Bureau of Meteorology.

The great Fitzroy and Burdekin river basins of Queensland receive flood rains during the summer wet seasons. 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.

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

The climatic variables determining physical discomfort are primarily air temperature, vapour pressure and wind. The complete assessment of physical discomfort also requires analyses of such parameters as thermal conductivity of clothing, vapour pressure at the skin and the metabolic heat rate arising from activity of the human body. The cooling system of the human body depends on evaporation of moisture to keep body temperature from rising to lethal levels as air temperature rises. Defining criteria of discomfort is difficult because personal reactions to the weather differ greatly according to a number of variables including health, age, clothing, occupation and acclimatisation (Ashton, 1964). However, climatic strain has been measured experimentally, and discomfort indices based on the average response of subjects under specified conditions have been derived. One of the most commonly used indices is the relative strain index. The index, derived by Lee and Henschel (1963), has been applied in Australia to measure heat discomfort. The results obtained with Australian data are useful for purposes of comparison but interpretation of the actual results is tentative until empirical environmental studies are carried out in this region. In addition to temperature, humidity and air movement, the relative strain index has facilities for the incorporation of metabolic heat rate, net radiation and insulation of clothing. It has the advantage of being applicable to manual workers under shelter and expending energy at various metabolic heat rates.

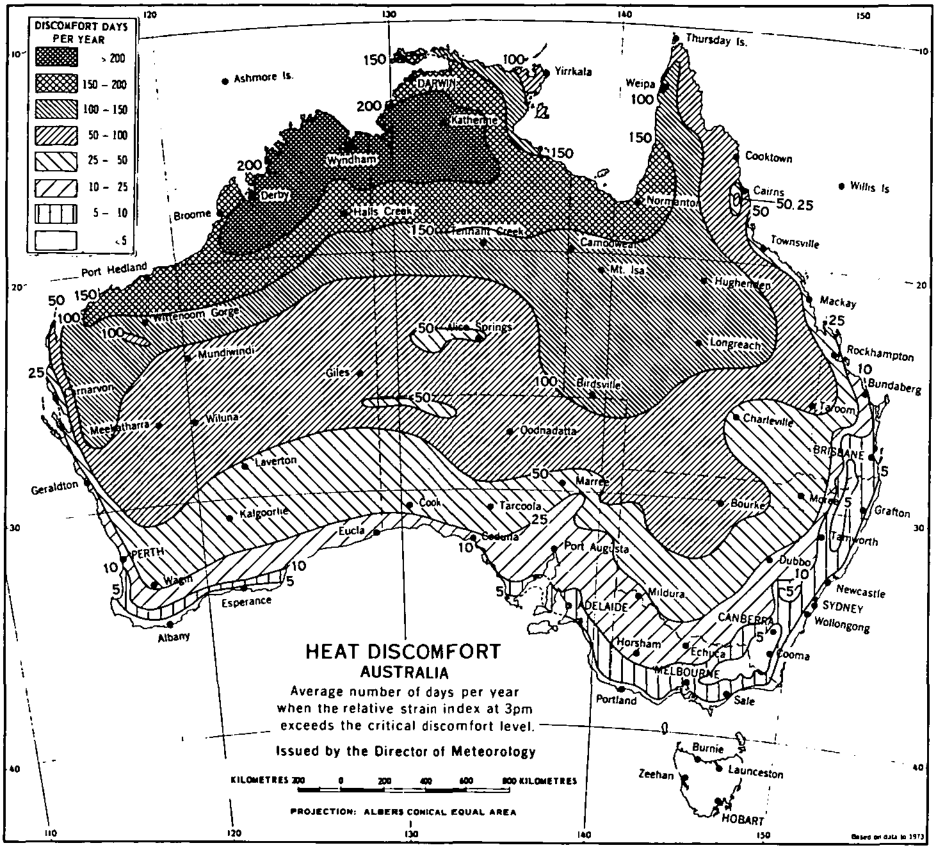
The discomfort map, figure 1.46, shows the average number of days per year when the relative strain index exceeds 0.3 discomfort level at 3 p.m. assuming standard conditions as defined (*see* table 1.47). Maximum discomfort generally occurs around 3 p.m. on days of high temperature.

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

The average annual frequency of days when the relative strain index at 3 p.m. exceeds specified discomfort levels is shown in table 1.47. The Sydney frequencies were derived from observations at the regional office of the Bureau of Meteorology, which is representative of eastern coastal suburbs; frequencies are higher in western suburbs. The

Melbourne frequencies were derived from observations at the Bureau's regional office, which may be taken as fairly representative of inner northern and eastern suburbs; frequencies are lower in bayside suburbs. Similarly, in other capital city areas significant variations occur with distance from the coast.

FIGURE 1.46



Source: Bureau of Meteorology.

1.47 HEAT DISCOMFORT(a)

Station	Period of record	Greater than — 0.3 RSI	Greater than — 0.4 RSI
Adelaide	1956–86	6	2
Alice Springs	1942–87	52	4
Brisbane	1951–85	7	2
Broome	1941–67	163	66
Canberra	1940–87	3	<1
Carnarvon	1950–87	25	6
Ceduna	1943–87	15	3
Charleville	1943–87	45	6
Cloncurry	1942–74	132	37
Cobar	1964–85	23	3
Darwin	1943–87	173	32
Hobart	1944–87	<1	<1
Kalgoorlie	1943–87	28	4
Marble Bar	1957–74	179	86
Melbourne	1955–87	6	2
Mildura	1947–87	20	4
Perth	1942–87	13	2
Rockhampton	1940–87	42	8
Sydney	1955–86	3	<1
Townsville	1941–87	48	5
Wagga	1945–85	12	2
Woomera	1950–87	28	5

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

At inland places, relatively low night temperatures have recuperative effects after hot days.

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

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

Further climatic data. The means and some indication of the variation for a number of meteorological elements for various localities are contained in *Climatic Averages Australia, 1988*. Useful rainfall statistics can be found in *Selected Rainfall Statistics, 1989*. Climatic data for Australia are available on microfiche, computer diskettes and compact discs from the Bureau of Meteorology.

Year Book Australia 1991 and earlier editions contain the means and/or extremes, based on long-term records, of the following climatic conditions in State and Territory capital cities — barometer readings, evaporation, thunder, cloudy and clear days, temperature and sunshine, humidity, rainfall and fog.

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The World Book Encyclopedia

Reading the Weather Map

(This special article has been contributed by the Bureau of Meteorology.)

The weather map is one of the most familiar images in the community. The best known map is the mean sea level analysis, compiled from hundreds of weather observations (synoptic data) taken simultaneously around the Australian region. It is seen daily on television and in the newspapers.

Its dominant features are the smooth, curving patterns of sea level isobars — lines of equal atmospheric pressure — which show the central elements of our weather systems: highs, lows (including tropical cyclones) and cold fronts. It incorporates the effects of atmospheric processes at higher levels.

Television and newspapers also often carry forecast weather maps which indicate how the weather patterns are expected to develop.

Meteorologists use a wide range of information and techniques to formulate weather forecasts. The weather map does not and cannot show all of these factors. It is a fairly simple representation of past and probable future locations of surface weather systems (highs, lows, fronts, etc.). Nevertheless it provides a useful guide to the weather.

Everyone benefits from a better understanding of the weather map, especially people whose activities are particularly weather-sensitive — pilots, farmers, mariners, builders, outdoor sports enthusiasts — who often find the maps valuable, sometimes essential, to enhance their understanding of forecasts and help form their own ideas based on local experience.

Preparing the weather map

The weather map can be likened to a giant jigsaw, assembled several times a day (usually three-hourly) from thousands of observations taken at internationally-agreed times. The Bureau of Meteorology, like all the world's weather services, operates a network of its own stations to gather surface and upper air observations. More than 440 paid and volunteer part-time observers also make daily surface observations essential to the national picture.

Surface reports usually comprise observations of mean sea level pressure, wind direction and speed, present and past weather, temperature, dew point (a measure of atmospheric moisture), cloud and visibility. Their information is formatted in an international code and transmitted nationally, often globally. Complementary, if less detailed, surface data comes from the Bureau's expanding system of more than 100 automatic weather stations, and from drifting buoys in the surrounding oceans.

Specialist observers gather **upper air** information on wind speed and direction by radar-tracking weather balloons, which may also carry instrument packages to transmit temperature and dew point information at various heights (pressures) in the atmosphere.

Weather satellite data are a vital part of the analysis process. Australian meteorologists focus on hourly images from the Japanese Geostationary Meteorological Satellite operating in geostationary orbit 36,500 kilometres over the equator. Computer enhancement adds colour for easier interpretation. The animated sequences often shown on television are a particularly powerful analysis tool.

The Bureau's National Meteorological Centre in Melbourne also draws on similarly enhanced images from USA and European geostationary satellites, as well as high-resolution images and atmospheric temperature profiles from polar-orbiting USA satellites.

Vast numbers of observations on national and global scale flow to the supercomputers at the Bureau's Melbourne headquarters. The computers' mathematical models (equations) simulate atmospheric processes to produce three-dimensional broad-scale weather analyses and prognostic maps forming the basis of weather forecasts for up to four days ahead. The models simulate the physical processes that determine how the atmosphere reacts to constantly changing pressures, temperatures and humidities.

Fine-scale surface weather maps are prepared manually in Bureau forecasting offices, particularly the Regional Forecasting Centres in each State capital and Darwin, and Meteorological Offices in Canberra and Townsville.

Meteorologists take account of the centrally-produced computer surface and upper air predictions, local data and manual charts, and animated satellite and radar images when preparing forecasts and warnings.

What do weather maps show?

The most obvious feature of the media's weather maps (figure 1 is an example) are the patterns of high and low pressure, and the barbed lines identifying cold fronts. In the southern hemisphere, the earth's rotation causes air to flow clockwise around low pressure systems and anticlockwise around high pressure systems. (The opposite applies in the northern hemisphere.) Friction on the earth's surface causes the winds to be deflected slightly inwards towards low pressure centres, and slightly outwards from high pressure systems. Wind strength is directly proportional to the distance between isobars — the closer the lines, the stronger the winds. This rule does not apply in the tropics where the effect of the earth's rotation is weak. For this reason, tropical meteorologists usually replace isobars with streamline arrows which indicate wind and direction without directly relating to the pressure gradient. Shaded areas on weather maps show where there has been rain in the previous 24 hours, and wind direction is shown with arrows that have a series of barbs on their tails to indicate speed.

The coverage on media weather charts is usually limited to the continent and surrounding oceans. The Bureau also produces global charts to take account of weather systems interacting with each other rapidly over great distances. Global charts are necessary when preparing forecasts up to four days ahead, and framing the monthly climate monitoring bulletins.

Typical weather map patterns

An understanding of some systematic weather patterns is needed when interpreting a map.

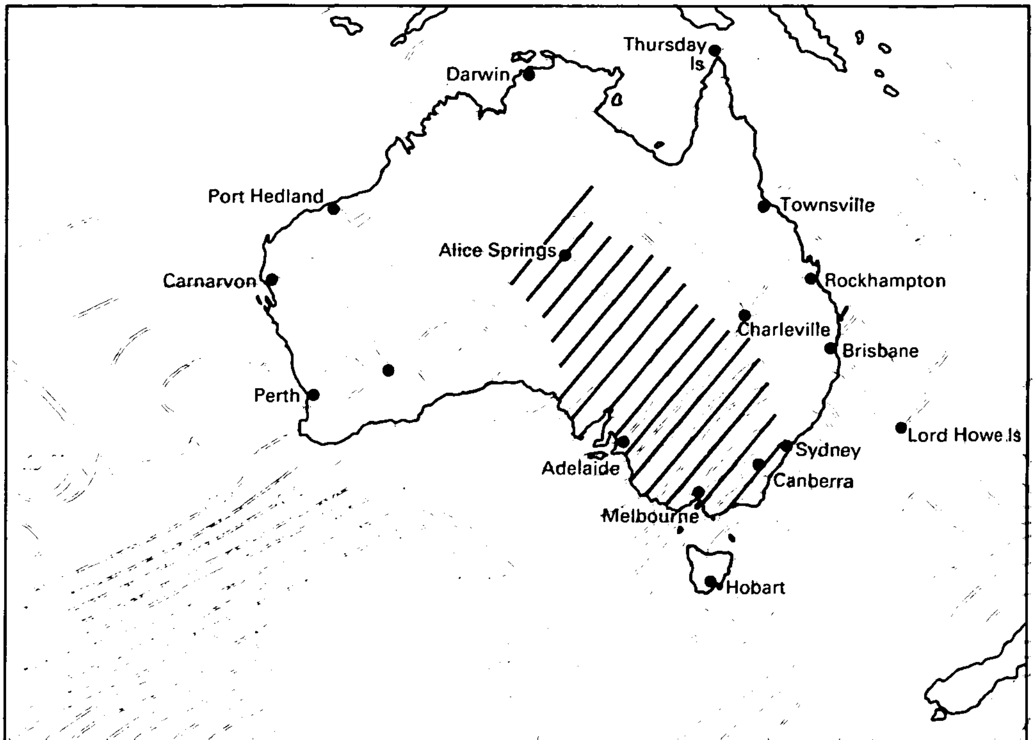
- Easterly winds over the tropics and subtropics, with wavelike disturbances which usually travel westward. The tropical easterlies' important features include the south-east trade winds, monsoon lows and sometimes tropical cyclones (known as hurricanes in the Americas and typhoons in Asia).
- A high pressure belt in the mid-latitudes (usually 30-50 degrees latitude) contains centres of varying strengths which generally move from west to east. Fluctuations in the intensity of these highs ('anticyclones') strongly influence the behaviour of the trade winds and the development and decay of tropical lows.
- The belt of westerly winds south of the high pressure region contains disturbances which usually travel from west to east. Barbed lines indicate the leading edge of travelling cold (and occasionally warm) fronts, the boundaries between different types of air. The term 'front' was applied during World War I by European meteorologists who saw similarities between atmospheric structures and the large-scale conflict along battle fronts.
- Nearer the pole, a series of deep subpolar lows is usually centred between latitudes 50-60 degrees South.
- A high pressure area over Antarctica — associated with extremely cold and dense air — is ringed by easterly winds which form the boundary with the subpolar low pressure belt.

These typical features vary in intensity and location according to the season. For instance, in **summer** the high pressure belt is usually found just south of Australia, while the subtropical easterlies cover most of the continent. Monsoon flows and associated lows over the tropics bring significant summer rain; tropical cyclones may develop. In **winter** the high pressure belt is usually located over the continent, allowing westerlies and strong cold fronts to affect southern Australia.

It is important to be alert to significant exceptions to this 'normal' situation, when e.g., strong high pressure systems move slowly across the oceans well south of Australia. Closed or 'cut off' lows may then move across southern Australia or intensify over the Tasman Sea, possibly causing prolonged heavy rain.

It is also important to remember that all weather systems have a life cycle of development, maturity and decay. They occasionally show unusual behaviour. They may become stationary or even briefly reverse their normal eastward progression.

FIGURE 1 EXAMPLE OF MEDIA WEATHER MAP



MELBOURNE **NOON** **9 OCTOBER 1992**	ISOBARS (Values in hectopascals) COLD FRONT WARM FRONT TROUGH	WINDS km/h 24.32 Calm ⊙ 33.41 1.4 42.51 5.13 52.60 14.23 61.68	RAINFALL Previous 24 nours

Source: Bureau of Meteorology.

Hot or cold?

Remembering that air flows clockwise around low pressure systems and anticlockwise around high pressure systems, a fairly typical summer weather map (figure 2) shows:

- Northerly winds over eastern Australia on the western flank of a Tasman Sea high. They carry hot, dry air from inland Australia southward over Victoria and Tasmania. With winds strengthening ahead of an approaching front, this represents a classic weather situation with extreme bushfire risk.
- Moist, easterly flow from the Coral Sea onto the Queensland coast causes very warm, humid and sultry weather east of the Great Dividing Range. This air, often susceptible to the development of showers and thunderstorms, is described as 'unstable'.
- The cold front passing South Australia replaces the hot, dry north-westerlies with southerlies carrying cooler, often relatively humid air from waters south of the continent. Such summer fronts are often quite shallow and may not penetrate far inland, particularly if they are distorted and slowed over the Victorian mountains.

In figure 3, a relatively common winter weather map shows:

- Very cold, unstable air from well south of Tasmania flows northward over Tasmania, Victoria and south-east New South Wales, reducing normal day temperatures typically by five degrees or more. Note the cold front, the deep low pressure (pressures below 976 hectoPascals) south of Tasmania, and the high (1020 hectoPascals) south of the Bight. Occasionally, rapid interaction with other weather systems around the southern hemisphere can almost halt the pattern's eastward movement, causing successive cold fronts to bring a prolonged spell of cold, showery weather to southern Australia.
- Easterly winds over inland Australia. Although southern cold fronts become shallow and diffuse as they move into northern Australia, they often trigger a surge in the strength of the easterlies and this, combined with their extreme dryness, creates a very high fire danger in the tropical savanna region.
- An active low pressure near Perth is 'cut off' from the southern westerlies. Situations of this type may cause rain and rather cold weather over southern parts of Western Australia.

How strong will the winds be?

A mean sea level pressure chart shows the direct relationship between isobar spacing (pressure gradient) and orientation, and the strength and direction of surface winds. The general rule is that winds are strongest where the isobars are closest together. Thus the strongest winds are usually experienced near cold fronts, low pressure systems and in westerly airstreams south of the continent. Winds are normally light near high pressure systems where the isobars are widely spaced.

However, because of a latitude effect, winds in middle latitudes are lighter than those in the tropics with similarly spaced isobars.

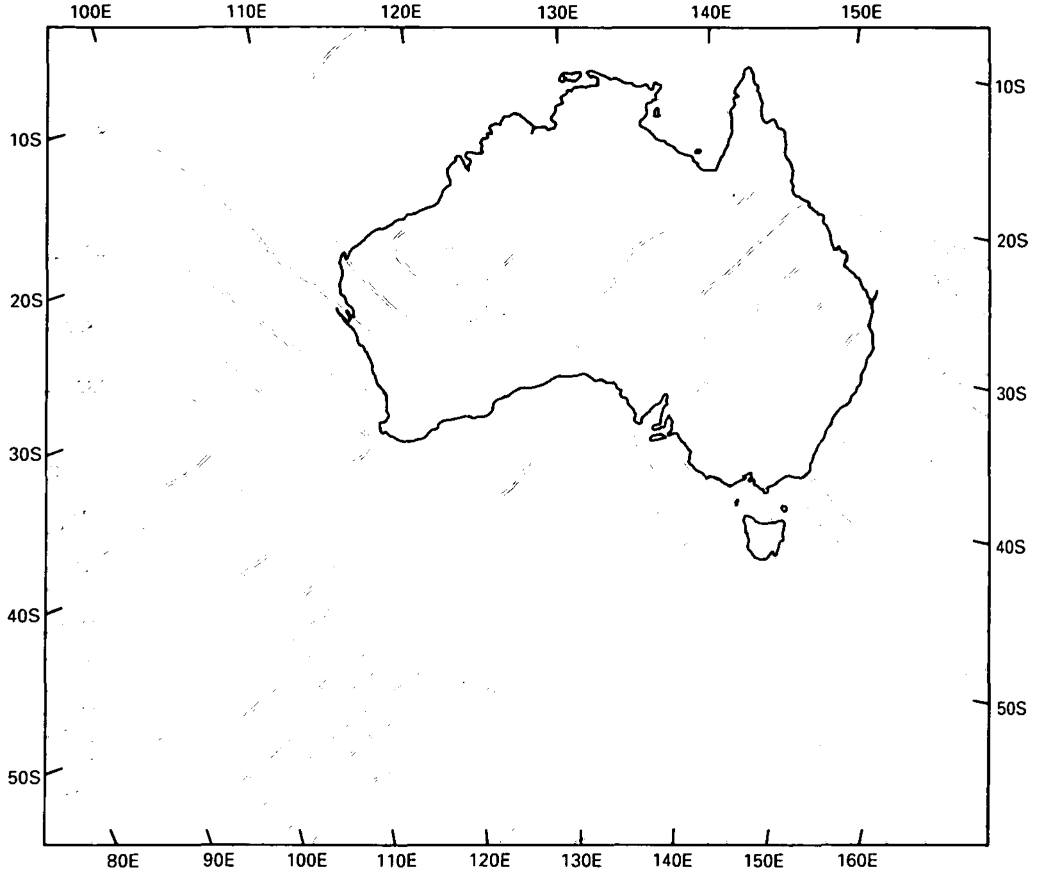
The most destructive winds in Australia are generated by tropical cyclones. Figure 4 illustrates the relationship between wind and pressure distribution in tropical cyclone Winifred which affected Queensland in February 1986. The relationship is typical.

In the southern hemisphere, tropical cyclones are defined as warm cored low pressure systems in tropical latitudes with clockwise wind circulation and surrounding average winds above gale force (63 kilometres per hour). Tropical cyclones typically exhibit a relatively clear eye, surrounded by dense wall clouds and a series of spiral rain bands. The Bureau tracks cyclones with weather watch radar, special surface reports and frequent satellite images. Figures 5(a) and (b) show a tropical cyclone approaching, and crossing, the Queensland coast near Rockhampton. The pressure gradient is very steep towards the cyclone's centre and windspeeds on the nearby coast in this case may be 110 kilometres per hour, with gusts 40 per cent higher. In figure 5(b), 12 hours later, the cyclone has moved inland. Cut off from its heat energy from the ocean (it requires sea surface temperatures above 26.5°C), its intensity has decreased and wind speeds have dropped to 85-95 kilometres per hour.

Rain or fine?

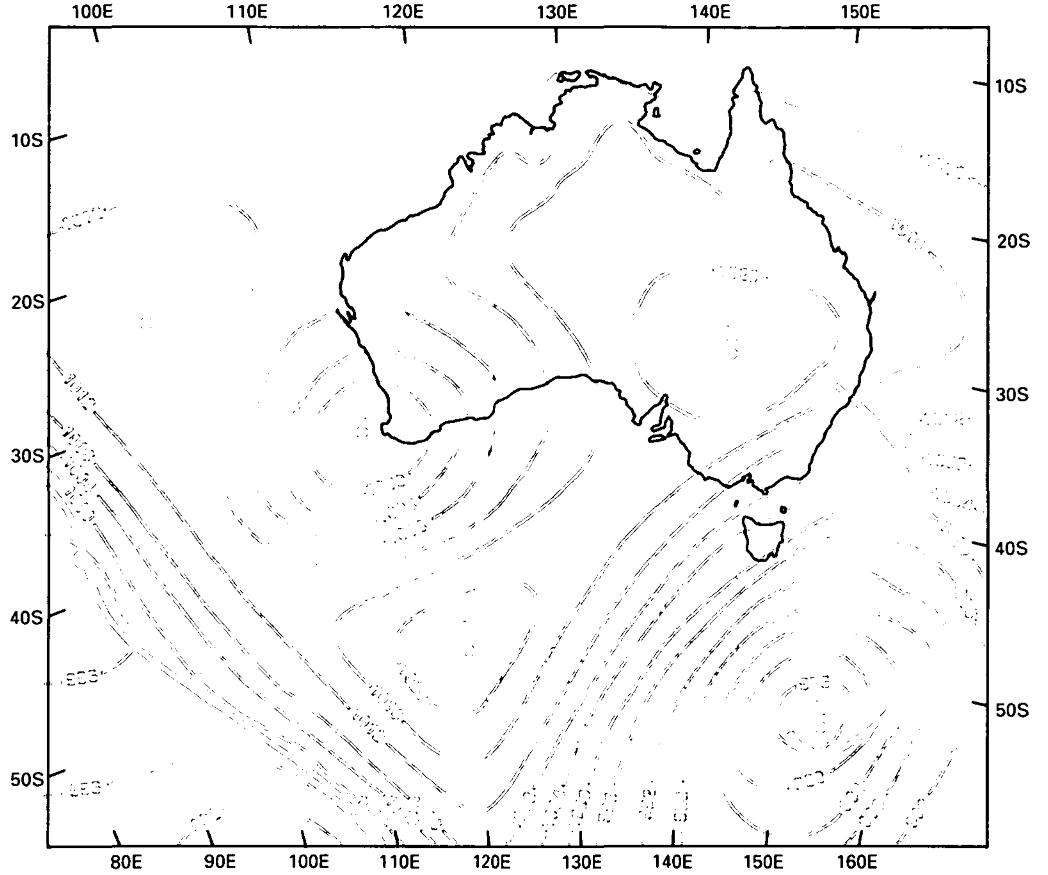
Features on the surface weather chart indicate likely rainfall patterns as well as temperature distribution and wind strength. In general, highs tend to be associated with subsiding (sinking) air and generally fine weather, while lows are associated with ascending (rising) air and usually produce rain or showers.

FIGURE 2 TYPICAL SUMMER WEATHER CHART



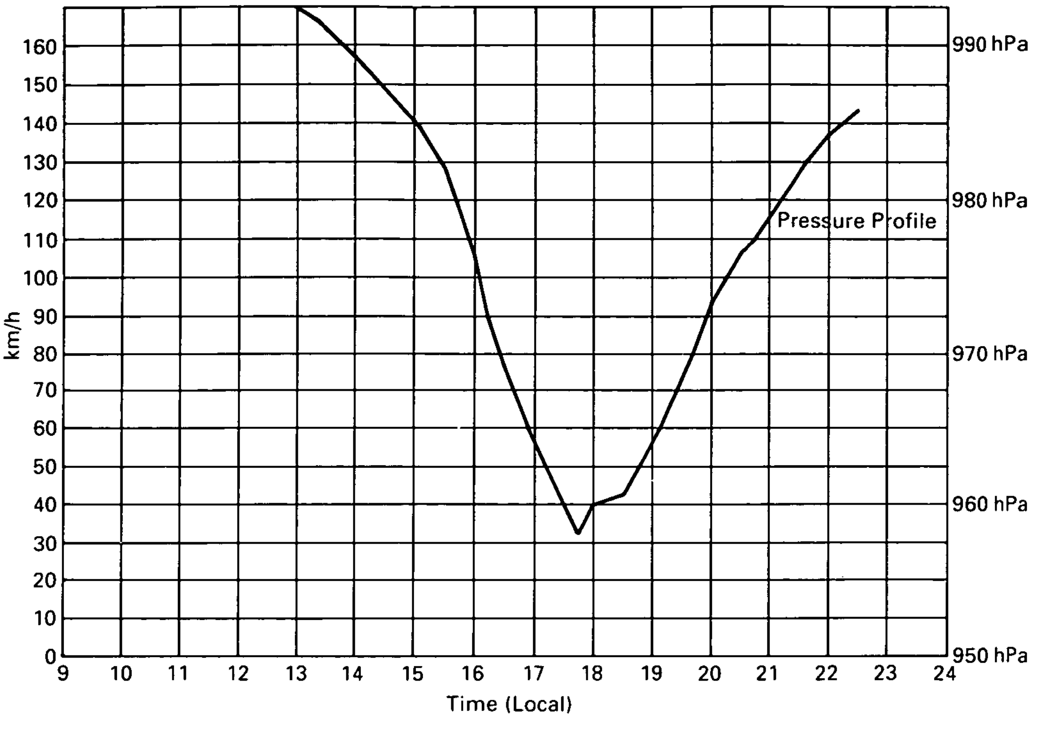
Source: Bureau of Meteorology.

FIGURE 3 TYPICAL WINTER WEATHER CHART



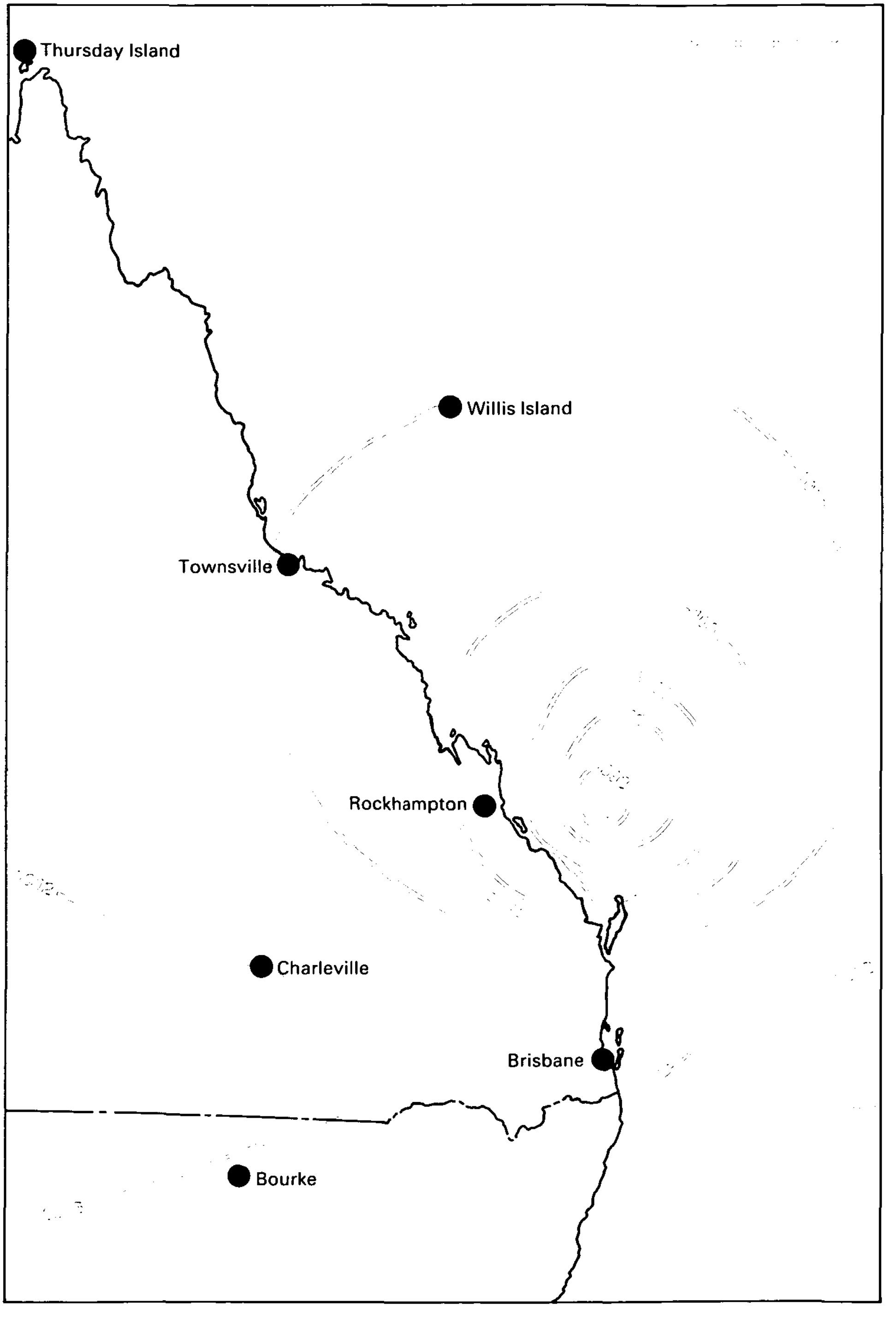
Source: Bureau of Meteorology.

FIGURE 4 . TYPICAL WIND SPEED AND PRESSURE RELATIONSHIPS FOR A TROPICAL CYCLONE, CYCLONE WINIFRED, COWLEY BEACH, QUEENSLAND, FEBRUARY 1986



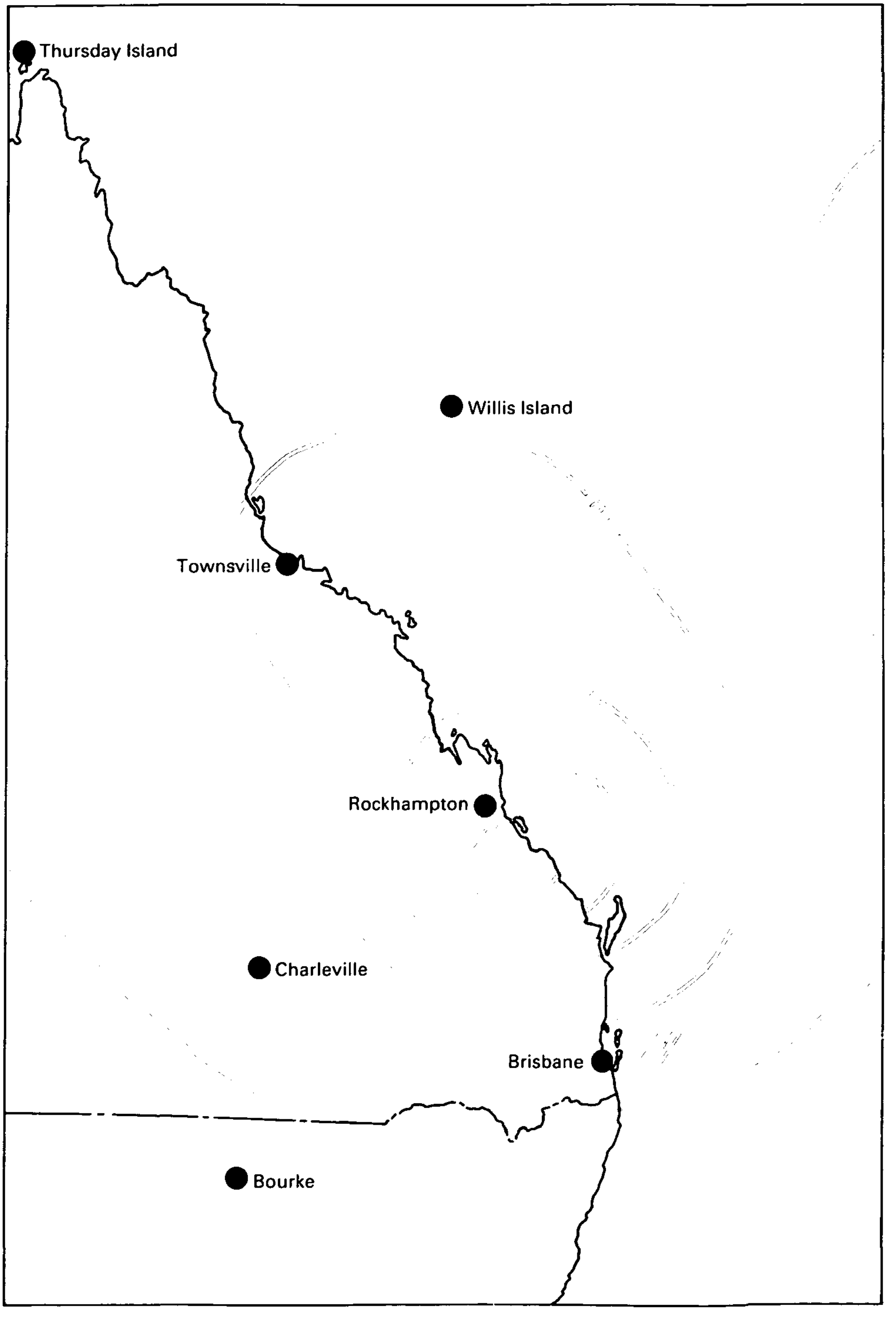
Source: Bureau of Meteorology.

FIGURE 5a TROPICAL CYCLONE APPROACHING QUEENSLAND COAST NEAR ROCKHAMPTON, AT 9AM



Source: Bureau of Meteorology.

FIGURE 5b TROPICAL CYCLONE CROSSING QUEENSLAND COAST NEAR ROCKHAMPTON, AT 9PM



Source: Bureau of Meteorology.

While you can have cloud without rain, you cannot have rain without clouds.

Clouds form by the condensation of water vapour through cooling. Causes of cooling include:

- **Convection,** which may be caused through air mass instability. It may be initiated by warming of low level air, forced ascent over mountainous country, or dynamic causes associated with severe weather systems. Convection usually involves cumulus clouds, the most intense forms of which are often associated with severe thunderstorms and occasionally, tornadoes. Cumulonimbus, for instance, may reach altitudes above 15,000 metres.
- **Systematic ascent of moist air** over large areas linked with large-scale weather systems such as low pressure systems, including tropical cyclones. In mid-latitudes this systematic ascent often occurs ahead of active fronts, or with 'cut off' lows. This type of rain may be persistent and heavy and cause floods, especially if enhanced by forced (orographic) ascent over mountains.
- **Orographic ascent** occurs when air is forced upwards by a barrier of mountains or hills. Cloud formation and rainfall is often the result. Australia's heaviest rainfall occurs on the Queensland coast and in western Tasmania, where prevailing maritime airstreams are forced to lift over mountain ranges.
- **Cold and warm fronts** also cause systematic ascent. A cold front is the boundary where cold air moves to replace, and undercut, warmer and less dense air. Associated cloud and weather may vary enormously according to the properties of the air masses, but tends to be concentrated near the front. As a typical cold front approaches, winds freshen from the north or north-west, and pressure falls. After the front passes, winds shift direction anticlockwise ('backing' to the west or south-west) and pressure rises.
  Cold fronts are much more frequent and vigorous over southern Australia than elsewhere. Warm fronts, relatively infrequent over Australia, are usually found in high latitudes where they can occasionally cause significant weather. They are often shown on weather charts over the southern ocean. Warm fronts progressively displace cool air by warmer air.
- **Convergence lifting** occurs when more air flows into an area at low levels than flows out, leading to forced rising of large air masses. Convergence is often associated with wave-like disturbances in tropical easterlies and may also occur with broad tropical air masses flowing to the south. Given sufficient atmospheric moisture and instability, it may cause large cloud clusters and rain.

Using weather charts to prepare forecasts

Preparation of weather charts which predict surface and upper level flow patterns up to several days ahead is integral to weather forecasting. The best and most objective way of doing this is to use computer models incorporating the equations which govern the motion of the atmosphere, and its associated physics. The Bureau's supercomputers run mathematical models on a global and regional scale for both daily forecasting and for research.

While predicted (prognostic) weather charts are essential to the forecast process, they must be interpreted by meteorologists to prepare specific weather forecasts and warnings. Forecast errors still occur, due to limitations in data or the forecast models, and the inherent complexity of the atmosphere, but forecast accuracy has increased very significantly since the introduction of satellite information and mathematical modelling. Prognostic charts shown routinely on television and in newspapers predict conditions up to three days ahead.

An inexpensive aneroid barometer enables weather map watchers to follow changes in surface air pressure over time, giving important clues to subtle alterations in weather systems. By combining information from the barometer, weather maps and forecasts from the media, and personal experience of sky watching, they can make the most of the Bureau's weather service.

It will be realised by now that a single weather map is only a forecasting aid and that a great deal of other data and information must be gathered and processed before a forecast is issued. However, the information in this article should assist people to understand and interpret the map and forecasts, and enable them to make more informed judgments about the effect of weather on their activities.

Chapter Two

Government

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There are three levels of government in Australia.

The six Australian colonies federated in 1901 to form the Commonwealth of Australia. Most of the Commonwealth Parliament's legislative powers are enumerated in section 51 of the Constitution. Areas of power not specified remain the responsibility of the States and Territories. A system of local government, established under State legislation, creates a third tier of government in Australia. In 1991, Australia had 842 elected members of Parliament, of whom 224 were Commonwealth and 618 State and Territory members.

Both the State and the Commonwealth systems of government derive from the British Westminster system, although many features of the Commonwealth Constitution (including the federal structure) are based on the United States Constitution. Generally, however, the salient features of the Westminster system have been retained. Ministers are members of Parliament, and are required to be accountable and answerable to it. In the twentieth century, Australia has been characterised by a strong party system and adversarial style of politics between the government and opposition.

This chapter outlines the basic features of the constitutional structure of the Commonwealth Parliament and Government and its electoral system, and provides details of the Ministry, and other political leaders.

The Australian Constitution is reproduced in the Year Book from time to time, the latest being the 1992 edition.

A chapter outlining Australia's prehistory to Federation was contained in the 1991 and earlier Year Books.

PARLIAMENTARY GOVERNMENT

Scheme of parliamentary government

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

No Act of the Parliament of the United Kingdom passed after the commencement of the *Australia Act 1986* extends, or is deemed to extend, to the Commonwealth of Australia or to an Australian State or Territory as part of the law of the Commonwealth, of the State or of the Territory. Further, the restrictions that formerly existed on the legislative powers of the Parliaments of the States were removed by the Act.

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 all States was bicameral until 1922 when the Queensland Parliament became unicameral upon 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 and Western Australia as the Legislative Assembly; and in the State Parliaments of South Australia and Tasmania as the House of Assembly. The single House of Parliament in Queensland, the Northern Territory and the Australian Capital Territory is known as the Legislative 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, as the case may be, is the larger House.

The members of the Parliaments of each State are elected by the people, the franchise extending to Australian citizens who are at least 18 years of age and possess certain residential qualifications. For the Commonwealth Parliament the qualifications for the franchise are identical for both Houses, extending to Australian citizens and British subjects who are on the Commonwealth Electoral Roll 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, acting with advice of members of the Federal Executive Council, proclaimed Princess Elizabeth as 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. By the *Royal Style and Titles Act 1973*, which Her Majesty assented to in Canberra on 19 October 1973, the Commonwealth Parliament assented to the adoption by Her Majesty, for use in relation to Australia and its Territories, of the Style and Titles set out in the Schedule to that 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. Under the Australian Constitution, the Governor-General exercises the executive power of the Commonwealth of Australia, and certain other powers and functions conferred by the Constitution that include, among others, the powers to appoint times for holding the sessions of the Parliament, to prorogue Parliament, and to 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; to choose and summon Executive Councillors, who hold office during the Governor-General's pleasure; and to appoint Ministers of State for the Commonwealth of Australia. In addition, the Governor-General, as the Queen's representative, is Commander-in-Chief of the Defence Forces.

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

Holders of office. The present Governor-General is His Excellency the Honourable William George Hayden, AC. Those persons who have held the office of Governor-General from the inception of the Commonwealth of Australia are pictured in *Year Book Australia 1988*.

Administrators. In addition to the holders of the office of Governor-General, certain persons have, from time to time, been appointed by the Queen to administer the Government of the Commonwealth of Australia. These persons are appointed in the event of the death, incapacity, removal from office or absence from Australia of the Governor-General.

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 issued under the Great Seal of the United Kingdom on 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 to 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 the Commonwealth *Australia Act 1986*, as well as under the 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. Since the enactment of the *Australia Act 1986*, an Act of Parliament of a State that has been assented to by the Governor of the State is no longer subject to disallowance by the Queen or suspension pending signification of the Queen's pleasure. The Governor 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 right of the State. 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.

2.1 STATE GOVERNORS, HOLDERS OF OFFICE, MAY 1993

New South Wales	His Excellency REAR ADMIRAL PETER ROSS SINCLAIR, AO
Victoria	His Excellency JUSTICE RICHARD McGARVIE
Queensland	Her Excellency Mrs MARY MARGUERITE LENEEN FORDE
South Australia	Her Excellency the Honourable DAME ROMA FLINDERS MITCHELL, AC, DBE
Western Australia	His Excellency the Honourable SIR FRANCIS THEODORE PAGE BURT, AC, KCMG, QC
Tasmania	His Excellency GENERAL SIR PHILLIP BENNETT, AC, KBE, DSO
Northern Territory	The Honourable JAMES HENRY MUIRHEAD, AC QC

Source: Department of the Parliamentary Library.

COMMONWEALTH GOVERNMENT

Commonwealth Parliaments and Ministries

The following table shows the number and duration of parliaments since Federation.

2.2 COMMONWEALTH PARLIAMENTS

Number of Parliament	*Date of opening*	*Date of dissolution*
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	(a)30 July 1914
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	(a)19 March 1951
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	(a)11 April 1974
Twenty-ninth	9 July 1974	(a)11 November 1975
Thirtieth	17 February 1976	8 November 1977
Thirty-first	21 February 1978	19 September 1980
Thirty-second	25 November 1980	(a)4 February 1983
Thirty-third	21 April 1983	26 October 1984
Thirty-fourth	21 February 1985	(a)5 June 1987
Thirty-fifth	14 September 1987	19 February 1990
Thirty-sixth	8 May 1990	8 February 1993
Thirty-seventh	4 May 1993	

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

Source: Department of the Parliamentary Library.

The following list shows the name of each Commonwealth Government Ministry to hold office since 1 January 1901 and the dates of its term of office.

2.3 COMMONWEALTH GOVERNMENT MINISTRIES, 1901 TO 1991

(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 2 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 8 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 to 3 November 1980
(xlvi)	FRASER MINISTRY	3 November 1980 to 7 May 1982
(xlvii)	FRASER MINISTRY	7 May 1982 to 11 March 1983
(xlviii)	HAWKE MINISTRY	11 March 1983 to 13 December 1984
(xlix)	HAWKE MINISTRY	13 December 1984 to 24 July 1987
(l)	HAWKE MINISTRY	24 July 1987 to 4 April 1990
(li)	HAWKE MINISTRY	4 April 1990 to 20 December 1991
(lii)	KEATING MINISTRY	20 December 1991 to 24 March 1993
(liii)	KEATING MINISTRY	24 March 1993

Source: Department of the Parliamentary Library.

In *Year Book Australia 1924*, the names are given of each Ministry up to the Bruce–Page Ministry together with the names of the successive holders of portfolios therein. *Year Book Australia 1953* 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 issues of the *Year Book Australia*, 1953 to 1975-76 inclusive, and in successive issues from 1980.

Particulars of the Second Keating Ministry at May 1993 are shown below.

2.4 SECOND KEATING MINISTRY, AT MAY 1993

Prime Minister	**The Hon. P. J. Keating, MP**
Special Minister of State	The Hon. Frank Walker, QC, MP (Vice-President of the Executive Council)
Minister for Aboriginal and Torres Strait Islander Affairs	The Hon. Robert Tickner, MP
Minister for Housing, Local Government and Community Services	**The Hon. Brian Howe, MP** (Deputy Prime Minister)
Minister for Health	**Senator The Hon. Graham Richardson**
Minister for Family Services	Senator The Hon. Rosemary Crowley
Minister Assisting the Prime Minister for the Status of Women	
Minister for Veterans' Affairs	Senator the Hon. John Faulkner (Manager of Government Business in the Senate)
Parliamentary Secretary	*The Hon. Andrew Theophanous, MP*
Minister for Foreign Affairs	**Senator the Hon. Gareth Evans, QC** (Leader of the Government in the Senate)
Minister for Trade	**Senator the Hon. Peter Cook**
Minister for Development Co-operation and Pacific Island Affairs	The Hon. Gordon Bilney, MP
Minister for Defence	**Senator the Hon. Robert Ray** (Deputy Leader of the Government in the Senate)
Minister for Defence Science and Personnel	Senator the Hon. John Faulkner
Parliamentary Secretary	*The Hon. Gary Punch, MP*
Treasurer	**The Hon. J. S. Dawkins, MP**
Assistant Treasurer	The Hon. George Gear, MP
Parliamentary Secretary	*The Hon. Gary Johns, MP*
Minister for Finance	**The Hon. Ralph Willis, MP**
Minister for Employment, Education and Training	**The Hon. Kim C. Beazley, MP** (Leader of the House)
Minister for Schools, Vocational Education and Training	The Hon. Ross Free, MP
Parliamentary Secretary	*The Hon. Warren Snowdon, MP*
Minister for the Environment, Sport and Territories	**The Hon. Ros Kelly, MP**
Minister for Immigration and Ethnic Affairs	**Senator the Hon. Nick Bolkus**
Minister Assisting the Prime Minister for Multicultural Affairs	
Minister for Primary Industries and Energy	**The Hon. Simon Crean, MP**
Minister for Resources	The Hon. Michael Lee, MP
Parliamentary Secretary	*Senator the Hon. Nick Sherry*

... continued

2.4 SECOND KEATING MINISTRY, AT MAY 1993 — *continued*

Minister for Industry, Technology and Regional Development	**The Hon. Alan Griffiths, MP**
Minister for Science and Small Business	Senator the Hon. Chris Schacht
Minister Assisting the Prime Minister for Science	
Parliamentary Secretary	*The Hon. Ted Lindsay, MP*
Minister for Transport and Communications	**Senator the Hon. Bob Collins**
Minister for Communications	The Hon. David Beddall, MP
Parliamentary Secretary	*The Hon. Neil O'Keefe, MP*
Minister for Social Security	**The Hon. Peter Baldwin, MP**
Parliamentary Secretary	*The Hon. Con Sciacca, MP*
Minister for the Arts and Administrative Services	**Senator the Hon. Bob McMullan**
Parliamentary Secretary	*The Hon. Janice Crosio, MBE, MP*
Minister for Industrial Relations	**The Hon. Laurie Brereton, MP**
Minister Assisting the Prime Minister for Public Service Matters	
Attorney-General	**The Hon. Michael Lavarch, MP**
Minister for Consumer Affairs	The Hon. Jeannette McHugh, MP
Minister for Justice	The Hon. Duncan Kerr, MP
Parliamentary Secretary	*The Hon. Peter Duncan, MP*
Minister for Tourism	**The Hon. Michael Lee, MP**

NOTE: Cabinet Ministers are shown in bold type. As a general rule, there is one Department in each portfolio. Except for the Department of Health, Housing, Local Government and Community Services and the Department of Foreign Affairs and Trade, the title of each Department reflects that of the Portfolio Minister. There is also a Department of Veterans' Affairs in the Health, Housing, Local Government and Community Services Portfolio.
Source: Department of the Parliamentary Library.

Dr J. R. Hewson, MP(LP) is the leader of the Opposition.

2.5 STATE OF THE PARTIES IN THE COMMONWEALTH PARLIAMENT, MAY 1993

House of Representatives		*Senate*	
ALP	80	ALP	32
LP	49	LP	29
NPA	16	AD	8
IND	2	NPA	5
		OTHER	2

NOTE: Senate composition after Senators elected at 13 March 1993 election have taken up their seats in the Senate (1 July 1993) will be; ALP 30, LP 30, NPA 5, AD 8, Others 3.
Source: Department of the Parliamentary Library.

Numbers and salaries of Commonwealth Government Ministers

Under sections 65 and 66, respectively, of the Australian Constitution 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, each provision to operate, however, 'until the Parliament otherwise provides'.

Subsequently, the number and salaries have increased from time to time, and as at 15 August 1991 the number of Ministers was 30 and ministerial salaries ranged from $106,848 for the Prime Minister, to $69,327 for the Deputy Prime Minister, $56,503 for the Treasurer and for the Leader of the Government in the Senate, $50,144 for the Leader of the House, and $46,722 for a Minister other than the above. Where more than one office is held only one salary is payable, that being the higher salary.

All amounts shown in the foregoing paragraphs are in addition to amounts payable as parliamentary salaries and allowances.

PARLIAMENTS AND ELECTIONS

Qualifications for membership and for franchise — Commonwealth Parliament

Any Australian citizen, 18 years of age or over and who is, or is qualified to become, an elector of the Commonwealth Parliament is qualified for membership of either house of the Commonwealth Parliament. Any Australian citizen (or British subject who was on the Commonwealth Roll as at 25 January 1984) over 18 years of age is qualified to enrol and vote at federal elections. Residence in a subdivision for a period of one month before enrolment is necessary to enable a qualified person to enrol. Enrolment and voting are compulsory for all eligible persons.

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 a pecuniary interest in any agreement with the public service of the Commonwealth except as a member of an incorporated company of more than 25 persons. Persons convicted of treason and not pardoned, or convicted and under sentence for any offence punishable by imprisonment for five years or longer, or of unsound mind, or persons who are holders of temporary entry permits under the *Migration Act 1958* or are prohibited non-citizens under that Act, are excluded from enrolment and voting.

Commonwealth Parliaments — representation and elections

From the establishment of the Commonwealth of Australia until 1949 the Senate consisted of 36 members, 6 being returned by each of the original federating States. The Australian Constitution empowers the Commonwealth 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 10 Senators from each State instead of six, thus increasing the total to 60 Senators, enlarging both Houses of Parliament and providing a representation ratio nearer to the proportion which existed at Federation. The *Representation Act 1983* further provided for 12 Senators for each State from the first meeting of the thirty-fourth Parliament.

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 total 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; in 1980, 122. From the first meeting of the thirty-fourth Parliament, there was a further increase of 23 to 145 State Members flowing from the increase in the number of State Senators to 72.

Since the redistribution of electorates in 1949 giving effect to the increase in the size of the House of Representatives, further redistributions have taken place in 1955, 1968, 1974 (Western Australia only), 1977, 1979 (Western Australia only), 1984, when the size of the Parliament was increased again, 1988–89 (Victoria and Western Australia only) and 1991 (New South Wales, Queensland, South Australia, Tasmania and the Australian Capital Territory). Redistributions must be held whenever the representation entitlement of a State changes, when more than one-third of the electorates in a State deviates from the quota by more than 10 per cent for more than two months, or every seven years. The quota (or average number) of electors is the basis for electoral distribution. There may be a deviation from the quota of up to 10 per cent in order to achieve equality of enrolment midway between redistributions. In determining boundaries, Redistribution Committees take account of economic, social and regional interests, means of communication and travel, the trend of population changes, physical features and area, and the existing boundaries of electoral divisions.

The Electoral Commissioner determines the representation entitlements of the States and Territories during the tenth month after the first meeting of a new House of Representatives. Determinations are based on the latest population statistics as provided by the Australian Statistician. The quota is ascertained by dividing the number of people of the Commonwealth by twice the number of Senators representing the States. The population of the Territories and all Senators representing the Territories are excluded from calculation when determining the quota. The population of each State and Territory is then divided by the quota to determine their representation entitlements. If there is a remaining fraction of over half a quota, the State or Territory is entitled to an additional seat. This accounts for the minor fluctuations in the size of the House of Representatives. The representation entitlements of the States at the three most recent determinations are shown in the following table, which also shows the Territorial representation and the total size of the Parliament. Under section 24 of the Constitution, Tasmania remains entitled to the five seats guaranteed to any original State in 1901.

2.6 REPRESENTATION ENTITLEMENTS OF THE STATES AND TERRITORIES

State/Territory	*1981*	*1984*	*1988*	*1991*
State				
New South Wales	43	51	51	50
Victoria	33	39	38	38
Queensland	19	24	24	25
South Australia	11	13	13	12
Western Australia	11	13	14	14
Tasmania	5	5	5	5
Territories				
Northern Territory	1	1	1	1
Australian Capital Territory	2	2	2	2
Total Parliament	**125**	**148**	**148**	**147**

Source: Department of the Parliamentary Library.

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 1922* 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 to 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 was granted full voting rights on 21 February 1967.

Following the passing of the *Australian Capital Territory Representation (House of Representatives) Act 1973* the Australian Capital Territory was divided into two electoral divisions.

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.

In 1948, amendments to the *Commonwealth Electoral Act 1918* changed the system of scrutiny and counting of votes in Senate elections from the alternative vote to that of proportional representation. 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 1984 appear in earlier issues of *Year Book Australia.* Full details are contained in the *Election Statistics* issued by the Electoral Commissioner following each election.

The numbers of electors and of primary votes cast for the major political parties in each State and Territory at the 1990 election for each House of the Commonwealth Parliament were as follows:

2.7 COMMONWEALTH PARLIAMENT ELECTIONS, 24 MARCH 1990

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Australia*
HOUSE OF REPRESENTATIVES									
Electors enrolled	3,630,841	2,781,547	1,805,141	966,431	982,901	310,076	78,994	172,200	10,728,131
Number of votes recorded for									
Australian Labor Party	1,380,780	951,674	695,291	339,218	316,186	115,053	34,106	71,830	3,904,138
Liberal Party	975,083	1,018,740	476,560	381,172	392,870	140,722	..	55,755	3,440,902
National Party	377,687	154,069	280,120	..	21,681	..	..	..	833,557
Country National Party	..	..	..	..	..	..	27,668	..	27,668
Australian Democrats	342,540	319,149	193,817	135,546	75,197	24,876	..	23,091	1,114,216
Call to Australia	21,646	52,554	..	22,297	..	..	..	..	96,497
Others	256,935	70,944	25,809	15,521	88,765	8,853	6,483	9,386	482,696
Formal votes	3,354,671	2,567,130	1,671,597	893,754	894,699	289,504	68,257	160,062	9,899,674
Informal votes	108,134	94,334	38,065	34,143	34,418	9,774	2,387	4,871	326,126
Total votes recorded	**3,462,805**	**2,661,464**	**1,709,662**	**927,897**	**929,117**	**299,278**	**70,644**	**164,933**	**10,225,800**
SENATE									
Electors enrolled	3,630,841	2,781,547	1,805,141	966,431	982,901	310,076	78,994	172,200	10,728,131
Number of votes recorded for									
Australian Labor Party	1,356,430	938,245	653,070	337,137	304,632	120,195	37,343	66,495	3,813,547
Liberal Party	..	..	490,523	376,073	392,820	128,374	..	58,082	1,445,872
National Party	..	..	227,696	3,667	26,801	..	..	..	258,164
Liberal–National Party	1,280,382	1,149,170	..	..	..	..	..	..	2,429,552
Country Liberal Party	..	..	..	..	..	..	29,045	..	29,045
Australian Democrats	393,521	365,376	209,030	149,158	85,324	22,888	..	28,510	1,253,807
Call to Australia	69,744	29,608	18,469	18,701	..	..	..	..	136,522
Western Australian Green Party	..	..	..	..	76,381	..	..	..	76,381
Environment Independents	27,046	16,655	30,967	..	..	..	..	..	74,668
Others	211,019	80,466	44,441	23,387	22,140	19,835	2,335	8,584	412,207
Formal votes	3,338,142	2,579,520	1,674,196	908,123	908,098	291,292	68,723	161,671	9,929,765
Informal votes	145,429	96,171	42,112	23,438	26,733	9,300	1,977	3,905	349,065
Total votes recorded	**3,483,571**	**2,675,691**	**1,716,308**	**931,561**	**934,831**	**300,592**	**70,700**	**165,576**	**10,278,830**

NOTE: Details of the Commonwealth Parliament elections held on 13 March 1993 not available at the time of going to press.
Source: Department of the Parliamentary Library.

Parliamentary salaries and allowances

The basic salary payable to a Senator or Member of the House of Representatives was $66,387 at 15 August 1991. In addition, Senators or Members receive an electoral allowance of $22,685 in the case of a Senator or a Member representing an electorate of less than 2,000 square kilometres, $26,975 in the case of a Member representing an electorate of 2,000 square kilometres or more, but less than 5,000 square kilometres, or $32,895 in the case of a Member representing an electorate of 5,000 square kilometres or more.

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, (except in circumstances specified in section 128 of the Constitution which permits a referendum to proceed if passed by only one chamber), 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, 42 proposals have been submitted to referendums. The consent of the electors has been received in eight cases: the first in relation to the election of Senators in 1906, the second (1910) and third (1928) in respect of State Debts, the fourth in respect of Social Services in 1946 and the fifth in respect of Aboriginals in 1967. The remaining three proposals in relation respectively to Senate casual vacancies, maximum retirement age for justices of the High Court and judges of 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 World War I. A National song poll was held on 21 May 1977. Voting was preferential and after the distribution of preferences Advance Australia Fair became the National song of Australia.

For further details of referendums see *Year Book Australia 1966*, pages 66–68, *Year Book Australia 1974*, pages 90–91, *Year Book Australia 1977–78*, pages 72–73 and *Year Book Australia 1986*, pages 55–56.

The States and Territories

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

2.8 GOVERNMENT LEADERS IN STATES AND TERRITORIES, MAY 1993

New South Wales	THE HON. J. J. FAHEY, M.P. (LP)
Victoria	THE HON. J. G. KENNETT, M.P. (LP)
Queensland	THE HON. W. K. GOSS, MLA (ALP)
South Australia	THE HON. L. M. F. ARNOLD, MP (ALP)
Western Australia	THE HON. R. COURT, MLA (LP)
Tasmania	THE HON. R. J. GROOM, MHA (LP)
Northern Territory	THE HON. M. PERRON, MLA (CLP)
Australian Capital Territory	THE HON. R. FOLLETT, MLA (ALP)

Source: Department of the Parliamentary Library.

2.9 OPPOSITION LEADERS IN STATES AND TERRITORIES, MAY 1993

New South Wales	R. J. CARR, M.P. (ALP)
Victoria	THE HON. J. H. KENNAN, QC, M.P. (ALP)
Queensland	R. E. BORBIDGE, MLA (NP)
South Australia	THE HON. D. C. BROWN, M.P. (LP)
Western Australia	THE HON. C. M. LAWRENCE, MLA (ALP)
Tasmania	THE HON. M. W. FIELD, MHA (ALP)
Northern Territory	B. R. EDE, MLA (ALP)
Australian Capital Territory	K. CARNELL, MLA (LP)

Source: Department of the Parliamentary Library.

2.10 STATE OF THE PARTIES IN THE STATES AND TERRITORIES, MAY 1993

New South Wales — *Legislative Assembly*		*Legislative Council*	
ALP	47	ALP	18
LP	31	LP	13
NPA	17	NPA	7
IND	4	IND	2
		AD	2
Victoria — *Legislative Assembly*		*Legislative Council*	
ALP	27	ALP	14
LP	52	LP	24
NPA	9	NPA	6
Queensland — *Legislative Assembly*			
ALP	54		
NPA	26		
LP	9		
South Australia — *House of Assembly*		*Legislative Council*	
ALP	21	ALP	10
LP	22	LP	10
NPA	1	AD	2
IND	3		
Western Australia — *Legislative Assembly*		*Legislative Council*	
ALP	24	ALP	15
LP	26	LP	14
NPA	6	NPA	3
IND	1	IND	2
Tasmania — *House of Assembly*		*Legislative Council*	
LP	19	LP	1
ALP	11	ALP	1
IND	5	IND	17
Northern Territory — *Legislative Assembly*			
CLP	14		
ALP	9		
IND	2		
Australian Capital Territory — *Legislative Assembly*			
ALP	8		
LP	6		
IND	3		

NOTE: Explanation of abbreviations:
AD — Australian Democrats; ALP — Australian Labor Party; CLP — Country-Liberal Party; IND — Independent; LP — Liberal Party; NPA — National Party of Australia.
Source: Department of the Parliamentary Library.

ACTS OF THE COMMONWEALTH 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. The power of the States to make laws was enhanced in 1986 by the enactment by the Commonwealth Parliament of the *Australia Act 1986* and the accompanying *Australia (Request and Consent) Act 1986.* 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 law prevails and the former law is, to the extent of the inconsistency, invalid.

The enactment of Commonwealth Parliament legislation

The legislation passed by the Commonwealth Parliament between 1901 and 1973, and which was then still in operation, was published in a consolidated form entitled *Acts of the 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 between 1901 and 1973 in relation to the several provisions of the Australian Constitution. Reference should be made to these for complete information.

In 1991 the number of enactments of the Commonwealth Parliament was 216.

NATIONAL ANTHEM AND COLOURS OF AUSTRALIA

Details of the official proclamation issued on 19 April 1984 are as follows:

His Excellency, the Governor-General of the Commonwealth of Australia, issued the following Proclamation on 19 April 1984:

> I, SIR NINIAN MARTIN STEPHEN, Governor-General of the Commonwealth of Australia, acting with the advice of the Federal Executive Council, hereby declare:
>
> (a) that the anthem 'God Save The Queen' shall henceforth be known as the Royal Anthem and be used in the presence of Her Majesty The Queen or a member of the Royal Family;

(b) that the National Anthem shall consist of the tune known as 'Advance Australia Fair' with the following words:

Australians all let us rejoice,
For we are young and free,
We've golden soil and wealth for toil;
Our home is girt by sea;
Our land abounds in nature's gifts
Of beauty rich and rare,
In history's page, let every stage
Advance Australia Fair.
In joyful strains then let us sing,
Advance Australia Fair.

Beneath our radiant Southern Cross
We'll toil with hearts and hands;
To make this Commonwealth of ours
Renowned of all the lands;
For those who've come across the seas
We've boundless plains to share;
With courage let us all combine
To Advance Australia Fair.
In joyful strains then let us sing,
Advance Australia Fair.

(c) that the Vice-Regal Salute to be used in the presence of His Excellency The Governor-General shall consist of the first four bars and the last four bars of the tune known as 'Advance Australia Fair';

(d) that the National Anthem shall be used on all official and ceremonial occasions, other than occasions on which either the Royal Anthem or the Vice-Regal Salute is used; and

(e) that green and gold (Pantone Matching System numbers 116C and 348C as used for printing on paper) shall be the national colours of Australia for use on all occasions on which such colours are customarily used.

Chapter Three

Territories of Australia

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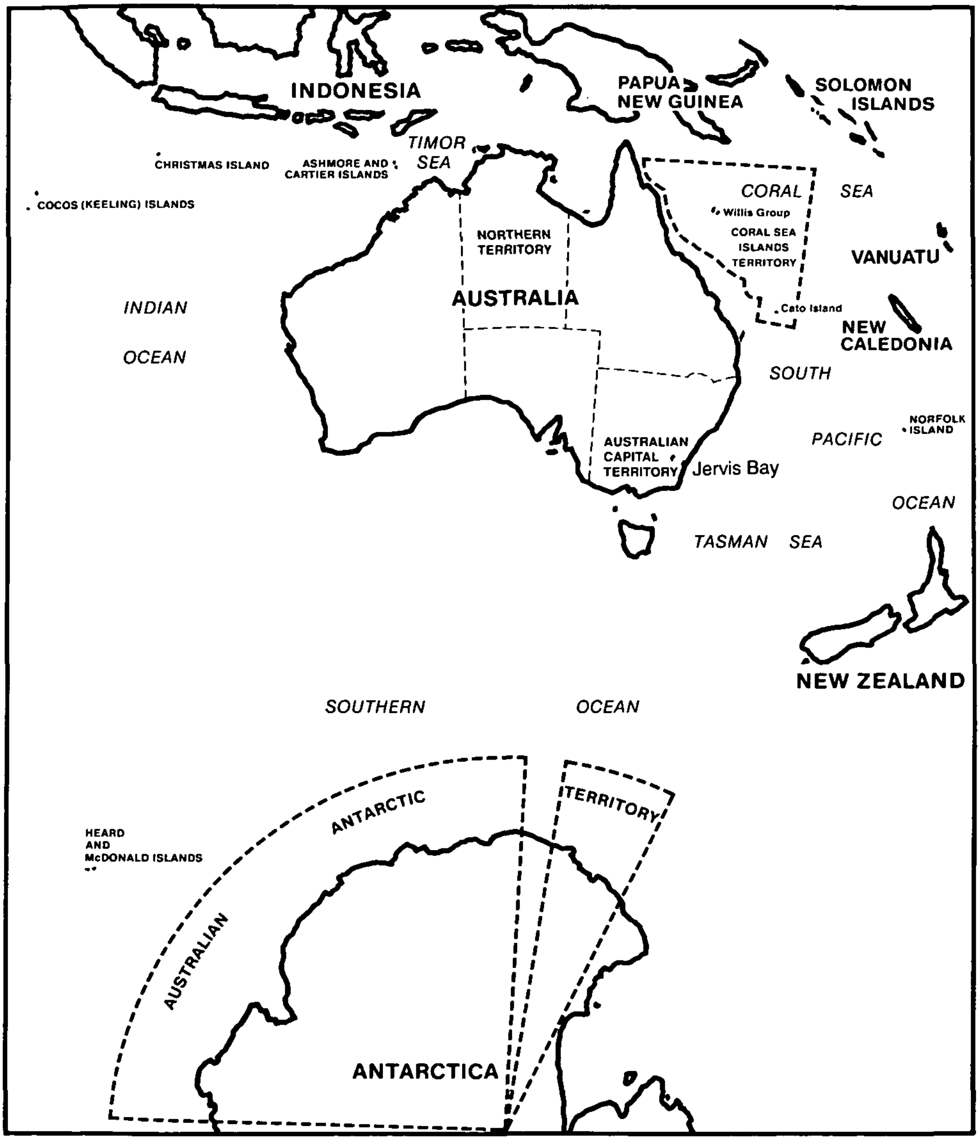
The external territories of Australia are: Norfolk Island; the Territory of Heard Island and McDonald Islands; the Australian Antarctic Territory; the Territory of Cocos (Keeling) Islands; the Territory of Christmas Island; the Coral Sea Islands Territory and the Territory of Ashmore and Cartier Islands.

FIGURE 3.1



Source: Overseas Information Branch, Department of Foreign Affairs and Trade.

Prior to *Year Book Australia 1992*, information on the internal territories of Australia — the Northern Territory, the Australian Capital Territory (ACT) and the Jervis Bay Territory — were included in this chapter. The Northern Territory and the Australian Capital Territory are now self-governing territories, under the *Northern Territory (Self-Government) Act 1977;* and the *Australian Capital Territory (Self-Government) Act 1988*. In keeping with the practice in *Year Book Australia* of covering State information on a subject in the chapter on that subject, information on the two Territories is no longer included in this separate chapter. Detailed statistics and descriptive matter can be found in the following two ABS publications, *Northern Territory Statistical Summary* (1306.7) and the *Australian Capital Territory Statistical Summary* (1307.8), and in the annual reports and other official publications of the administrations of the two Territories.

JERVIS BAY TERRITORY

The Jervis Bay Territory comprises 70 square kilometres on the southern shore of Jervis Bay, about 195 kilometres south of Sydney. The Territory was accepted by the Commonwealth in 1915 under the *Jervis Bay Territory Acceptance Act 1915*. The acceptance was in accordance with the *Seat of Government Acceptance Act 1909* which stated that the seat of government (the Australian Capital Territory) should have access to the sea. Following ACT self-government in 1988, the Jervis Bay Territory remained a separate Commonwealth Territory and is administered by the Department of the Arts, Sport, the Environment and Territories (DASET).

80 per cent of the Territory is National Park with the balance consisting of land used for Defence purposes, Aboriginal land at Wreck Bay, a few private leases and other Commonwealth land. The population of the Territory is relatively constant at about 800. Residents of the Territory vote in the federal electorate of Fraser for representation in the House of Representatives and the Senate but are excluded from representation in the ACT Legislative Assembly. However, a local residents' forum — the Jervis Bay Residents' Group — was established in 1989. Representatives from each of the four communities of the Territory (HMAS Creswell, Jervis Bay Village, Wreck Bay and the private leases) are invited to play an active role in representing the views of residents on issues of interest.

Administration

The laws of the ACT apply so far as they are applicable by virtue of subsection 4A(1) of the *Jervis Bay Territory Acceptance Act 1915*, and the ACT Supreme Court has jurisdiction in the Territory. On 17 December 1990, the *Jervis Bay Territory Administration Ordinance 1990* was made by the Governor-General (who has the power to make ordinances specifically for the Territory). The Ordinance makes provision, among other things, for the Minister for the Arts, Sport, the Environment and Territories to make regulations under an applied ACT act.

DASET provides a full range of municipal and territorial services in the Territory. The majority of these are provided by ACT government agencies under the terms of Memoranda of Understanding between the relevant agencies and DASET. The total expenditure in 1991–92 on managing the Territory and providing municipal and territorial services was $5.06 million.

Land management

On 4 March 1992, 6,300 hectares of Territory land and waters was proclaimed as a national park under the *National Parks and Wildlife Act 1975*. The bulk of this land was previously known as Jervis Bay Nature Reserve and was supplemented with lands previously managed in sympathy with the reserved area. The Australian National Parks and Wildlife Service (ANPWS) assumed management responsibility for the Jervis Bay National Park on 1 July 1992. ANPWS also sought public comment for consideration in preparing a draft plan of management for the Park.

Tourism

Approximately 700,000 people visit the Territory each year. The Territory has a unique natural environment, including a richly diverse natural vegetative cover, relatively undisturbed plant communities supporting varied natural fauna, attractive recreational areas and pristine marine waters. The most common activities undertaken in the Territory include camping, bush walking, diving and boating.

NORFOLK ISLAND

Norfolk Island, discovered by Captain Cook in 1774, is situated approximately in latitude 29°02'S, longitude 167°57'E, 1,676 kilometres east of Sydney. Its total area is approximately 3,455 hectares, the island being about 8 kilometres long and 5 kilometres wide. 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 1,350 millimetres. The resident population is about 2,000.

The island served as a penal station from 1788 to 1814 and from 1825 to 1855. In 1856, 194 descendants of the *Bounty* mutineers were transferred 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.

The *Norfolk Island Act 1979*, established a form of government involving the island's own elected representatives under which the necessary revenue could be raised by its own system of law. In broad terms, the Act equips Norfolk Island with responsible legislative and executive government to enable it to run its own affairs to the greatest practicable extent. Wide powers are exercised by the Norfolk Island Legislative Assembly and by an Executive Council, comprising the executive members of the Legislative Assembly who have ministerial-type responsibilities. The Act preserves the Commonwealth's responsibility for Norfolk Island as a territory under its authority, with the Minister for the Arts, Sport, the Environment and Territories as the responsible Minister. Since 1979, various additional powers have been transferred to the responsibility of the Norfolk Island Government and further progress towards self-government was made in 1989 with the transfer of a significant number of new powers.

The Office of the Administrator is financed from Commonwealth expenditure which amounted to approximately $493,000 in 1991–92. An amount of $358,000 was provided by the Commonwealth during the year for the restoration and maintenance of historic structures and a further $5,000 towards the Oceania Veteran Games and a further $50,000 towards the cost of the purchase of the Airport Fire Service.

Tourism

The island's major economic activity is tourism. Regular air services to the island are available for those who seek a quiet holiday in surroundings of beauty and historic interest. There were 27,351 tourist arrivals in 1991–92.

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 are in abundance and in the past a number of ventures have been formed to exploit this resource, but they have been short-lived, mainly because of the lack of a sheltered harbour. A forestry program is being carried out to increase the resources of Norfolk Island Pine and to introduce suitable types of eucalypts.

Primary production is not fully adequate for local needs and foodstuffs are imported from New Zealand and Australia.

Employment

A large proportion of the population derives its income from various aspects of the tourist industry. Very few people rely entirely on agricultural pursuits for their income.

Finance

Until 1979, Norfolk Island revenue was supplemented by annual grants from the Commonwealth Government. Under present constitutional arrangements, the cost of maintaining the island, other than the Administrator and staff, is met as far as practicable from island sources.

3.2 NORFOLK ISLAND: REVENUE AND EXPENDITURE
($'000)

	1985–86	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*
REVENUE						
Customs duty	1,833	2,008	1,902	1,881	2,005	2,089
Liquor service	578	614	611	632	658	666
Company fees	84	92	108	80	79	76
Postal operations	744	114	272	20	20	20
Vehicle registration and licence fees	124	128	136	132	181	174
Departure fees(a)	—	—	272	278	226	360
Public works levy(a)	—	—	249	263	261	33
Fuel levy(a)	—	—	142	167	164	161
Telecommunications(a)	—	—	185	185	203	353
Electricity service(a)	—	—	115	190	215	125
All other(b)	1,777	2,173	688	984	1,096	1,930
Interest on investments(a)	—	—	336	437	544	424
Total revenue	**5,140**	**5,129**	**5,016**	**5,249**	**5,652**	**6,411**
EXPENDITURE						
Administration	1,770	1,245	1,343	1,193	1,259	1,353
Education services	927	755	880	865	942	1,048
Health and welfare services	552	627	611	619	740	1,103
Repairs and maintenance	706	830	777	774	781	871
Capital works and services	768	1,682	638	507	588	424
Miscellaneous services	431	501	509	996	1,133	1,181
Legislative Assembly	234	210	182	167	207	242
Total expenditure	**5,388**	**5,850**	**4,940**	**5,121**	**5,650**	**6,222**

(a) For the years 1986–87 and prior, these amounts had been included in the total of 'All other revenue'. (b) 'All other revenue' is made up of sundry classifications none of which individually exceeds $100,000.
Source: The Department of the Arts, Sport, the Environment and Territories.

Trade

Imports to Norfolk Island since World War II have risen in value from $65,000 in 1945–46 to over $20 million in 1990–91. The major proportion came from Australia and New Zealand. Exports in 1990–91 amounted to $2.8 million, with Australia and New Zealand as the principal markets.

Transport

A shipping company operates cargo services to Norfolk Island at approximately five weekly intervals, linking the island with Australia and New Zealand.

An air passenger and freight service operates a number of times a week between Norfolk Island and Sydney, Brisbane and Auckland.

Communication

There are approximately 80 kilometres of motor roads on the island. A substantial section of the population possesses motor cars.

The island has an automatic telephone exchange and international telephone connection with Australia, New Zealand and Fiji by way of the ANZCAN submarine cable system. A local broadcasting service is operated by the Administration. The Administration also provides a television service. A central ground station receives ABC and SBS services via the AUSSAT satellite which are then rebroadcast throughout the island.

Education

Education is provided by a school conducted for the Administration by the New South Wales Department of Education. It conforms to the Australian standard of public education, ranging from Kindergarten to the School Certificate (Year 11) level. The number of students enrolled at 30 June 1992 was 328.

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 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.

TERRITORY OF HEARD ISLAND AND McDONALD ISLANDS

Heard Island, about 43 kilometres long and 20 kilometres wide, is the largest of a group of southern Indian Ocean islands about 4,100 kilometres south-west of Fremantle.

The islands, now known as the Territory of Heard Island and the McDonald Islands, were transferred from the United Kingdom to Australia with effect from 26 December 1947. The legal regime of the Territory is provided for in the *Heard Island and McDonald Islands Act 1953*. Under this Act, the laws in force in the Territory are those of the Australian Capital Territory and the criminal laws of the Jervis Bay Territory, in so far as they are applicable and not inconsistent with an ordinance made under the Act. The Act also provides that Commonwealth laws apply when expressed to do so and that ordinances may be made for the Territory.

In December 1947, the first of the Australian National Antarctic Research Expeditions (ANARE) set up a scientific station on Heard Island. Various scientific and meteorological investigations were conducted until the station was closed in March 1955 following the establishment of Mawson station on the Antarctic mainland. Australian expeditions have since visited the island from time to time. Since 1985 there have been three summer and one winter expeditions to Heard Island. In 1992 an overwintering party was established at Spit Bay on the eastern side of the island. These expeditions have primarily investigated the island's wildlife and geology. In addition, since 1985 significant research has been undertaken into the marine resources of the Territory's coastal zone.

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 that name, was by ANARE expeditioners on 27 January 1971.

Heard Island is widely regarded as one of the last Antarctic habitats remaining free of introduced organisms and is thus of significance as a benchmark for ecological studies. In January 1988, introduction of the Environment Protection and Management Ordinance under the *Heard Island and McDonald Islands Act 1953* put in place the framework for sustained conservation of the islands. In 1990 the Territory was nominated by Australia for consideration by the World Heritage Committee for World Heritage listing.

AUSTRALIAN ANTARCTIC TERRITORY

An Imperial Order in Council of 7 February 1933 placed under Australian authority all the territories and islands, other than the French Terre Adélie, south of 60°S latitude and between 45°E and 160°E longitude, a total land area of 5.8 million square kilometres, or about the size of Australia less Queensland. 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 and between 136°E and 142°E longitude.

The legal regime of the Territory is provided for in the *Australian Antarctic Territory Act 1954*. Under this Act, the laws in force in the Territory are those of the Australian Capital Territory and the criminal laws of the Jervis Bay Territory, so far as they are applicable and not inconsistent with any ordinance made under the Act. The Act also provides that Commonwealth laws apply when expressed to do so and that ordinances may be made for the Territory.

On 13 February 1954, Australian National Antarctic Research Expeditions established the first permanent Australian Antarctic station on MacRobertson Land at latitude 67°36′S and longitude 62°53′E. The station was named Mawson in honour of the Australian Antarctic pioneer Sir Douglas Mawson. A second Australian continental station was established in 1957 at latitude 68°35′S and longitude 77°58′E and was named Davis to commemorate Captain John King Davis, second-in-command of two of Mawson's expeditions and master of several famous Antarctic ships. On 4 February 1959, Australia accepted from the United States Government custody of Wilkes station which had been established two years earlier at latitude 66°15′S and longitude 110°32′E. Wilkes was subject to inundation by snow and ice and was closed on 19 February 1969 when activities were transferred to Casey, a new station built nearby. Casey was named in honour of Lord Casey, former Governor-General of Australia, in recognition of his long association with Australia's Antarctic effort.

Australian science in Antarctica deals mainly with the Antarctic ecosystem, the region's natural phenomena, and atmospheric and space studies. Disciplines include marine science, land-based biology, meteorology, cosmic ray physics, upper atmosphere physics, glaciology and earth sciences.

In addition to its three permanent continental stations (a fourth permanent station is on the Tasmanian territory of Macquarie Island), Australia conducts its Antarctic science from summer bases at Cape Denison (in the eastern sector of Australian territory), the Prince Charles Mountains, the Larsemann Hills and the Bunger Hills, as well as temporary field camps in such places as Enderby Land, Scullin Monolith, Amery Ice Shelf and Law Dome.

The number of people on the continental territory varies from about 70 in winter to 200 in summer.

In 1981–82, a program for redeveloping Australia's Antarctic stations began. It is now well advanced and the first of the new stations to be completed — Casey — was opened in 1988.

Specific legislation has been enacted which puts into effect Australia's obligations under various international agreements, many of which relate to environment protection. Adoption of the Protocol on Environmental Protection to the Antarctic Treaty in October 1991 enabled a comprehensive environment protection regime for all Antarctica to be put in place. Under the Protocol, Antarctica has been designated a natural reserve, devoted to peace and science.

The Protocol also establishes environmental principles for the conduct of all activities. It is accompanied by annexes detailing provisions relating to environmental impact assessment, conservation of Antarctic fauna and flora, waste disposal and waste management, prevention of marine pollution, and area protection and management. The Protocol prohibits activities relating to mineral resources, other than scientific research. The prohibition on mining cannot be amended by anything less than the unanimous agreement of the Antarctic Treaty Consultative Parties at least 50 years following the entry into force of the Protocol. Australia legislated in 1991 to ban all mining in Australian Antarctic Territory and on the adjacent continental shelf. The legislation also prohibits Australian nationals from mining elsewhere in Antarctica.

See also the chapter on International Relations.

COCOS (KEELING) ISLANDS

The Territory of the Cocos (Keeling) Islands comprises a group of 27 small coral islands in two separate atolls in the Indian Ocean, 2,768 kilometres north-west of Perth.

The Territory's administrative community, airport and animal quarantine station are located on West Island, the largest island, about 10 kilometres long. The Cocos Malay community lives on Home Island. The main atoll is low-lying, flat, 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 21°C and 32°C, and the average yearly rainfall is 1,998 millimetres. There are occasional violent storms.

History and administration

The islands were discovered in 1609 by Captain William Keeling of the East India Company, but were uninhabited until Alexander Hare and John Clunies-Ross established small settlements at different points on the main atoll in 1826 and 1827 respectively. Clunies-Ross secured sole possession in 1831 and the islands were declared part of the British Dominions in 1857. In 1878, responsibility for the supervision of the islands was transferred to the Government of Ceylon and eight years later, to the Government of the Straits Settlements.

In 1903, the islands were incorporated in the Settlement of Singapore but were attached again to Ceylon during World War II while Singapore was under Japanese occupation.

By mutual agreement between the British and Australian Governments and confirmed by complementary legislation, the islands became an Australian territory in 1955. The Australian Government purchased the Clunies-Ross interests in the Territory in 1978, except for the family home and grounds.

The *Cocos (Keeling) Islands Act 1955* is the basis of the Territory's administrative, legislative and judicial systems.

An Administrator, appointed by the Governor-General and responsible to the Minister for the Arts, Sport, the Environment and Territories, is the senior government representative in the Territory.

On 25 July 1979, the Cocos (Keeling) Islands Council, elected by members of the Home Island community, was established. The Council has responsibility for a range of functions in the Home Island village area, advises the Administrator on local affairs and is also empowered to make representations on ordinances proposed for the Territory.

The Cocos Islands Cooperative Society Limited, also established in 1979, conducts the business enterprises of the Cocos people. The Cooperative undertakes building maintenance and construction, stevedoring and lighterage services, retailing and provision of accommodation and catering services. The Cooperative is currently considering a proposal to establish a new tourist resort on West Island.

On 6 April 1984, the Cocos Malay community, in an Act of Self Determination which took the form of a referendum observed by the United Nations, chose to integrate with Australia.

A Memorandum of Understanding (MOU) was signed in 1991 between the Commonwealth, the Cocos (Keeling) Islands Council and the Cocos Islands Cooperative Society Limited to achieve mainland conditions and living standards on the Cocos (Keeling) Islands.

In September 1991 the Government agreed to replace the outdated laws of the Cocos (Keeling) Islands with a Western Australian based legal regime. From 1 July 1992, most of the laws of the Commonwealth and of Western Australia apply to the Territory.

The 1992 population count of the Cocos (Keeling) Islands was 586.

Transport and communications

There is an airport of international standard at West Island controlled by the Administrator under licence from the Department of Transport and Communications. The Department of the Arts, Sport, the Environment and Territories operates a twice weekly air charter service, Perth-Christmas Island-Cocos (Keeling) Islands-Perth. A shipping service operates to the Territory every 6-8 weeks. The Administration operates and maintains, on behalf of the Overseas Telecommunications Commission (Australia), a satellite communications facility which provides telephone, facsimile and telex services to the Australian mainland and beyond. 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, latitude 10°25′S, longitude 105°40′E, 2,623 kilometres north-west of Perth. Christmas Island covers an area of about 135 square kilometres. It consists of a central plateau varying in height from 250 metres above sea level at the eastern side of the island to 150 metres on the western side. Several prominent rises in the plateau reach 360 metres above sea level. The plateau descends to the sea in a series of steep slopes alternating with terraces. Sea cliffs over 20 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 the only anchorage.

The climate is tropical, with 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 2,673 millimetres 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 provide an adequate supply of fresh water for the population and for the mining operation. The mean average temperature is about 28°C and does not vary greatly throughout the year.

The 1991 population count of the island was 1,275. The majority are Chinese with the remainder being mostly Malays and Europeans. There is no indigenous population.

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 Australia 1965* and in earlier issues. On 1 October 1958, the island was accepted by Australia under the *Christmas Island Act 1958*. The Territory is administered by an Administrator appointed by the Governor-General. Responsibility for the administration and government of the Territory rests with the Minister for the Arts, Sport, the Environment and Territories. The Administrator reports to and is subject to the direction of 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.

The *Migration Act 1958* was extended to the Territory from 23 January 1981, enabling all island residents to become Australian residents and to acquire Australian citizenship. A number of measures have since been taken to extend the same benefits and responsibilities to island residents as apply on the Australian mainland so that the islanders will be in no better or worse a position than their mainland counterparts.

The *Services Corporation Ordinance 1984* was made on 26 October 1984, creating the Christmas Island Services Corporation (CISC) with power to provide many local and community services on the island.

The *Taxation Laws Amendment Act 1985* received Royal assent on 30 May 1985. The Act provided for the introduction of full company tax and the Medicare levy, as well as the phased introduction of personal income tax on Christmas Island over a four year period from 1 July 1985.

The *Christmas Island Assembly Ordinance 1985* and the Christmas Island Assembly (Election) Regulations enabled Christmas Island residents to elect their first Assembly on 28 September 1985. Nine members were elected for a one-year term under a voting system similar to that used in electing Senators of the Commonwealth of Australia. The Christmas Island Assembly has responsibility for directing the CISC in the performance of its functions.

During 1989 and 1990 the House of Representatives Standing Committee on Legal and Constitutional Affairs conducted an inquiry into the adequacy of the legal regimes of the external Territories. The Committee's report *Islands in the Sun* was tabled in Parliament in March 1991.

In September 1991 the Government announced its response to the Report. Among other things, the Government decided to replace the current Singapore based legal regime with Western Australian laws in force from time to time and all Commonwealth laws (unless expressed not to extend).

The decision also provides for those laws to be administered by Western Australian and Commonwealth agencies directly.

Economy

The economy of the Territory has historically been based almost entirely on the mining and extraction of phosphate. In November 1985, responsibility for the mining operation was transferred from the Phosphate Mining Company of Christmas Island (a limited liability company wholly owned by the Australian Government) to the Phosphate Mining Corporation of Christmas Island (PMCI), a statutory authority.

When it became apparent that PMCI could not operate within an agreed Government underwrite, the Government decided to close down the mining operation. A liquidator was appointed on 11 November 1987 to wind up PMCI. The mining operation ceased on 31 December 1987, although it was announced in February 1988 that the Government would consider proposals by private operators to recommence phosphate mining on the Island provided that certain guidelines were met, including that there be no further rainforest clearing.

In July 1990 a Mining Joint Venture (MJV) of Saley Investments (Saley) and Clough Engineering (Clough) was accepted as the preferred tenderer for the Christmas Island phosphate mining operation on the basis of superior financial return to the Commonwealth.

The mine employs approximately 60–70 staff and it is expected to ship a minimum of 300,000 dry tonnes of phosphate per year.

A lease and sales agreement was signed by the MJV on 26 September 1990 and included 40 per cent equity for Island residents through Phosphate Resources NL (PRNL). In October 1990 PRNL acquired all the Saley shares increasing its equity to 49 per cent. On 11 June 1991 PRNL acquired Clough's equity in the mining venture.

The lease requires that a royalty payment be made to the Commonwealth for each tonne of phosphate rock shipped. The royalty payment includes a $1.50 per tonne rehabilitation levy, payable to the Commonwealth in order to carry out rehabilitation work on mined and previously mined areas on the Island.

In allowing phosphate mining to recommence on the Island, the Commonwealth has set strict environmental controls, including no further rainforest clearing.

Notwithstanding the recommencement of mining, the Government is actively encouraging private sector investment in new activities on the island to secure an economic future which is not solely dependent on mining. Several development proposals, including a major tourist hotel/casino project, are progressing.

The resort/casino covers 47 hectares and includes a core building with entertainment, restaurant, service and gaming facilities and detached single and double storey five star accommodation. It is intended that the casino will be operated by the existing operator of the Launceston and Hobart Casinos, Federal Hotels.

The Christmas Island Casino Control Ordinance was made on 22 September 1988. This ordinance provides for the establishment of a casino surveillance authority and the appointment of a Casino Controller. A lease for the site was signed on 17 May 1989.

The main construction work commenced on the hotel core buildings on March 1991. The opening date for the hotel is approximately March 1993. During construction of the development, a minimum of 30 local residents will be employed.

The Government has recognised that the unique environment of the Island holds the key to its future development, in particular tourism. Several rare and endangered species of wildlife live on Christmas Island, the best known being the Abbotts Booby, an endemic sea bird which nests in emergent trees in the rainforest canopy. On 5 April 1989, the Government notified a major extension to the National Park. The Park now covers approximately 60–70 per cent of the Island.

Transport and communications

A Joint Island Supply System (JISS) commenced operations on 1 February 1989. It was designed to provide a more efficient and cost effective shipping service to meet the needs of people living and working on both the Christmas and the Cocos (Keeling) Islands.

An air charter arranged by DASET provides a twice weekly air charter service to the Island — Perth–Christmas Island–Cocos (Keeling) Islands–Perth.

The Territory has its own radio broadcasting station, police force, hospital, postal service and philatelic bureau. The VISTA communications system which provides an external telex and telephone service by INTELSAT satellite, and a back-up INMARSAT system, became fully operational on 17 October 1985.

Education

The Ministry of Education, Western Australia (MEWA) operates the Christmas Island Area School on behalf of the Commonwealth. As part of a law reform process an agreement is being negotiated with MEWA with a view to formalising the current arrangement. During the 1992 school year, the enrolments were 359, comprising 53 in pre-primary, 253 in primary and 53 at the secondary level. As the island's school only provides for students to 'year 10' secondary level, those students wishing to continue their studies attend school in Western Australia. A training program is being implemented on the Island by the Department of Employment, Education and Training (DEET). The scheme is facilitated by full-time DEET staff on the Island. Training is job specific, designed to meet Island labour-market opportunities. Courses include English language, vocational and technical training.

CORAL SEA ISLANDS TERRITORY

The Coral Sea Islands Territory is situated east of Queensland between the Great Barrier Reef and longitude 156°06'E and between latitudes 12° and 24°S. The Territory comprises all the islands in a sea area of approximately 780,000 square kilometres. The islands are largely formed of sand and coral. Some have grass or scrub cover, but most are extremely small, with no permanent fresh water. A meteorological station, staffed by four people, has operated on Willis Island since 1921. The remaining islands are uninhabited. There are occasional tropical cyclones in the area. Meteorological data are relayed to the mainland from automatic weather stations located on Cato Island, Flinders Reef, Frederick Reef, Holmes Reef, Lihou Reef, Creal Reef, Gannet Cay and Marion Reef.

In the 19th century many ships were wrecked in the area, and the reefs and islands are often named for the ships which foundered there. There are navigation aids on several of the reefs and islands.

There have been a number of scientific expeditions to the region since 1859 and many specimens of flora and fauna are now housed in Australian herbariums and museums.

Six species of sea turtle nest in the Coral Sea Islands Territory, including the largest species in the world, Dermochelys coriacea which is regarded as one of the most endangered of the world's sea turtles. There are at least 24 bird species in the Territory; a number of these species are protected under Australia–Japan and Australia–China agreements on endangered and migratory birds. In 1982, the Lihou Reef and Coringa–Herald National Nature Reserves were declared to protect the wildlife in the Territory.

Administration

In 1969, the Coral Sea Islands became a Territory of the Commonwealth under the Coral Sea Islands Act. The Minister for the Arts, Sport, the Environment and Territories in Canberra, is responsible for the administration of the Territory. By virtue of the Application of Laws Ordinance 1973 the laws of the Australian Capital Territory, in force from time to time, apply in the Coral Sea Islands Territory in so far as they are applicable.

THE TERRITORY OF ASHMORE AND CARTIER ISLANDS

Ashmore Islands (known as Middle, East and West Islands) and Cartier Island are situated in the Indian Ocean some 850 to 790 kilometres west of Darwin. The islands lie at the outer edge of the continental shelf. They are small and low and are composed of coral and sand. Vegetation consists mainly of grass. The islands have no permanent inhabitants.

Great Britain took formal possession of the Ashmores in 1878 and Cartier Island was annexed in 1909. By Imperial Order in Council of 23 July 1931, the islands were placed under the authority of the Commonwealth of Australia. The islands were accepted by Australia through the *Ashmore and Cartier Islands Acceptance Act 1933* under the name of the Territory of Ashmore and Cartier Islands. By amendments to the Act in 1938, the Territory was annexed to, and deemed to form part of, the Northern Territory. With the granting of self-government to the Northern Territory on 1 July 1978, the administration of the Territory became a direct responsibility of the Commonwealth Government.

Responsibility for the administration of the Territory rests with the Minister for the Arts, Sport, the Environment and Territories. Laws of the Northern Territory apply in the Territory in so far as they are applicable.

Birdlife is plentiful on the islands of Ashmore Reef. Turtles are plentiful at certain times of the year and bêche-de-mer are abundant. In recognition of the environmental significance of the area, the Reef was in 1983 given the status of a national nature reserve under the *National Parks and Wildlife Conservation Act 1975*. Regular visits are made to the Reef by officers of the Australian National Parks and Wildlife Service.

An agreement between Australia and Indonesia allows Indonesian fishermen to continue to fish in some waters of the Territory. Since 1985, an Australian presence has been maintained at Ashmore Reef during the March to November fishing season to monitor the activities of visiting Indonesian fishermen.

The Jabiru and Challis oil fields are located within the adjacent area of the Territory.

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Chapter Four

International Relations

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The basic principles underlying the shaping and conduct of Australia's foreign policy are that Australia is a significant middle-level power with democratic institutions, having strong affiliations with other Western countries but an emerging Asia–Pacific identity through its increasing regional involvement.

Australia's prosperity is largely dependent on trade; it is geographically remote from some of its major markets and its main allies; it is a relatively affluent and resource rich country in a populous, developing and rapidly changing region.

While links with the United States, Britain and Europe remain important factors in Australian foreign policy in terms of cultural tradition, security, strategic interests and trade and investment, the specific focus of policy has shifted in the past 25 years to the Asia–Pacific region.

The Asia–Pacific region as a whole now accounts for about half of global production and about 40 per cent of global trade. Around 60 per cent of Australian merchandise exports is sold to Asian economies, and North Asia and South–East Asia accounted for over 60 per cent of Australia's total growth in merchandise exports between 1981 and 1991. Eight of Australia's top twelve markets are there. Awareness of the growing nexus between security and economic development has led successive Australian Governments to promote and maintain friendly and cooperative relations with the countries of the region both as means to secure our strategic interests while at the same time further developing mutually profitable trade and investment links and exchanges of technology with them. Australia gives special attention to its relations with China, Japan, the Republic of Korea, the member countries of ASEAN (the Association of South–East Asian Nations), New Zealand, Papua New Guinea and the other South Pacific states.

International issues including economic cooperation, disarmament, trade access, global environmental protection, human rights, refugees and new concepts of national interest in the post-cold war world have assumed importance together with an increasing recognition of the growing interdependence of the world community. This is reflected in such issues becoming priorities in Australia's foreign policy. Australia recognises the importance and growing complexity of economic issues, particularly the need to maintain the recovery of world trade and to promote ecologically sustainable economic development and to deal with the major problem of world debt affecting both developed and developing countries. The growing interdependence of national economic and foreign policies and the increasing vulnerability of Australia's economy to international trade and other developments will remain at the heart of Australia's foreign policy concerns for some time to come. Australia places a high priority on its participation in the resolution of these global issues not only in the United Nations and other multilateral forums, but also in the regional context through multilateral bodies such as Asia–Pacific Economic Cooperation (APEC).

The United Nations

Australia was an original member of the United Nations. At the San Francisco Conference in 1945, which drafted the Charter of the United Nations, Australia succeeded in having the collective security measures contained in the UN Charter strengthened. With the passing of the Cold War, the Charter's collective security provisions were put successfully to their first real test in the international response to Iraq's invasion of Kuwait. The United Nations' system also provides the forums in which Australia can pursue its objectives in relation to disarmament, peacekeeping, human rights, international economic issues, women, control of drug trafficking, decolonisation and international law. Australian membership of the United Nations' specialised agencies provides Australia significant benefits, particularly from the agencies responsible for the establishment of new international norms and standards.

Australia has served on many United Nations' bodies. It was a member of the Security Council in 1946–47, 1956–57, 1973–74 and in 1985–86. In 1975, a long period of Australian membership of the Trusteeship Council came to an end with the independence of Papua New Guinea. Australia was a long-standing member of the Special Committee on Decolonisation until its withdrawal in January 1985 following UN recognition of the Cocos (Keeling) Islands' decision to integrate with Australia.

Australia is an active participant in the economic work of the United Nations, through such forums as the UN Conference on Trade and Development (UNCTAD), the Food and Agriculture Organisation (FAO), the World Food Program (WFP), and the UN Development Program (UNDP). Australia also participates in regional consideration of social and economic issues in the Economic and Social Commission for Asia and the Pacific (ESCAP), the United Nations' regional body. In 1989 Australia was re-elected for a further four-year term on the Commission on Narcotic Drugs. It is a member of the Governing Council of the UN Environment Program (UNEP) and is a long-standing member of the Governing Body of the International Labour Organisation (ILO). Australia is an active member of the UN Education, Scientific and Cultural Organisation (UNESCO) (former Minister, the Honourable Barry Jones, M.P., was elected to UNESCO's Executive Board in 1991) and its prominent role in world refugee assistance is reflected in membership of the Executive Committee of the UN High Commissioner for Refugees.

Australia has been a major contributor to UN peacekeeping operations since these began. Australia contributes its assessed share of the costs of UN budgets (1.51%), and similar percentages to all other UN bodies of which it is a member. In addition it makes voluntary contributions as well as providing personnel and equipment for peacekeeping forces. At present Australia provides personnel for the UN Forces in Cyprus, the UN Truce Supervision Organisation in the Middle East, the UN Mission for a referendum in the Western Sahara and is a major contributor to the UN Transitional Authority in Cambodia. The Australian Government decided in December 1992 to contribute a battalion to Operation Restore Hope in Somalia, and will probably make a further contribution of a movement control unit to the UN operation that will succeed Operation Restore Hope in that country.

Australia is fully involved in the work of the UN on disarmament and outer space, and is a member of the main subsidiary bodies working in these areas. Australia continues to play an active role in the UN Commission on Human Rights and fully participates in the work of other UN bodies dealing with the implementation of international human rights conventions. Australia was re-elected to the Commission on Human Rights for a three-year term which began in January 1991 and was also elected to the Economic and Social Council for the period 1992–94. Australian candidates were elected to the International Law Commission in 1991 and the Human Rights Committee in 1992.

Australia accepts the compulsory jurisdiction of the International Court of Justice and plays an active role in bodies concerned with the development of international law.

The Commonwealth

The Commonwealth is an association of 50 countries, drawn from every region of the globe, which now comprises one-quarter of the world's population. Australia seeks, through its Commonwealth membership, to foster international peace and security, and political, social and economic advancement. The last Commonwealth Heads of Government Meeting (CHOGM) was held in Harare, Zimbabwe, in October 1991.

South–East Asia

Australia maintains wide-ranging relations with the countries of ASEAN (Indonesia, Malaysia, the Philippines, Thailand, Singapore and Brunei), both bilaterally and as a group. These relationships include political, economic and trade consultations, commercial, cultural and defence ties and wide-ranging personal contacts. There are regular Ministerial visits in both directions. Two-way trade between ASEAN and Australia is growing rapidly and now represents eight per cent of Australia's total trade with the world.

Indonesia is one of Australia's closest regional neighbours and straddles major sea and air routes. Australia is committed to the maintenance of sound and productive relations with Indonesia. Accordingly, Australia has pursued an active relationship with Indonesia in the areas of trade, investment, science, defence and culture. Australian aid to Indonesia is expected to be over $110 million in 1992–93. Efforts to add further substance to the relationship through building on concrete areas of mutual interest have resulted in the development of a more substantial bilateral trade and commercial relationship as well as close cooperation on international economic issues. The Prime Minister's visit to Indonesia in April 1992, was highly successful and productive. It consolidated and strengthened the bilateral relationship and helped lay the basis for its longer-term development. During the visit several major agreements were signed, including a Double Taxation Agreement, an Extradition Treaty and a Fisheries Cooperation Agreement. During the visit it was also agreed to finalise negotiations for an Investment Promotion and Protection Agreement and to set in train negotiations for a Copyright Agreement, an agreement on Mutual Assistance in Criminal Matters and over outstanding maritime boundaries.

An Australia–Indonesia Ministerial Forum was established which will meet every two years and will be attended by the two Foreign Ministers and at least two Economic Ministers from each side. The primary focus of the Forum is to be economic issues.

The Australian Government expressed its deep concern over the November 1991 Dili killings in public statements and in representations to the Indonesian Government. The outcome of the Indonesian National Commission of Inquiry into the killings has been encouraging and the Indonesian Government's response and follow-up action has been credible. The Australian Government is continuing to raise with the Indonesian Government the issues of security policies in the province and the need for a systematic approach to longer-term reconciliation. The Australian Government has also raised the marked disparities in the sentences handed down to the East Timorese civilians and the military involved in the killings.

Australia and Thailand share a range of political, strategic and economic interests. Thailand's impressive progress towards industrialisation and its success in international markets has made it increasingly important to Australia as a trading and investment partner. Cooperation in multilateral trade matters through the Cairns Group is also an important aspect of the relationship. Australia's relationship with Thailand is given added substance through development assistance and cooperation in narcotics control. Following the violence in Bangkok in May 1992, Australia announced a review of bilateral relations, a ban on ministerial level and senior military contracts and cancellation of a range of planned defence activities. With the appointment in June of the interim Anand Government and subsequent elections in September 1992, the relationship was normalised.

Malaysia and Australia have a long history of close and constructive relations, covering the full range of political, defence, commercial and social links. Education links are particularly strong and have contributed significantly to continuing personal contacts between people, business, academic and government circles. Malaysia and Australia cooperate closely on defence and international trade issues.

Australia has a tradition of close interest in and association with Singapore. Relations are broadly based, encompassing the whole range of bilateral areas including trade and investment, defence, education, civil aviation, tourism and cultural relations.

The Philippines is important to Australia because of its strategic location and close cooperation on a range of matters of mutual interest. Australia has a substantial development assistance program with the Philippines, and there are important linkages through trade, migration and tourism.

Relations between Brunei and Australia are developing steadily, especially in the fields of trade, defence and education.

Relations with Burma slowed significantly after the brutal suppression of the pro-democracy movement in that country in 1988 and the military regime's continuing failure to implement the result of the 1990 election. Aid will not be resumed until a democratically-elected government is installed. Trade and other contacts remain at low levels.

Australia is concerned by the destabilising effects on the South–East Asian region posed by the situation in Cambodia. Australia's policy has been to promote dialogue among the parties to the conflict in order to achieve a comprehensive political settlement. Australia has proposed that in the transitional period leading to elections, the United Nations has a role in civil administration, in providing security and in organising and conducting elections, so that Cambodians will be able to determine their future without fear of coercion.

Australia is also developing a more broad-based relationship with Vietnam through increased trade, visits and cultural exchanges. The recent resumption, following the signing of the Cambodian Peace Accords, of direct bilateral aid to Vietnam with a four year $100 million program will give these relations an even broader role in facilitating economic development in Vietnam. Australia is also developing relations with Laos, principally through development assistance, the main element of which is a commitment to build a bridge across the Mekong near Vientiane.

Japan

Japan remains Australia's largest trading partner, with two-way trade in 1991–92 of $23.9 billion — over 26 per cent of Australia's total trade and with a surplus of $5.3 billion in Australia's favour. While agriculture, mineral and energy products continue to provide the bulk of Australian exports to Japan, in 1991–92 nearly 30 per cent were manufactured or processed products. Tourism continues to expand, with more than 600,000 Japanese visitors to Australia in 1992. Japan is the third largest source of foreign investment in Australia, behind the EC and USA. While this investment is welcomed, Australia wishes to attract more foreign investment to the manufacturing sector. A mission comprising representatives of leading Japanese companies visited Australia in December 1992 to encourage Japanese investors to become good corporate citizens in Australia and to examine two-way investment opportunities in Japan and Australia. There is an active agenda of bilateral consultations between Australia and Japan, both at Ministerial and officials' levels. Consultations have expanded to take in closer air transport links, telecommunication and the environment, and a range of political, economic and security issues.

China

With 1992 marking 20 years of diplomatic relations, the Australian Government remains committed to building a long-term, cooperative, businesslike and practical relationship with China. Commemorative activities to mark the anniversary provided the opportunity for Australia to emphasise its position in China as an important trading partner, source of investment and producer of high technology goods. Total two-way trade increased from $2.85 billion in 1991 to $3.43 billion in 1992. Institutionalised mechanisms set up under the umbrella of the Joint Ministerial Economic Commission continued to facilitate economic cooperation. In areas of difference, such as human rights, Australia sought to engage the Peoples Republic of China in a constructive practical dialogue.

Hong Kong

With two-way trade of $2.9 billion, Hong Kong is Australia's fifth largest Asian trading partner, following Japan, Korea, Singapore and Taiwan. Hong Kong is also an important source of migration, tourism and investment, as well as a major target for the export of education services.

Taiwan

While Australia has no official links with Taiwan, the commercial relationship is growing and increased significantly following the commencement of direct air services between Australia and Taiwan in October 1991. Taiwan is an important source of tourism for Australia and is Australia's main export market for manufactures. Two-way trade in 1991–92 was valued at $4.5 billion and Taiwan ranks as Australia's third largest Asian export market and sixth largest export market overall.

Korea

Australia enjoys close and expanding relations with the Republic of Korea based on a dynamic trading relationship and shared political and economic interests in the Asia–Pacific region. The Republic of Korea is Australia's third largest export market, with exports of $3.4 billion in 1991–92. Australia has been seeking to diversify the economic relationship, which has been narrowly based on the exchange of raw materials for manufactures. The Australia–Korea Foundation was launched in June 1992 to encourage increased links in culture, education, the media, business and science and technology. Korea was the location for the first of the Australia Abroad Council's country Promotions in November 1992. The Promotion was aimed at enhancing Korean awareness of opportunities provided by Australia in these areas.

Australia has no diplomatic relations with the Democratic People's Republic of Korea, but there were limited official contacts during 1992.

South Pacific

Australia is a member of the South Pacific Forum, the Forum Secretariat (formerly the South Pacific Bureau for Economic Cooperation), the Forum Fisheries Agency, the South Pacific Commission, the South Pacific Regional Environmental Program (SPREP) and the South Pacific Applied Geoscience Commission. Australia actively participates in meetings of these organisations and provides significant financial support to them and to other regional and international programs providing assistance to the South Pacific region. To assist in the preservation and development of indigenous Pacific cultures, Australia has established the South Pacific Cultures Fund. Australia and New Zealand have entered into a non-reciprocal preferential trade agreement in favour of the South Pacific Forum Island States, the South Pacific Regional Trade and Economic Cooperation Agreement.

Australia is a party to the South Pacific Nuclear Free Zone Treaty (the Treaty of Rarotonga). Australia ratified the Convention for the Protection of the Natural Resources and Environment of the South Pacific Region (SPREP Convention) on 19 July 1989 and the Convention on the Conservation of Nature in the South Pacific (Apia Convention) on 28 March 1990. The Apia Convention provides for the protection of natural resources through the creation and management of protected areas, the protection of flora and fauna, cooperation and coordination in respect of research and exchange of information. The SPREP Convention and its protocols provide for the protection, development and management of the marine and coastal environment. Both Conventions came into force in 1990 and the first meetings of parties to both Conventions were held in July 1991. Australia also signed the Nive Treaty on Cooperation in Fisheries Surveillance and Law Enforcement in the South Pacific Region on 9 July 1992, and ratified, on 6 July 1992, the Convention on the Prohibition of Driftnet Fishing in the South Pacific (Wellington Convention). This Convention came into force in May 1991.

Relations between Australia and New Zealand reflect their shared history, similarities in political and social structure and the importance of the economic links. While Australia and New Zealand still have some differences of view in the defence policy area, specifically in relation to ANZUS, other aspects of the relationship have continued to expand. This has been exemplified in the 1988 Review of the Closer Economic Relations Trade Agreement which provided for free trade in goods from 1 July 1990, the extension of CER into trade in services and increased harmonisation of the commercial environment. The encouragement of political and cultural exchanges through the Australia New Zealand Foundation reflects another dimension in the close relationship. Australia and New Zealand also often work closely in their approaches to the international political and economic environment.

Papua New Guinea

Australia and Papua New Guinea (PNG) enjoy a very close and cooperative bilateral relationship based on shared political, strategic and economic interests and ties that have continued at all levels of society since PNG attained its independence in 1975. In 1991, Australian exports were valued at $880 million, imports $810 million and the total level of Australian investment in PNG was about $1.7 billion.

PNG is the largest single recipient of Australian development assistance, accounting for around one-quarter of the aid program. In 1991–92, PNG received $335 million in total aid from Australia including $270 million in budget support and $37 million in project aid.

The 1989 Treaty on Development Cooperation establishes principles, levels and forms of Australia's aid to PNG. The first review of the Treaty was completed during the visit to PNG by the Minister for Trade and Overseas Development in September 1992. The new arrangements will cover the years 1992–93 to 1996–97 and will be based upon a progressive reduction in budget support to begin in 1994, and be phased out by the year 2000. Current nominal levels of aid will continue as budget support will be replaced by jointly agreed sectoral program aid. The new aid arrangements reflect Australia's continuing commitment to contribute to PNG's development and self-reliance.

The 1987 Joint Declaration of Principles (JDP) provides the framework for bilateral relations between Australia and PNG and covers a broad range of issues including defence, trade, investment, development assistance, consular relations, communications and border administration. An important element of the JDP is its consultative mechanism, the PNG Australia Ministerial Forum. The fifth Forum took place in Launceston in December 1992.

The Torres Strait Treaty between Australia and PNG entered into force in February 1985. The Treaty defines the maritime boundaries between PNG and Australia and sets down provisions to protect the traditional ways of life of inhabitants on both sides of the border, to protect the environment, to ensure freedom of navigation and overflight, and regulate the exploitation of resources.

The Americas

Australia continues to have a substantial and wide-ranging political, economic and security relationship with the United States. The very extensive government-to-government links are part of a much larger interaction between the two societies, which share many fundamental values and have strong historical and cultural links. The visit to Australia of President Bush in January 1992 reflects the importance which both countries continue to place on the relationship.

The United States is Australia's second largest trading partner. The two countries have a very substantial and diverse economic relationship, despite the problems which US trade policy poses for Australia, particularly in the field of agriculture. In matters of security, Australia's alliance with the United States continues to serve the interests of both countries, and to contribute to both regional and global stability.

Canada is a country comparable with Australia in terms of institutions and traditions, geographical size, and international outlook. This has allowed a close degree of cooperation and interchange of ideas between the two countries.

Australia takes an increasing interest in developments in Latin America. Recent positive political developments in Latin America and substantial economic reforms, including an increasing focus on the Asia–Pacific region and constructive cooperation on multilateral trade, disarmament, environment and Antarctic issues, are fostering closer relations between Australia and many Latin America countries. Relations with the Caribbean are warm, particularly through the Commonwealth.

Europe

Australia seeks to maintain constructive relations with the countries of Western Europe, with the European Community (EC) and its institutions, including the European Parliament.

Bilateral relations with the individual Western European countries continue to be of considerable importance. These relations, while founded on close historical, social and cultural links, continue to develop through extensive trade and investment links and cooperation on a number of international issues. Trade, however, is constrained by the EC's continued adherence to agricultural protectionism.

The EC is one of Australia's most important trading partners and its most important source of investment funds and technological expertise, as well as a significant importer of Australian raw materials. The establishment of the EC single market and its proposed extension to embrace most of the EFTA countries presents Australia with important new commercial opportunities. Despite tensions caused by trading difficulties in the agricultural sector, Australia remains committed to the strengthening of a positive relationship with the EC on the principle of mutual advantage. The EC and Australia are currently negotiating a science and technology agreement, and have in recent years enhanced business and industry links and cooperation in the areas of the environment, energy and development assistance. There is also regular contact at a senior level on foreign policy issues.

In recent years, revolutionary changes have swept through Eastern Europe and the former Soviet Union. Australia has strongly supported the introduction and development of democratic processes of government and market oriented economic reform.

In August 1991 Australia entered into diplomatic relations with Latvia, Lithuania and Estonia. With the dissolution of the Soviet Union in December 1991, Australia recognised eleven of the former republics as independent States — Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgystan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan. Recognition of Georgia followed in March 1992. Australia responded to the dissolution of Yugoslavia by recognising Slovenia and Croatia in January 1992 and Bosnia/Herzegovina in May 1992.

The region has recently been marked by increasing levels of instability. Where conflicts have arisen, such as in the former Yugoslavia, Australia has been vocal in its support of international peace and humanitarian assistance initiatives.

Australia is a member of the Group of 24 OECD countries providing practical assistance to Central European countries including a shareholding in the European Bank for Reconstruction and Development. Australia also provides technical assistance to the New Independent States (NIS) of the former Soviet Union.

Australia's trade with Central Europe and the NIS has been traditionally based on exports of commodities. However, the abolition of central planning and the move to market based economies has resulted in substantial disruption to the heavy industries using Australian inputs and the future of this trade remains uncertain. However, new opportunities have arisen for sales of Australian manufactures and services.

The Middle East

Australia has substantial trading interests in the area and long-standing friendly relations with the Arab nations, Iran and Israel. Australia's policy towards the Middle East is based on two main premises: a total commitment to Israel's right to exist within secure and recognised boundaries; and recognition of the right of self-determination for the Palestinian people, including their right, if they choose, to independence and the possibility of their own independent state. Australia supports the Middle East peace process which began in October 1991 in Madrid. Australia believes a settlement should be based on UN Security Council Resolutions 242 (which, inter alia, recognises the right of all States in the area to live in peace within secure and recognised boundaries and calls on Israel to withdraw from territories captured in 1967) and 338 and the principle of land for peace. The Government recognises, however, that any such arrangement will depend on decisions involving people of the immediate region. An Australian delegation participated in the September 1992 meeting of the Working Group on Arms Control and Regional Security which was commenced as part of the multilateral phase of the peace process.

Australia continues to observe and encourage the implementation of all Security Council resolutions pertaining to Iraq. In 1990 Australia responded promptly to the call for participation in the multinational naval force to enforce sanctions against Iraq following the invasion of Kuwait, and has continued the deployment of elements of the Royal Australian Navy in support of the sanctions regime. At the same time, the Government endorses action taken by the Security Council to permit the sale of Iraqi oil to allow the purchase of food, medicines and essential civilian needs for the population of Iraq. Australia has sold one million tonnes of wheat to Iraq under the sanctions regime. Australia and Iraq maintain diplomatic relations, though the Embassy in Baghdad is closed.

Africa

Australia maintains a broad range of contacts with African states, and is closely concerned with developmental and humanitarian issues affecting Africa.

Its strong and continuing opposition to racial discrimination and the apartheid system was reflected in its adoption of all measures against South Africa agreed at the Commonwealth Heads of Government Meetings (CHOGMs) in Nassau (1985) and London (1986), its financial sanctions initiative agreed to at CHOGM in Kuala Lumpur (1989) and its active role in encouraging peaceful change in South Africa through the Commonwealth Committee of Foreign Ministers on Southern Africa (CFMSA). Australia has welcomed progress towards the normalisation of the political situation in South Africa since February 1990 and the commencement of formal all-party negotiations in December 1991 with the first meeting of the Convention for a Democratic South Africa (CODESA). Sir Ninian Stephen was Australia's representative in the Commonwealth Observer Group invited to the meeting. The Australian proposal for the phased lifting of sanctions in response to South African Government reforms was adopted by CFMSA in London (February 1991) and endorsed in New Delhi (September 1991). These meetings also agreed to a selective easing of the sports boycott, on a sport-by-sport basis, as individual sports achieve unity, are readmitted to international governing bodies, and receive the agreement of the non-racial sporting movement in South Africa for a return to international sports competition. In October 1991 the Harare CHOGM adopted CFMSA's recommendations on the phased lifting of sanctions and agreed on the immediate lifting of all people-to-people measures. Australia acted quickly to remove restrictions on cultural and academic contact, visas, tourist promotion and airlinks.

The Australian Government's commitment to an economically robust post-apartheid South Africa was demonstrated by visits to South Africa by an Economic Planning Assistance Team in May 1991 and by Senator Evans in June 1991, the first visit by an Australian Foreign Minister for 40 years. South African Foreign Minister Pik Botha reciprocated with a visit to Australia in October 1991.

Australian aid to Africa is focused on eastern and southern Africa. This includes assistance given through the Southern African Development Coordination Conference as well as humanitarian assistance for the reintegration and development of South Africans disadvantaged by apartheid. Food aid constitutes the dominant share of Australian aid to Africa because of growing food deficits and the continuing famine crisis in the horn of Africa, and problems caused by the serious drought in southern Africa.

Indian Ocean

Australia, as an Indian Ocean littoral state with wide interests in the region, is committed to the development of the concept of an Indian Ocean Zone of Peace (IOZP). For many years Australia has played an active and constructive role in the United Nations Ad Hoc Committee on the Indian Ocean. The Ad Hoc Committee has so far not succeeded in its attempt to convene an international conference on the Indian Ocean to develop the IOZP concept. Australia maintains a modest aid program to Mauritius and other smaller Indian Ocean states.

ANZUS

Following a review in 1983 of the ANZUS Treaty by the Australian Government, including a re-examination with its ANZUS partners at the 1983 ANZUS Council Meeting in Washington, the Government reaffirmed the alliance as fundamental to Australia's national security and foreign and defence policies. The text of the ANZUS Treaty of 1952 can be found in Treaty Series No. 2, for 1952, printed by the then Department of External Affairs. In 1984, the New Zealand Government implemented a policy not to permit the entry to New Zealand of nuclear powered warships or of warships (or aircraft) which might carry nuclear weapons. Consequently the United States, at the Australia–United States ministerial talks in August 1986, formally suspended its security obligations to New Zealand under the ANZUS Treaty pending adequate corrective measures. Both the United States and Australia agreed that the relationship between the United States and Australia under the ANZUS Treaty and the rights and obligations assumed by the United States and Australia towards each other under the Treaty would remain constant and undiminished. ANZUS continues to govern the bilateral defence relationship between Australia and the United States, and that between Australia and New Zealand.

Nuclear issues

Australia's strong commitment to effective nuclear disarmament and arms control is reflected in its support for the international non-proliferation regime. Australia ratified the Nuclear Non-Proliferation Treaty (NPT) in 1973 and encourages universal adherence to it.

The response of the international community to the Gulf conflict revealed a new political climate within which to address nuclear non-proliferation problems. A feature of this has been the adoption of a more forthcoming attitude toward the international non-proliferation regime by a number of important countries, including the accession to the Treaty by France, China and South Africa.

Australia has continued to encourage new adherents to the NPT and scrupulous fulfilment of the obligation for all Non-Nuclear Weapon States Parties to conclude a safeguards agreement with the International Atomic Energy Agency (IAEA).

Australia is a founding member of the IAEA and provides political and financial support to the organisation. Australia's active participation, including contributions to the

IAEA regular budget and to the Technical Assistance and Cooperation Fund, helps the Agency to continue to function in an effective and efficient manner. Australia has been working with other countries through the Agency to strengthen the international nuclear safeguards regime in the light of the lessons of the Gulf War.

The stringent nuclear safeguard conditions applied to exports and subsequent use of Australian uranium are set out as binding international legal obligations in the bilateral nuclear safeguards agreements which customer countries must enter into before any uranium exports from Australia are permitted. These conditions include an undertaking not to use Australian-obligated nuclear material for any military or explosive purpose, and the acceptance of IAEA safeguards in order to verify that undertaking. Australia has concluded 15 bilateral nuclear safeguards agreements covering 23 countries and 2 international bodies.

Australia is also a member of the Nuclear Energy Agency (NEA) of the Organisation for Economic Co-operation and Development (OECD). Australia values the NEA as an essentially technical forum for international consultation on nuclear issues.

Disarmament and arms control

Australia promotes global security and stability by working for arms control and disarmament objectives at the United Nations, the Conferene on Disarmament in Geneva and many other world forums. A key foreign policy objective is to establish and strengthen international arrangements against proliferation of weapons of mass destruction and their missile delivery systems. This contributes to keeping Australia's own regional environment free from any such proliferation.

Australia attaches great importance to the early conclusion of an effective, verifiable treaty banning all nuclear testing by all States in all environments for all time (a Comprehensive Test Ban) and is committed to strengthening the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). Through membership of the IAEA since its inception in 1957, it is able to promote non-proliferation policies and contribute to regional and wider nuclear cooperative projects. Australia, together with other South Pacific countries, was instrumental in negotiating the South Pacific Nuclear Free Zone Treaty (Treaty of Rarotonga) which came into force on 11 December 1986.

Australia, a leading advocate for a Chemical Weapons Convention (CWC) for many years, welcomed the conclusion of a treaty which bans the production, trade in and use of chemical weapons and requires the destruction of existing stockpiles. The Convention, negotiated by the Conference on Disarmament, was endorsed by the United Nations General Assembly in its 47th session in late 1992. Australia contributed to the conclusion of the treaty by producing a compromise text which assisted the negotiations in Geneva.

Australia also chairs a group of countries called the Australia Group, which meets twice a year and comprises 24 western industrialised countries and the Europe Commission. The group works towards harmonising the export controls of member countries over chemicals, biological agents and equipment used in the production of chemical and biological weapons.

Awareness of chemical weapons issues in South–East Asia and the South Pacific has been raised since 1988 through a Chemical Weapons Regional Initiative (CWRI). The CWRI has resulted in three seminars in Australia — in 1989, 1990 and 1992 — and a technical workshop for government chemists from the region in 1991. Hosted by the Australian Government, the CWRI has been valuable in explaining the complexities of the CWC to countries of the region.

The UN Register of Conventional Arms which came into operation in January 1992 was strongly supported by Australia which has consistently called for the establishment of a universal and non-discriminatory register of conventional arms transfers under the auspices of the UN.

Australia has acceded to the following disarmament and arms control agreements: the Partial Test Ban Treaty, the Geneva Protocol (on the Prohibition of the Use in War of Asphyxiating Poisonous or Other Gases and of Bacteriological Weapons), the Outer Space Treaty, the Sea-Bed Arms Control Treaty, the Nuclear Non-Proliferation Treaty, the Biological Weapons Convention, the Environmental Modification Convention, the Antarctic Treaty, and the Inhumane Weapons

Convention. Australia was the first signatory to the South Pacific Nuclear Free Zone Treaty on 6 August (Hiroshima Day) 1985.

Trade relations

One of Australia's highest priorities is to continue to improve its international economic and trade performance through a range of bilateral, regional and multilateral strategies, as well as through structural adjustments and micro-economic reforms.

The economic recession of the world economy in the 1970s and early 1980s led to the growth worldwide of protectionist pressures and moves towards seeking solutions to economic problems through bilateralism and the formation of trade blocs. The Australian Government has endeavoured to counter trends towards increased protectionism and to encourage freer trade through active participation in forums such as the General Agreement on Tariffs and Trade (GATT) and the Asia–Pacific Economic Cooperation (APEC) process.

GATT is the principal multilateral institution for the pursuit of the further liberalisation of world trade. Australia has consistently supported a reduction in barriers to trade in both goods and services and the concept of an open and multilateral trading system, and is playing an active role in the Uruguay Round of Multilateral Trade Negotiations taking place under GATT auspices.

In particular, Australia initiated the formation of the 14 member Cairns Group of Fair Traders in Agriculture, which has established itself as an effective proponent of reform in international agricultural trade. It is also participating actively in Uruguay Round negotiations in other areas, notably services trade. These negotiations are extremely important. The Summit meeting of the Group of Seven Industrialised Nations in Munich in July 1992 noted that a successful Uruguay Round will be a significant contribution to the future of the world economy and that a balanced agreement can be reached before the end of 1992. Australia is concerned to ensure that Uruguay Round is completed before the expiry of the United States 'fast-track' legislation in mid-1993.

The last two decades have seen the economies of the Asia–Pacific region (in this case taken as the Western Pacific region plus North America) emerge as the fastest growing in the world. The region accounts for over half the world's economic output and more than 40 per cent of world trade. While containing some of the world's most dynamic economies, these too have been affected adversely by the general downturn in the international economy — although not to the same extent as elsewhere. It was against this background that Australia launched the APEC process in January 1989.

This APEC initiative reflected Australia's major stake in economic developments in the dynamic Asia–Pacific region. The extent of Australia's integration will be critical to Australia's economic future. The region already accounts for 70 per cent of our merchandise exports and 66 per cent of our merchandise imports. Australia's primary objectives in greater regional economic cooperation, particularly through APEC, are to enhance the prospects for sustained regional growth and development, and to take part in that growth.

APEC Ministerial-level meetings have been held in November 1989 (Canberra), July 1990 (Singapore), November 1991, (Seoul) and September 1992 (Bangkok). APEC comprises Australia, the six ASEAN nations, Japan, the Republic of Korea, New Zealand, Canada, the USA, China, Chinese Taipei, and Hong Kong, (the last three were admitted at the Seoul Ministerial Meeting). The ASEAN and South Pacific Forum Secretariats, as well as the Pacific Economic Cooperation Council (PECC), have observer status in APEC. APEC has now passed its formative stage and, with the inclusion of the three Chinese economies and institutionalisation, it is now widely acknowledged as the pre-eminent forum for economic cooperation in the region.

In addition to developing sectoral policy through its 10 working groups, APEC is now focusing increasingly on the scope for regional trade liberalisation in accordance with GATT principles. At the APEC Ministerial Meeting in Bangkok, Ministers endorsed a concrete agenda of shorter- and longer-term measures aimed at strengthening and liberalising trade in the region.

Australia is also examining the potential benefits from participating in subregional arrangements which allow for the more rapid removal of barriers to trade and investment.

Australia is seeking to move faster and further on trade liberalisation and in facilitating trade, initially at the bilateral level but with a view to constructing arrangements taking in a subset of regional economies, with both present and prospective members of APEC.

At the bilateral level, Australia has myriad contacts and negotiations with its trading partners at every level — ministerial, official and commercial. Australia's diplomatic and consular posts in more than 80 countries actively pursue Australia's foreign and trade relations interests. Australia has bilateral trade/economic agreements with some 30 countries, together with a range of bilateral agreements on double taxation, investment protection and science and technology.

An efficient and internationally competitive services exports sector is also integral to improving Australia's international trade performance. Australia's expanding services exports have been given impetus by a series of major micro-economic reforms over recent years in areas such as telecommunications, aviation and financial services. Increased services exports, highlighted by the rapid growth of inbound tourism — now Australia's largest foreign exchange earner, are not only expanding Australia's export base but also tapping into rising Asia–Pacific and global demand for innovative, high-value-added products. Australia's export activity is becoming increasingly reoriented towards Asia. This is particularly evident with regard to the high-value-added manufacturing sector. South–East Asia is now Australia's fastest growing market for manufactured exports, having overtaken North America as a major destination for high-value-added Australian goods. Efforts are being intensified to take greater advantage of the important synergies between various services export activities.

It is important also that the process of micro-economic reform, structural adjustment and industry deregulation, including the operation of Statutory Marketing Authorities, make a significant contribution to increasing the efficiency of primary industries and lifting the competitiveness of Australia's commodities trade.

Australia's participation in multilateral economic organisations supports a broad range of foreign policy, economic and trade objectives. Australia gives particular priority to encouraging agencies to promote the expansion of practical and policy measures which support trade liberalisation.

Australia's membership of the OECD provides a forum in which its views on a broad range of trade and trade related issues can be pursued collaboratively with other industrialised countries.

In response to the emphasis which developing countries have given to international economic issues, Australia participates actively in the economic forums and institutions of the United Nations' system. The United Nations Conference on Trade and Development provides a very useful forum to emphasise the importance of trade liberalisation in the development process.

To complement regional policy perspectives on trade, economic and development issues, Australia has been actively encouraging the strengthening of the dialogue between OECD and Dynamic Asian Economies (Republic of Korea, Singapore, Hong Kong, Taiwan, Malaysia and Thailand). Also at a regional level Australia has been active in the Economic and Social Commission for Asia and the Pacific (ESCAP) in order to define more clearly the role and responsibilities of that organisation for broadly based development activities and to ensure the most effective use of resources.

Law of the Sea

Australia participated in all sessions of the Law of the Sea Conference, the largest and potentially the most important conference in the history of the United Nations, involving major strategic, economic, transport, scientific and environmental issues. The UN Convention on the Law of the Sea opened for signature on 10 December 1982 and Australia signed that day.

It had attracted 158 other signatures by the time it closed for signature two years later. The Convention will enter into force 12 months after it receives 60 ratifications or accessions. As at September 1992 there were 51 ratifications/accessions. The text includes articles on the system of exploration and exploitation of the deep seabed beyond the limits of national jurisdiction; extension of the territorial sea to 12 nautical miles; establishment of coastal state sovereign rights in the living and non-living resources of an 'exclusive economic zone' of 200 nautical miles; recognition of coastal state sovereign rights over the exploration and exploitation of the natural resources of the continental shelf, defined in terms of the natural prolongation of the land-mass; protection and preservation of the marine environment; marine scientific research; and the settlement of disputes. Rights of freedom of navigation and passage through straits and archipelagos, which are important to trading nations such as Australia, are also recognised. A preparatory commission for the establishment of the International Seabed Authority and its various organs has been meeting biannually since 1983. In addition, the Secretary-General of the United Nations has recently been chairing consultations aimed at resolving some outstanding issues regarding deep seabed exploitation. Australia has been an active participant in both the Preparatory Commission and the Secretary-General's consultations.

Antarctica

Australia has had a long association with Antarctica commencing with early expeditions and continuing with an active scientific program. Antarctica's importance to Australia derives from its geographical proximity, the history of Australian involvement there and Australian administration of the Australian Antarctic Territory. Australia maintains three permanent bases in the Territory; at Casey, Davis and Mawson (as well as one on Macquarie Island). *See* also the chapter on Territories of Australia.

As one of the 12 original signatories, Australia attaches particular significance to the 1959 Antarctic Treaty, which serves important Australian scientific, environmental and security interests. Antarctic Treaty Consultative Meetings (ATCM) are now held annually in one of the Consultative Party States. The seventeenth ATCM was held in Venice in November 1992. There are now 40 governments which are parties to the Antarctic Treaty. Of these 26 are Consultative Parties entitled to participate fully in Consultative Meetings.

Hobart is host to the Commission for the Conservation of Antarctic Marine Living Resources established by a Convention adopted in Canberra in 1980. The Commission and its Scientific Committee meet annually. The Commission is the only international organisation based in Australia.

On 22 May 1989 the Australian Government announced that it was opposed to mining taking place in Antarctica and it would not sign the Convention on the Regulation of Antarctic Mineral Resource Activities (CRAMRA) but that it would pursue the negotiation of a comprehensive environmental protection regime for Antarctica. On 18 August 1989 the Australian and French Prime Ministers announced that Australia and France would pursue this initiative jointly.

Following consideration of the joint Australia/France proposal, ATCM XV (October 1989) recommended the establishment of Special Consultative Meeting XI (SCM XI) to explore and discuss all proposals relating to the comprehensive protection of the Antarctic environment and its dependent and associated ecosystems. The negotiations were concluded and the Protocol on Environmental Protection to the Antarctic Treaty was opened for signature in Madrid on 4 October 1991. The Protocol designated Antarctica as a natural reserve devoted to peace and science. It establishes a set of environment principles to which all activities in Antarctica are to be consistent. Mining activities are specifically prohibited. When fully implemented the Protocol will establish a comprehensive regime for assessing the environmental impact of activities in Antarctica and specific guidelines for waste disposal, marine pollution, the conservation of fauna and flora and area protection and management.

Treaties

The texts of bilateral and multilateral treaties to which Australia is a party are printed in the *Australian Treaty Series* (ATS) when they enter into force. Australia's current position in regard to individual treaties may be ascertained by referring to the *Australian Treaty List* (ATS 1989 No. 38) which was up-to-date at 31 December 1989, and supplements to the List which appear annually in *Treaty Action* (No. 1 of ATS each year). Monthly updates are contained in the Department of Foreign Affairs and Trade publication *Insight*.

In addition, the texts of multilateral treaties, in the negotiation of which Australia has participated but to which it has yet to become a party, are printed in annual volumes of *Select Documents on International Affairs*. The foregoing publications are available from Commonwealth Government Bookshops, except *Insight* which is available from the Department of Foreign Affairs and Trade, Canberra.

Cultural relations

The Department of Foreign Affairs and Trade administers a program of cultural relations overseas. This program supports Australian foreign policy and economic objectives through cultural activities and exchanges. These include tours overseas of all types of performing and visual arts, promotion of Australian studies, sport exchanges, film screenings, visits to Australia by people able to facilitate cultural exchange and activities in support of the commercial marketing of Australian culture overseas. Formal priorities have been established for the program, with major emphasis being given to countries in Asia, the Pacific and North America.

The Department collaborates closely with other departments, institutions and agencies in the development of its program. The Department seeks to build up programs which will increase understanding and comprehension overseas of Australian society and culture, and thus help foster a favourable environment for the promotion of foreign policy goals. At the same time it seeks to promote professional opportunities for Australian practitioners in all cultural and sporting fields.

The Department also provides secretariats for the Australia–China Council, the Australia Japan Foundation, the Australia New Zealand Foundation, the Australia–Indonesia Institute, the Australia–India Council, the Australia–Korea Foundation, the Australia–France Foundation and the Australia Abroad Council.

Human rights

Human rights issues were prominent on the Government's international agenda throughout 1991–92, consistent with Australia's strong commitment to the universal protection and promotion of internationally-accepted human rights standards. Through its overseas missions, the Government continued to raise with foreign governments cases of alleged serious human rights abuses, such as extrajudicial killings, torture and detention without trial. During the year, 394 new cases of alleged human rights abuse were raised with 69 foreign governments and ongoing work on cases raised earlier continued. Many of those cases were brought to the Government's attention by the Parliamentary Group of Amnesty International. These representations also involved cases of legal executions, including in such countries as the United States on the basis of Australia's universal opposition to the death penalty.

In addition to direct representations to foreign governments, Australia is an active participant in developments on human rights in the United Nations and maintains close contact with non-governmental human rights organisations, including Amnesty International, the Australian Council for Overseas Aid, the International Commission of Jurists and others.

Status of women

Australia continues to promote women's rights internationally by taking part in programs and meetings of multilateral bodies dealing with the status of women.

The focus of Australian multilateral attention in 1991–92 was the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), the position of women employed in the UN Secretariat and violence against women. In April 1992, Australia was elected for a four year term on the Commission on the Status of Women, the UN body specifically mandated to deal with the status of women's issues. During the year Australia worked closely with Canada and other interested countries to develop a Draft Declaration on Violence Against Women.

Consular services and passports

The Department is responsible to the Minister for Foreign Affairs and Trade for the protection and welfare of Australian citizens and their interests overseas. Consular services to the Australian public are available from Australian diplomatic and consular posts throughout the world.

In recent years, the service has been expanded through arrangements with Canada and the introduction of the Honorary Consul Program.

The Australia Canada Consular Sharing Agreement, signed in 1986, was extended to a larger range of countries in 1989. The agreement enables Australian citizens to obtain consular assistance from Canadian diplomatic and consular posts in certain countries where Australia has no representation. The countries where Canada provides consular services to Australians are Norway, Tunisia, Peru, Ivory Coast, Ghana, Ethiopia, Guinea, Tanzania, Senegal, Zaire, Gabon, Morocco and Cameroon. Australia reciprocates with the provision of consular services to Canadians in Hawaii, Bali, Western Samoa, Solomon Islands, Nauru, Tonga, Vanuatu, Kiribati, Mauritius, Brunei, Burma, Cambodia and Laos.

The Honorary Consul program, introduced in 1989, has proven to be an economical way for the Government to increase its representation where the need is identified. Honorary Consuls have been appointed in the following 17 locations: Barcelona and Seville (Spain), Bogota (Colombia), Boston (USA), Guayaquil (Ecuador), Kuching (Malaysia), Lae (Papua New Guinea), Montevideo (Uruguay), Papeete (French Polynesia), Port of Spain (Trinidad and Tobago), Pusan (Korea), Monterray and Guadalajara (Mexico), Sao Paulo (Brazil), Vladivostok (Pacific Russia), Kiev (Ukraine) and Zagreb (Croatia). Honorary Consuls in Denver (USA), Prague (Czech Republic), Lisbon and Madeira (Portugal) will be appointed shortly.

In 1991–92, 803,232 passports were issued to eligible Australian citizens. 74.8 per cent of all applications were lodged at Australian Post Offices. A toll-free telephone passport information and enquiry service is available to the general public and over 453,000 calls were handled in 1991–92. To suppport the Department's consular operations the telephone information service incorporates a facility to handle large numbers of phone enquiries from the public about overseas crises which might involve Australians.

AUSTRALIAN OVERSEAS AID PROGRAM

The objective of the Australian aid program is to promote the sustainable economic and social advancement of people of developing countries, particularly in our region. This objective is pursued by assisting in the alleviation of poverty and in encouraging strategies for equitable economic growth. At the same time, the program contributes to peace, stability and security in our region and advances Australia's national political and economic interests.

In 1992–93, Australia's official development assistance (ODA) will total $1,384 million, a real increase on the previous year's expenditure of about one per cent. It represents an ODA to Gross National Product ratio of 0.36 per cent. This is a step up on the 0.35 per cent level set in the previous year's budget.

New initiatives for 1992–93 include additional poverty-focused programs totalling $25 million. These will involve a $4 million increase in direct funding for non-government organisations (NGOs); a further $8 million for additional NGO activities in other parts of the aid program; a $3 million increase in funding for Australia's volunteer agencies; an extra $4 million for population activities; an increase of $3 million in expenditure on the prevention of HIV/AIDS; and other smaller initiatives totalling some $3 million which will focus on children's health and women-in-development activities. On top of these specific programs, increasing attention will continue to be given to poverty issues throughout Australia's aid program.

Other initiatives include an increase of over $3 million in funding for international agricultural research; the introduction of a private sector linkages program worth $5 million, which will fund pre-investment and feasibility studies, small-scale demonstration projects, and private sector training and exchanges.

The recent United Nations Conference on the Environment and Development (UNCED) drew the world's attention to the importance of ecologically sustainable development. In 1992–93, expenditure targeted on environmental activities is anticipated to substantially increase to over $28 million.

Australia also continues to be one of the world's largest providers of food aid. In 1991–92 Australia provided $104 million in food aid to developing countries. Food aid has an important developmental role as well as providing a vital means of assistance in emergency situations. Around three-quarters of Australia's food aid is provided to assist in the achievement of long-term developmental goals.

Within the emergency, refugee and relief program, funding for the United Nations High Commissioner for Refugees (UNHCR) and the international activities of the Australian Red

Cross will be expanded significantly. Funding will also be increased to respond to the needs arising from the worst drought this century in Southern Africa and the appalling situation in Somalia.

The aid program is administered by the Australian International Development Assistance Bureau (AIDAB) and is divided into four sub-programs: Country Programs, Global Programs, Corporate Services and the Australian Centre for International Agricultural Research.

Country programs

Most country programs are provided on a government-to-government basis. Country programming is based on a strategy for development cooperation which matches recipient country needs with Australia's objectives and capacity to assist.

4.1 TOTAL AUSTRALIAN AID FLOWS TO MAJOR RECIPIENTS, 1991–92(a)

Country	*$ million*
Papua New Guinea	335.0
Indonesia	116.3
China	60.1
Philippines	47.6
Thailand	38.4
Bangladesh	31.7
Fiji	29.2
Malaysia	26.0
Ethiopia	24.3
India	23.0
Western Samoa	15.7
Cambodia	15.4
Egypt	15.1
Mozambique	15.1
Solomon Islands	14.6
Zimbabwe	13.2
Vanuatu	13.2
Vietnam	12.9
Laos	12.2
Tonga	11.4

(a) This includes assistance provided under both Country Programs and Global Programs.

Source: Australian International Development Assistance Bureau (AIDAB).

For most countries, the level of Australia's development cooperation is programmed on an annual basis. In other cases multi-year commitments are made.

Projects supported by Australia range from large-scale, long-term, integrated regional development programs to small-scale village level projects. Projects involve assistance to develop the recipient country's physical capital (such as bridge construction in Indonesia), the provision of technical assistance to enhance local expertise, (such as forestry assistance in Nepal and curriculum development in Vanuatu), or more direct poverty alleviation projects (such as a water supply project in the Indonesian province of West Nusa Tenggara).

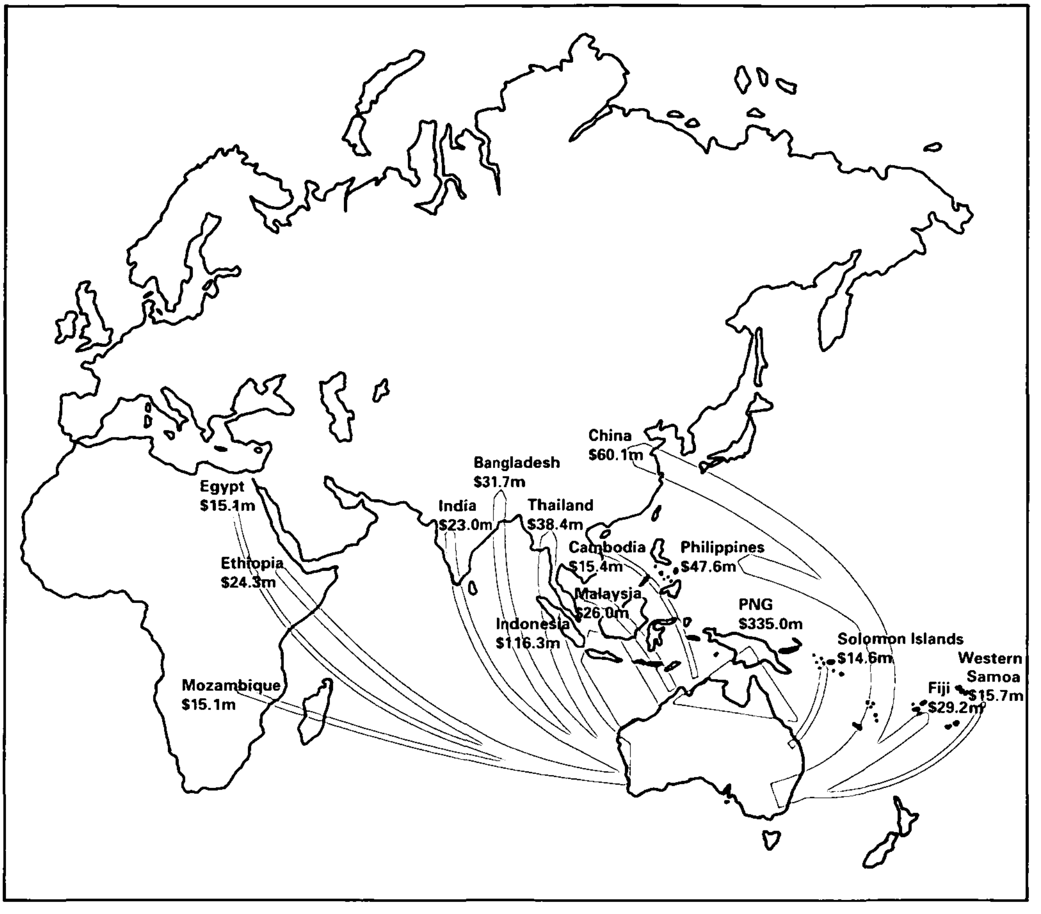
Papua New Guinea. The size of the Australia's development cooperation program with Papua New Guinea (PNG) reflects the significance of the relationship between the two countries. Development cooperation with PNG is aimed at promoting sustainable economic growth with equity. Most of Australia's assistance is currently in the form of untied budget support. To increase program effectiveness, both Governments have agreed to progressively reduce the level of budget support and to introduce a program of activities targeted at particular development needs.

PNG receives the largest share of the Australian aid program. In 1992–93 PNG will receive about $322 million, which represents almost one-quarter of the total Australian development cooperation program. As a proportion of the PNG program, programmed activities are expected to increase from 3 per cent in 1987–88 to almost 16 per cent in 1993–94.

South Pacific. The South Pacific is a priority area for Australian development cooperation. For humanitarian, strategic and commercial reasons, Australia will continue to have a special relationship with the countries of the region. In 1992–93 country programs to the region will total around $91.9 million. This maintains the level of assistance provided in 1991–92.

Given the diversity of the Pacific Island economies and their small size, Australia recognises that its development assistance programs are often of critical importance to these island countries. Accordingly, their implementation needs to be carried out efficiently and effectively in a manner consistent with the needs of individual countries, and with a sensitivity to social and cultural traditions.

4.2 AUSTRALIAN AID FLOWS TO MAJOR RECIPIENTS, 1991–92



Source: Australian International Development Assistance Bureau (AIDAB).

South–East Asia. Australian development cooperation activities with South–East Asian countries have traditionally emphasised rural development, infrastructure upgrading and education. In poor and lesser developed areas especially, poverty alleviation has been a feature of Australian assistance. The program to the region is now clearly in transition as many countries in South–East Asia are enjoying sustained economic growth and Australia's economic and trade relations with these countries are rapidly developing. The program to many of these countries is quickly moving to investing more in the development of closer economic relations and mutual benefit. As part of Australia's growing engagement with Asia, a new program of private sector linkages will be initiated in 1992–93 in South–East Asia. Countries to be covered by the program include Vietnam, Malaysia, Thailand, Philippines, Indonesia and Laos.

In 1992–93, Australian development cooperation with South–East Asia through country programs will total around $200 million. This allocation includes Australia's new programs of assistance for both Cambodia and Vietnam.

Other regions. Australian development cooperation to regions outside the South Pacific and South–East Asia generally cover a narrower range of development activities. Development cooperation with these other regions will total about $104 million in 1992–93.

The largest allocation for a group of countries is that for Southern Africa, where $39 million has been allocated in 1992–93. This represents the third annual allocation of a three year pledge of $110 million by the Australian Government. Other countries benefiting from Australian development cooperation in 1991–92 include China ($18 million), Bangladesh ($13 million) and India/Pakistan ($15 million).

It is important to note that country program activities represent only one Australian response to the development needs of these countries. For example, China and India also receive significant amounts of funding through the Development Import Finance Facility. Other countries such as those in the Horn of Africa receive substantial amounts of emergency aid. Other countries are primary beneficiaries of development assistance provided by international agencies to which Australia contributes.

Global programs

International development organisations and programs. Australia supports a range of key international financial and development institutions as part of our obligations as a good international citizen. These organisations can undertake development cooperation activities on a scale that might not be possible for Australia as a single donor. Australia's active participation in these agencies also enable Australia to have a policy influence on each institution's activities. In addition, cooperation with international development institutions can lead to more complementary bilateral programs that benefit both recipient countries and Australian business. Participation may thus provide greater opportunities for Australian business than are available just under a bilateral program.

In 1992–93 contributions from AIDAB administered funds will total about $261 million. Australia contributes towards a range of United Nations organisations, international financial institutions, international agricultural research activities, international health programs and international non-government organisations. These include the World Bank ($95.1 million), the Asian Development Bank ($53 million), the World Food Program ($47 million) and the United Nations' Development Program ($17 million).

Emergencies and refugees. Emergency assistance remains a key part of Australia's development cooperation program. In 1991–92, the scope and number of crises throughout the world continued to be great and Australia responded to many emergency and refugee relief situations at a total cost of more than $66 million. Types of assistance include food aid, temporary shelter materials, medical supplies and accountable cash grants. Australia also supports the general programs of a number of international relief agencies by making contributions to their core budgets. These include the UN High Commissioner for Refugees, the UN Relief and Works Agency and the International Committee of the Red Cross. Australia also provides assistance for disaster preparedness and mitigation measures, especially in the South Pacific.

Community and commercial programs. A wide range of Australian community interests are reflected in development cooperation activities. The participation of the business community, non-government organisations, academic and other professional groups in the program is important to inform the wider community of conditions in developing countries. It also enhances the understanding and support of the Australian public of Australia's development cooperation activities.

In 1991–92, the Government will provide about $25 million directly to non-government organisations (NGOs), an increase of about $7 million on the last financial year. These funds subsidise development activities designed and implemented by the NGOs themselves including overseas development projects, volunteer programs, emergency relief assistance and some development education activities. Overall, NGOs will cooperate with AIDAB in implementing an estimated $75 million in development cooperation activities.

The direct participation of the academic and research community in the program is generally encouraged by the Government through the support of development oriented seminars and through the provision of funds to the National Centre for Development Studies at the Australian National University in particular.

The involvement of Australian commercial organisations is a feature of Australia's development cooperation program. The quality of development assistance is increased by using efficient Australian suppliers. The program also offers substantial returns to Australian firms — each dollar provided as aid is estimated to provide well over a dollar of business for Australian firms. AIDAB communicates widely with commercial organisations in order to increase their understanding of commercial opportunities under the program.

Expenditure on the Development Import Finance Facility (DIFF) will expand to $120 million. This is a $22 million increase on 1991–92 funding levels. DIFF allows Australian private sector firms to supply developmentally important goods and services to developing countries to compete in markets where other governments offer mixed credits. It is a developmentally effective scheme which also significantly increases Australian exports and employment.

AUSTRALIAN REPRESENTATION OVERSEAS

As at 30 June 1992, Australia maintained the following diplomatic and consular representation overseas (full details of these missions are available from the Department of Foreign Affairs and Trade, Canberra, ACT, 2600).

4.3 DIPLOMATIC AND CONSULAR REPRESENTATION OVERSEAS

Country	*Post*	*Country*	*Post*
Argentina	Buenos Aires	Fiji	Suva
Austria	Vienna	France	Paris
Bangladesh	Dhaka	New Caledonia	Noumea*
Belgium	Brussels	Greece	Athens
Brazil	Brasilia	Hong Kong	Hong Kong*
Brunei	Bandar Seri Begawan	Hungary	Budapest
Cambodia	Phnom Penh#	India	New Delhi
Canada	Ottawa		Bombay*
Chile	Santiago	Indonesia	Jakarta
China	Beijing		Bali**
	Shanghai*	Iran	Tehran
Cyprus	Nicosia	Ireland	Dublin
Czechoslovakia	Prague	Israel	Tel Aviv
Denmark	Copenhagen	Italy	Rome
Egypt	Cairo	Jamaica	Kingston
Federal Republic of Germany	Berlin*	Japan	Tokyo
	Bonn	Jordan	Amman

For footnotes *see* end of table.

4.3 DIPLOMATIC AND CONSULAR REPRESENTATION OVERSEAS — *continued*

Country	*Post*	*Country*	*Post*
Kenya	Nairobi	South Africa	Pretoria
Kiribati	Tarawa	Spain	Madrid
Korea, Republic of	Seoul	Sri Lanka	Colombo
Laos	Vientiane	Sweden	Stockholm
Malaysia	Kuala Lumpur	Switzerland	Berne
Malta	Malta	Syria	Damascus
Mauritius	Port Louis	Thailand	Bangkok
Mexico	Mexico City	Tonga	Nuku'alofa
Micronesia, Federated States of	Pohnpei	Turkey	Ankara
Myanmar (Burma)	Rangoon	United Kingdom	London
Nauru	Nauru	United States	Washington
Nepal	Kathmandu		Chicago*
Netherlands	The Hague		Honolulu*
New Zealand	Wellington		Houston*
Nigeria	Lagos		Los Angeles*
Pakistan	Islamabad		New York*
Papua New Guinea	Port Moresby		San Francisco*
Philippines	Manila	Vanuatu	Port Vila
Poland	Warsaw	Vatican	Holy See
Portugal	Lisbon	Venezuela	Caracas
Russia	Moscow	Vietnam	Hanoi
Saudi Arabia	Riyadh	Western Samoa	Apia
Singapore	Singapore	Yugoslavia	Belgrade
Solomon Islands	Honiara	Zimbabwe	Harare

* Consulate-General
** Consulate
\# Resident mission
Source: Department of Foreign Affairs and Trade.

Australia also maintained five separate permanent missions in:

New York — UN
Geneva — UN
Geneva — Disarmament
Geneva — GATT
Paris — OECD.

The Australian Trade Commission maintained trade missions with diplomatic or consular status in the following cities:

Auckland*, Frankfurt*, Fukuoka*, Istanbul*, Milan*, Osaka* and Toronto*.

The Department of Immigration, Local Government and Ethnic Affairs maintained offices with consular status in Manchester**, Edinburgh** and Vancouver**.

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Chapter Five

Defence

Contents **Page**

This chapter outlines Australia's defence policy and defence relationships with other countries. It presents an overview of the Defence organisation and how it operates and it lists some planned equipment and personnel changes.

Australia enjoys a very good security environment. Relationships with its allies and neighbours are sound and it faces no foreseeable military threat.

Because Australia is a large island continent, any potential aggressor against it would have to possess considerable sea, land and air forces. In the current security environment, such a threat is considered unlikely. In the foreseeable future, actions against Australia would more likely be small-scale military actions with limited objectives.

POLICY

The Australian Government's approach to defence is to seek to reinforce the positive aspects of Australia's strategic environment and to provide an appropriate measure of insurance against future uncertainty. This means developing and maintaining a capability for the independent defence of Australia and its interests (defence self-reliance) and promoting stability and security in our region.

This approach recognises not only Australia's unique geographic environment, but also its regional and global relationships as important factors in defence policy. The policy is explained more fully in the White Paper *The Defence of Australia — 1987.*

The Defence organisation is only one of the instruments available to the Government in maintaining a secure Australia. Through its various activities, the Defence organisation complements and supports activities conducted in the diplomatic, economic, social and commercial fields.

THE DEFENCE ORGANISATION

The mission of the Defence organisation — which comprises the Australian Defence Force (ADF) and the Department of Defence — is to promote the security of Australia, and to protect its people and its interests.

The ADF is the uniformed element of the Defence organisation, and consists of the Royal Australian Navy (RAN), the Australian Army, and the Royal Australian Air Force (RAAF). The ADF is structured and maintained to deal with the types of contingencies that could arise in the short term, whilst providing a suitable basis for expansion should a major threat arise over the longer term.

The ADF also has non-defence functions, especially in peacetime. ADF resources are used for civil tasks of national importance — such as coastal surveillance, fisheries protection, and search and rescue. They are also made available to assist State Governments, the governments of foreign countries, and the United Nations in such roles as peacekeeping, natural disaster relief, and counter terrorism.

The Department of Defence is the civilian element of the Defence organisation. It supports the Government in the development, implementation and evaluation of defence policy and programs. It provides policy, procurement, scientific, logistic, financial and other support services to the ADF, and a range of services to government agencies and industry.

PLANNING

To provide a management framework for its activities, the Defence organisation works to a 10 year planning 'horizon'. Proposals are brought forward and examined in detail prior to submission to the Government for consideration as new policy initiatives. This is a rolling horizon, reviewed each year in the light of changing strategic circumstances, government directions, changing economic prospects and other relevant forces.

The primary documents which explain current Defence plans are the Defence Corporate Plan and Australia's Strategic Planning in the 1990s (ASP 90). The Plan is updated each year and sets out corporate goals and strategies for the next five years, with particular emphasis on the 12 months immediately following. The Plan specifies what Defence aims to achieve and identifies criteria which will tell if those aims have been met. ASP 90, together with the 1987 Defence White Paper, represent government guidance for Australia's defence development. Financial planning is contained in annual Program Performance Statements which deal with the Defence budget.

The Defence Report, also published annually, is a report to the Minister for Defence on the activities of the Defence organisation over the previous financial year.

Changing directions

As a result of the 1987 Defence White Paper and subsequent reviews (the Force Structure Review, The Defence Force and the Community Report, the Defence Regional Support Review, and reviews of Defence logistics), there have been, and will be, a number of significant changes in the Defence organisation by the year 2000.

They are all aimed at making the best use of Defence resources, and in particular improving the combat capability of the ADF. A number of them will also increase the ADF presence in the west and north of Australia.

The most significant changes are outlined below. More detail may be found in four documents: the Force Structure Review, the Ready Reserve Program, the Report of the Interdepartmental Committee on *The Defence Force and the Community*, and Australia's Strategic Planning in the 1990s.

Defence planning for the 1990s aims to achieve a balance between investment in new and improved capabilities, technology and infrastructure, and investment in personnel training. It places a heavy emphasis on improving combat capability, with the need for a significant level of investment in new equipment and facilities to meet strategic priorities. A reduction in the numbers of Regular service personnel and civilians will reduce costs and allow the reallocation of resources to areas of greater priority.

The future distribution of the Defence budget between investment, operating costs and personnel is expected to be about 27 per cent, 30 per cent and 43 per cent respectively.

The Navy is to acquire new surface combatants and submarines. By the beginning of next century, there will be six Collins Class submarines based at HMAS Stirling in Western Australia. As well, the Navy will have 16 destroyers/frigates and 12 offshore patrol vessels. Current planning is for four frigates or destroyers to be based at HMAS Stirling.

More Regular Army units will be based in the north of Australia, beginning with the Second Cavalry Regiment's move to Darwin in 1992. An armoured regiment with one Regular Army tank squadron, a composite aviation squadron, and an infantry battalion will also move to Darwin by the year 2000.

By 1996, the Ready Reserves will replace most of the Regular combat and combat support units in southern Queensland.

The Air Force has recently completed a program, begun in the 1980s, of re-equipping and redeploying its fighter force. Two squadrons of F/A-18s are now based at RAAF Tindal in the Northern Territory. RAAF Tindal is complemented by three northern Australian 'bare bases' — forward locations to which aircraft can be deployed as required. These are at Exmouth (RAAF Base Learmouth), Derby (RAAF Base Curtin), and the planned base at Weipa (RAAF Base Scherger). Combined with the air to air refuelling capacity now operational in the Air Force (four B707 tankers), the bare bases give the F/A-18s considerable operational flexibility and endurance in northern Australia.

DEFENCE PROGRAMS

The Defence organisation, its resources and activities are divided into eight major programs.

Forces Executive

The objective of this Program is to provide an effective operational command structure and to provide policy direction in the areas of force structure and capability, personnel, health, Reserve forces, public information, Defence housing and military superannuation.

The major activities of the Program include providing direction to the ADF in the areas of military policy, planning, operational training, intelligence, communications, force development and logistics. Integral to this is direction on capability development and priorities in accordance with government strategic and financial guidance.

Navy

The objective of the Navy is to provide maritime forces capable of conducting effective maritime operations in the pursuit of Australia's security interests using permanent and reserve forces and capable of expanding in a timely manner against warning of more substantial conflict.

The Royal Australian Navy places an emphasis on surveillance and patrol operations in our immediate sea approaches as well as developing, through exercises, the capability to undertake effective maritime operations in our area of primary strategic interest. In addition, the RAN has developed and refined the infrastructure needed to provide training and logistic support to ensure sustainability of these maritime operations.

Army

The objective of the Army is to provide land forces capable of conducting effective land operations in pursuit of Australia's security interests using both regular and reserve forces and capable of expanding in a timely manner against warning of more substantial conflict. The Army must be able to provide forces capable of resolving high risk terrorist incidents in support of the civil authorities and be able to conduct protracted and dispersed operations in harsh terrain where the existing infrastructure and resources are sparse.

Air Force

The objective of the RAAF is to provide forces capable of conducting effective air operations in pursuit of Australia's security interests using both permanent and reserve forces and capable of expanding in a timely manner against warning of more substantial conflict.

The RAAF also conducts maritime surveillance patrols in Australia's area of interest to protect shipping, offshore territories and resources; and provides air lift and offensive air support to the other Services.

The following tables of flying hours for two types of aircraft, the F/A-18 Hornet fighter and the C130 transport aircraft, provides an indication of RAAF flying activities.

5.1 F/A-18 FLYING HOURS, 1991-92

	Planned	*Achieved*
National tasks	476	279
Defence support	2,187	1,640
Operational training	4,946	6,108
Army support	100	43
Navy support	600	557
Conversion/continuation training	3,146	3,023
Total	**11,455**	**11,650**

Source: Department of Defence.

5.2 C130 FLYING HOURS, 1991-92

	Planned	*Achieved*
National tasks	1,718	822
Assistance to the civil community		
Search and rescue	—	38
Medical evacuation	—	95
Flood relief	—	67
Fire relief	—	182
Defence support	7,487	6,832
Army support	1,700	1,716
Navy support	670	376
Scheduled services	1,740	3,011
VIP flights	—	12
Conversion/continuation training	4,685	4,767
Total	**18,000**	**17,918**

Source: Department of Defence.

Strategy and Intelligence

The objective of this Program is to provide the Government with the defence policy options most relevant to Australia's strategic circumstances to ensure that defence programs and force structure are consistent with the Government's strategic policies and priorities. It also provides intelligence services for Defence and other government departments and organisations.

Strategy and Intelligence Program is involved in policy development in the areas of international and regional defence relations, long-term defence planning, intelligence functions and defence cooperation activities with regional neighbours. It also covers the analysis of capability issues and the development of new major investment program. Much of the work of the Program aims to guide and improve corporate level performance. The Program coordinates departmental work on strategic guidance and force structure planning.

Acquisition and Logistics

The objective of this Program is to realise the Government's priorities for the development of Australia's defence capabilities through the economic acquisition of capital equipment and facilities that meet endorsed operational requirements. The Program also provides logistic support for the ADF and encourages the involvement of Australian industry where appropriate.

Australia is proceeding with a program of major defence acquisitions costing more than $25 billion over the coming decade and beyond, and the Acquisition and Logistics Program is central to these initiatives.

The following table shows expenditure for selected major items of capital equipment for 1991–92.

5.3 EXPENDITURE ON MAJOR ITEMS OF CAPITAL EQUIPMENT, 1991–92 ($ million)

Project	*Estimate*	*Actual*
Collins class submarines	620.7	688.0
ANZAC ships	317.6	308.9
Australian frigates	100.9	91.4
Seahawk helicopters	21.8	25.7
HF and VHF single channel radios (Raven)	88.4	69.1
F/A-18 Hornet fighter	154.0	169.4
Black Hawk helicopters	20.0	17.7
F-111 avionics update	70.6	57.8
Jindalee Operational Radar Network	116.2	101.3
Wheeled Fighting Vehicle	15.0	0.5
FFGs 01-04	35.7	38.3
Small arms replacement project	52.3	47.0
Army light field vehicles	34.4	30.6

Source: Department of Defence.

Budget and Management

The objective of the Program is to develop policy and deliver corporate services that optimise the cost-effective management of Defence resources. This applies in particular to resource management and financial systems, the allocation of civilian and service personnel, civilian personnel management, program evaluation and management audit, the security of personnel, projects and computing, and legal services.

Science and Technology

This Program is based on the activities of the Defence Science and Technology Organisation (DSTO). Its objective is to enhance Australian defence capabilities, to contribute to the development and implementation of Australian defence policies, and to provide assistance to the Defence organisation and Australian industry, through the application of science and technology.

The effectiveness of the ADF depends in part on the selective use of appropriate technology. The prime role of the Science and Technology Program is to provide this technology and to advise on its most beneficial use.

The DSTO pursues the commercial application of its research product to become more industry-oriented.

AUSTRALIA'S COMMITMENT TO THE UN ACTIVITIES IN CAMBODIA AND SOMALIA

As part of Australia's commitment to the implementation of the Cambodian Peace Agreement, signed in Paris in October 1991, the Government agreed to provide a Force Communication Unit (FCU) to the United Nations Transitional Authority in Cambodia (UNTAC).

Australia has deployed 502 personnel to UNTAC, including the overall Force Commander, Lieutenant-General John Sanderson. The contingent comprises 488 FCU staff and 14 UNTAC Headquarters Staff. Additionally, the Australian Movement Control Group (MCG) was provided for approximately four months from 14 May 1992. The MCG provided crucial movement control support to UNTAC forces during the initial stages of deployment into Cambodia.

The FCU is responsible for providing the communications between the four Cambodian factions, and from the factions to the UN. It also assists with the provision of communication to the civilian component of

UNTAC. Given the absence of any telecommunications infrastructure in Cambodia this is a vitally important and highly complex task. The service provided by the Australian contingent is central in monitoring adherence to the provisions of the peace settlement. To this end the FCU is deployed throughout Cambodia, and to UNTAC Liaison Units in Vientiane, Hanoi and Bangkok.

The Prime Minister announced on 15 December 1992 that the Government had decided to provide a large-scale commitment to the UN mandated Operation Restore Hope in Somalia, as well as expanding the size of the Movement Control Unit already committed to the UN operation in Somalia (UNOSOM) from 30 to 45 personnel.

The infantry battalion group from 1st Battalion, the Royal Australian Regiment, based in Townsville was deployed to Somalia in January 1993. The Australian contribution to Operation Restore Hope is the largest commitment of Australian ground forces overseas in the last twenty years.

The Australian contingent included four rifle companies, a reduced squadron of about 30 armoured personnel carriers, and logistics and engineer support elements.

Whilst the battalion is in Somalia it remains under Australian national command, however, operational control for day-to-day tasking has been delegated to the US-appointed Joint Task Force Commander.

The Australian contingent is helping provide for the open and free passage of relief supplies, and is also assisting UN relief operations.

Australia's contribution to UNTAC demonstrates the commitment of the Government and the Defence organisation to promoting regional peace and stability, including through contributions to UN peacekeeping activities.

RESOURCES

Budget and expenditure

The 1992–93 Defence budget of $9,885 million represents an increase of $523 million or 5.6 per cent over 1991–92 and maintains the current real level of Defence outlays.

The Government has set Defence planning guidance at zero per cent real growth over the 1992–95 period. This level of guidance accords with the planning base adopted for the Force Structure Review and should allow for the achievement of the programmed objectives of that review and other major Defence efficiency initiatives.

Defence spending is forecast to be 9.0 per cent of Commonwealth outlays for 1992–93, compared with 9.1 per cent in 1991–92. The Defence share of GDP for 1992–93 is estimated to be 2.4 per cent, the same as in 1991–92.

The proportion of Defence expenditure spent in Australia continues at a high level reflecting greater local industry involvement and increased self-reliance. Some 87 per cent of total Defence expenditure is estimated to be spent in Australia during 1992–93, including 59 per cent of capital equipment expenditure. Current levels of expenditure compare favourably with the 76 per cent spent in Australia during 1984–85, which included only 25 per cent of all capital equipment expenditure.

The following table shows the actual expenditure by each Program of the Department of Defence in 1991–92.

5.4 DEFENCE EXPENDITURE, 1991–92 ($'000)

Program	
Forces Executive	1,132,847
Navy	1,321,000
Army	1,982,808
Air Force	1,637,359
Strategy and Intelligence	182,680
Acquisition and Logistics	2,446,273
Budget and Management	441,283
Science and Technology	218,262
Total	**9,362,512**

Source: Department of Defence.

Personnel

Although the Defence organisation has its policy and administrative centre in Canberra, most of its personnel are located in some 600 units and establishments throughout Australia.

The ADF has some 68,000 Regular personnel and 30,000 Reserves, while the Department of Defence has some 24,000 civilians.

Of the civilian employees in the Defence organisation, some 14,500 work directly for the ADF, some 3,500 are in the Defence Science and Technology Organisation (DSTO), over 2,500 are in regional offices, and some 2,500 are in the central office. There are about 1,000 in out-rider organisations or overseas.

The 1992 Year Book contained an account of women in the present-day ADF.

5.5 DEFENCE SERVICE AND CIVILIAN PERSONNEL, BY EMPLOYMENT CATEGORY AND SEX AS AT 30 JUNE 1992

	Males	*Per cent*	*Females*	*Per cent*
Navy				
Trained force				
Officers	1,926	12.5	281	1.8
Other ranks	10,267	66.7	1,442	9.3
Training force				
Officers	540	3.5	134	0.9
Other ranks	513	3.3	56	0.4
Apprentices	224	1.5	12	0.1
Total	*13,470*	*87.5*	*1,925*	*12.5*
Army				
Trained force				
Officers	4,309	14.3	468	1.6
Other ranks	21,285	70.6	2,293	7.6
Training force				
Officers	496	1.6	101	0.3
Other ranks	394	1.3	64	0.2
Apprentices	711	2.4	36	0.1
Total	*27,195*	*90.2*	*2,962*	*9.8*
Air Force				
Trained force				
Officers	3,230	15.0	458	2.1
Other ranks	13,878	64.5	2,732	12.8
Training force				
Officers	421	2.0	81	0.4
Other ranks	471	2.2	52	0.2
Apprentices	176	0.8	3	—
Total	*18,176*	*84.5*	*3,326*	*15.5*
Australian Defence Force				
Trained force				
Officers	9,465	14.1	1,207	1.8
Other ranks	45,430	67.8	6,467	9.5
Training force				
Officers	1,457	2.2	316	0.5
Other ranks	1,378	2.1	172	0.3
Apprentices	1,111	1.7	51	0.1
Total	*58,841*	*87.8*	*8,213*	*12.2*
Civilians				
Senior executive staff	106	0.4	5	—
Other staff	16,325	68.5	7,396	31.1
Total	*16,431*	*68.9*	*7,401*	*31.1*
Reserves				
Navy	1,326	4.7	200	0.7
Army	20,836	74.3	4,268	15.3
Air Force	1,164	4.2	229	0.8
Total	*23,326*	*83.2*	*4,697*	*16.8*

Source: Department of Defence.

The Ready Reserve Program

The Minister for Defence announced the setting up of the Ready Reserve Program on 30 May 1991 as part of his Ministerial Statement on Defence Policy. The formation of the Ready Reserve was one of the key recommendations of the Force Structure Review. The Review recommended that greater use be made of the nation's reserve forces, and that in particular a new form of service — the Ready Reserve — be created.

The Ready Reserve is designed to ensure that Australia enters the 21st century with a defence force relevant to our strategic and security needs. It is the result of an innovative and imaginative look at the way the ADF can best use its most precious resource — its people.

The Program aims to provide the ADF with a mix of capabilities. It is designed to improve the ADF's readiness whilst at the same time providing long-term sustainability.

The Ready Reserve Program complements the Total Force Concept by reinforcing the depth of trained units and personnel available to meet contingencies in the defence of Australia. It strengthens the ADF's ability to respond decisively to emergencies by adding a pool of highly trained personnel, capable of rapid mobilisation.

The Ready Reserve Program expects to recruit 4,100 personnel — 3,200 for the Army, and 450 each for the Navy and RAAF. In effect the Ready Reserve provides the ADF with a third manning option. The Ready Reserve operates at a lower level of readiness and training than regular members of the ADF, but at a higher level of readiness and training than the conventional reserves.

The Program recruits high calibre candidates to undergo intensive full-time training for one year. Each Ready Reservist makes a commitment to follow-on training and deployment on short notice operations for four years part time after the training year has been completed. The Program encourages its recruits to undertake tertiary or vocational training by providing a tax exempt education assistance scheme of approximately $5,000 per annum. The Program also provides recruits with a job search allowance of $1,000. The Program encourages highly trained permanent members of the ADF to serve part time in the Ready Reserves following completion of their permanent service.

Employer support is critical to the viability of the Program. An employer support scheme has been introduced which provides payment of an amount equivalent to adult male average weekly earnings for up to four weeks per year to employers who grant their employees leave, in addition to annual leave, for part-time Ready Reserve service.

The Program is a unique opportunity for the ADF to strengthen the relationship between the Defence Organisation and the Australian community in the interests of national defence.

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DEFENCE COMMUNICATIONS CORPORATE PLAN 1991–2001. This document proposes strategies for ensuring Defence communications systems can take advantage of new and emerging technologies while continuing to meet current and unforeseen user demands.

THE DEFENCE CORPORATE PLAN. An annual document providing guidance to programs on the basis for program planning.

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DEFENCE REGIONAL SUPPORT REVIEW. A review undertaken to recommend the most effective and economical means of providing administrative support to the Australian Defence and the Department of Defence in regional areas.

THE DEFENCE REPORT 1991–92. A report to the Minister for Defence published annually on Defence Program achievements, resources and other matters.

THE EQUAL EMPLOYMENT OPPORTUNITY PLAN. A document which seeks to identify and remove unjustified discrimination against women and members of designated groups in their employment and career opportunities.

FORCE STRUCTURE REVIEW. A Government plan for the phased restructuring of the ADF over the next 10 years to use allocated resources more effectively.

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Chapter Six

Demography

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The principal source of demographic data is the Census of Population and Housing, which in recent times (since 1961) has been conducted at five-yearly intervals. The most recent was in 1991 and some preliminary results from it are included in this issue of the Year Book. Compulsory registration of births, deaths and marriages also provides valuable information between censuses, as do the details supplied by incoming and outgoing overseas travellers. In addition, various surveys are conducted from time to time on specific topics. Divorce data are compiled from court records; administrative records provide data on other aspects such as refugees and interstate migration.

Two important pieces of government legislation in the recent past which have had a bearing on demographic matters were the repeal in 1967 of the provision in section 127 of the Constitution requiring the exclusion of Aboriginals in reckoning the numbers of people in the population, and the passing of the *Family Law Act 1975* which provided for a single ground for divorce — irretrievable breakdown of marriage — and for nullity of marriage on the ground that the marriage is void.

THE POPULATION OF AUSTRALIA

Size and growth

For an historic perspective of Australia's demographic characteristics *see Year Book Australia 1988*.

As shown in table 6.1 the estimated resident population at 30 June 1992 was 17.5 million, an increase of 1.4 per cent over the previous year. The total increase of 236,900 comprised 135,000 from natural increase and 102,000 from overseas migration. The natural increase component was below the peak level of the previous year and overseas migration was also lower.

Generally speaking, population growth has now eased back to levels in line with those of the mid-1980s. The declining rate of natural increase which characterised the 1980s has now flattened out. (Figures for 1990 indicated a slight increase in birth rates but this has not been sustained in subsequent years.)

Net overseas migration gain, moderate for most of the 1970s, increased sharply at the end of that decade following changes in migration intake targets and Australia's acceptance of a large number of Indo-Chinese refugees as settlers. Very high intakes were recorded in 1980–81 and 1981–82, after which they fell back to previous levels. In the latter half of the 1980s there was a strong resurgence, and the overseas migration gains of 1987–88 and 1988–89 were amongst the highest recorded this century. Since 1989 they have fallen back significantly.

From year to year overseas migration gains are continuing to be more volatile than natural increase and, because of their size, are setting the pattern for trends in total population growth. From a peak of 1.8 per cent in 1981–82 the total growth rate slumped to 1.2 per cent in the middle of the 1980s as the migration intake declined. In the latter part of the decade the sharp rise in net migration resulted in a recovery in total growth to 1.7 per cent in 1989. In the 1990s the total growth rate has fallen back again as the migration intake eases. In the year ended 30 June 1992 it was 1.4 per cent.

Population distribution

Most of the Australian population is concentrated in two widely separated coastal regions. By far the largest of these, in terms of area and population, lies in the south-east, stretching in an unbroken crescent from South Australia through Victoria, Tasmania and New South Wales to Queensland. The smaller of the two regions is in the south-west of Western Australia. Neither region ever extends inland by more than two or three hundred kilometres. They are separated by two to three thousand kilometres of sparsely populated country which makes up about three-quarters of the total land area. It comprises the whole of the Northern Territory and parts of all five mainland States.

In both coastal regions the population is further concentrated into urban centres. In June 1990, 71.2 per cent of the Australian population lived in the combined State capitals (including the national capital and Darwin) and six other major cities of 100,000 persons or more (capital city statistical divisions and statistical districts). The very low population density figures for Australia as a whole (two persons per square kilometre) mask this pattern of population distribution.

6.1 ESTIMATED RESIDENT POPULATION AND COMPONENTS OF GROWTH

Year ended 30 June	*Population ('000)*	*Annual rate of growth (%)* Natural increase	Net migration	Total(a)
1981	14,923.3	0.83	0.81	1.55
1982	15,184.2	0.84	0.86	1.75
1983	15,393.5	0.85	0.48	1.38
1984	15,579.4	0.84	0.32	1.21
1985	15,788.3	0.82	0.47	1.34
1986	16,018.4	0.78	0.64	1.46
1987	16,253.5	0.79	0.74	1.47
1988	16,518.4	0.77	0.92	1.63
1989	16,803.1	0.80	0.99	1.72
1990	17,044.7	0.79	0.71	1.44
1991	17,292.0	0.83	0.64	1.45
1992	17,529.0	0.78	0.59	1.37

(a) The difference between the total and the sum of the component rates is due to distribution of the intercensal discrepancy.
Source: Australian Demographic Statistics (3101.0).

With the continuing urban development of the 20th century, capital cities have been the consistent choice for settlement of the majority of overseas immigrants, as well as receiving centres in the general internal movement of population from rural to urban areas which persisted until recent times. This trend towards increasing urbanisation continued until the mid-1970s, after which a slight decline has been recorded.

Table 6.2 shows that at the 1986 Census, 85.4 per cent of the population lived in urban areas. Between the 1976 and 1986 Censuses, the proportion of the population living in rural areas actually increased from 13.9 per cent to 14.5 per cent, while the proportion of State populations living in the capital cities of Sydney, Melbourne and Brisbane declined slightly. Parallel with this has been an emerging trend since the 1970s towards selective rapid growth of smaller coastal towns in Queensland and New South Wales which have favoured the development of retirement, recreation and tourist amenities.

Australia's two dominant population centres — Sydney (3.7 million) and Melbourne (3.1 million) — both in the south-east, accounted for 39.4 per cent of the total population in June 1990 (table 6.3). The next largest city is Brisbane (1.3 million). Sydney and Melbourne have traditionally been the favoured ports of entry for overseas arrivals and are the capitals of the two most populous States — New South Wales and Victoria respectively. In these and every other State and Territory the capital city is the largest population centre. Most capitals are many times the size of the next largest town. All capitals, with the exception of the national capital (Canberra) are located on the coast. The capital city of the Northern Territory, Darwin, is the only capital outside the south-eastern and south-western coastal regions.

After New South Wales and Victoria, which had populations of 6.0 million and 4.5 million respectively at 30 June 1992, the State and Territory populations were, in order of size, Queensland (3.0 million), Western Australia (1.7 million), South Australia (1.5 million), Tasmania (0.5 million), the Australian Capital Territory (0.3 million) and the Northern Territory (0.2 million) (table 6.4).

6.2 URBAN-RURAL DISTRIBUTION OF PERSONS(a) (per cent(b))

Census	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
				URBAN					
1921	67.8	62.3	52.1	60.0	59.3	50.5	36.2	—	62.1
1947	71.9	71.0	59.7	69.4	64.6	58.9	23.4	89.7	68.7
1954	82.6	81.3	73.0	74.5	71.0	65.9	65.9	93.3	78.7
1961	85.1	84.8	75.9	78.8	73.2	70.4	39.6	96.0	81.7
1966	86.4	85.5	76.4	82.4	75.7	70.3	53.4	96.1	82.9
1971	88.6	87.7	79.4	84.6	81.5	74.2	64.1	97.8	85.6
1976	88.7	87.9	80.2	84.9	83.5	74.9	66.4	98.4	86.0
1981	88.2	87.8	79.1	84.9	84.6	75.1	74.2	99.0	85.7
1986	87.9	87.4	78.9	84.6	84.7	74.5	71.7	99.1	85.4
				RURAL					
1921	31.6	37.3	47.5	39.4	39.1	49.2	62.1	99.7	37.4
1947	27.9	28.9	40.1	30.3	34.9	40.9	75.4	10.4	31.1
1954	17.2	18.4	26.8	25.2	28.7	33.9	32.7	6.7	21.0
1961	14.6	15.0	24.0	20.8	26.4	29.4	59.9	4.0	18.1
1966	13.4	14.4	23.5	17.5	23.9	29.6	46.1	3.9	16.9
1971	11.3	12.2	20.4	15.3	18.2	25.7	35.4	2.2	14.3
1976	11.1	12.1	19.7	15.0	16.3	24.9	33.0	1.6	13.9
1981	11.8	12.1	20.8	15.1	15.3	24.8	25.3	1.0	14.2
1986	12.0	12.5	21.0	15.3	15.0	25.4	27.7	0.9	14.5

(a) Census counts by place of enumeration. Excludes full-blood Aboriginals prior to 1961. (b) Urban and rural proportions do not add up to 100 per cent as the proportion of migratory population is not included.

Source: Census 86 — Summary Characteristics of Persons and Dwellings, New South Wales (2479.0); Victoria (2480.0); Queensland (2481.0); Western Australia (2482.0); South Australia (2483.0); Tasmania (2484.0); Northern Territory (2485.0); Australian Capital Territory (2486.0); Australia (2487.0).

6.3 ESTIMATED RESIDENT POPULATION OF CAPITAL CITIES

	1971	*1976*	*1981*	*1986*	*1989*	*1990*
			POPULATION (PERSONS)			
Sydney	2,935,937	3,143,750	3,279,500	3,472,700	3,633,600	3,656,500
Melbourne	2,503,022	2,723,700	2,806,300	2,931,900	3,043,500	3,080,900
Brisbane	869,579	1,000,850	1,096,200	1,196,000	1,273,500	1,301,700
Adelaide	842,693	924,060	954,300	1,003,800	1,037,700	1,049,800
Perth	703,199	832,760	922,040	1,050,400	1,161,200	1,193,100
Hobart	153,216	164,400	171,110	179,000	181,200	183,500
Darwin	38,885	44,232	56,478	74,800	72,900	73,300
Canberra(a)	159,003	226,450	246,500	281,000	303,200	310,100
(b)	142,925	206,550	226,450	257,850	277,700	284,000
Total	**8,205,534**	**9,060,202**	**9,532,428**	**10,189,600**	**10,706,700**	**10,848,900**
			PROPORTION OF STATE POPULATION (PER CENT)			
Sydney	63.8	63.4	62.7	62.8	63.0	62.8
Melbourne	71.5	71.5	71.1	70.1	70.4	70.3
Brisbane	47.6	47.8	46.7	45.6	44.9	44.8
Adelaide	71.8	72.5	72.3	72.6	72.8	73.0
Perth	68.2	70.7	70.9	72.0	72.8	73.0
Hobart	39.2	39.9	40.1	40.1	40.2	40.2
Darwin	45.0	45.0	46.1	48.4	46.6	46.6
Canberra(b)	99.2	99.4	99.5	99.6	99.6	99.6
Total	**64.3**	**64.6**	**63.9**	**63.6**	**63.5**	**63.3**

(a) Canberra Statistical District. (b) Excluding Queanbeyan.

Source: Estimated Resident Population of Statistical Local Areas, New South Wales, Preliminary (3210.1); Estimated Residential Population in Statistical Local Areas, Victoria, Preliminary (3203.2); Estimated Resident Population and Area, Queensland (3202.3); Estimated Resident Population in Statistical Local Areas, South Australia, Preliminary (3201.4); Estimated Resident Population in Statistical Local Areas, Western Australia, Preliminary (3204.5); Population Statistics, Tasmania (3204.6); Estimated Resident Population of Selected Areas, Northern Territory, Preliminary (3201.7); Estimated Resident Population in Statistical Local Areas, Australian Capital Territory (3205.8).

6.4 ESTIMATED RESIDENT POPULATION OF AUSTRALIA

30 June	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
1981	5,234,889	3,946,917	2,345,208	1,318,769	1,300,056	427,224	122,616	227,581	14,923,260
1986	5,531,526	4,160,856	2,624,595	1,382,550	1,459,019	446,473	154,421	258,910	16,018,350
1987	5,613,072	4,206,582	2,674,473	1,392,006	1,494,467	449,321	158,354	265,184	16,253,459
1988	5,702,705	4,257,249	2,739,557	1,403,951	1,532,638	451,273	159,222	271,774	16,518,369
1989	5,772,742	4,314,396	2,828,337	1,418,203	1,576,417	455,466	161,375	276,129	16,803,065
1990	5,827,026	4,369,510	2,899,642	1,430,741	1,609,541	462,549	163,953	281,689	17,044,651
1991	5,902,411	4,416,320	2,966,090	1,447,172	1,636,783	466,908	166,657	289,703	17,292,044
1992	5,974,146	4,458,895	3,037,405	1,459,622	1,662,777	471,118	168,643	296,376	17,528,982

Source: Australian Demographic Statistics (3101.0); Estimated Resident Population by Sex and Age: States and Territories of Australia (3201.0).

Demographic factors currently acting on the relative size of the States are above average rates of natural increase in Queensland, Western Australia and the two Territories, above average per capita overseas migration gains in New South Wales, Victoria and Western Australia and high per capita interstate migration gains in Queensland and the Australian Capital Territory. State population growth rates in the year ended June 1992 were, in order of size, Queensland (2.4%), Australian Capital Territory (2.3%), Western Australia (1.6%), New South Wales (1.2%), Northern Territory (1.2%), Victoria (1.0%), Tasmania (0.9%) and South Australia (0.9%). The growth rate for Australia as a whole was 1.4 per cent.

Age/sex profile

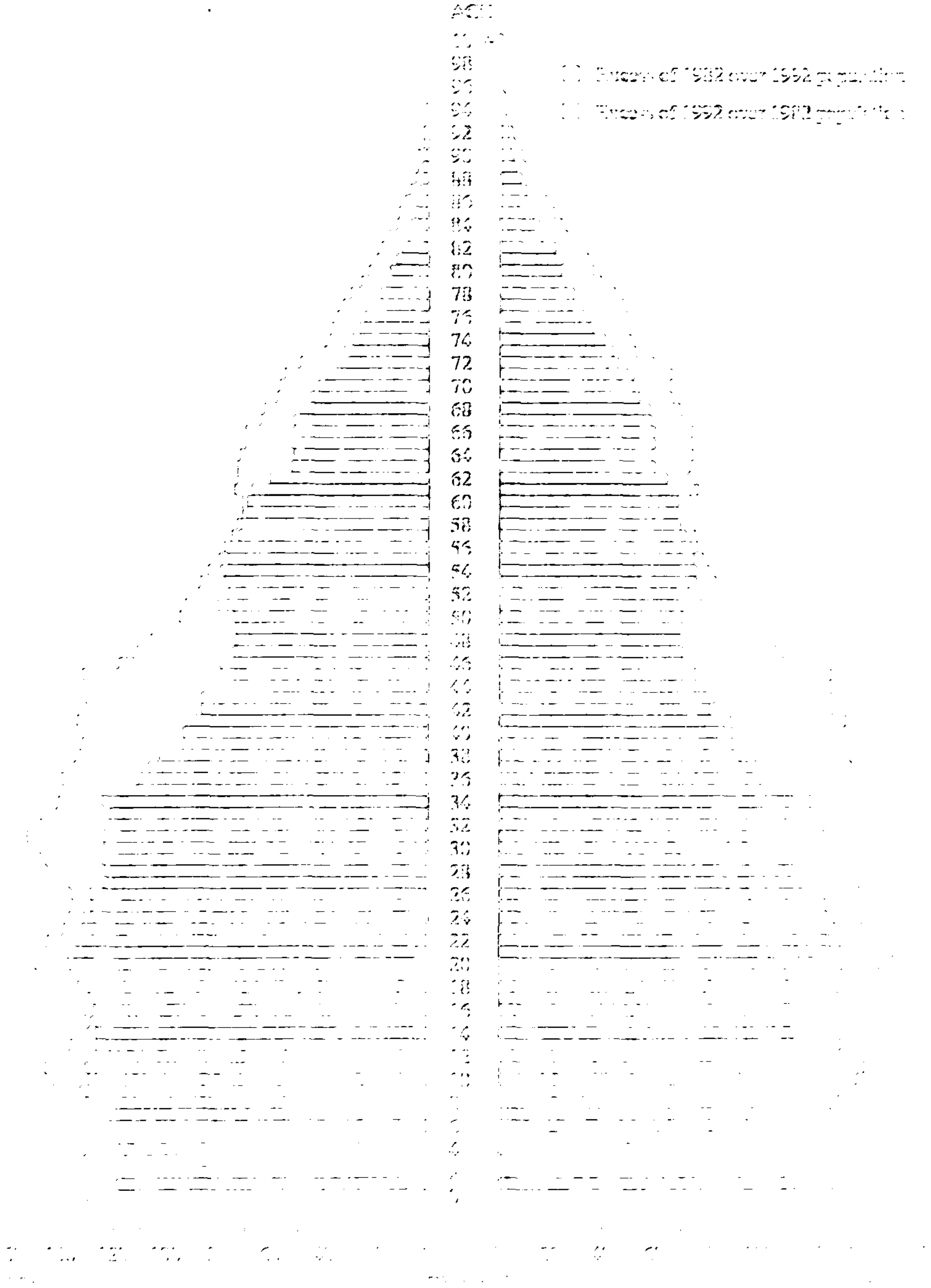
The sex ratio of the population is expressed as the number of males per 100 females. This ratio declines with age: it is about 105 at birth, but, leaving aside inward or outward migration, higher male mortality gradually erodes the difference so that the numbers of males and females would tend to be about the same soon after age 60. From then on, due to continuing mortality differentials in favour of females, the female population begins to exceed males and this excess increases towards older ages. The overall sex ratio of the population has been declining since the 1950s as the overseas migration intake has become less male dominated (*see* Migration section of this chapter). In 1992 the Australian population had 99.3 males for every 100 females.

The age distribution of the population is shown in graph 6.5 in the form of an age–sex pyramid, comparing the years 1982 and 1992. The low birth rates of the depression years of the 1930s, the deaths of defence personnel during World War II, the prolonged 'baby boom' from the end of World War II to the early 1960s, the declining birth rate of the 1970s and 1980s are all reflected in the profile.

The median age of the population at 30 June 1992 was 32.6 years. It has been rising consistently since the beginning of the 1970s as a result of lower birthrates as well as lower mortality rates at most ages. (The proportion of the population aged 65 years and over has risen from 9.9% in 1982 to 11.4% in 1992.) In descending order, the median ages of the State populations were South Australia (33.8), New South Wales (33.1), Victoria (32.7), Tasmania (32.6), Queensland (32.1), Western Australia (31.8), Australian Capital Territory (29.7) and the Northern Territory (27.3). All States have been steadily rising.

As a consequence of changes in the age distribution, the aged-dependency ratio (population aged 65 and over per 100 population of working ages 15 to 64) has increased from 15.1 in 1982 to 17.0 in 1992, while the child-dependency ratio (population aged 0 to 14 per 100 population of working ages) has declined sharply from 37.7 to 32.7 during the same period. The combined effect is that the total dependency ratio has declined from 52.8 in 1982 to 49.7 in 1992.

6.5 ESTIMATED RESIDENT POPULATION OF AUSTRALIA 30 JUNE 1982 AND 1992



Source: Estimated Resident Population by Sex and Age: States and Territories of Australia (3201.0).

6.6 SEX RATIOS, PERCENTAGE AGE DISTRIBUTION AND MEDIAN AGES OF THE POPULATION

					Sex ratios(a) at ages
30 June	*0–14*	*15–44*	*45–64*	*>64*	*Total*
1981	104.6	103.4	100.4	72.6	99.6
1986	105.1	103.1	102.6	72.9	99.8
1987	105.1	102.9	102.8	73.5	99.7
1988	105.1	102.8	103.0	73.9	99.7
1989	105.0	102.8	103.2	74.5	99.7
1990	105.0	102.0	103.2	75.1	99.5
1991	105.0	101.7	103.2	75.7	99.4
1992	105.0	101.5	103.2	76.2	99.3
					Per cent of population aged
30 June	*0–14*	*15–44*	*45–64*	*>64*	*Median ages(b)*
1981	25.0	46.1	19.2	9.8	29.6
1986	23.1	47.3	19.1	10.5	31.1
1987	22.7	47.6	19.0	10.7	31.3
1988	22.4	47.8	19.0	10.8	31.6
1989	22.2	47.9	19.0	10.9	31.8
1990	22.0	47.8	19.2	11.0	32.2
1991	21.9	47.6	19.3	11.2	32.3
1992	21.8	47.2	19.6	11.4	32.6

(a) Males per 100 females. (b) The median age is the age at which half of the population is older and half is younger.
Source: Estimated Resident Population by Sex and Age: States and Territories of Australia (3201.0).

6.7 DEPENDENCY RATIOS(a) FOR CHILDREN AND THE AGED, AT 30 JUNE

Age group (years)	*1971*	*1976*	*1981*	*1986*	*1990*	*1991*	*1992*
0–14	45.53	42.11	38.24	34.78	32.71	32.85	32.68
>64	13.25	13.93	14.93	15.81	16.66	16.73	17.00
Total	**58.78**	**56.04**	**53.17**	**50.59**	**49.37**	**49.58**	**49.68**

(a) A dependency ratio is the ratio of the dependant population (aged 0 to 14 and 65 and over) per 100 population of working ages (15 to 64 years).
Source: Estimated Resident Population by Sex and Age: States and Territories of Australia (3201.0).

Marital status

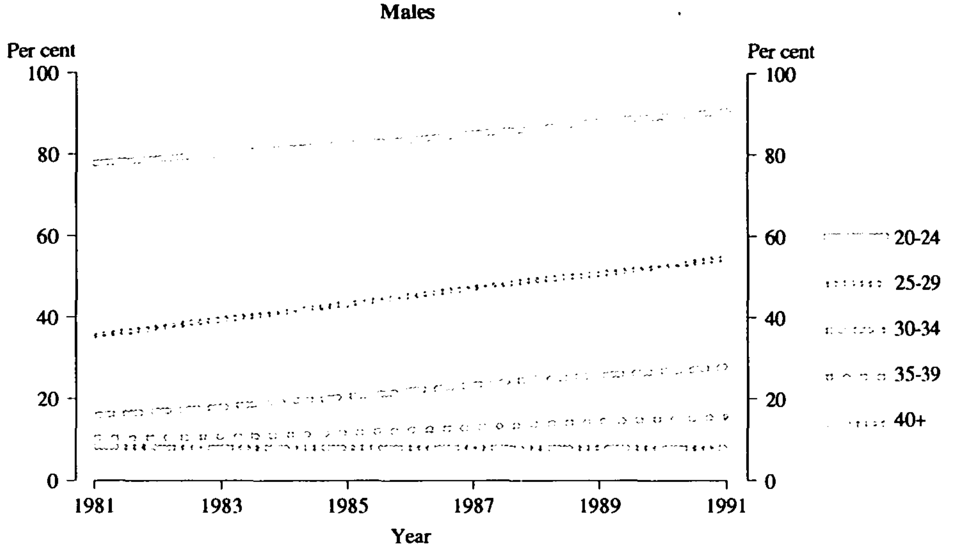
Between 1976 and 1991 the total population aged 15 and over increased by 32.4 per cent. Of these, the numbers of persons never married, married, widowed and divorced increased by 57.2, 17.7, 18.9 and 216.5 per cent respectively.

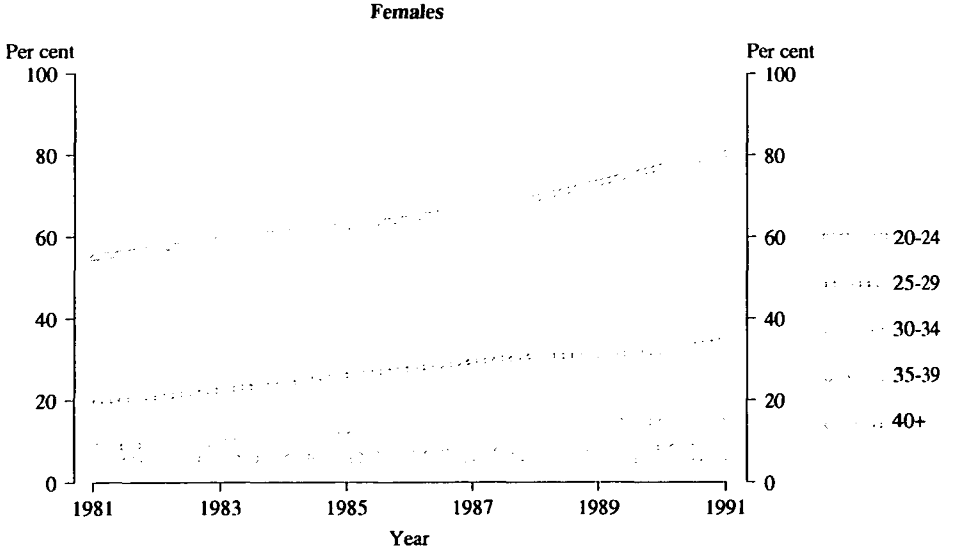
The disproportionate increase in the population of divorced persons is a reflection of the increase in divorce following introduction of the Family Law Act in 1975. However, since the beginning of the 1980s there has been a steady decline in the rate of growth of the divorced population.

Females exceed males in all categories except the never married. This arises principally from mortality differences in the higher age groups. The effect is particularly noticeable in the widowed category where females far outnumber males.

In the 'never married' category males exceed females because of higher sex ratios of the population at younger ages and also because of the customary difference in age between bride and groom at first marriage.

6.8 PROPORTION OF PERSONS NEVER MARRIED BY AGE GROUP, AT 30 JUNE





Source: Estimated Resident Population by Marital Status, Age and Sex, Australia (3220.0).

6.9 ESTIMATED RESIDENT POPULATION AGED 15 AND OVER BY MARITAL STATUS AND SEX AT 30 JUNE ('000)

	Never married	*Married(a)*	*Widowed*	*Divorced*	*Total*
1976					
Males	1,508.2	3,344.2	134.3	104.7	5,091.5
Females	1,094.8	3,354.9	576.1	128.8	5,154.5
Persons	*2,602.9*	*6,699.3*	*710.4*	*233.4*	*10,246.0*
1981					
Males	1,739.0	3,477.7	139.1	187.9	5,543.7
Females	1,310.8	3,487.6	622.2	233.5	5,654.0
Persons	*3,049.8*	*6,965.3*	*761.3*	*421.3*	*11,197.7*
1986					
Males	2,005.8	3,692.5	144.1	261.7	6,104.1
Females	1,534.2	3,704.3	654.3	322.0	6,214.7
Persons	*3,540.0*	*7,396.7*	*798.4*	*583.7*	*12,318.8*
1991p					
Males	2,297.9	3,936.9	154.5	330.0	6,719.3
Females	1,794.5	3,948.9	689.8	408.8	6,842.1
Persons	*4,092.4*	*7,885.8*	*844.3*	*738.8*	*13,561.4*

(a) Includes 'married but permanently separated'.
Source: Estimated Resident Population by Marital Status, Age and Sex, Australia (3220.0).

Birthplace

At the 1947 Census the proportion of the population (excluding Aboriginals) born in Australia had risen to its highest level (90.2%) since the beginning of European settlement and 97.9 per cent of the Australian population were either born in Australia or the United Kingdom, Ireland or New Zealand. In that Census the largest non-British overseas-born group, the Italians, comprised only 0.4 per cent of the population (33,600).

Since 1947, not only has the decline of the overseas-born population been reversed, but significant changes have taken place in the composition of that group. The progressive removal of immigration restrictions based on country of origin, race or colour between 1949 and 1973, together with the extension of assisted migration schemes to non-British groups and refugees, have ensured a greater diversity of ethnic origin among the Australian population (*see also* section on Overseas Migration). Overseas-born persons from the United Kingdom, Eire and New Zealand combined, increased only slightly as a proportion of the total population between 1947 and 1991, from 7.7 per cent to 8.7 per cent. However, overseas-born persons from other countries increased from 2.1 per cent to 14.0 per cent during the same period. Overseas countries of birth contributing 0.1 per cent or more of the total population — apart from the United Kingdom, Eire and New Zealand — increased in number from 4 in 1947 to over 36 in 1991.

The largest overseas-born group at the present time remains those born in the United Kingdom and Ireland, comprising 1,222,000 or 7.0 per cent of the population in 1991. By comparison, the second largest overseas-born group, New Zealanders, comprised only 1.7 per cent of the Australian population in 1991 (287,500). Six of the first ten largest overseas-born groups are European, the exceptions being New Zealand, Vietnam, Malaysia and Lebanon. Although Europe remains the region of origin of the majority of the overseas-born population, the number of European-born persons has declined as a proportion of the total Australian population from 15.7 per cent in 1981 to 13.9 per cent in 1991, while persons born in other regions have increased their share. Between 1981 and 1991, the European-born population increased by only 64,100 compared with an increase of 440,000 in the Asian-born population.

6.10 MAJOR COUNTRIES OF BIRTH OF THE POPULATION AT 30 JUNE ('000)

Country of birth	*1976*	*1981*	*1986*	*p1991*
Australia	11,196.9	11,812.3	12,623.5	13,395.5
UK and Ireland	1,166.7	1,175.7	1,179.3	1,222.0
New Zealand	90.1	175.7	218.0	287.5
Italy	291.1	285.3	273.0	261.6
Yugoslavia	151.2	156.1	158.8	167.2
Greece	162.1	153.2	146.8	145.8
Vietnam	2.5	43.4	87.7	133.4
Germany	112.8	115.2	120.6	121.0
Netherlands	97.1	100.5	100.4	97.6
Malaysia	19.9	32.5	49.3	84.1
Lebanon	35.3	52.7	59.5	75.4
Other	707.4	820.7	1,001.5	1,344.8
Total overseas	*2,836.2*	*3,111.0*	*3,394.9*	*3,940.4*
Total	**14,033.1**	**14,923.3**	**16,018.4**	**17,335.9**

Source: Estimated Resident Population by Country of Birth, Age and Sex, Australia (3221.0).

Of the three categories of Asian countries (north-east, South-East and southern) it is the people born in South-East Asia who comprise the greatest numbers in the Australian population. In 1991 there were 404,600 South-East Asian people, an increase of 246,900 or 156 per cent since 1981. However the group with the highest percentage increase over the same period is north-east Asia which has risen by 244 per cent from 56,800 in 1981 to 195,600 in 1991. This increase has mainly comprised people from China and Hong Kong. The numbers of people from southern Asia (India, Pakistan, Sri Lanka, etc.) have increased by 88 per cent from 61,600 to 115,900. Predominant countries of birth of Australia's Asian populations are Vietnam (133,400), Malaysia (84,100), Philippines (74,300), Hong Kong (73,200), China (68,500) and India (65,400).

In June 1991 the median age of the overseas-born population was 42.3 years, 10 years older than the median (32.6 years) for the population as a whole. The median age of the Australian-born population was 28.9 years. Overseas-born population groups from recent source countries, for example, Lebanon, South-East Asia, South America and South Africa are noticeably younger than those from European sources.

At the 1986 Census, 77.6 per cent of persons were born in Australia. Of these, 74.9 per cent reported Australia as the birthplace of both their parents. This implies that 58.1 per cent of the total population of Australia are at least second generation Australians. A further 13.7 per cent of the Australian-born population (10.6% of the total population) had one parent born in Australia. Conversely, 41.9 per cent of the total population were either born overseas or had at least one parent born overseas.

6.11 BIRTHPLACE OF PARENTS OF AUSTRALIAN-BORN PERSONS, 30 JUNE 1986(a)

Birthplace of parents	*Numbers*	*Per cent*
Both parents born in Australia	9,070,739	74.9
One parent born in Australia, one born overseas or not stated	1,657,548	13.7
Other	1,382,169	11.4
Total	**12,110,456**	**100.0**

(a) Census counts, place of enumeration.
Source: Census 86 — Summary Characteristics of Persons and Dwellings, Australia (2487.0).

Citizenship

The granting of citizenship is controlled by the *Australian Citizenship Act 1948*. Prior to 26 January 1949, persons who were naturalised became British subjects but with the introduction of the Act, all such persons automatically became Australian citizens.

Citizenship may be acquired by birth in Australia provided that at the time of birth one of the parents is an Australian citizen or legal resident of Australia, by birth abroad to an Australian parent, or by grant of citizenship to a person resident in Australia under conditions prescribed in the Act. All persons are now eligible for Australian citizenship provided that they have resided in Australia for at least two years, are of good character, have an adequate knowledge of English and of the responsibilities and privileges of citizenship, and intend to reside permanently in Australia.

At the 1981 Census, 88.7 per cent of the population were Australian citizens, with 11.9 per cent of these being born overseas. At the 1986 Census the proportion of the population with Australian citizenship was identical to the 1981 level, but the share of those born overseas increased to 12.3 per cent.

6.12 COUNTRY OF CITIZENSHIP(a)

	Persons		*Per cent*	
Country	*1981*	*1986*	*1981*	*1986*
Australia				
Born in Australia	11,393,861	11,917,624	78.2	76.4
Born overseas	1,537,212	1,919,474	10.5	12.3
Other	1,413,654	1,331,335	9.7	8.5
Not stated	231,603	433,723	1.6	2.8
Total	**14,576,330**	**15,602,156**	**100.0**	**100.0**

(a) Census counts, place of enumeration.
Source: Census 86 — Summary Characteristics of Persons and Dwellings, Australia (2487.0).

Religion

Details on religious affiliation have been collected in all Australian censuses. However, since the 1933 Census, it has been clearly stated on the census form that answering the question on religion is not obligatory. By 1986, 25.0 per cent of persons were reported as either having 'no religion' or did not answer the question.

Census data show that the Australian population is predominantly Christian with the majority associating themselves with the two major groups, Catholic and Anglican (26.1% and 23.9% respectively at the 1986 Census).

6.13 MAJOR RELIGIOUS GROUPS(a)
(per cent of population)

Year	*Catholic*	*Anglican*	*Other Christian*	*Total Christian*	*Non-Christian*	*Not stated or no religion*	*Total*
1971	27.0	31.0	28.2	86.2	0.8	13.1	100.0
1976	25.7	27.7	25.2	78.6	0.9	20.5	100.0
1981	26.0	26.1	24.3	76.4	1.4	22.3	100.0
1986	26.1	23.9	23.0	73.0	2.0	25.0	100.0

(a) Census counts, place of enumeration.
Source: Census of Population and Housing, 30 June 1971 — Bulletin 1: Summary of Population, Australia (2.83.9); Census of Population and Housing, 30 June 1976 — Population and Dwellings Summary Tables, Australia (2417.0); Census 86 — Summary Characteristics of Persons and Dwellings, Australia (2487.0) (1981, 1986).

The remainder of the Christian population, amounting to 23 per cent of the total population at the 1986 Census, is dispersed between several other groups, with only three denominations comprising more than 2.0 per cent of the population: the Uniting Church (7.6%), Presbyterian (3.6%) and Orthodox (2.7%).

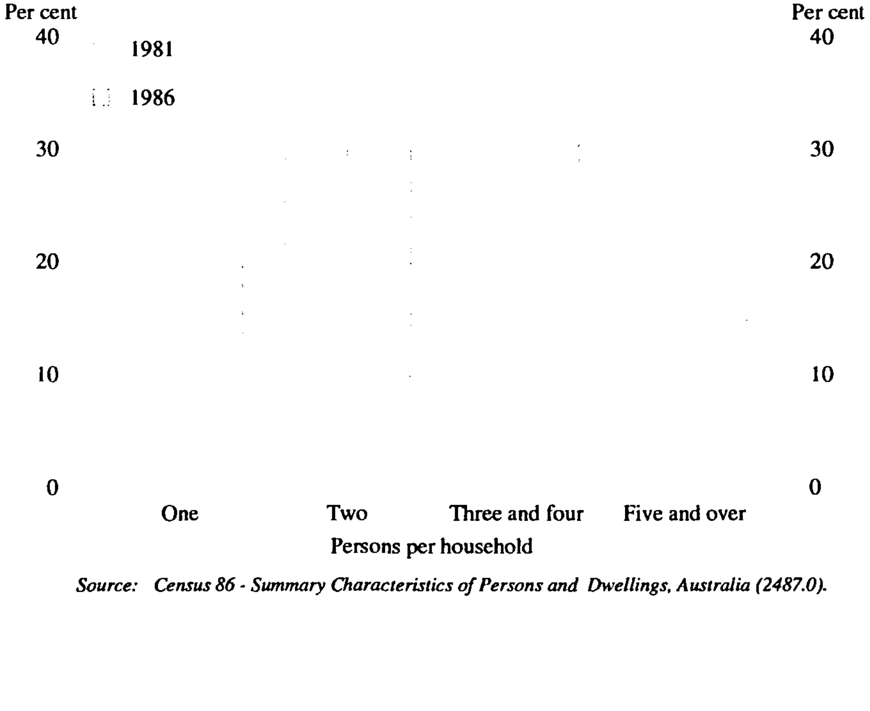
There has been a slight increase in the proportion of persons of non-Christian religions since 1981, from 1.4 per cent to 2.0 per cent in 1986. At the 1986 Census, Muslims comprised 35.0 per cent of the non-Christian response, Buddhists 25.0 per cent and Jews 20.0 per cent.

Households

The incidence of household formation in Australia has been exceeding population growth rates, with the average number of persons per household declining from 3.3 in 1971 to 2.9 in 1986. Much of the decline in the number of persons per household can be attributed to reductions in completed family size together with the tendency for children to leave home earlier. In addition, with increasing longevity, more elderly people are maintaining separate households. At the same time there have been changing social attitudes to divorce, people living alone, de facto relationships and households formed by groups of unrelated young people. There has been continuing growth in one and two-person households, rising from 47.2 per cent of all households in 1981 to 49.5 per cent at the 1986 Census.

Only a small proportion of households include more than one family, some three per cent at the 1981 Census, which declined further to 2.4 per cent at the 1986 Census. The 1986 Census indicated that 47.6 per cent of total families had no dependent children and 52.4 per cent did have dependent children. Among families with dependent children, 35.9 per cent had one child and 64.1 per cent had two or more dependent children. Single parent families comprised 7.9 per cent of total families and were mostly composed of parent and dependent children (76.3%); the balance included an additional adult family member (23.7%).

6.14 PROPORTION OF HOUSEHOLDS BY SIZE



Source: Census 86 - Summary Characteristics of Persons and Dwellings, Australia (2487.0).

6.15 PERSONS(a) IN PRIVATE HOUSEHOLDS

Census year	*Persons in private households*	*Private households*	*Persons per private household*
1971	12,155,386	3,670,554	3.31
1976	12,942,708	4,140,521	3.12
1981	13,918,445	4,668,909	2.98
1986	14,920,230	5,187,422	2.88

(a) Census counts, place of enumeration.
Source: Census 86 — Summary Characteristics of Persons and Dwellings, Australia (2487.0).

6.16 FAMILY TYPE AND COMPOSITION, AT 30 JUNE 1986(a)

Family type	*Number*	*Per cent*
Families without dependent children		
Couple	1,271,872	30.6
Couple and adult family member	449,208	10.8
Related adults	258,768	6.2
Families with dependent children		
Couple and 1 dependent child	403,298	9.7
Couple and 2 or more dependent children	1,072,968	25.8
Couple and 1 dependent child and adult family member	206,496	5.0
Couple and 2 or more dependent children and adult family member	171,230	4.1
Single parent and 1 dependent child	124,166	3.0
Single parent and 2 or more dependent children	123,016	3.0
Single parent and 1 dependent child and adult family member	48,054	1.2
Single parent and 2 or more dependent children and adult family member	28,935	0.7
Total families	**4,158,011**	**100.0**

(a) Census counts, place of enumeration.
Source: Census 86 — Summary Characteristics of Persons and Dwellings, Australia (2487.0).

VITAL STATISTICS

Registration of vital events, that is, births, deaths and marriages, has been compulsory throughout Australia since 1856. The total number of these registrations is available for each yea: since the 1860s and more detailed information since the 1910s. The number of divorces has been published since 1891, but detailed data on aspects of divorces and divorcing couples have been published on a consistent basis only since the 1950s.

Births

Recent fertility levels in Australia have been lower than at any time since records began. In 1991 the crude birth rate was 14.9 per 1,000 population and the total fertility rate was 1.85 per woman. Australia's current fertility rates, however, remain higher than in several other similar 'more developed' countries in Europe, North America and Japan (table 6.17).

Despite an overall fertility decline, the number of births has shown an increasing trend during the 1980s because of increasing numbers of women of reproductive age. The number of births in 1991 (257.2 thousand), although a decline on 1990 (262.6 thousand), has sustained the trend. The record number of births registered in Australia occurred in 1971 (276.4 thousand).

Women now tend to commence child-bearing later and complete their families in a shorter period than previous generations. The proportion of first nuptial confinements occurring in the first two years of marriage is continuing to decline although now more slowly than in the 1970s. For women married in 1981 the proportion was 35.5 per cent, but for women married in 1989 it had fallen to 33.4 per cent. This postponement of child-bearing in marriage is having a cumulative effect in the context of the rising median age at marriage (23.3 years in 1981 and 26.0 years in 1991).

In the 1970s, fertility declines became obvious across all age-groups, falling rapidly between 1971 and 1980, and marginally since then. This decline has been attributed to demographic, social, economic and attitudinal changes of the 1970s, which individually or collectively influenced fertility behaviour during this period. Between 1971 and 1991, the total fertility rate declined by 37 per cent and fell five per cent between 1981 and 1991. Declines in the age specific fertility rates, between 1981 and 1991, occurred to women aged under 30 years, particularly to those in the 20 to 24 years age group. Age specific fertility rates for women aged 30 to 44 years increased with the 35 to 39 years age group recording the greatest percentage increase at 47 per cent (table 6.18).

In 1981, 74 per cent of all births were to mothers aged under 30 years. By 1991 the corresponding percentage was 62 per cent. The 25 to 29 years age group remains the peak fertility group.

Table 6.20 shows the trend towards a first child being born later in marriage.

6.17 CRUDE BIRTH RATES AND TOTAL FERTILITY RATES, SELECTED LOW FERTILITY COUNTRIES

	Crude birth rate			*Total fertility rate(a)*		
Country	*1970*	*Latest year*		*1970*	*Latest year*	
Australia	20.6	14.9	(1991)	2.86	1.85	(1991)
Canada	17.4	15.0	(1989)	2.26	1.66	(1987)
France	16.7	13.5	(1990)	2.47	1.80	(1990)
Germany(b)	13.3	11.5	(1990)	2.01	1.48	(1990)
Germany(c)	13.9	10.5	(1990)	n.a.	1.41	(1990)
Italy	16.8	9.8	(1990)	2.37	1.27	(1990)
Japan	18.8	10.0	(1990)	2.13	1.57	(1989)
New Zealand	22.1	17.5	(1989)	3.17	2.10	(1989)
Spain	19.6	10.2	(1990)	2.87	1.33	(1990)
United Kingdom	16.2	13.9	(1990)	2.38	1.85	(1990)
United States of America	18.2	16.7	(1990)	2.46	2.09	(1990)

(a) The total fertility rate is the sum of the age-specific birth rates. It represents the number of children that would be born to a female who experienced, throughout her child-bearing life, the age specific rates for the years shown. (b) Formerly West Germany. (c) Formerly East Germany.

Source: Population No. 4, 1991, Review of L'Institut National D'Etudes Demographique, Paris.

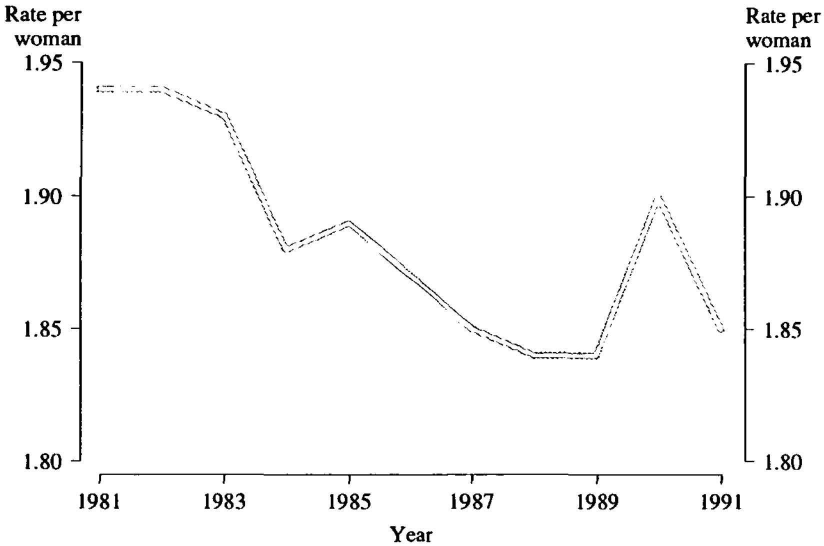
6.18 AGE-SPECIFIC BIRTH RATES AND TOTAL FERTILITY

	Age group (years)							*Total fertility (per woman)*
	15–19(a)	*20–24*	*25–29*	*30–34*	*35–39*	*40–44*	*45–49(b)*	
Period						*per '000 women*		
Census years								
1981	28.2	107.5	145.2	77.6	24.5	4.5	0.3	1,938
1986	21.8	90.0	141.9	88.7	27.2	4.3	0.2	1,870
1991	22.1	74.3	131.6	99.8	36.0	5.5	0.2	1,847
Annual								
1986	21.8	90.0	141.9	88.7	27.2	4.3	0.2	1,870
1987	20.6	85.0	139.6	90.6	28.9	4.8	0.3	1,849
1988	20.2	81.4	136.9	93.3	30.6	4.6	0.2	1,836
1989	20.6	78.2	135.4	96.0	32.7	5.1	0.2	1,840
1990	22.0	79.0	137.9	101.6	34.7	5.5	0.2	1,904
1991	22.1	74.3	131.6	99.8	36.0	5.5	0.2	1,847

(a) Includes births to mothers aged less than 15. (b) Includes births to mothers aged 50 and over.

Source: Births, Australia (3301.0).

6.19 TOTAL FERTILITY RATE



Source: Births, Australia (3301.0).

6.20 MARRIED FEMALES UNDER 45 YEARS OF AGE AT TIME OF MARRIAGE, YEAR MARRIED AND TIMING OF FIRST NUPTIAL CONFINEMENT

Year of marriage	*Premaritally pregnant(b)*	*Having the first nuptial confinement before the end of given year of marriage duration(a) — cumulative per cent*						*Number of brides aged under 45 years*
		1	*2*	*3*	*4*	*5*	*10*	
1971	19.8	28.1	46.4	60.5	70.5	77.0	87.0	112,817
1972	18.0	25.5	43.7	57.9	68.0	74.9	86.3	109,007
1973	15.6	22.8	41.0	54.7	64.8	72.0	84.5	107,563
1974	13.4	20.6	38.0	51.5	61.7	69.0	82.4	105,759
1975	12.2	19.2	36.7	50.3	60.6	68.3	82.6	98,951
1976	10.9	17.2	33.5	46.0	55.7	63.0	76.2	103,108
1977	11.1	17.6	34.1	46.9	57.0	64.5	77.4	98,551
1978	11.3	17.7	34.6	47.7	57.8	65.1	77.7	96,859
1979	11.3	17.7	35.4	48.8	58.7	65.7	78.2	98,286
1980	11.5	17.9	35.6	48.9	58.6	65.5	77.6	103,019
1981	11.3	17.9	35.5	48.3	57.8	64.6	74.1	107,855
1982	10.4	16.8	33.7	46.0	55.3	61.8	—	111,295
1983	9.9	16.0	33.0	45.8	55.0	61.6	—	108,931
1984	10.1	16.6	34.8	48.1	57.8	64.9	—	102,785
1985	9.2	15.4	32.3	44.5	53.5	60.2	—	109,377
1986	8.9	15.0	31.6	43.8	53.0	60.7	—	108,442
1987	9.0	15.4	32.1	44.7	53.3	—	—	107,668
1988	9.2	15.8	32.8	45.2	—	—	—	110,163
1989	9.3	16.3	33.4	—	—	—	—	110,245
1990	9.1	16.1	—	—	—	—	—	109,737

(a) Includes premarital pregnancies. (b) Premaritally pregnant comprises wives who delivered their first child within marriage duration of 0 to 7 completed months.

Source: Births, Australia (3301.0).

6.21 TOTAL CONFINEMENTS BY NUPTIALITY AND PREVIOUS ISSUE TO THE CURRENT MARRIAGE OF MOTHER (NUPTIAL BIRTHS)

Period	Ex-nuptial confine-ments	Married mothers with number of previous issue to the current marriage of							Total
		0	1	2	3	4	>4	Not stated	
Census years									
1981	30,956	82,476	67,627	35,445	11,750	3,282	1,993	6	233,535
1986	40,580	80,563	70,017	33,937	10,955	2,904	1,723	20	240,699
1991	58,603	81,179	67,055	32,231	10,300	2,811	1,680	—	253,859
Annual									
1986	40,580	80,563	70,017	33,937	10,955	2,904	1,723	20	240,699
1987	43,418	80,241	68,730	33,472	10,793	2,873	1,742	—	241,269
1988	46,293	79,841	68,432	33,419	10,650	2,856	1,699	3	243,193
1989	50,321	81,356	67,459	33,066	10,856	2,874	1,688	3	247,622
1990	56,850	84,228	68,301	34,026	11,179	3,089	1,761	—	259,435
1991	58,603	81,179	67,055	32,231	10,300	2,811	1,680	—	253,859

(a) These figures have been affected by late registration in New South Wales.
Source: Births, Australia (3301.0).

Concurrent with the downward movement that has occurred in the levels of fertility, the family formation patterns have changed. An increasing proportion of total births has been occurring outside marriage, and for those occurring within marriage the number of births per mother is declining.

The median age of mothers at the birth of their child has continued to rise. The median age of mothers has increased from 26.7 years in 1981 to 28.5 years in 1991. Similarly, the median age of fathers of nuptial confinements has increased from 29.8 years in 1981 to 31.6 years in 1991 (table 6.22).

The proportion of females having three or more children in their marriage is continuing to decline. However, the substantial rate of decline observed between 1971 and 1981 in the proportion of nuptial confinements to women with larger families has since slowed considerably. Of the nuptial confinements registered in 1991, 76 per cent resulted in first or second born children.

6.22 CONFINEMENTS: MEDIAN AGE OF PARENTS

Period	Median age of mother					Median age of father	
	First nuptial	All nuptial	Ex-nuptial	Paternity acknow-ledged	Total	All nuptial	Paternity acknow-ledged
Census years							
1981	25.3	27.1	22.1	22.9	26.7	29.8	26.0
1986	26.5	28.1	23.3	23.8	27.5	30.6	26.6
1991	27.8	29.3	24.1	24.5	28.5	31.6	27.3
Annual							
1986	26.5	28.1	23.3	23.8	27.5	30.6	26.6
1987	26.8	28.3	23.6	24.1	27.7	30.8	26.8
1988	27.1	28.6	23.8	24.3	28.0	31.0	27.0
1989	27.3	28.8	24.0	24.5	28.2	31.2	27.2
1990	27.6	29.0	24.0	24.5	28.3	31.4	27.3
1991	27.8	29.3	24.1	24.5	28.5	31.6	27.3

Source: Births, Australia (3301.0).

The long established upward trend in the proportion of births that are ex-nuptial is continuing. In 1991, 23 per cent of all births registered were ex-nuptial. This compares with 13 per cent in 1981. While the percentage of births that are ex-nuptial is increasing the percentage of these births where paternity has been acknowledged has also increased significantly from 61 per cent in 1981 to 79 per cent in 1991 (table 6.23).

6.23 EX-NUPTIAL BIRTHS

Period	*Ex-nuptial*	*Paternity acknowledged*
Census years		
1981	31,200	18,885
1986	40,950	28,893
1991	59,223	47,064
Annual		
1986	40,950	28,893
1987	43,806	31,972
1988	46,768	34,773
1989	50,788	38,572
1990	57,407	44,257
1991	59,223	47,064

Source: Births, Australia (3301.0).

Deaths

In comparison with other countries, Australia ranks amongst those with the lowest mortality levels and the highest expectations of life.

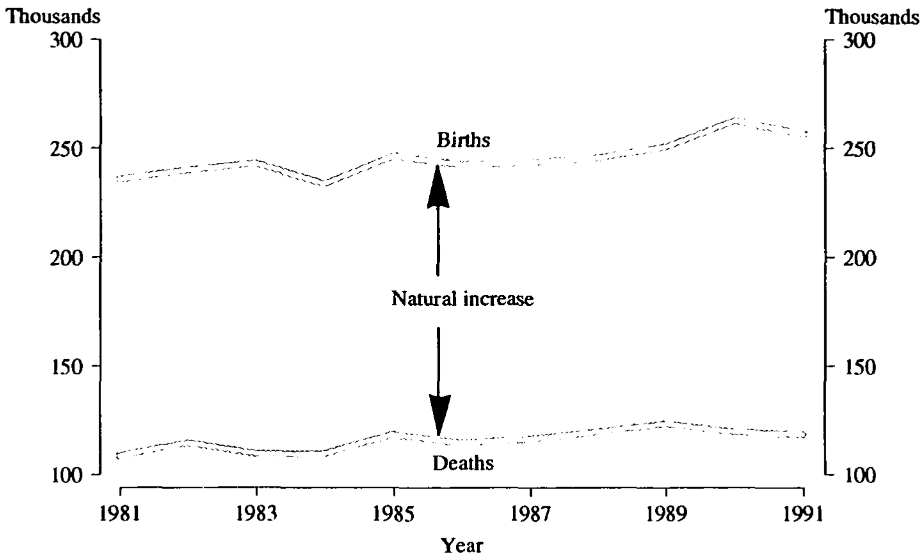
The number of deaths in 1991 was 119,146, a decline of 0.8 per cent from the previous year which, in terms of the crude death rate, resulted in a slight decrease from 7.0 to 6.9 per thousand population. Generally, the current trend is towards a levelling of the crude death rate following two decades of consistent falls.

6.24 INFANT MORTALITY RATES AND EXPECTATION OF LIFE AT BIRTH IN SELECTED LOW MORTALITY COUNTRIES, RECENT YEARS

	Infant mortality		*Life expectancy at birth*		
Country	*Rate*	*Year*	*Males*	*Females*	*Year*
Australia	7.1	1991	74.4	80.3	1991
Canada	7.2	1988	73.3	80.2	1987
France	7.2	1990	72.4	80.6	1989
Germany(a)	7.5	1989	72.6	79.0	1989
Germany(b)	7.6	1989	70.1	76.4	1989
Italy	8.6	1990	73.2	79.7	1988
Japan	4.6	1989	75.9	81.8	1989
New Zealand	10.2	1989	71.6	77.6	1988
Spain	7.6	1990	73.2	79.8	1987
United Kingdom	7.9	1990	72.2	77.9	1988
United States	9.1	1990	71.4	78.3	1988

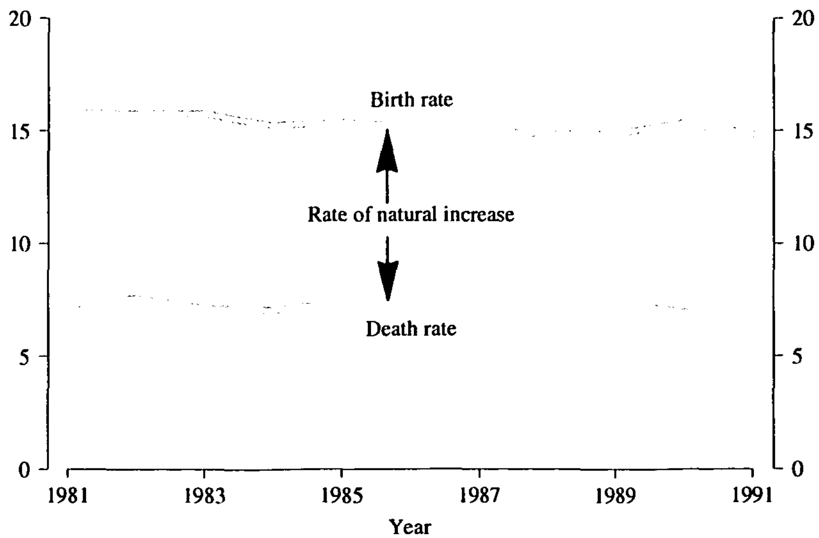
(a) Formerly West Germany. (b) Formerly East Germany.
Source: Population No.4 1991, Review of L'Institut National D'Etudes Demographique, Paris.

6.25 NUMBER OF BIRTHS AND DEATHS



Source: Births, Australia (3301.0) and Deaths, Australia (3302.0).

6.26 RATES OF BIRTHS AND DEATHS
(per thousand mean population)



Source: Births, Australia (3301.0) and Deaths, Australia (3302.0).

Mortality trends, as measured by the crude death rate, are distorted by changes in the age structure of the population over time. Australian crude death rates standardised for age show a considerably greater and continuing decline in mortality levels since the early 1970s. Using the age structure of the estimated resident population of persons as at 30 June 1986 as the standard, the adjusted death rate fell from 12.9 per thousand in 1971 to 10.5 per thousand in 1981 and 8.5 per thousand in 1991 for males and from 8.0 in 1971 to 5.9 in 1981 and 5.1 in 1991 per thousand for females during the same period.

The decline in death rates is a result of continuing improvements to community health care, public awareness of health issues and advances in medical science and technology.

In Australia, as in most other countries, females have lower death rates than males. Age-specific rates show this discrepancy occurring across all age groups. In 1991, for example, the female death rate in many age groups was about half that of males. The relative difference between death rates for males and females was greatest in the age range 20 to 24 years where in 1991 the female rate was less than one-third that of males. The overall effect of these differences in death rates has been to increase the proportion of females in the older age groups of the population.

Concurrent with the decline in death rates over the last two decades there has been a rise in life expectancy at birth, increasing for males from 71.4 years to 74.4 years between the periods 1981 and 1991, and correspondingly for females from 78.4 years to 80.3 years. Female life expectancy at birth has exceeded that of males throughout the period, with the difference varying from six to seven years. Contributing to the increase in life expectancy at birth is the reduction in the age-specific death rate for those under one year, falling from 11.4 per thousand and 8.9 per thousand for males and females respectively in 1981 to 7.9 and 6.2 respectively in 1991.

6.27 AGE-SPECIFIC DEATH RATES(a)

Period	*Age group (years)*																		
	0	*1–4*	*5–9*	*10–14*	*15–19*	*20–24*	*25–29*	*30–34*	*35–39*	*40–44*	*45–49*	*50–54*	*55–59*	*60–64*	*65–69*	*70–74*	*75–79*	*80–84*	*>84*
MALES																			
Census years																			
1981	11.4	0.6	0.3	0.3	1.2	1.5	1.3	1.2	1.7	2.6	4.5	7.9	12.9	19.8	32.3	52.0	80.2	121.1	208.1
1986	10.0	0.5	0.2	0.3	1.1	1.5	1.3	1.3	1.4	2.3	3.5	6.3	10.7	17.9	28.3	45.4	72.1	110.6	187.2
1991	7.9	0.4	0.2	0.2	0.9	1.3	1.3	1.3	1.6	2.0	3.1	5.2	8.9	15.4	24.9	39.3	65.8	106.3	181.4
Annual																			
1986	10.0	0.5	0.2	0.3	1.1	1.5	1.3	1.3	1.4	2.3	3.5	6.3	10.7	17.9	28.3	45.4	72.1	110.6	187.2
1987	10.0	0.5	0.2	0.3	1.0	1.5	1.3	1.3	1.5	2.1	3.5	6.1	10.8	17.2	27.9	45.3	71.5	111.6	193.6
1988	9.8	0.5	0.2	0.3	1.1	1.6	1.5	1.4	1.5	2.3	3.4	6.0	10.0	17.2	27.2	44.9	72.7	111.4	192.1
1989	8.9	0.4	0.2	0.3	1.0	1.4	1.5	1.4	1.7	1.9	3.3	5.7	9.9	16.6	27.3	45.1	73.1	114.8	205.0
1990	9.3	0.5	0.2	0.2	0.9	1.4	1.4	1.4	1.5	2.1	3.1	5.4	9.5	16.0	26.3	41.1	68.0	105.9	190.8
1991	7.9	0.4	0.2	0.2	0.9	1.3	1.3	1.3	1.6	2.0	3.1	5.2	8.9	15.4	24.9	39.3	65.8	106.3	181.4
FEMALES																			
Census years																			
1981	8.9	0.5	0.2	0.2	0.4	0.5	0.5	0.6	0.9	1.4	2.7	3.8	6.2	9.7	15.7	25.5	44.3	76.0	160.4
1986	7.7	0.4	0.2	0.2	0.4	0.5	0.5	0.6	0.8	1.3	2.2	3.5	5.7	8.8	15.1	24.8	41.1	71.1	148.3
1991	6.2	0.3	0.1	0.1	0.4	0.4	0.5	0.5	0.8	1.1	1.9	3.1	4.8	8.0	13.1	21.9	38.3	65.7	153.4
Annual																			
1986	7.7	0.4	0.2	0.2	0.4	0.5	0.5	0.6	0.8	1.3	2.2	3.5	5.7	8.8	15.1	24.8	41.1	71.1	148.3
1987	7.5	0.3	0.2	0.1	0.4	0.5	0.5	0.5	0.8	1.3	2.1	3.5	5.5	8.6	13.9	24.0	41.1	72.3	154.6
1988	7.6	0.4	0.2	0.2	0.4	0.5	0.5	0.6	0.8	1.2	2.1	3.4	5.5	8.7	13.9	23.5	41.3	71.9	154.2
1989	7.1	0.4	0.2	0.2	0.4	0.5	0.5	0.6	0.8	1.3	2.1	3.3	5.3	8.7	13.8	24.2	41.2	73.4	167.5
1990	7.4	0.3	0.1	0.2	0.4	0.5	0.5	0.5	0.8	1.1	1.9	3.3	5.0	8.1	13.5	22.8	39.6	67.9	159.2
1991	6.2	0.3	0.1	0.1	0.4	0.4	0.5	0.5	0.8	1.1	1.9	3.1	4.8	8.0	13.1	21.9	38.3	65.7	153.4

(a) Deaths per 1,000 mid-year population.
Source: Deaths, Australia (3302.0).

6.28 LIFE EXPECTANCY AT VARIOUS AGES
(years)

	At age									
	0		1		25		45		65	
Period	*Males*	*Females*	*Males*	*Females*	*Males*	*Females*	*Males*	*Females*	*Males*	*Females*
Census years										
1981	71.4	78.4	71.2	78.1	48.3	54.7	29.6	35.4	13.9	18.1
1986	72.9	79.2	72.6	78.8	49.5	55.3	30.8	36.0	14.6	18.5
1991	74.4	80.3	73.9	79.8	50.8	56.2	32.0	36.9	15.4	19.1
Annual										
1986	72.9	79.2	72.6	78.8	49.5	55.3	30.8	36.0	14.6	18.5
1987	73.0	79.4	72.7	79.0	49.7	55.5	30.9	36.2	14.7	18.6
1988	73.1	79.4	72.8	79.0	49.8	55.5	31.1	36.2	14.7	18.7
1989	73.3	79.5	72.9	79.1	49.9	55.6	31.2	36.2	14.7	18.6
1990	73.8	79.9	73.5	79.5	50.4	56.0	31.7	36.6	15.2	18.9
1991	74.4	80.3	73.9	79.8	50.8	56.2	32.0	36.9	15.4	19.1

Source: Deaths, Australia (3302.0).

Changes in levels of mortality and age-specific death rates reflect trends in the incidence of specific causes of death. The three most prevalent causes of death at the present time are cancer, ischaemic heart disease and cerebrovascular disease or stroke which in 1991 collectively accounted for 61.7 per cent of deaths registered. The incidence of deaths from both cerebrovascular disease and ischaemic heart disease are currently declining, while the incidence of deaths due to cancer are increasing for both males and females.

Cause of death is age and sex related, with different causes assuming greater or lesser significance for males and females of different age groups (table 6.29). The most common causes of death during the first year of life are the culmination of conditions originating in the perinatal period. These include prematurity, birth injury, respiratory conditions and congenital anomalies present from birth.

In 1991, external causes (accidents, violence and suicide) were the leading causes of death for each age group in the range 1 to 39 years, and particularly at ages 15 to 24 years where they accounted for 73.8 per cent of all deaths. Of the deaths due to external causes in the 15 to 24 years age group 45.4 per cent were due to motor vehicle accidents.

The main cause of death for people in the 40 to 69 year age range was malignant neoplasms, accounting for 40.4 per cent of deaths. Deaths due to malignant neoplasms as a proportion of all deaths have risen slightly over the period 1981 to 1991. However, there has been little change in the distribution of cancer deaths by the primary site of growth. Malignant neoplasms of the digestive organs and peritoneum accounted for approximately 28 per cent of both male and female cancer deaths. The pattern of cancer deaths across other sites varied between the sexes. Whereas for 28.2 per cent of male deaths due to malignant neoplasms the primary site of growth was located in the respiratory and intrathoracic organs, this site accounted for only 13.3 per cent of female cancer deaths. However, malignant neoplasms of the breast accounted for 2,513 female deaths in 1991, representing 18.3 per cent of all female cancer deaths.

For people aged 70 and over the main cause of death was heart disease, accounting for 36.1 per cent of all deaths in this age group in 1991, while over all age groups 30.9 per cent of all deaths registered in Australia were attributed to heart disease. While this proportion was similar for males and females overall, the distribution of deaths by age group differed between the sexes. Heart disease was a more significant cause of death at younger ages for males than for females.

More detailed information on causes of death is contained in the chapter on Health.

6.29 STANDARDISED DEATH RATES(a), CAUSES OF DEATH

Cause of death	*1971*	*1976*	*1981*	*1986*	*1990*	*1991*
MALES						
Neoplasms	198	205	215	214	214	211
Endocrine, nutritional and metabolic diseases	20	17	16	17	21	22
Cardiovascular diseases	458	419	349	292	254	241
Cerebrovascular diseases	143	123	98	73	63	61
Other circulatory diseases	62	53	40	31	29	27
Respiratory diseases	106	109	83	73	71	67
Diseases of the digestive system	29	32	32	28	26	26
Diseases of infancy	25	20	14	12	11	10
External causes(b) — accidents	80	70	58	48	43	39
— violence, suicide	21	19	20	21	23	23
Other	58	53	49	52	56	53
Total	**1,200**	**1,121**	**974**	**861**	**811**	**781**
FEMALES						
Neoplasms	125	125	122	130	129	131
Endocrine, nutritional and metabolic diseases	19	16	13	13	12	13
Cardiovascular diseases	246	212	175	159	144	137
Cerebrovascular diseases	136	113	86	66	58	54
Other circulatory diseases	46	37	27	20	18	16
Respiratory diseases	37	40	28	27	30	30
Diseases of the digestive system	17	18	17	17	17	16
Diseases of infancy	21	17	11	10	9	9
External causes(b) — accidents	32	28	22	20	18	16
— violence, suicide	11	7	7	7	6	7
Other	45	37	35	38	41	39
Total	**734**	**650**	**543**	**506**	**484**	**469**

(a) Per 100,000 persons, standardised to age distribution for persons, 1981. (b) Includes accidental poisoning.
Source: Unpublished ABS data.

Marriages

The number of marriages occurring in Australia reached a peak of 117,600 in 1971 which, despite a growing population, has not yet been surpassed. The 1971 peak was followed by a rapid decline in numbers which coincided with increasing incidence of de facto relationships. Although this decline levelled off in the latter half of the 1970s and numbers have recovered since then (there were 113,869 marriages in 1991) the crude marriage rate has continued to drop. In 1991 it was 6.6 per thousand mean population.

The passing of the Family Law Act in 1976 (which provided easy and faster access to divorce) had a significant effect on the composition of marriages. Prior to the Act approximately 80–85 per cent of marriages were first marriages for both partners, but after 1976 this proportion fell to 65–70 per cent. In 1991 the figure was 67.5 per cent (table 6.30).

Since 1971 there has been a reversal in the post-war trend towards younger marriages. The median age at first marriage for both males and females is now rising, having increased from 23.4 years in 1971 to 26.7 years in 1991 for males and from 21.1 to 24.5 years for females. The median age for second and subsequent marriages is also rising (table 6.31).

The increasing median age at first marriage is reflected in first marriage ratios which show declines for both brides and grooms in most age groups. The difference between ages at first marriage of brides and grooms is also reflected in the lower ratios for grooms under the age of 25. The index of total first marriages, which is the cumulative total of first marriage ratios at each age, has been declining throughout the last two decades. It shows that the falling crude marriage rate cannot be attributed to changes in the age structure of the population, that is, that there has been a real reduction in the propensity to marry in the Australian community (table 6.32).

The decline in first marriage ratios under the age of 25 and the increase in the median age at first marriage over the last decade reflects the increasing incidence of couples living together before getting married. It seems reasonable to postulate that amongst de facto couples a certain proportion will eventually marry, even though at a later age, whereas others will prefer to remain unmarried. Analysis of current trends in marriage is qualified by the absence of any time series data on the formation of de facto relationships. However there is evidence (from the Family Formation Surveys in 1982 and 1986, the 1986 Census and, indirectly, Censuses in 1971, 1976 and 1981) that the number of de facto relationships is growing. At 30 June 1986 there were 204,900 de facto 'couple families' compared with 3,370,100 married couple families.

6.30 MARRIAGES REGISTERED: RELATIVE PREVIOUS MARITAL STATUS AND CRUDE MARRIAGE RATE

	Both partners never married		*One or both partners previously married*			
Period	*Number*	*Per cent*	*Number*	*Per cent*	*All marriages*	*Crude marriage rate*
Census years						
1981	77,640	68.2	36,265	31.8	113,905	7.6
1986	76,647	66.7	38,266	33.3	114,913	7.2
1991	76,811	67.5	37,058	32.5	113,869	6.6
Annual						
1986	76,647	66.7	38,266	33.3	114,913	7.2
1987	76,706	67.2	37,407	32.8	114,113	7.0
1988	78,400	67.1	38,416	32.9	116,816	7.1
1989	78,850	67.3	38,326	32.7	117,176	7.0
1990	78,782	67.4	38,177	32.6	116,959	6.8
1991	76,811	67.5	37,058	32.5	113,869	6.6

Source: Marriages, Australia (3306.0).

6.31 MEDIAN AGES OF BRIDEGROOMS AND BRIDES, PREVIOUS MARITAL STATUS

	Median age of bridegrooms				*Median age of brides*			
Period	*Bachelors*	*Widowers*	*Divorced*	*Total*	*Spinsters*	*Widows*	*Divorced*	*Total*
Census years								
1981	24.4	59.1	36.0	25.9	22.1	52.1	32.9	23.3
1986	25.6	60.5	38.3	27.3	23.5	52.6	34.8	24.9
1991	26.7	61.9	39.7	28.4	24.5	53.6	36.1	26.0
Annual								
1986	25.6	60.5	38.3	27.3	23.5	52.6	34.8	24.9
1987	25.9	60.6	38.6	27.6	23.8	52.4	35.1	25.2
1988	26.1	60.9	38.9	27.8	24.0	52.4	35.3	25.4
1989	26.3	61.0	39.3	28.0	24.2	52.5	35.6	25.7
1990	26.4	61.3	39.5	28.1	24.3	52.3	36.0	25.8
1991	26.7	61.9	39.7	28.4	24.5	53.6	36.1	26.0

Source: Marriages, Australia (3306.0).

6.32 FIRST MARRIAGE RATIOS(a)

Period	To 19	20–24	25–29	30–34	35–39	>39	Index of total first marriages (c)
				Cumulative ratios of age-groups(b)			
			BRIDEGROOMS				
Census years							
1981	26.7	346.7	209.4	62.7	22.7	27.5	695.7
1986(d)	9.8	263.0	237.1	85.0	26.6	23.6	645.0
1991	6.7	203.2	248.6	101.8	34.2	24.7	619.1
Annual							
1986(d)	9.8	263.0	237.1	85.0	26.6	23.6	645.0
1987	9.0	247.2	241.5	90.4	27.4	24.3	639.8
1988	9.7	239.9	248.3	96.3	30.8	23.1	648.1
1989	8.4	233.3	248.8	100.0	32.0	24.9	647.4
1990	7.6	219.3	253.7	100.5	33.3	24.2	638.5
1991	6.7	203.2	248.6	101.8	34.2	24.7	619.1
			BRIDES				
Census years							
1981	142.9	384.6	116.1	30.7	11.2	12.7	698.2
1986(d)	76.3	360.7	165.8	46.5	14.0	11.2	674.6
1991	42.1	306.1	197.7	62.0	18.6	12.0	638.7
Annual							
1986(d)	76.3	360.7	165.8	46.5	14.0	11.2	674.6
1987	67.3	350.0	173.5	50.8	15.8	11.5	668.9
1988	63.1	346.9	184.5	55.2	16.3	11.2	677.2
1989	56.5	336.8	190.6	59.9	18.3	12.1	674.2
1990	49.2	325.7	196.1	62.0	18.1	11.7	662.6
1991	42.1	306.1	197.7	62.0	18.6	12.0	638.7

(a) Per 1,000 mid-year population of males and females of each age. (b) Ratios for each age-group are calculated by summing the ratios for single years. (c) The sum of all single year ratios. (d) These ratios have been affected by late registrations of marriages in New South Wales.

Source: Marriages, Australia (3306.0).

Divorces

Divorce in Australia comes under the jurisdiction of the Family Law Act 1975. This Act, which came into operation on 5 January 1976, provides for a single ground for divorce, namely irretrievable breakdown of marriage, which is established by a minimum one-year separation of the husband and wife. Passing of the Act provided easier and faster access to divorce for either party by its removal of the need to prove fault, together with a reduction of the separation period from five years to one year. In 1976 the number of divorces granted peaked at 63,230. Since then the numbers granted have varied, declining to a low of 30,417 in 1986 but since then have slowly increased. In 1991 the number of divorces granted was 45,630. The median duration of marriage of divorcing couples decreased from 11.0 years in 1976 to 10.3 years in 1991.

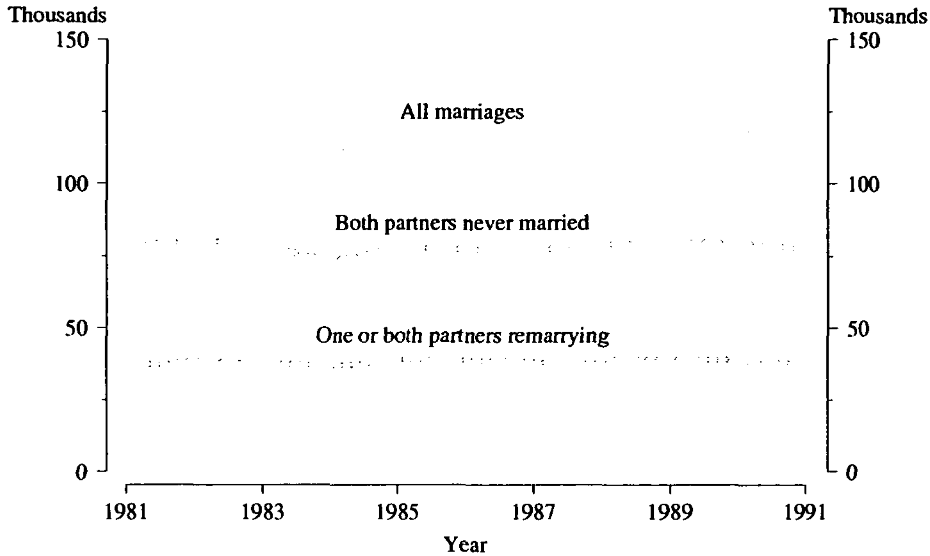
6.33 DIVORCES

Period	Number
Census years	
1981	41,412
1986	39,417
1991	45,630
Annual	
1986	39,417
1987	39,725
1988	41,007
1989	41,383
1990	42,635
1991	45,630

Source: Divorces, Australia (3307.0).

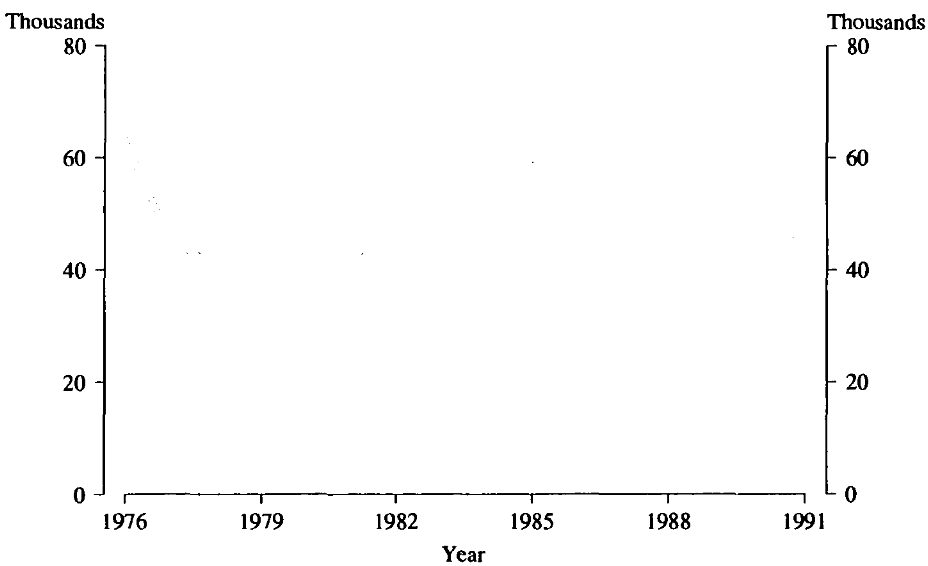
There is currently a tendency for divorce to occur in the early years of marriage and at an early age. The proportion of divorces taking place within the first five years of marriage was 21.3 per cent in 1991 and within the first 10 years it was 48.7 per cent (table 6.36).

6.34 MARRIAGES



Source: Marriages, Australia (3306.0).

6.35 DIVORCES(a)



(a) The Family Law Act 1975 was introduced in 1976. During that year a record number of decrees were granted.

Source: Divorces, Australia (3307.0).

The highest divorce rates for males occurred in the 25 to 29 (21.1 per thousand married men) year age group, while for females they occurred in the under 25 year age group (22.9 per thousand married women). The incidence of divorce was the same for both men and women in 1991, being 11.6 per thousand married men and women. After a period between 1982 and 1987 in which a significant decline occurred (from 12.5 to 10.6 per thousand married population) the rate seems to be achieving some stability (table 6.37).

6.36 DIVORCES: DURATION OF MARRIAGE
(per cent)

Period	Duration of marriage (years) *<5*	*5–9*	*10–14*	*15–19*	*>19*	*Total*	*Median duration of marriage (years)*
			AT DATE DECREE MADE ABSOLUTE				
Census years							
1981	20.8	28.5	19.6	11.9	19.2	100.0	10.2
1986	21.7	26.2	17.8	14.3	20.0	100.0	10.6
1991	21.3	27.4	17.6	13.1	20.6	100.0	10.3
Annual							
1986	21.7	26.2	17.8	14.3	20.0	100.0	10.6
1987	22.1	26.9	17.3	14.4	19.3	100.0	10.2
1988	21.4	28.1	17.3	14.2	19.1	100.0	10.1
1989	20.9	28.3	17.1	13.9	19.8	100.0	10.2
1990	20.9	28.5	17.3	13.1	20.2	100.0	10.1
1991	21.3	27.4	17.6	13.1	20.6	100.0	10.3
			AT DATE OF FINAL SEPARATION				
Census years							
1981	36.4	24.9	15.9	10.2	12.6	100.0	7.5
1986	37.6	21.5	16.0	11.7	13.2	100.0	7.6
1991	37.7	22.5	14.4	12.0	13.4	100.0	7.4
Annual							
1986	37.6	21.5	16.0	11.7	13.2	100.0	7.6
1987	38.3	21.7	15.4	11.8	12.8	100.0	7.3
1988	38.5	22.1	15.1	11.8	12.6	100.0	7.3
1989	37.9	22.3	14.9	12.0	12.7	100.0	7.3
1990	38.2	22.4	14.4	11.7	13.0	100.0	7.3
1991	37.7	22.5	14.4	12.0	13.4	100.0	7.4

Source: Divorces, Australia (3307.0).

The current low median duration between marriage and final separation combined with the increasing average interval between marriage and first birth (see Births section above) is having the effect of reducing the proportion of divorcing couples with children. The proportion of divorces in which children were involved declined from 61.1 per cent in 1981 to 54.2 per cent in 1991. The average number of children per divorce fell from 2.0 in 1981 to 1.9 in 1991 (table 6.38).

6.37 AGE-SPECIFIC DIVORCE RATES PER 1,000 MARRIED POPULATION

Period	Age group (years) <25	25–29	30–34	35–39	40–44	45–49	50–54	55–59	>59	Total
HUSBAND										
Census years										
1981	13.8	22.4	18.9	16.2	13.5	10.9	8.3	5.4	2.3	11.9
1986	12.1	18.6	17.1	14.8	13.3	11.1	8.3	5.4	2.1	10.7
1991	16.6	21.1	19.4	16.8	14.4	12.3	8.9	5.8	2.2	11.6
Annual										
1986	12.1	18.6	17.1	14.8	13.3	11.1	8.3	5.4	2.1	10.7
1987	12.3	18.7	17.8	15.0	13.0	10.8	7.8	5.1	2.1	10.6
1988	12.2	19.3	18.3	15.6	13.3	11.0	8.0	5.2	2.0	10.8
1989	12.9	19.1	17.9	15.3	13.4	11.1	8.1	5.5	2.1	10.8
1990	12.9	19.7	18.2	15.7	13.6	11.5	8.5	5.6	2.0	10.9
1991	16.6	21.1	19.4	16.8	14.4	12.3	8.9	5.8	2.2	11.6
WIFE										
Census years										
1981	18.0	22.0	16.9	14.7	11.8	8.9	6.2	4.1	1.7	11.9
1986	15.9	18.5	15.8	13.7	12.0	9.5	6.0	3.7	1.5	10.6
1991	22.9	21.4	17.6	15.2	13.1	10.4	6.5	3.8	1.4	11.6
Annual										
1986	15.9	18.5	15.8	13.7	12.0	9.5	6.0	3.7	1.5	10.6
1987	16.6	18.9	16.0	13.8	11.8	9.2	5.7	3.5	1.5	10.6
1988	16.8	19.6	16.6	14.1	12.0	9.4	5.7	3.6	1.4	10.8
1989	16.9	19.5	16.3	14.1	12.3	9.2	6.1	3.6	1.4	10.8
1990	18.3	20.3	16.5	14.3	12.5	9.6	6.3	3.6	1.3	10.9
1991	22.9	21.4	17.6	15.2	13.1	10.4	6.5	3.8	1.4	11.6

Source: Divorces, Australia (3307.0).

6.38 DIVORCES: PERCENTAGE DISTRIBUTION OF THE NUMBER OF CHILDREN OF THE MARRIAGE

Period	Number of children 0	1	2	3	4	>4	Total divorces	Total children	Average number of children(a)
			— per cent —				no.	no.	no.
Census years									
1981	38.9	21.5	25.6	10.0	3.0	1.0	41,412	49,616	2.0
1986	40.3	21.2	25.8	9.5	2.5	0.7	39,417	45,231	1.9
1991	45.8	20.1	23.2	8.4	2.1	0.4	45,630	46,697	1.9
Annual									
1986	40.3	21.2	25.8	9.5	2.5	0.7	39,417	45,231	1.9
1987	41.4	21.7	25.1	9.0	2.2	0.6	39,725	44,050	1.9
1988	42.5	21.5	24.7	8.7	2.2	0.5	41,007	44,395	1.9
1989	44.7	20.4	23.7	8.7	2.1	0.5	41,383	43,317	1.9
1990	44.4	20.5	23.8	8.6	2.3	0.5	42,635	44,913	1.9
1991	45.8	20.1	23.2	8.4	2.1	0.4	45,630	46,697	1.9

(a) Divorces involving one or more children.

Source: Divorces, Australia (3307.0).

Remarriages

In the decade to 1991 the number of remarriages (that is, marriages involving one or more previously married parties) remained steady but on a higher plateau than in the 1970s. The 1991 total of 37,058 remarriages, which represented 32.5 per cent of all marriages, is similar to the number of remarriages in 1981 which was 36,265 or 31.8 per cent of all marriages. This has been a period in which numbers of remarriages remained remarkably steady (table 6.39).

The reason for the sudden rise in remarriages at the beginning of the 1980s was brought about by growth in the numbers of marriages in which one or both parties were divorced at the time of marriage and was an after-effect of the *Family Law Act 1976* (*see* Divorces section above).

Set against rising population numbers, the current plateau in the number of remarriages is resulting in declining remarriage rates. The remarriage rate for males was 55.8 per thousand widowed and divorced male population in 1991, down from 84.2 in 1981. The female rate has fallen from 30.5 in 1981 to 23.6 in 1991. Again (*see* Marriages section above) the absence of data on de facto unions of people previously married qualifies analysis of current trends. The discrepancy between male and female remarriage rates is caused by longer female survival and therefore greater numbers of females being available for remarriage at older ages.

6.39 MARRIAGES IN WHICH ONE OR BOTH PARTNERS HAVE BEEN PREVIOUSLY MARRIED

	Both partners divorced		*One partner divorced*		*Other(a)*		
Period	*Number*	*Per cent*	*Number*	*Per cent*	*Number*	*Per cent*	*Total number*
Census years							
1981	11,656	32.1	21,851	60.3	2,758	7.6	36,265
1986(b)	12,823	33.5	22,918	59.9	2,498	6.5	38,239
1991	12,298	33.2	22,649	61.1	2,111	5.7	37,058
Annual							
1986(b)	12,823	33.5	22,918	59.9	2,498	6.5	38,239
1987	12,401	33.2	22,583	60.4	2,423	6.5	37,407
1988	12,709	33.1	23,359	60.8	2,348	6.1	38,416
1989	12,471	32.5	23,496	61.3	2,359	6.2	38,326
1990	12,802	33.5	23,239	60.9	2,136	5.6	38,177
1991	12,298	33.2	22,649	61.1	2,111	5.7	37,058

(a) Includes 'not stated' previous marital status. (b) The statistics for 1986 were affected by late registrations in New South Wales.
Source: Marriages, Australia (3306.0).

MIGRATION

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

Migration to Australia

Migration to Australia is presently regulated by the *Migration Act 1958* which came into force on 1 June 1959. Any person entering Australia after the introduction of the Act without having been granted an entry permit or who is not within an exempted class is a prohibited non-citizen. Exempted persons include New Zealand citizens, diplomatic and consular representatives of other countries, and seamen and air crew who enter Australian ports while on leave.

Until the 1960s, total net gains (that is, the excess of total arrivals over total departures) provided a satisfactory measure of the population gain from international migration. In recent years, however, because of the large increase in short-term movements (8.8 million in 1991), distortions arising from seasonality of these movements have become very large. For the purpose of estimating the population of Australia and the States and Territories, therefore, the migration component of population growth has been measured since 1 July 1971 by reference to permanent and long-term movements only.

Net overseas migration is estimated to have directly contributed 50.7 per cent of the total population increase between 1981 and 1991.

During the last decade, migrants from the United Kingdom and Ireland have remained the most numerous group of settlers, although they have declined in absolute numbers and as a proportion of total settler arrivals. In 1981 they comprised 31.6 per cent of settler arrivals however by 1991 this contribution had fallen to 16.2 per cent. At the same time the number of settlers from other European sources, such as Italy, Greece, Yugoslavia, Germany and the Netherlands, have also declined. Despite a fall in settlers from these more traditional sources, the overall number of settler arrivals in Australia has increased markedly during the 1980s and into the 1990s, due to an increase in settlers arriving from Asia. There have, however, been peaks and troughs during the past decade, coinciding with economic boom and recession years. These have occurred most notably in 1984 when the number of settlers arriving in Australia totalled only 73,110, contrasting with 1988 when 151,550 settlers arrived.

6.40 BIRTHPLACE OF SETTLER ARRIVALS(a)

	'000				Per cent			
Birthplace	*1981–85*	*1989*	*1990*	*1991*	*1981–85*	*1989*	*1990*	*1991*
United Kingdom and Ireland	116.9	26.5	23.5	18.9	25.4	20.2	19.3	16.2
New Zealand	48.6	17.3	9.0	6.7	10.6	13.2	7.4	5.7
Fiji	3.5	2.5	2.5	2.5	0.8	1.9	2.1	2.1
Italy	4.3	0.3	0.3	0.3	0.9	0.2	0.3	0.3
Yugoslavia	7.3	2.2	1.8	2.3	1.6	1.7	1.5	2.0
Greece	3.9	0.5	0.4	0.3	0.8	0.4	0.3	0.3
Vietnam	47.2	10.1	13.7	10.7	10.3	7.7	11.3	9.2
Germany	11.6	1.2	1.0	0.9	2.5	0.8	0.8	0.8
United States of America	8.4	2.0	2.0	1.7	1.8	1.5	1.6	1.5
Lebanon	7.0	2.3	2.6	2.4	1.5	1.8	2.1	2.0
India	8.3	3.0	3.8	5.8	1.8	2.3	3.1	5.0
South Africa	12.2	2.7	2.2	1.7	2.7	2.1	1.8	1.5
Poland	14.8	1.6	1.6	1.8	3.2	1.2	1.3	1.5
Philippines	15.4	6.9	6.2	6.5	3.4	5.3	5.1	5.5
Malaysia	10.4	6.9	6.2	4.4	2.3	5.3	5.1	3.8
Hong Kong	9.9	7.4	10.5	14.5	2.2	5.6	8.6	12.4
China	9.6	3.4	3.3	3.4	2.1	2.6	2.7	2.9
Taiwan	0.8	2.9	3.1	3.7	0.2	2.2	2.6	3.2
Other	119.3	31.4	27.9	28.1	25.9	24.0	23.0	24.1
Total	**459.4**	**131.1**	**121.6**	**116.6**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Permanent arrivals only.
Source: Overseas Arrivals and Departures, Australia (3404.0).

During the 1980s through to the early 1990s, settlers from South-East, north-east and southern Asia have increased substantially. In 1981, European born settlers accounted for 50.1 per cent of arrivals in Australia, compared with only 2.7 per cent from north-east Asia. By 1991, north-east Asia alone accounted for 20.1 per cent of total settler arrivals compared with 25.9 per cent from Europe. Hong Kong sourced settlers have contributed most to the overall increase from the three Asian regions. In 1991, Hong Kong born settlers numbered 14,490 and accounted for 61.7 per cent of north-east Asian arrivals. The level of Vietnamese born settlers arriving in Australia has been consistently compared to 10,670 in 1991, accounting for 42.3 per cent of South-East Asian arrivals. Indian born settlers have increased from 1,220 in 1981 to 5,790 in 1991 accounting for 54.7 per cent of arrivals from southern Asia. Other notable countries belonging to the three Asian regions from where settler arrivals have increased between 1981 and 1991 were the Philippines, Malaysia, China and Taiwan.

Since 1978–79, family immigration has increased in importance, with migration of family members now amounting to over 40 per cent of settler arrivals. Non-visaed migrants continue to be a major contributor to Australian settlement. These under the Trans-Tasman Travel Arrangement under which Australian and New Zealand citizens may enter each country without the need to obtain visas or entry permits. Other non-visaed migrants include children born to Australian citizens overseas, persons who have acquired Australian citizenship overseas and residents of the external Australian Territories of Norfolk Island, the Cocos (Keeling) Islands and Christmas Island. Settlers from New Zealand accounted for 12.9 per cent of total permanent settlement in 1981, peaking at 24,870 in 1988 (16.4 per cent of total permanent settlement) and falling to 5.8 per cent in 1991.

The age composition of settlers has been younger than that of Australia's population for some time and reflects the predominance of young families arriving in Australia. Persons aged 65 years and over represented 4.1 per cent of migrants arriving in 1986, which contrasts with the proportion of this age group of Australia's total population in the same year, which was 10.5 per cent. In 1991, only 2.5 per cent of settlers were aged 65 years and over, whereas the proportion of the total population has risen to 11.3 per cent.

6.41 PERMANENT ARRIVALS, DISTRIBUTION BY AGE AND SEX
(per cent)

	Age group (years)						
Period	*0–4*	*5–14*	*15–24*	*25–44*	*45–64*	*>64*	*Total number*
			MALES				
Census years							
1981	12.2	19.5	21.2	37.4	6.8	2.9	61,870
1986	10.4	18.2	18.3	40.0	9.1	3.9	51,000
1991	11.0	16.9	13.2	48.4	8.3	2.2	57,640
Annual							
1986	10.4	18.2	18.3	40.0	9.1	3.9	51,000
1987	11.2	18.0	16.6	41.8	8.7	3.7	63,800
1988	11.0	18.3	15.6	43.0	8.9	3.1	75,720
1989	10.7	18.1	16.7	42.0	9.5	3.1	64,490
1990	10.7	17.7	15.5	44.9	8.6	2.6	60,570
1991	11.0	16.9	13.2	48.4	8.3	2.2	57,640
			FEMALES				
Census years							
1981	12.4	18.7	20.5	36.7	8.0	3.8	56,870
1986	10.0	15.8	19.2	40.4	10.3	4.3	52,330
1991	10.2	15.5	16.8	46.2	8.6	2.7	59,010
Annual							
1986	10.0	15.8	19.2	40.4	10.3	4.3	52,330
1987	10.7	16.3	18.0	40.8	10.0	4.2	64,490
1988	10.6	17.1	17.4	41.8	9.5	3.5	75,830
1989	9.9	16.6	18.5	41.4	9.9	3.6	66,570
1990	10.0	16.3	18.1	43.3	9.2	3.1	61,000
1991	10.2	15.5	16.8	46.2	8.6	2.7	59,010
			PERSONS				
Census years							
1981	12.3	19.1	20.9	37.0	7.4	3.3	118,740
1986	10.2	17.0	18.8	40.2	9.7	4.1	103,330
1991	10.6	16.2	15.0	47.3	8.4	2.5	116,650
Annual							
1986	10.2	17.0	18.8	40.2	9.7	4.1	103,330
1987	11.0	17.2	17.3	41.3	9.4	4.0	128,290
1988	10.8	17.7	16.5	42.4	9.2	3.3	151,550
1989	10.3	17.3	17.6	41.7	9.7	3.3	131,060
1990	10.4	17.0	16.8	44.1	8.9	2.9	121,560
1991	10.6	16.2	15.0	47.3	8.4	2.5	116,650

Source: Unpublished ABS data.

Despite the comparative youthfulness of the settlers, their median age has been rising. Since 1981, when the numbers of migrants under the 'family reunion' category began to increase the median age of settlers has risen from 23.2 years to 27.7 years in 1991. At the younger ages, declines have taken place in the proportion of settlers in the 15 to 24 year age group while there has been an increase in the proportion of settlers in the 25 to 44 year age group. This trend appears to have continued into the early 1990s. In 1991, settlers in the 15 to 24 year age group decreased by 14 per cent and those in the 25 to 44 year age group increased by 2.9 per cent compared to 1990.

The sex ratio (number of male settlers per 100 female settlers) tends to be high in years of large intake, and falls as intake declines. There was a rise in the sex ratio in the first half of the 1980s as settler arrivals increased, but in the last five years the sex ratio has remained below 100.0 and, since male settlers have traditionally predominated, has therefore been historically low. In 1991 the sex ratio was 99.7 males per 100 females. In 1991, males predominated in the 0 to 14 year age group and the 25 to 44 year age group.

6.42 PERMANENT ARRIVALS: SEX RATIOS(a) BY AGE

	Age group (years)					
Period	*0–14*	*15–24*	*25–44*	*45–64*	*>64*	*Total*
Census years						
1981	110.9	112.4	111.1	92.7	83.2	108.8
1986	108.1	93.0	96.6	86.5	88.1	97.5
1991	106.0	76.8	102.2	95.0	79.7	97.7
Annual						
1986	108.1	93.0	96.6	86.5	88.1	97.5
1987	106.8	91.5	101.4	86.4	85.6	98.9
1988	105.3	89.9	102.6	93.8	89.1	99.9
1989	105.1	87.2	98.1	93.1	84.4	96.9
1990	107.4	85.0	102.9	92.5	83.4	99.3
1991	106.0	76.8	102.2	95.0	79.7	97.7

(a) The number of males per 100 females.
Source: Unpublished ABS data.

Refugees

Since 1945, Australia has accepted more than 460,000 refugees or displaced persons, including 170,000 from Europe who were displaced by World War II and its aftermath. Australia presently accepts refugees from about 40 countries. The high profile Indo-Chinese refugee program which has been a feature of recent years is continuing into the 1990s. Although the general level of refugee arrivals fell in 1991, worldwide, refugees from mainland South-East Asia accounted for 33 per cent of the total intake. The second largest regional intake was from Central America which accounted for 25 per cent of all refugee arrivals in 1991.

Australia is one of 97 countries which have become party to an international convention and protocol on the status of refugees and, in so doing, have taken on certain international legal obligations to assist refugees. The final determination of a refugee's status and the decision to accept refugees for resettlement in Australia rests with the Australian Government. Australia is also a member of the Executive Committee of the United Nations High Commission for Refugees (UNHCR). Australia's response to refugee situations is twofold. Through aid programs directed principally through UNHCR, refugees are offered protection and assistance in countries of first refuge. Those refugees for whom other durable solutions are not feasible may be offered resettlement (in Australia) if they have relatives in Australia, other close ties with Australia or the potential for successful settlement in their own right. Such refugees must also be presented to Australia by the UNHCR as being registered or otherwise eligible for resettlement.

6.43 BIRTHPLACE OF REFUGEE ARRIVALS(a)
(annual totals)

Birthplace	*1986*	*1987*	*1988*	*1989*	*1990*	*1991*
Romania	328	527	409	258	168	69
USSR	42	79	332	805	633	15
Hungary	323	537	521	142	9	—
Czechoslovakia	356	406	361	230	131	—
Poland	481	804	474	423	75	—
Iran	498	555	534	483	219	426
Iraq	15	24	21	35	47	129
Lebanon	697	435	196	240	826	807
Indonesia	143	95	34	26	7	21
Cambodia	618	1,196	1,025	831	67	13
Laos	588	564	507	291	275	285
Thailand	301	296	226	312	160	95
Vietnam	3,962	4,083	3,121	4,767	5,311	1,899
Hong Kong	43	49	59	117	258	105
Afghanistan	413	270	320	173	197	871
Chile	373	744	526	214	38	2
El Salvador	359	849	1,122	2,093	1,379	1,670
Nicaragua	89	126	58	57	59	52
Other	567	616	457	386	480	636
Total	**10,196**	**12,255**	**10,303**	**11,883**	**10,339**	**7,095**

(a) Includes arrivals under the Special Humanitarian Program instituted late in 1981.
Source: Department of Immigration, Local Government and Ethnic Affairs.

Permanent departures

An important component constraining population growth is the level of population loss due to emigration. Between 1981 and 1991, total permanent departures numbered 253,810 persons or an average of 23,074 per year, a level which is 20.9 per cent of the total permanent arrivals over this period. The ratio of departures to arrivals in 1991 is 25.6 per cent, the highest ratio since 1984.

6.44 PERMANENT DEPARTURES AND ARRIVALS

Period	*Permanent departures* — *Former settlers*	*Other residents*	*Total*	*Permanent arrivals*	*Ratio of departures to permanent arrivals*
Census years					
1981	11,280	8,580	19,860	118,740	0.167
1986	9,960	8,860	18,820	103,330	0.182
1991	15,870	14,030	29,900	116,650	0.256
Annual					
1986	9,960	8,860	18,820	103,330	0.182
1987	11,010	9,400	20,410	128,290	0.159
1988	10,480	9,840	20,320	151,550	0.134
1989	11,940	12,890	24,830	131,060	0.189
1990	14,220	16,150	30,370	121,560	0.250
1991	15,870	14,030	29,900	116,650	0.256

Source: Overseas Arrivals and Departures, Australia (3404.0).

Of the two categories of permanent departures, that is, 'former settlers' and 'other residents', it has been under the first category that there has been the greatest outflow of persons. Between 1981 and 1991, 'former settlers' represented 58.4 per cent of all permanent departures. The departure of 'other residents' has fluctuated from a low of 8,860 in 1986 to a record high level of 16,150 persons in 1990 falling to 14,030 in 1991. The number of former settlers departing has also been steadily rising over the last three years. Levels of permanent departures are now similar to those experienced in the mid-1970s.

Internal migration

Information on internal migration (migration from one part of Australia to another) has been available from the population censuses since 1971. The Census asks people to state their place of usual residence on Census night and also on the same date one year ago and five years ago. Comparison of these addresses has provided data on interstate migration and also (for the 1986 and 1991 Census only) intrastate movement. Movers are classified by age, sex, birthplace and other selected characteristics. The census also provides data on where people recently arrived from overseas are now living.

Between censuses, data on interstate migration are estimated, for quarterly intervals, from information on interstate changes of address advised to the Health Insurance Commission in the process of administering Medicare. (No comprehensive data are compiled on intrastate migration between censuses.) Prior to 1986 postcensal interstate migration estimates were based on changes of address advised to the Department of Social Security by recipients of the Family Allowance.

Interstate migration has had an important influence on the distribution of Australia's population amongst the States and Territories. Historically it has been much more important than differential fertility or mortality and in many periods more important than overseas migration. Net interstate migration tends to be volatile in nature and large gains and losses have been recorded by all States. The table below presents estimates of net interstate migration for the financial years 1982–83 to 1991–92. There has been a trend over the past decade in most States for net interstate levels to follow a cyclical pattern. From a peak in 1981–82 they contracted towards the middle of the decade before rising to another peak in 1988–89. Levels for subsequent years have been below this peak for most States with the exception of Victoria whose current high net losses are being generated by a rise in interstate departures.

6.45 NET INTERSTATE MIGRATION ('000)

Year ended 30 June	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
1983	-17.2	-5.1	20.8	-0.3	1.5	-1.2	0.5	1.0
1984	-10.3	-3.3	10.0	0.6	0.7	0.7	0.7	0.9
1985	-9.3	-5.8	12.9	-2.3	2.0	0.8	0.6	1.2
1986	-12.5	-13.2	16.5	-1.4	9.4	-0.1	-0.5	1.8
1987	-10.3	-13.4	18.1	-3.2	10.4	-2.8	-1.4	2.7
1988	-14.2	-14.8	26.2	-0.3	8.4	-3.4	-4.6	2.8
1989	-39.1	-12.9	45.3	0.8	9.5	-1.3	-3.0	0.7
1990	-37.0	-8.2	36.6	0.7	7.1	1.4	-2.6	2.1
1991	-18.8	-16.2	27.4	3.1	2.5	-0.2	-2.2	4.2
1992	-16.4	-18.0	33.0	-0.2	-0.5	0.7	-1.1	2.6

Source: Australian Demographic Statistics (3101.0).

New South Wales has experienced substantial net losses, particularly to Queensland, but also to Western Australia and the Australian Capital Territory. The loss of 39.1 thousand in the year ended June 1989 was the largest ever recorded by this or any other State or Territory over a 12 month period.

Victoria has experienced net losses throughout the period. The most popular destinations are Queensland and New South Wales.

Queensland has made major net gains, consistently ranking as the favourite destination for Australians moving interstate. Its net gain of 45.3 thousand in the year ended June 1989 was the highest ever recorded by it or any other State or Territory over a 12 month period.

South Australia has experienced small net gains and losses. It is frequently the State with the smallest net interstate movement per head of population.

Western Australia recorded considerable net gains in the second half of the 1980s when it ranked as the second most popular destination for Australians moving interstate. Since 1990 the number of interstate arrivals has fallen. The small net loss in 1991–92 was the State's first loss since the 1960s.

Tasmania has experienced small net gains and losses following the regular cyclical pattern mentioned above.

The Northern Territory made consistent net gains in the first half of the 1980s but has experienced small losses in more recent years. The Australian Capital Territory has made small net gains throughout the period. For both Territories the levels of net interstate movement per head of population are high.

During the fifteen years from 1971 to 1986, the flow of persons interstate increased. Census data indicate that for the three five-year periods, 1971–76, 1976–81 and 1981–86, the number of interstate movers was 569,500, 651,200 and 716,555 respectively. This increase was evident for both males and females, with the sex ratio of interstate flows remaining virtually constant at 107.

Proportional to total population (mobility rate), the number of interstate movers numbered 46 per thousand in the 1971–76 intercensal period, rising to 49 per thousand during 1976–81 and 50 per thousand in the 1981–86 period.

Interstate mobility rates by age have revealed a clear and consistent life cycle pattern in the propensity of persons to move interstate. Data for 1971–76, 1976–81 and 1981–86 show that there was, initially, an above-average rate for the 5 to 9 year age group (because of the high mobility of their parents). This was followed by a period of below average mobility in the early teenage years. Mobility was highest at ages 20 to 39 years, after which it steadily declined with age. The highest mobility rates occurred at ages 25 to 29 years and the lowest at ages 65 and over. Females were generally less likely to move interstate than males, with differences being most pronounced during the child-rearing ages from 25 to 45 years.

6.46 INTERSTATE MOVERS BY AGE, MOBILITY RATES(a) AND SEX RATIOS(b)

Age group (years)	*Number of interstate movers*			*Mobility rates*		
	1971–76	*1976–81*	*1981–86*	*1971–76*	*1976–81*	*1981–86*
1–4	..	..	..	..	..	..
5–9	69,810	75,603	69,830	56	61	60
10–14	49,979	59,096	62,803	40	46	49
15–19	49,899	53,025	59,331	41	42	45
20–24	83,239	89,139	92,223	75	72	72
25–29	99,102	100,337	110,169	88	85	85
30–34	64,271	85,729	89,571	68	72	73
35–39	42,174	55,606	73,719	52	57	60
40–44	27,380	34,104	44,539	38	42	45
45–49	22,328	21,948	27,629	29	30	34
50–54	17,993	19,155	19,134	24	25	27
55–59	12,933	16,929	18,700	21	23	26
60–64	11,008	14,769	18,214	20	25	26
>64	19,402	25,745	30,693	16	18	19
Total	**569,518**	**651,185**	**716,555**	**46**	**49**	**50**
Sex ratios						
Interstate movers	106	107	107			
Total population	100	100	100			

(a) Interstate movers per 1,000 population of Australian residents enumerated in the Census at the end of the period. (b) The number of males per 100 females.

Source: Interstate Migration, Australia, Census of Population and Housing (3411.0).

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FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book.* Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book.*

Household and Family Trends in Australia

(This article has been contributed by Peter McDonald, Australian Institute of Family Studies, in recognition of the designation of 1994 as the International Year of the Family.)

Introduction

As 1994 has been designated as the International Year of the Family, this special article provides a statistical profile of the characteristics of families in contemporary Australia, and discusses various trends and the factors influencing them.

The article draws on statistics from the Australian Bureau of Statistics (particularly from its Population Census, but also other population surveys) and from other sources. Inevitably, this means that there is some incompatibility between the date to which the latest available statistics on respective subjects relate (ranging between 1986 and 1992), and the basis on which they were collected or produced. Nevertheless, taken as a whole, the statistics used provide a comprehensive picture of families and their trends in contemporary Australia. A list of the sources referred to in the text is contained in the References at the end of the article.

The concept of a household is complementary to discussion of families. Careful attention must be paid to the definitions of both that are being used. In particular, the family can be defined in many different ways and the definition that is used can have a large impact on the impression given about what is happening to families. In order to underline the distinction between households and families, this article begins with a discussion of household trends.

The definition of a household

The household is defined by the Australian Bureau of Statistics (ABS) as comprising persons (or a person) in a house, medium density housing, flat/unit, or caravan in a caravan park living and eating together as a domestic unit (ABS, 1986). The Bureau goes on to divide households into three types: family households, where the household contains members with a family relationship (with or without non-family members present); group households of two or more unrelated persons; and lone person households.

The number and size of households

At the time of the 1986 Census, there were 5,264,516 households in Australia. The average number of persons in each household has been declining gradually for at least 100 years (Hugo, 1986). For example, in Victoria in 1891, there were more than five persons per household on average (McDonald and Quiggin, 1985); by 1986, the figure had fallen to 2.9 persons per household.

At the 1991 Census, the number of households had risen to 5,852,518, an 11 per cent increase since 1986 in a period in which the population increased by only eight per cent. Thus, the average size of households is continuing to decline.

Table 1 shows the distribution of households in Australia in 1991 according to the number of persons. The two-person household was the most common type at 31 per cent and together with one-person households, these small households constituted 51 per cent of the total.

TABLE 1 HOUSEHOLDS BY NUMBER OF PERSONS, 1991

Persons	*Per cent*
1	20
2	31
3	17
4	19
5	9
>6	4
Total	**100**

Source: ABS, 1991 Census of Population and Housing (1993), Table B50.

Household types

In 1991, 20.0 per cent of households were lone person households, 4.5 per cent were group households and, as would be expected, the large majority (75.4%) were family households. Some of the main characteristics of these three types of household are described below.

Lone person households

The proportion of lone person households has doubled in the past 30 years from 10 per cent in 1961 (Hugo, 1986). Before that, the proportion of lone person households had risen only slowly as evidenced by the fact that these households made up about eight per cent of all households in Victoria in 1901 (McDonald and Quiggin, 1985).

Several trends including lower marriage rates and increased divorce rates contribute to the increase in the proportion of one-person households. At the 1986 Census, 36 per cent of lone persons had never married and 22 per cent were divorced or separated (ABS, 1988). However, the most important determinant of the increase in one-person households is the ageing of the population. In June 1992, 56 per cent of all persons living alone were aged 55 years and over. Reflecting the earlier death of men compared to women, 70 per cent of these older people living alone were women (ABS, 1992a). Of relevance to policies related to housing, a majority (55%) of persons living alone at the 1991 Census lived in separate houses (ABS, 1993).

Group households

In contrast to lone person households, group households were dominated by young persons. In June 1992, 76 per cent of all persons living in group households were aged less than 35 years. Furthermore, at the 1986 Census, 76 per cent of those in group households had never married (ABS, 1988).

Family households

Family households are households containing one or more families. The ABS definition of a family for its statistical collections is as follows:

> two or more persons, one of whom is at least 15 years of age, who are related by blood, marriage (registered or de facto), adoption or fostering, and who are usually resident in the same household. Separate families are identified for each married or de facto couple and for each one parent family in the household (ABS, 1992b).

The ABS applies this definition for the Census of Population and Housing and most other statistical collections of data on families for reasons of statistical methodology, and to assist the collection of accurate data on what can be a complicated subject. However, the following qualifications about this approach need to be understood as background to the descriptions which follow on the various types of families to be found in family households.

There is a great deal of evidence that Australians in general do not define their families in this way. In particular, studies suggest that individuals very often regard their families as extending across households. For example, a child whose parents have separated usually considers the non-resident parent as part of his or her family. Indeed, most people see their parents or their children as being members of their family irrespective of where they live. Evidence also suggests that the flows of support (financial, practical and emotional) between households within the same family are significant and very common (McDonald, 1992: Millward, 1992).

Furthermore, people define their families differently for different purposes. The family members who attend at weddings are different to the family which gets together at Christmas time and this is different again from the family which shares financial interdependency. The growing proportion of people who do not live in family households does not mean necessarily that these persons are not members of families or that they are isolated from other family members. The elderly widow living on her own is often in close contact with her children and flows of support between her and her children are the usual circumstance.

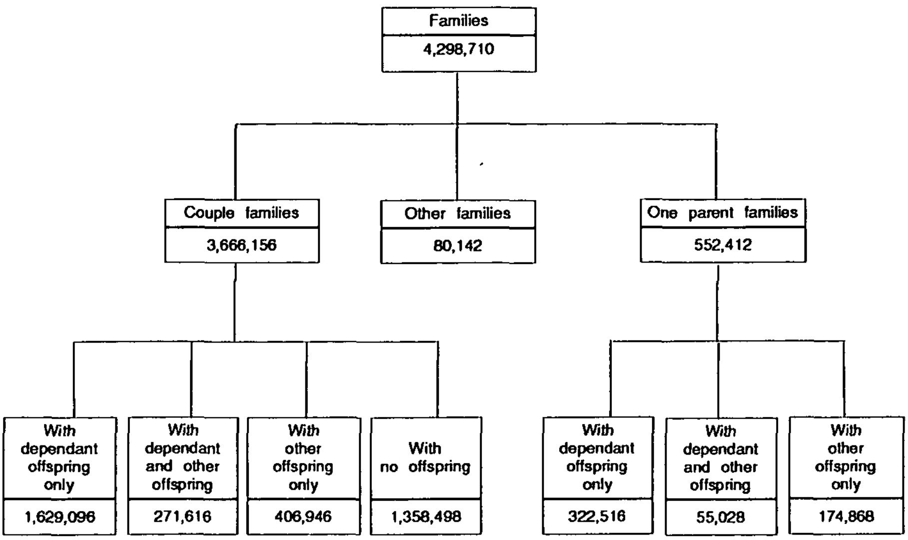
The restriction of the ABS definition of family to only persons who live in the same household means that these very important dimensions of family life and family structure are missed, which can lead to the false impression that the extended family is not important to Australians. However, because the main source of data on families is the ABS, the remainder of the paper deals with statistics according to this definition, despite the limitations of this approach.

Types of families

As mentioned above, 75.4 per cent of all households in Australia in 1991 were family households. In 1991, only 1.0 per cent of all family households contained more than one family. Thus, family households (comprising one or more families) and household families (single family households) are near to being the same thing.

The breakdown of household families into types is shown in Diagram 1.

DIAGRAM 1 AUSTRALIAN FAMILIES, JUNE 1992



Source: ABS, 1991 Census of Population and Housing (1993), Table B34.

Diagram 1 shows a total of 4,298,710 families in Australia, 85.3 per cent of which were couple families, 12.8 per cent were one parent families and 1.9 per cent were other families. Eighty-eight per cent of sole parents were women (ABS, 1992b).

Couple families

The diagram shows that 52 per cent of couple families had dependent children. A further 37 per cent of couple families consisted of a couple with no offspring present. The remaining 11 per cent of couple families had other, that is, non-dependent offspring only.

The ABS defines a dependent child as a family member under 15 years of age or aged 15 to 24 attending an educational institution full time (ABS, 1992a). In today's environment, other children aged 15 to 24 years and living with their parents, particularly those not in paid employment, may be equally if not more dependent on their parents than full-time students.

As mentioned in the previous paragraph, 37 per cent of all couple families consisted of the couple alone with no offspring present. These couple only families made up 23 per cent of all Australian households in 1991 and are the principal reason behind the fact that the most common household size is two persons. In terms of age, many of these couples are older couples whose children have all left home, the so-called empty-nest phase of life. For example, in 1986, for 69 per cent of couple only families, the woman was aged 35 years and over and had had children (ABS, 1989). This is a growing group in the community because of increased life expectancy and the earlier ages at which parents of this generation had their children.

One parent families

Among families with dependent children, 16.6 per cent were one parent families in 1991. This compares with 9.2 per cent in 1974, 13.2 per cent in 1981 and 14.6 per cent in 1986. Thus, the proportion of one parent families has been gradually rising over the past 20 years primarily as a result of the increase in the rate of marriage breakdown and, to a lesser extent, to the increase in births to women who are not married. Sixty-one per cent of sole parents in 1986 were divorced or separated (ABS, 1991). It is worth keeping in mind, however, that one parent families were equally common 100 years ago; in Victoria, in 1891, 16.7 per cent of all families with dependent children were one parent families (McDonald and Quiggin, 1985). The proportion of one parent families headed by men was higher in 1891 (38%) reflecting high levels of maternal mortality at the time.

Further details on one parent families are contained in *Australia's One Parent Families* (ABS, 1991). This publication indicates the generalised disadvantage of one parent families. For example, one parent families were much more likely than couple families with children to have low incomes; 63 per cent of one parent families were in the lowest 20 per cent of family incomes compared to only 12 per cent of couple families with children. One parent families were also much more likely to be in rented accommodation than couple families; 54 per cent of one parent families were renting compared to 20 per cent of couple families with children. Furthermore, 14 per cent of one parent families lived with another family compared to only 3 per cent of couple families with children. Sole parent mothers were less likely to be employed than mothers in couple families and sole parent families were less likely to have access to a car; 21 per cent of sole mothers families did not have a car compared to 2.6 per cent of couple families with children.

Reflecting ethnic differences in divorce rates and rates of birth to unmarried women, the proportion of mothers with dependent children who were sole parents was much lower among mothers born in southern European countries than it was for those born in Australia; in 1986, 3.5 per cent of mothers born in Greece were sole parents compared to 5.5 per cent of those born in Italy, 12.8 per cent of those born in the United Kingdom and 14 per cent of mothers born in Australia.

Married and de facto couples

There has been greater acceptance of de facto relationships in recent times. The percentage of all couples who are in a de facto relationship remains relatively low but is increasing. Among all couple families at the time of the 1991 Census, 91.8 per cent were married and 8.2 per cent were de facto couples (ABS, 1993). At the 1986 Census, 5.7 per cent of couples were de facto. Among couple families with dependent children, the proportion living de facto was even lower (6.5%). De facto couples are more prominent at younger ages; 62 per cent of couples where the woman was aged 15 to 19 and 25 per cent where she was aged 20 to 24 were de facto couples at the time of the 1986 Census (ABS, 1989). However, most of these young de facto couples do not have children.

Natural parents and step-parents

For the first time, at the 1986 Census, the ABS introduced a question on household relationships which allowed step-parents and stepchildren to be identified. Among couple families with dependent children, 6.8 per cent contained stepchildren (ABS, 1989). Half of all de facto couples with dependent children had stepchildren. From the perspective of children about five per cent of children aged less than 15 years were living with a step-parent.

As expected, the chance of living with both natural parents declines as the child gets older. In Western Australia in 1986, 91 per cent of one-year old children lived with both their natural parents but as children became older, this percentage fell to 85 per cent at age 6, 80 per cent at age 12 and 77 per cent at age 15 (Government of Western Australia, 1988). Thus, while children may experience a variety of family types, about three-quarters still continue to live most of their childhood with both their natural parents.

Transitions in families

Families change mainly through the forming of couples through marriage or de facto relationships, births, deaths, relationship breakdown, children leaving home, and the taking-in of relatives for reasons of support. All of these processes have been subject to substantial changes in the past 20 years. In turn, these changes have led to the variations in household and family types already described. In addition, changes in the labour force and education activities of family members have had profound effects on family functioning and family structure over the past 30 years. The following sections review the main changes in these processes.

Leaving home

The best point to begin a discussion of family transitions is the point at which young people leave their parents' home. This is a convenient starting point because in the vast majority of cases, leaving the parental home precedes the formation of the person's first co-residential relationship. There is a definitional problem, however, because it is common today for young people to leave home and then to return again as their life circumstances change. Here, two measures are used, the time at which young people first leave home and the proportion of young people who are living with their parents at a point in time.

In the 1950s and 1960s, leaving the parental home was associated closely with other observable changes in people's lives such as marriage, employment or education. For example, among women born around 1950, 49 per cent first left home for marriage while 18 per cent left for work or study. Only a small percentage left home simply to be independent (11%). The age at which they left home, therefore, tended to correspond with the timing of these other transitions, in particular, marriage. The shift to earlier marriages between 1940 and 1970, therefore, meant that young people left home at earlier ages during this period. For those born around 1950, the average age at first departure from the parental home was 21.5 years for men and 20.2 years for women (Young, 1987; Glezer, 1993).

In the 1970s, the reasons for leaving home changed but the age at first leaving home remained about the same. The percentage leaving home to marry dropped by about 10 percentage points for both men and women, but this drop was almost exactly matched by the increase in those who left home to live together in a de facto relationship. The 1970s saw a sharp rise, however, in the proportion who said that they had left home in order to be independent. Indeed, for men, independence became more significant than marriage as a reason for leaving home. Glezer (1993) has shown, for example, that 18 per cent of men born between 1947 and 1955 had left home to be independent compared to 29 per cent among men born from 1955 to 1963.

During the 1980s, the work and education environment changed dramatically for young people. Retention to Year 12 at secondary school rose from 34 per cent in 1980 to 64 per cent in 1990 (DEET, 1991). Involvement in tertiary education also increased rapidly. Along with these changes, age at marriage continued to increase.

The changes in the lives of young people in Australia in the past 30 years are reflected in statistics relating to their involvement in full-time education. The proportion of 15 to 19 year-olds who were at school or full-time students increased between 1961 and 1992 from 28 per cent to 62 per cent for males and from 24 per cent to 69 per cent for females (ABS, 1967 and ABS, 1992c). Over the same period, involvement in full-time education increased for 20 to 24 year-olds from 4 per cent to 14 per cent for males and from 1 per cent to 16 per cent for females. Many of today's young people combine part-time work with full-time education. For example, in August 1992, 47 per cent of full-time tertiary students aged less than 25 years and 31 per cent of school students aged 15 to 19 years were in the labour force. As a consequence of the changes in the 1980s, young people aged less than 25 years are more likely to be at home than was the case in the past (Table 2).

TABLE 2 PERCENTAGE OF 15–19 AND 20–24 YEAR-OLDS LIVING WITH THEIR PARENTS 1979, 1986 AND 1992(a)

	15–19		*20–24*	
Year	*Males*	*Females*	*Males*	*Females*
1979	88.7	80.2	45.5	24.8
1986	92.4	86.0	51.8	31.9
1992	91.3	86.5	54.9	39.7

(a) These percentages exclude a small number of persons aged 15–24 living with their parents who were husbands, wives, sole parents or 'other' family heads.

Source: ABS, Labour Force Status and Other Characteristics of Families, 1979, 1986 and 1992 (6224.0).

Beyond living with their parents, many young people aged 15 to 24 years who are not living with their parents may still be, to a greater or lesser degree, financially dependent on parents (Hartley, 1989). Thus, the increase in the dependency of these young people is understated by the percentages shown in Table 2. A recent study of 23 year-olds by Hartley (forthcoming) indicated that some of those who were still at home with their parents were somewhat apologetic about this, indicating that they were exceeding the social norm. The increased financial dependency of young people upon their parents together with their desire for at least as much independence as previous generations is one of the tensions facing families today.

The forming of relationships

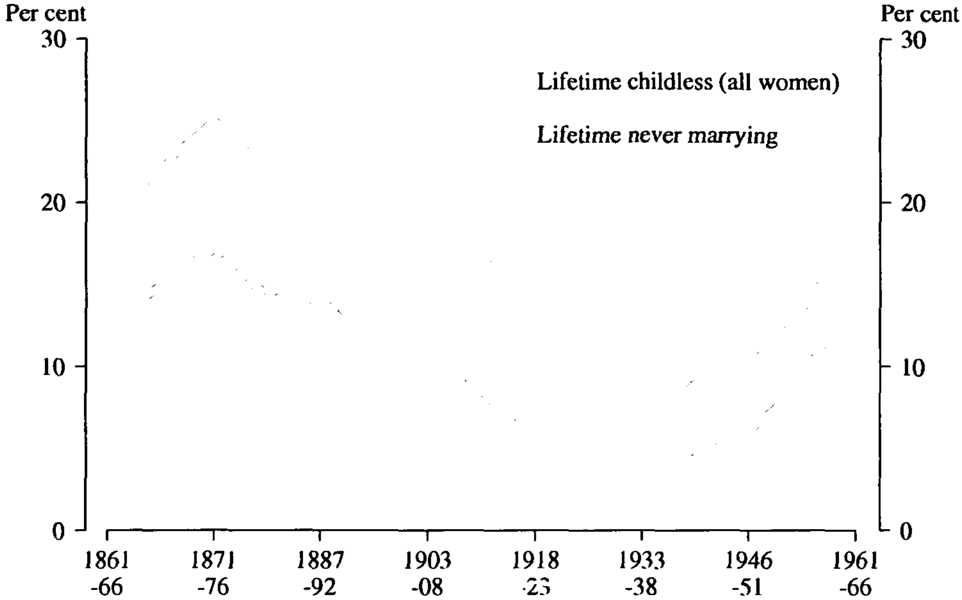
The next step in the sequence of family transitions is the formation of a new couple relationship. The three main forms of couple relationships now prominent in Australia are marriage, de facto or living together relationships (heterosexual) and same-sex relationships. There are no reliable statistics available on the incidence of same-sex couples because no Australian survey has addressed this question directly. However, surveys providing indirect estimates would suggest that this group represents less than one per cent of all couples (*see*, for example, Glezer, 1993).

As mentioned above, de facto relationships account for about eight per cent of all couples. De facto relationships are much more prevalent among couples aged less than 25 years compared to older ages, but many of these young relationships are preliminary to marriage; in a sense, they are trial marriages. Glezer (1993) has shown that 44 per cent of persons aged 27 to 35 years in 1990 who had married had lived together before their marriage. Thus, while other forms of relationship are becoming more common and are more socially acceptable, couple relationships in Australia are still dominated by marriage.

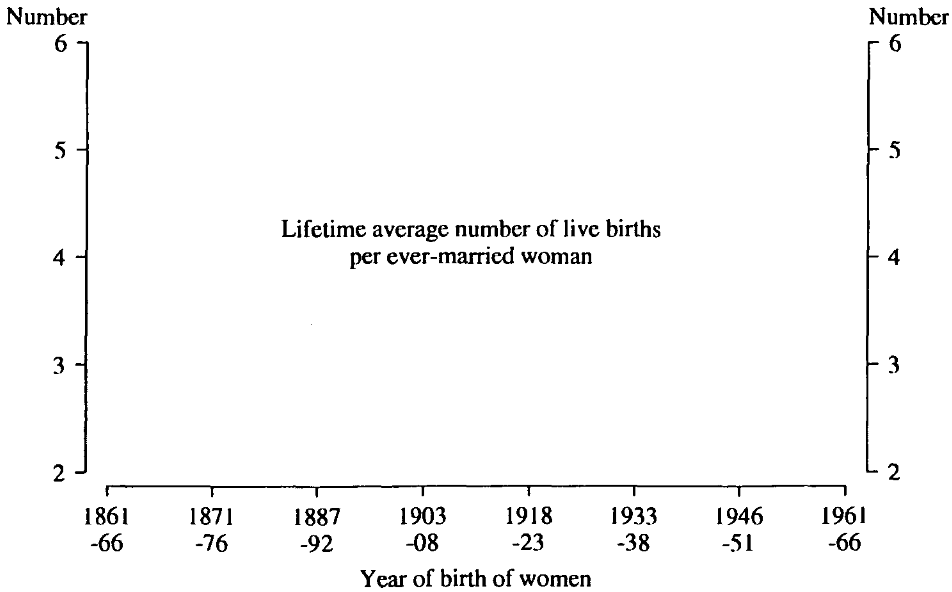
Graph 1 shows that the percentage of Australian women who never marry during their lifetime has been on a long-term swing from being high (14–17%) for generations born in the latter half of the nineteenth century, dropping to low levels (4–6%) for those born between 1920 and 1950, but again returning to the formerly high levels of the past for those born since 1950. A recent prediction suggests that the proportion of Australian women not married by the time they reach age 35 will exceed 20 per cent by the year 2000, a level higher than at any other time in Australian history (McDonald, 1991). Proportions of men who never marry follow similar trends to those shown for women, although, in general, the proportion of men never marrying has been higher than that for women (Carmichael, 1988).

BIRTH AND MARRIAGE PATTERNS OF AUSTRALIAN WOMEN BORN FROM 1861 TO 1966

GRAPH 1



GRAPH 2



Note: Data for those born from 1951 to 1966 are projections based on experience up to 1991.

Source: McDonald 1983.

The ages at which Australians marry have been subject to the same long-term swing as the proportions who never marry. A useful indicator of age at marriage for women is the proportion aged 20 to 24 who have ever married. For men, age group 25 to 29 provides the best indication of the trend. These proportions are shown in Table 3.

TABLE 3 PERCENTAGE EVER MARRIED WOMEN AGED 20–24 YEARS AND MEN AGED 25–29 YEARS, 1891–1991

Year	*Women aged 20–24*	*Men aged 25–29*
1891	34.9	39.7
1901	28.0	35.8
1911	28.5	41.0
1921	33.6	47.8
1933	31.2	43.9
1947	48.6	62.1
1954	59.0	63.5
1961	60.5	66.8
1971	64.3	74.3
1981	45.5	65.2
1991	19.6	45.2

Source: Colonial and Australian Censuses, 1891–1981; ABS (1992d).

Up to the 1930s, about 30 per cent of women aged 20 to 24 had married. Beginning with the Second World War and continuing through the post-war period to 1971, age at first marriage fell substantially in Australia, so that by 1971, the percentage of 20 to 24 year-old women who had married had risen to 64 per cent. A similar trend to a much earlier age at marriage is also evident for men in the same period; just over 40 per cent of men aged 25 to 29 had married before the war, but the percentage had reached 74 per cent by 1971. Since the early 1970s, the trend to early marriage has very rapidly gone into reverse, so that, by 1991, the percentage of women married at young ages was lower than it has ever been.

The remarkable turnaround in age at first marriage is further evidenced by the decline of teenage marriages. Fully 33 per cent of women turning 20 in 1972 had married in their teen years (McDonald, 1991); by 1991, this percentage had fallen to under five per cent (ABS, 1992d).

It is important to realise, however, that age at marriage in a large proportion of cases does not indicate the age at which the couple first began to live together. As mentioned above, almost half of couples marrying for the first time have lived together beforehand and, indeed to a considerable extent social attitudes now favour this approach. About half the respondents in the 1988–89 National Social Science Survey indicated that they would recommend young people live together with a steady partner and then marry. Very few recommended that couples live together without ever marrying (Evans, 1991). That is, at present, the approach of young Australians is to marry (80% of young people intend to marry), but to delay marriage to much older ages than the ages at which their parents married. In the meantime, many will live in de facto relationships. The vast majority of young people following this pattern do not have children until they have married (Glezer, 1993).

Families and the labour force

Changes in rates of participation in education of persons aged less than 25 years have already been described; it was evident that those changes were highly associated with new patterns of leaving home and forming new relationships. Another major trend affecting family behaviour, particularly after a relationship is formed, is the increasing participation of married women in the labour force (which comprises those in, or actively seeking, paid employment).

Table 4 shows a gradual and persistent increase in the participation of married women in the labour force, with the sharpest rise occurring between 1961 and 1971 when restrictions on the employment of married women in the public sector were lifted. By 1991, two-thirds of married women in the peak labour force ages of 25 to 54 years were in the labour force. Studies of working lifetimes indicate that most of the remaining one-third of married women are in paid employment at some time after their marriage. Thus, where marriage once spelt an end to the working careers of most women, married women today define their lives not only in terms of home and children but also in terms of paid employment.

TABLE 4 LABOUR FORCE PARTICIPATION RATES OF MARRIED WOMEN, BY AGE GROUP 1933–91

Age group (years)	*1933*	*1947*	*1961*	*1971*	*1981*	*1991*
15–19	3.2	11.4	19.9	36.4	45.7	53.8
20–24	4.4	11.6	24.5	44.1	57.4	64.1
25–34	4.7	8.0	17.3	33.0	49.0	61.3
35–44	5.3	8.8	21.2	41.3	58.4	71.3
45–54	6.0	8.6	19.9	36.1	50.5	63.3
55–59	5.7	6.6	12.6	23.2	31.3	34.1
60–64	3.7	4.1	6.5	12.0	15.0	16.3

Source: ABS, Australian Censuses, 1933–81; ABS, The Labour Force, June 1991 (6203.0).

Among all women in the peak labour force ages of 25 to 54 years, participation in the labour force increased from 37 per cent in 1966 to 67 per cent in 1992. However, over the same period, among those employed, the percentage working full time dropped from 70 per cent to 57 per cent. Thus, the growth of the female labour force has been associated with the trend towards part-time jobs. The overall proportion of persons working part time rose from 9 per cent in 1966 to 23 per cent in 1992. Nevertheless, as just pointed out, a majority (57%) of employed women aged 25 to 54 were working full time in 1992. For women with dependent children, however, the percentage working full time among those employed was lower (41.7% for women in couple families and 53.9% in one parent families) (ABS, 1992a).

For women with dependent children, the degree of participation in the labour force is related to the age of the youngest child (Table 5). In couple families, the participation rate of women with a child aged less than 5 years is still below 50 per cent. Once the child reaches school age, however, participation rates for these women jump to about 70 per cent. The percentage working full time also rises slowly as the youngest child ages. Participation rates for sole parents are lower than those for women in married couple families when the youngest child is aged less than 15 years. However, if a sole parent is employed, she is more likely to be working full time than women in couple families irrespective of the age of the youngest child. Sole parents whose youngest dependent child is aged 15 to 24 years have by far the greatest participation in the labour force of all mothers distinguished in the table. It can be speculated that the involvement of sole mothers in the labour force is influenced by the social security system. Loss of social security benefits and costs of child care make it more difficult for sole parents to work part time, so they are more likely than women with children in couple families to work full time or not to work at all. However, once their youngest child turns 16 years, they are no longer eligible for the sole parent pension, so their labour force attachment is much greater.

TABLE 5 WOMEN WITH DEPENDENT CHILDREN: LABOUR FORCE PARTICIPATION RATES AND PERCENTAGE EMPLOYED FULL TIME, ACCORDING TO THE AGE OF YOUNGEST CHILD AND FAMILY TYPE, JUNE 1992 (per cent)

	Labour force participation rate	*Employed full time*
Couple families with youngest child aged		
0–4	48.4	32.6
5–9	68.2	40.1
10–14	71.9	48.0
15–24	71.3	52.4
One parent families with youngest child aged		
0–4	34.4	40.2
5–9	52.4	47.9
10–14	60.8	57.3
15–24	78.4	68.5

Source: ABS, Labour Force Status and Other Characteristics of Families, June 1992 (6224.0).

In June 1992, there were almost 2 million couples with dependent children in Australia. The percentage where both parents were in the labour force was 59.1 per cent, but the percentage with both parents employed was 53.3 per cent. Thus, where both parents were in the labour force, either partner was unemployed in 9.8 per cent of these families. Where both the partners were employed, they were both working full time in 39.3 per cent of cases. Just over 400,000 dependent children representing 10 per cent of all dependent children in couple families had neither parent employed. On the other hand, 52 per cent of children in couple families had both parents employed and 19 per cent had both parents employed full time (ABS, 1992a).

Also in June 1992, there were 412,100 one parent families. The parent was in the labour force in 54.7 per cent of these families and employed in 45.7 per cent. Thus, among sole parents in the labour force, the parent was unemployed in 16 per cent of cases. Where the sole parent was employed, 60 per cent were employed full time. About 379,000 dependent children representing 56 per cent of children living in one parent families did not have an employed parent (ABS, 1992a).

Overall, therefore, among 4.7 million dependent children aged less than 25 years in June 1992, 16.4 per cent had two parents employed full time, 60.3 per cent had one parent employed full time, 6.7 per cent had an employed parent but no parent employed full time and 16.7 per cent had no employed parent. These statistics indicate the diversity of family types and family employment circumstances now prevalent in Australia. Decisions about family formation are taken in the context of these circumstances (ABS, 1992a).

In June 1992, the family status of employed men and women was almost exactly the same: 42 per cent had a dependent child, 25 per cent had a spouse but no dependent child and 33 per cent had neither a spouse nor a dependent child.

Having children

Graph 1 shows that there has also been a long-term downward swing in the proportion of Australian women who remain childless. For Australian women born between 1861 and 1913, 20 per cent or more did not have children. The peak level was around 25 per cent for women born in the 1870s. The mothers of the baby boom generation changed this so that for women born in the 1930s and 1940s, the rate of childlessness fell to 8–10 per cent, only marginally above the expected rate of childlessness due to physiological reasons alone. The trend, however, has been rapidly reversing for women born from 1950 onwards, such that a return to percentages childless in excess of 20 per cent can be predicted for women born in the late 1960s (McDonald, 1984).

Graph 2 also shows the long-run trend in the average number of children born in a lifetime to women who marry. The most significant feature of this trend is the decline in the average number of births per woman from 5.1 for women born in 1861–66 to 2.6 for women born in 1903–08. This was the era in which control over fertility became widely established. Reflecting the onset of the baby boom, however, completed family size for women who had married increased again reaching a peak of 3.2 children per woman for those born from 1928–38. Since then family sizes have declined again and can be predicted to be only just above an average of two children per married woman for those born in the first part of the 1960s.

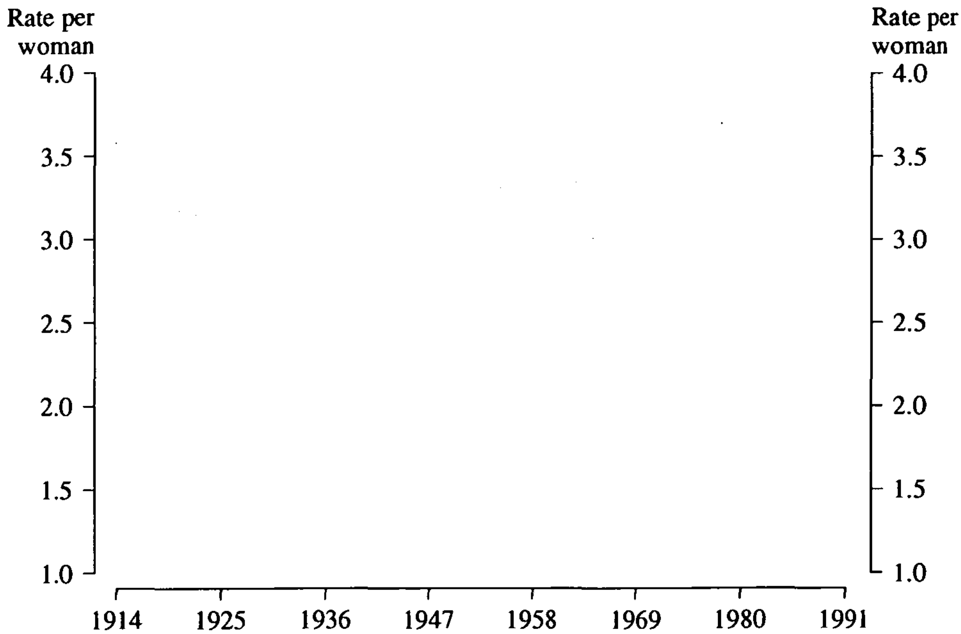
The recent decline in average family size is accompanied by a decline in the percentage of women who are having three or more children. About 60 per cent of the generation of married women who had peak fertility during the baby boom (those born in the late 1920s and the 1930s) had three or more children. For those born in the late 1940s, this percentage had fallen to 42 per cent (ABS, 1992e). On the basis of birth rates applying in 1988, 32 per cent of all women (not just married women) will have three or more children, 24 per cent will have two, 24 per cent will have one and 20 per cent will have none (McDonald, 1990).

The discussion so far has related to the number of children born to women over their lifetime. This measure is limited by the fact that it can only be obtained when women have reached about 40 years of age. Another approach to the measurement of birth rates uses the total fertility rate (TFR).

The TFR indicates the average number of births that would be born over a lifetime to a hypothetical group of women if they were to experience the age specific birth rates (that is, births per thousand women in specific age groups) applying in a given year. The trend in the TFR from 1921 to 1991 is shown in Graph 3. The peak in the centre of the graph indicates the so-called baby boom, a period of unusually high birth rates extending from 1946 to 1971 (TFR greater than 2.8 births per woman). At its peak in 1961, the TFR reached 3.6 births per woman. The boom collapsed in the early part of the 1970s with the TFR falling below 2.0 in 1978. Since 1979, it has fluctuated in a narrow band between 1.84 and 1.92 births per woman. At this level, the TFR is below a level consistent with long-term replacement of the population (just over two births per woman).

Nevertheless, the total fertility rate has been higher in Australia in the 1980s than in almost all other western industrialised countries. Very recently, however, the TFR has risen in several countries, such as the Scandinavian countries and the United States (Table 6). Most demographers interpret this recent rise in TFR in developed countries as a temporary rise due to the occurrence of births which were delayed in the mid-1980s.

GRAPH 3 TOTAL FERTILITY RATES, 1921–1991



Source: Australian Demographic Statistics (3101.0) and Births, Australia (3301.0).

TABLE 6 TOTAL FERTILITY RATES IN SELECTED COUNTRIES, 1985 AND 1990

Country	*1985*	*1990*
Australia	**1.89**	**1.91**
New Zealand	1.93	2.15
Canada	1.67	1.80
United States	1.84	2.09
United Kingdom	1.80	1.84
France	1.82	1.80
Germany (West)	1.28	1.48
Belgium	1.50	1.62
Sweden	1.73	2.13
Denmark	1.45	1.67
Italy	1.41	1.27
Spain	1.61	1.33
Greece	1.68	1.45
Former USSR	2.40	2.26
Hungary	1.83	1.87

Source: de Guibert-Lantoine and Monnier (1992).

Birth rates for younger aged mothers have declined sharply in the past 20 years (Table 7). In 1971, births to mothers under the age of 25 years contributed 40.1 per cent of the total fertility rate compared with only 26.1 per cent in 1991. The mean age of mothers at the birth of their children thus rose from 27.0 to 28.5 years.

TABLE 7 AGE SPECIFIC BIRTH RATES, 1961, 1971 AND 1991 (births per 1,000 women)

Age group (years)	*1961*	*1971*	*1991*
15–19	47.2	54.5	22.1
20–24	227.1	179.3	74.3
25–29	223.8	191.0	131.6
30–34	132.1	101.5	99.8
35–39	64.1	44.4	36.0
40–44	19.2	11.2	5.5
45–49	1.4	0.8	0.2
Mean age	27.5	27.0	28.5

Source: ABS, Births, 1961, 1971 and 1991 (3301.0) and author's calculations.

Also between 1971 and 1991, the percentage of first nuptial births occurring to women aged 30 and over rose from 7.6 per cent to 31.1 per cent while the number of teenage confinements fell from 30,500 to 14,600. The drop in births to teenage women in the past 20 years has been due entirely to the drop in births to married teenagers from 20,500 in 1971 to 2,600 in 1991. This in turn has been due to the near disappearance of the 'shot-gun' wedding. In 1971, about 13,000 teenage brides were pregnant at marriage; in 1991, the figure had fallen to only 1,100. Now about one in ten Australian women have a baby before their 20th birthday compared to about one in four in 1971 (McDonald, 1988; and calculations from ABS, 1992f).

Besides the decline in fertility and the increasing age of mothers, the other significant change in fertility in the past 20 years has been the increase in ex-nuptial births, that is, births occurring to women who are not married. In 1971, ex-nuptial births represented 9.3 per cent of all births but this had risen to 23.0 per cent by 1991, that is, almost one in every four children born are now born to a woman who is not married (ABS, 1992f). The change is not due to an increase in the rate at which women who are not married give birth but to similar rates of birth occurring to the now much higher percentages of women who are not married compared to 1971 (McDonald, 1988).

In 1991, paternity was acknowledged on the birth certificates of almost 80 per cent of children whose mothers were not married (ABS, 1992f). Thus, being born to a woman who is not married does not imply that children are cut off from their fathers. In many of these cases of ex-nuptial birth, the child is born to parents who are living together but are not married. Reliable statistics are not available, but it seems that about 50 per cent of all ex-nuptial births occur to women who are in a de facto relationship (Khoo and McDonald, 1988).

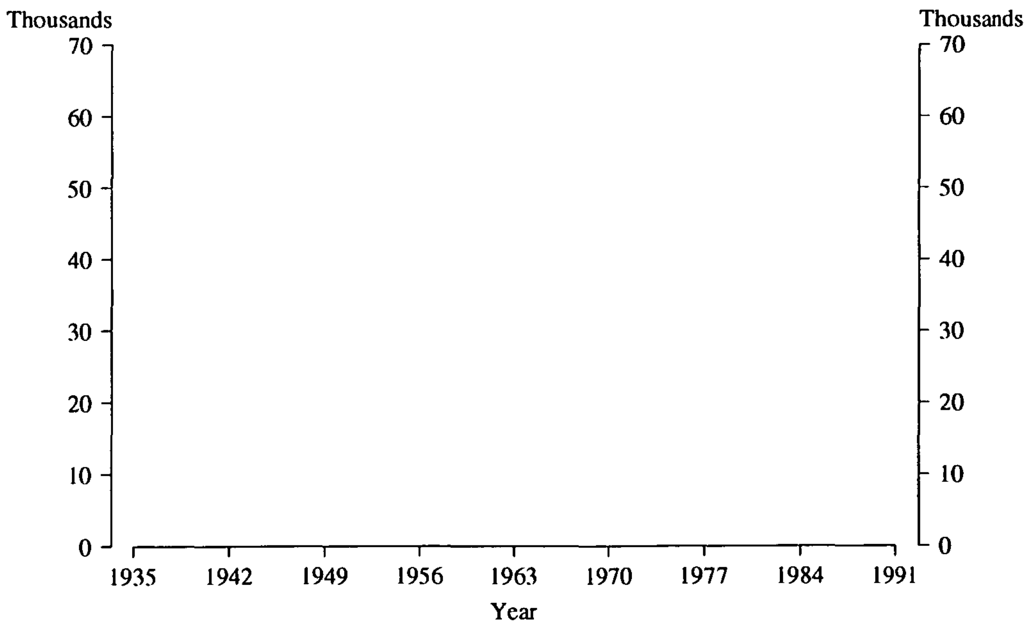
The ending of relationships

Suppose we consider a group of couples who marry when the wife is 25. The husband is two and a half years older. This is not unlike the present average ages at first marriage. It is also not unlike the average ages at first marriage which applied 100 years ago. Using 1891 death rates, 30 years after the marriage, both partners would still be living in only 46 per cent of cases. Using 1991 death rates, both would still be living in 88 per cent of cases. Forty-five years after the marriage when the wife turns 70, both partners would still be living in just 15 per cent of cases with 1891 death rates but 56 per cent of cases with 1991 death rates (1891 survival rates from McDonald, Ruzicka and Pyne, 1987; 1991 survival rates from ABS, 1992g). This example serves to indicate the dramatic changes in expectation of life together of today's couples compared to those 100 years ago. Some may argue, given this reality, that it is not surprising that divorce rates are higher today than they were 100 years ago.

A century ago, formal divorce rates were very low with perhaps only one per cent or so of marriages ending in divorce within 30 years of the marriage. In the next 70 years, divorce rates rose slowly to a level of about 10 per cent of marriages ending in divorce by the mid-1960s. While the evidence is persuasive rather than conclusive, it has been argued that this rise over 70 years merely reflected an increasing trend towards formalisation by divorce of marriage breakdowns, rather than any real change in the rate of marriage breakdown (James, 1984). Thus, in the hypothetical case set out in the previous paragraph, 100 years ago, we could have expected about 10 per cent of couples surviving 30 years after their marriage to have separated. The percentage still together after 30 years, taking into account both widowhood and separation, would therefore be about 41 per cent.

Today, most marriage breakdowns are formalised by divorce. About 37 per cent of marriages can be expected to end in divorce (Carmichael and McDonald, unpublished). Adding a small fraction for marriage breakdowns which are never formalised by divorce, we can estimate that about 40 per cent of marriages end in separation within 30 years of the marriage. Thus, again considering the hypothetical case described above, taking into account both widowhood and separation, the percentage of today's couples who can expect to be still together after 30 years is 53 per cent. Overall, then, today's married couples are more likely to be still living with their spouse after 30 years than couples 100 years ago.

GRAPH 4 NUMBER OF DIVORCES, 1938–91



Source: Vamplew, W. Ed. Australians Historical Statistics and Divorces, Australia (3307.0).

The example provides another useful basis for discussion because Young (1989) has shown that in Australia in recent times, the last child leaves home on average when the mother is 54 and the father is 57. Thus, we can estimate that over 50 per cent of couples can expect their first marriage to survive to the point where all their children have left home. Others will go into this 'empty nest' phase through repartnering after the ending of their marriage. Thus, a majority of Australians can expect to spend some time living together with their partner with adult children living elsewhere. One hundred years ago, this family phase hardly existed at all because of high mortality, late childbearing and the tendency of at least one unmarried child to remain at home (McDonald and Quiggin, 1985). The empty nest phase is also not short; the number of widowed women in Australia does not exceed the number of married women until age 73 while the number of widowed men never exceeds the number of married men at any age (ABS, 1992d).

The modem rise in divorce rates in Australia began in the late 1960s and accelerated during the 1970s. Having reached a level equivalent to between 35 and 40 per cent of marriages ending in divorce, the rate of divorce levelled off during the 1980s. The trend in the number of divorces between 1951 and 1991 is shown in Graph 4. The graph shows the upturn in the late 1960s leading to the very large number of divorces occurring in 1976, the first year of operation of the *Family Law Act 1975*. The 'no fault' provisions of the new Act were attractive to many people who had been separated for some time and also enabled many people to divorce sooner than they would have done under the previous law. These factors led to a heaping of divorces into one year, 1976. By the end of the 1970s, this temporary peak had passed. A secondary peak occurred around 1982–83, perhaps reflecting the economic recession of the early 1980s. To the extent that divorces are affected by recessions, we can expect the divorce rate to rise again in the early 1990s and there was some evidence of such a rise in 1991.

The other major effect that the new law has had is in bringing divorces forward within a marriage. Whereas under the previous law, a couple had to have a five-year separation before 'no fault' provisions applied, with the new law this waiting period was reduced to just one year. Almost immediately the new law was introduced, the proportion of marriages ending in divorce within five years of the marriage rose from about one per cent to eight per cent. Today, about eight per cent of marriages end within 5 years, 17 per cent within 10 years, 28 per cent within 20 years and 37 per cent within 30 years. This progression indicates that the rate of divorce is not greatly affected by the length of the marriage, with about one per cent being added to the percentage divorced for each additional year of marriage. That is, there is no special time in a marriage when divorces are more likely to occur than any other time, except perhaps in the first few years of the marriage. From the perspective of children, this means that about one per cent can expect to experience the divorce of their parents for each year of life. That is, by age 10 about 10 per cent of children have divorced parents; by age 20, the percentage has risen to 20 per cent (Carmichael and McDonald, unpublished).

From an international perspective, Australia's divorce rate is on the low end of those countries with high divorce rates. Its rate of divorce is much lower than that of the United States and the Scandinavian countries and is also lower than that of England and Wales and Canada. On the other hand, Australia's divorce rate is far higher than the rates applying in Italy and Greece (Table 8).

The divorce rate from second marriages is a little higher than that from first marriages: about 38 per cent compared to about 34 per cent in 1986 (McDonald, 1988). Little is known about the breakdown of de facto relationships, but the rate is likely to be quite high. In a sample of de facto couples who had a birth in 1984, 19 per cent were no longer together 18 months after the birth of the child (Khoo and McDonald, 1988).

TABLE 8 PERCENTAGE OF MARRIAGES ENDING IN DIVORCE WITHIN 30 YEARS OF MARRIAGE(a), SELECTED COUNTRIES
(per cent)

Country	
United States	*54.8
Denmark	49.0
Finland	45.9
Sweden	44.3
England and Wales	41.7
Canada	39.8
Norway	38.5
Germany	36.9
Australia	**35.4**
Belgium	31.0
France	31.0
Austria	30.6
Hungary	30.1
Netherlands	28.0
Poland	17.0
Greece	13.0
Italy	8.0

(a) Based on the duration-specific rates applying in 1989, except for the United States — 1985.
Source: de Guibert-Lantoine and Monnier, 1992 and author's estimate for Australia.

Repartnering

Prior to the major increase in divorce rates which occurred in the mid-1970s, remarriage rates for divorced persons were relatively high, with almost a quarter of all divorced persons aged between 25 and 40 years marrying in a given year (Table 9). The divorce boom since the 1970s has been accompanied by very much lower rates of remarriage, which continue to decline. In all years, remarriage rates were higher for men than for women.

TABLE 9 ANNUAL REMARRIAGE RATES FOR DIVORCED PERSONS AGED 25–39, 1971, 1986 AND 1991
(per 1,000 divorced persons)

	Aged 25–39		
Sex	*1971*	*1986*	*1991*
Males	246	160	120
Females	215	124	101

Source: Author's calculations from ABS' Marriages, Australia 1971, 1986 and 1991 (3306.0).

TABLE 10 RELATIONSHIP TYPE IN 1987 OF PERSONS DIVORCING(a) IN 1981 AND 1983
(per cent)

Relationship type	*Males*	*Females*
Married	58	38
Living de facto	14	14
Non-coresidential	9	17
No relationship	19	31

(a) Divorces from first marriages lasting 5-14 years and having two children.
Source: Weston and Khoo, 1993.

The decline in remarriage rates after divorce may reflect the increasing availability of other relationship options such as de facto relationships and relationships in which the partners do not live together. An AIFS study in 1987, found that four to six years after divorce from their first marriage, the relationship patterns shown in Table 10 prevailed among a sample of people who had been married between 5 and 14 years and had two children from the marriage. Most had formed new relationships, especially the men, but the new relationship did not necessarily take the form of marriage. The women, who usually had the children of the marriage with them, were twice as likely as men to have a relationship with a person with whom they did not live.

Concluding remark

The International Year of the Family comes at a time when Australians, like people in other industrialised countries, are re-establishing the meaning of family in their lives. While there has always been a variety of family types in Australia, the breadwinner model of family consisting of a father in paid employment, a mother in the home and two to four children has been the dominant cultural image of the family. In the more distant past, the variety of family forms was due more to necessity than choice, for example, sole parent family arising from the death of one of the parents. Over the past 30 years, however, many Australians have chosen to live in family forms which are different to the long-held cultural image of the breadwinner family and their decisions have met with increasing levels of acceptance by the community.

In the re-establishment of the meaning of family, it can be expected that less emphasis will be placed on the structure of families and more upon the ways families work, that is, on the nature and quality of family relationships both within and across households.

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Chapter Seven

Labour

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The information relating to labour which is presented in this chapter covers a wide range of aspects. Labour statistics are important economic indicators — changes in measures of employment, unemployment, earnings, overtime, job vacancies and industrial disputes provide insights into the performance of the economy, and the effects of economic policy settings. But labour statistics are also very much about people — their entry to the labour force, participation in it, whether they are employed or not; how much they earn, what other benefits they receive, how many hours they work; their mobility between jobs, the training they receive, and their retirement from employment.

This chapter looks first of all at the size and composition of the labour force, including age, sex, labour force status, educational attainment and birthplace.

It goes on to cover employed persons — demographic characteristics, occupation, industry, private and public sector and hours worked are presented. Next comes statistics on unemployment (and unemployment rates), demographic characteristics of the unemployed, their job search experience and job vacancies.

The section on persons not in the labour force which follows provides information about those persons who are marginally attached to the labour force, and therefore are potential participants in it. These include discouraged jobseekers.

Next, the chapter looks at those persons who have retired from full-time work and the intentions of older persons to retire.

The section dealing with earnings commences with a brief discussion on the ways in which awards are set, and notes some important wage decisions in most recent years. Increases in award rates and average weekly earnings are presented, along with details of award coverage and the distribution and composition of earnings.

As well as wages and salaries, employees receive and employers pay for a range of additional benefits. Leave entitlements are widespread. Superannuation is an area that has seen marked change in recent years. Other employee benefits, and costs to employers of employing labour are set out in detail.

The chapter moves on to examine hours worked, including overtime. Statistics about the extent, cause and duration of the current historically low levels in industrial disputation are presented, followed by details of trade union size and membership.

This is followed by statistics on training expenditure by employers, and details of how workers obtain training. The chapter concludes with information on the range of Commonwealth government employment and training programs presently available.

THE LABOUR FORCE

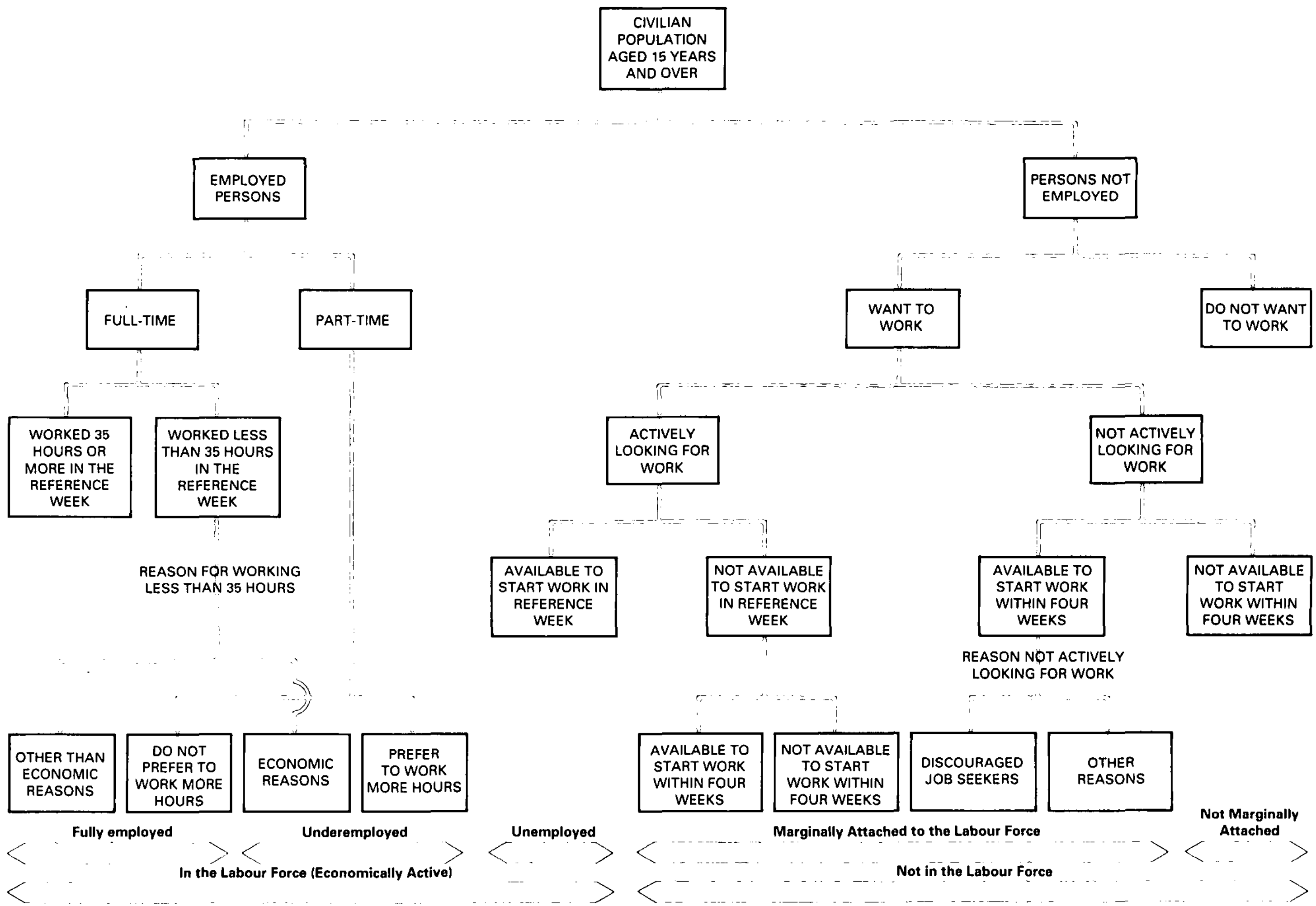
Labour force statistics are collected in a monthly population survey of a large sample of dwellings across Australia. The survey provides timely estimates of the labour force status of the Australian population, together with basic demographic data to enable various characteristics of the employed and unemployed to be analysed.

Fundamental to the measurement of employment and unemployment is the concept of the labour force. The labour force is defined broadly as those persons aged 15 and over who during a particular week are either employed or unemployed. The labour force represents the total official supply of labour available to the labour market during a given week.

The Australian labour force conceptual framework is set out schematically in diagram 7.1.

This section presents some summary statistics on the civilian labour force drawn from the ABS monthly Labour Force Survey and associated supplementary surveys. Set out below is a range of characteristics such as whether persons are employed, unemployed or not in the labour force, together with demographic information (that is, age, sex, marital status, etc.). Further details concerning the scope, coverage and survey methods (as well as more detailed statistics) of the labour force and supplementary surveys can be found in the publications listed at the end of this chapter.

7.1 THE AUSTRALIAN LABOUR FORCE FRAMEWORK



Characteristics of the labour force

The size and composition of the labour force is not static over time. Changes in the labour force are caused by an increase/decrease in labour force participation or in the population aged 15 and over.

The contribution to labour force growth due to population increase has been declining steadily since 1986–87, whereas the contribution due to labour force participation is more variable. In 1991–92, labour force participation had a downward effect on the labour force.

7.2 LABOUR FORCE: SOURCES OF CHANGES IN SIZE
(per cent)

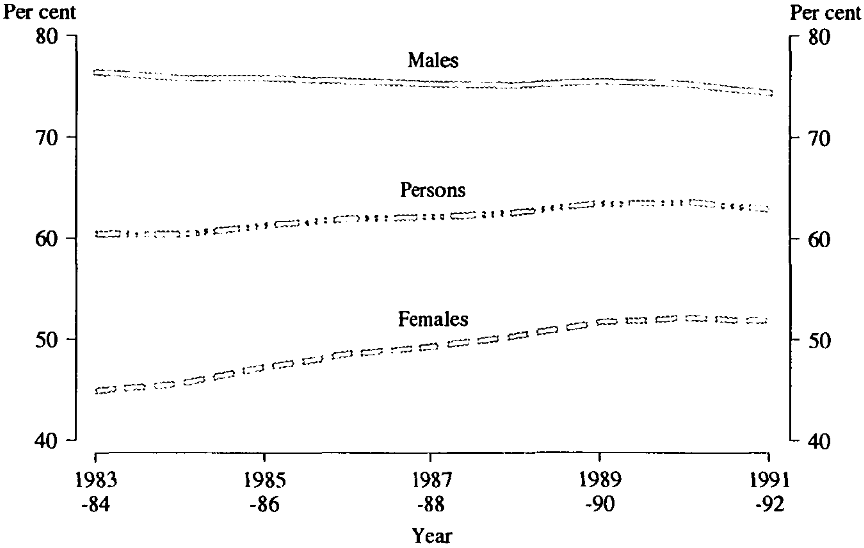
	Males			*Females*			*Persons*		
		Percentage points change due to			*Percentage points change due to*			*Percentage points change due to*	
Annual average(a)	*Per-centage change in labour force*	*Popu-lation growth*	*Labour force partici-pation*	*Per-centage change in labour force*	*Popu-lation growth*	*Labour force partici-pation*	*Per-centage change in labour force*	*Popu-lation growth*	*Labour force partici-pation*
1986–87	1.8	2.2	−0.4	5.0	2.1	2.8	3.1	2.1	0.9
1987–88	1.7	2.1	−0.4	3.5	2.1	1.4	2.4	2.1	0.3
1988–89	1.9	2.1	−0.2	4.1	2.0	2.0	2.8	2.1	0.7
1989–90	2.4	1.9	0.5	4.7	1.8	2.8	3.3	1.9	1.4
1990–91	1.6	1.8	−0.2	2.6	1.7	0.8	2.0	1.7	0.3
1991–92	0.3	1.6	−1.2	1.0	1.6	−0.7	0.6	1.6	−1.0

(a) Averages calculated on monthly estimates.
Source: The Labour Force, Australia (6203.0).

One of the most important labour force measurements is the participation rate, which represents the proportion of the working age population who are in the labour force. Analysis of the participation rates provides the basis for monitoring changes in the size and composition of labour supply, particularly in terms of age, sex and marital status. The annual average participation rate for males has declined from 75.6 per cent in 1986–87 to 74.5 per cent in 1991–92. For females, the participation rate has increased steadily from an average of 48.7 per cent in 1986–87 to 52.2 per cent in 1990–91, but fell marginally (to 51.9%) in 1991–92 (graph 7.3).

The following two tables provide more detailed information on the labour force status of persons. Table 7.4 presents the age and sex composition of the total labour force and shows that, in 1991–92, the labour force participation rate for 15 to 19 year olds stood at 55.9 per cent compared with 63.0 per cent overall. Table 7.5 shows changes in labour force status over time, with the steady increase in the female participation rate up to 1991–92 being a notable feature.

7.3 PARTICIPATION RATES, ANNUAL AVERAGE



Source: The Labour Force, Australia (6203.0).

7.4 CIVILIAN LABOUR FORCE, BY AGE, ANNUAL AVERAGE(a), 1991–92

	Number ('000)					*Participation rate (%)*				
		Females					*Females*			
Age group (years)	*Males*	*Married*	*Not married*	*Total*	*Persons*	*Males*	*Married*	*Not married*	*Total*	*Persons*
15–64	4,923.7	2,104.1	1,439.8	3,544.0	8,467.7	84.1	59.2	65.8	61.7	73.0
15–19	384.8	13.3	348.3	361.5	746.3	56.4	58.3	55.2	55.3	55.9
20–24	629.0	140.8	394.5	535.2	1,164.3	88.3	66.7	81.1	76.7	82.6
25–34	1,326.4	606.8	318.3	925.1	2,251.4	94.2	61.2	77.1	65.8	80.0
35–44	1,242.3	744.5	197.5	942.0	2,184.3	93.8	70.9	73.5	71.5	82.7
45–54	885.7	464.0	131.8	595.8	1,481.5	89.2	62.0	67.2	63.1	76.5
55–59	272.9	96.6	33.7	130.3	403.2	73.0	34.7	39.5	35.8	54.7
60–64	182.7	38.3	15.8	54.1	236.8	50.3	15.1	14.5	14.9	32.6
>64	77.2	15.6	12.5	28.1	105.3	9.0	3.3	1.9	2.5	5.3
Total	**5,000.9**	**2,119.7**	**1,452.3**	**3,572.1**	**8,572.9**	**74.5**	**52.6**	**50.8**	**51.9**	**63.0**

(a) Averages calculated on monthly estimates.
Source: The Labour Force, Australia (6203.0).

7.5 CIVILIAN POPULATION AGED 15 AND OVER: LABOUR FORCE STATUS

Annual average(a)	Employed	Unemployed: Looking for full-time work	Unemployed: Looking for part-time work	Unemployed: Total	Labour force	Not in the labour force	Civilian population aged 15 years and over	Unemployment rate	Participation rate
	'000							%	
MALES									
1986–87	4,254.1	336.1	29.8	365.9	4,620.0	1,490.1	6,110.1	7.9	75.6
1987–88	4,354.4	310.7	34.3	345.0	4,699.4	1,540.8	6,240.2	7.3	75.3
1988–89	4,494.3	263.4	32.4	295.9	4,790.2	1,580.6	6,370.8	6.2	75.2
1989–90	4,622.2	248.2	34.4	282.6	4,904.7	1,587.7	6,492.4	5.8	75.5
1990–91	4,562.9	377.0	44.0	421.0	4,983.9	1,623.1	6,606.9	8.4	75.4
1991–92	4,459.2	497.5	44.2	541.7	5,000.9	1,710.7	6,711.6	10.8	74.5
FEMALES									
1986–87	2,790.2	189.4	79.8	269.3	3,059.5	3,221.1	6,280.6	8.8	48.7
1987–88	2,901.9	183.1	82.4	265.5	3,167.4	3,244.9	6,412.3	8.4	49.4
1988–89	3,056.9	160.9	78.3	239.2	3,296.0	3,246.8	6,542.8	7.3	50.4
1989–90	3,218.1	154.8	77.6	232.4	3,450.5	3,212.4	6,662.9	6.7	51.8
1990–91	3,245.9	202.0	90.5	292.6	3,538.5	3,238.4	6,776.9	8.3	52.2
1991–92	3,224.9	253.7	93.4	347.2	3,572.1	3,314.6	6,886.7	9.7	51.9

(a) Averages calculated on monthly estimates.
Source: The Labour Force, Australia (6203.0).

The labour force participation rate for the overseas born in the Australian labour force at May 1992 was 60.9 per cent compared with the participation rate of 65.2 per cent for the Australian born. The participation rate for overseas born persons born in other than English speaking countries was 58.1 per cent. Persons born in New Zealand had the highest participation rate (77.2%).

7.6 CIVILIAN LABOUR FORCE BY BIRTHPLACE, MAY 1992

	Employed: Full-time workers ('000)	Employed: Total ('000)	Unemployed: Looking for full-time work ('000)	Unemployed: Total ('000)	Labour force ('000)	Unemployment rate (%)	Participation rate (%)
Born in Australia	4,337.2	5,770.3	544.4	640.0	6,410.3	10.0	65.2
Born outside Australia	1,517.7	1,917.2	245.1	280.4	2,197.6	12.8	60.9
Main English speaking countries	656.8	849.0	80.9	96.1	945.1	10.2	65.1
Other countries	860.9	1,068.2	164.3	184.3	1,252.5	14.7	58.1
Oceania	161.1	203.6	24.7	28.7	232.2	12.3	75.3
New Zealand	126.8	161.0	20.3	23.1	184.1	12.6	77.2
Europe and the former USSR	939.6	1,191.7	126.8	147.0	1,338.6	11.0	58.4
Germany	46.9	59.6	7.6	8.2	67.7	12.1	60.8
Greece	56.0	70.2	7.0	7.5	77.7	9.6	55.4
Italy	96.8	119.8	12.8	15.8	135.6	11.7	48.6
Netherlands	46.1	59.8	*2.6	*2.6	62.4	*4.2	59.1
UK and Ireland	475.8	614.7	55.8	67.8	682.5	9.9	61.6
Yugoslavia(a)	81.7	96.8	16.0	16.8	113.6	14.8	65.0
The Middle East and North Africa	50.2	59.6	21.6	24.1	83.7	28.8	52.8
Lebanon	17.6	21.2	10.5	12.6	33.7	37.3	50.1
South–East Asia	140.1	168.2	39.5	43.7	211.9	20.6	62.1
Malaysia	29.5	38.0	5.1	6.2	44.2	13.9	62.9
Philippines	29.9	34.9	6.6	7.5	42.4	17.7	67.3
Vietnam	42.2	45.8	19.1	19.8	65.7	30.2	58.5
North–east Asia	81.9	105.4	11.8	13.9	119.3	11.6	57.6
China	41.3	52.2	7.2	8.5	60.7	14.0	63.6
The Americas	51.1	67.8	9.7	10.9	78.7	13.9	71.3
Other	93.6	121.0	11.0	12.1	133.1	9.1	69.7
India	28.3	33.6	4.0	4.4	38.0	11.5	65.8

(a) Includes Yugoslavia and former Yugoslav Republics.
Source: The Labour Force, Australia (6203.0).

Statistics on labour force status according to level of educational attainment are contained in the chapter on Education.

EMPLOYMENT

Broadly, persons are considered to be employed if they are doing any work at all, regardless of the number of hours worked. In the statistics, employment is presented according to the demographic characteristics of employed persons, their occupation and industry, hours worked and whether they are full-time or part-time workers. Data for employed wage and salary earners by whether they work in the private or government sector, and estimates for apprentices and qualified tradespersons are also included in this section.

By relating employment levels to population levels, the magnitude of job growth in the economy can be evaluated. The measure relating these two levels is the employment/population ratio. ~~Its usefulness lies in the fact that while movements in the employment level reflect net changes in the levels of persons holding jobs, movements in the ratio reflect net changes in the number of jobholders relative to changes in the size of the population. While a rise in employment may not appear as a rise in the ratio because of continuing population growth, a decrease in employment will always appear as a fall in the ratio.~~ Since reaching a peak of 51.8 per cent in 1989–90, the employment/population ratio for 15 to 19 year old teenagers has declined rapidly ~~(as school retention rates increase)~~ and stood at 42.5 per cent in 1991–92.

7.7 EMPLOYED PERSONS: EMPLOYMENT/POPULATION RATIOS(a)
(per cent)

	Age group (years)								
Annual average(b)	*15–19*	*20–24*	*25–34*	*35–44*	*45–54*	*55–59*	*60–64*	*>64*	*Total*
MALES									
1986–87r	48.6	79.5	88.3	90.0	85.3	71.7	42.4	8.5	69.6
1987–88r	49.1	79.7	88.8	90.3	84.8	70.5	43.5	9.0	69.8
1988–89r	51.7	81.7	89.0	90.8	85.4	69.8	45.4	9.0	70.6
1989–90r	53.0	81.9	89.8	90.8	86.5	71.3	46.2	9.1	71.2
1990–91r	47.5	77.4	86.7	89.4	85.8	70.5	45.9	8.9	69.1
1991–92	42.5	73.1	84.3	86.8	83.5	66.0	43.8	8.8	66.4
FEMALES									
1986–87r	47.4	68.2	56.6	61.2	52.2	29.6	12.9	2.4	44.4
1987–88r	47.6	68.9	58.0	62.6	53.5	30.2	12.7	2.7	45.3
1988–89r	49.2	70.3	59.2	65.2	55.6	31.2	14.6	2.3	46.7
1989–90r	50.7	71.0	61.7	68.2	57.6	31.3	15.0	2.2	48.3
1990–91r	46.3	69.5	60.8	67.5	59.2	34.2	15.7	2.5	47.9
1991–92	42.4	66.3	59.8	66.8	59.2	34.1	14.5	2.4	46.8
PERSONS									
1986–87r	48.0	73.9	72.4	75.8	69.2	51.0	27.3	5.0	56.9
1987–88r	48.4	74.3	73.4	76.6	69.5	50.7	27.9	5.4	57.4
1988–89r	50.5	76.0	74.1	78.1	70.9	50.8	29.8	5.1	58.5
1989–90r	51.8	76.5	75.8	79.6	72.4	51.6	30.5	5.1	59.6
1990–91r	46.9	73.5	73.8	78.5	72.8	52.6	30.8	5.3	58.3
1991–92	42.5	69.8	72.1	76.8	71.7	50.3	29.2	5.2	56.5

(a) Employment/population ratio for any group is the number of employed persons expressed as a percentage of the civilian population aged 15 and over in the same group. (b) Averages calculated on monthly estimates.
Source: The Labour Force, Australia (6203.0).

Employed persons, that is, employers, self-employed persons, wage and salary earners and unpaid family helpers, are those who, during the reference week, worked for one hour or more for pay, profit, commission or payment in kind in a job or a business, or on a farm. While estimates of self-employed persons have increased relatively steadily from a low of 708,400 in 1987–88 to 801,000 in 1991–92, estimates for wage and salary earners increased from 5,895,100 in 1986–87 to 6,661,800 in 1989–90, before declining to 6,446,400 in 1991–92.

7.8 EMPLOYED PERSONS: STATUS OF WORKER ('000)

Annual average(a)	*Employers*	*Self-employed*	*Wage and salary earners*	*Unpaid family helpers*	*Total*
1986–87	335.5	724.5	5,895.1	64.6	7,019.7
1987–88	365.2	708.4	6,080.1	65.5	7,219.2
1988–89	367.4	734.4	6,371.9	66.5	7,540.3
1989–90	372.4	736.0	6,661.8	60.6	7,830.9
1990–91	368.4	763.2	6,589.6	67.1	7,788.3
1991–92	349.7	801.0	6,446.4	73.3	7,670.4

(a) Averages calculated on quarterly estimates.
Source: The Labour Force, Australia (6203.0).

A measure of the relative importance of an industry is the size of its work force and the work effort of that work force as measured by hours worked. Taken together, employment and hours worked by industry serve as an indicator of labour input to that industry. In 1991–92, average weekly hours worked by all employed persons stood at 35.5. Employed males worked an average of 40.1 hours per week while for females the weekly average hours worked was 29.2.

7.9 EMPLOYED PERSONS BY INDUSTRY AND AVERAGE WEEKLY HOURS WORKED ANNUAL AVERAGE(a), 1991–92

	Number ('000)			*Average weekly hours worked*		
Industry	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
Agriculture, forestry, fishing and hunting	288.1	120.9	409.0	49.7	29.2	43.6
Mining	82.9	8.3	91.2	41.7	36.1	41.1
Manufacturing	808.3	303.4	1,111.6	39.7	32.4	37.7
Food, beverages and tobacco	128.5	61.2	189.7	39.5	32.2	37.1
Metal products	154.6	26.4	181.0	40.2	30.5	38.8
Other manufacturing	525.2	215.8	741.0	39.6	32.7	37.6
Electricity, gas and water	93.5	14.1	107.6	35.9	32.1	35.3
Construction	454.1	64.1	518.2	38.7	20.3	36.4
Wholesale and retail trade	872.2	724.3	1,596.5	40.4	27.3	34.4
Transport and storage	308.9	80.8	389.7	41.3	31.2	39.2
Communication	94.0	38.0	132.0	35.3	30.1	33.8
Finance, property and business services	450.6	434.2	884.8	40.9	30.7	35.9
Public administration and defence	212.8	140.4	353.2	35.9	31.2	34.0
Community services	503.2	949.5	1,452.7	38.6	29.7	32.7
Recreation, personal and other services	280.8	343.2	624.0	37.8	27.3	32.0
Total	**4,449.5**	**3,220.9**	**7,670.4**	**40.1**	**29.2**	**35.5**

(a) Averages calculated on quarterly estimates.
Source: The Labour Force, Australia (6203.0).

7.10 EMPLOYED PERSONS BY OCCUPATION, ANNUAL AVERAGE(a), 1991–92 ('000)

Occupation(b)	*Males*	*Married females*	*All females*	*Persons*
Managers and administrators	638.9	177.7	219.7	858.6
Professionals	596.1	266.8	431.8	1,027.9
Para-professionals	253.0	128.3	210.7	463.7
Tradespersons	1,036.5	62.8	114.5	1,151.0
Clerks	296.7	650.0	1,001.8	1,298.6
Salespersons and personal service workers	416.2	368.6	754.8	1,171.0
Plant and machine operators, and drivers	466.4	60.9	86.9	553.2
Labourers and related workers	745.7	266.2	400.7	1,146.4
Total	**4,449.5**	**1,981.2**	**3,220.9**	**7,670.4**

(a) Averages calculated on quarterly estimates. (b) Classified according to the *Australian Standard Classification of Occupations* (ASCO), 1986.
Source: The Labour Force, Australia (6203.0).

Full-time workers are those who usually work 35 hours or more a week or who worked 35 hours or more during the reference week of the Labour Force Survey. Part-time workers are those who usually work less than 35 hours a week and who did so during the reference week. In 1991–92, there were 4,029,300 males employed full time (90.4% of male employment), whereas the number of females employed full time stood at 1,898,000 (58.9% of female employment).

7.11 EMPLOYED PERSONS: FULL-TIME AND PART-TIME WORKERS BY AGE ANNUAL AVERAGE(a), 1991–92 ('000)

	Age group (years)								
	15–19	*20–24*	*25–34*	*35–44*	*45–54*	*55–59*	*60–64*	*>64*	*Total*
MALES									
Full-time workers	167.1	453.2	1,121.3	1,097.7	790.0	222.3	131.1	46.6	4,029.3
Part-time workers	124.1	67.8	66.1	51.5	39.1	24.4	28.0	28.9	429.9
Total	**291.2**	**521.0**	**1,187.4**	**1,149.2**	**829.1**	**246.7**	**159.1**	**75.5**	**4,459.2**
FEMALES									
Full-time workers	106.2	346.3	533.6	488.0	324.9	64.7	24.2	10.2	1,898.0
Part-time workers	171.0	116.5	307.2	392.4	234.3	59.4	28.5	17.6	1,326.9
Total	**277.2**	**462.8**	**840.8**	**880.4**	**559.2**	**124.1**	**52.7**	**27.8**	**3,224.9**

(a) Averages calculated on monthly estimates.
Source: The Labour Force, Australia (6203.0).

Tables 7.12, 7.13 and graph 7.14 provide various views of the distribution of employed wages and salary earners between industries, the private and public sectors, and States and Territories. It should be noted that these statistics are obtained from the Survey of Employment and Earnings conducted among employers and, as such, are complementary to but not compatible with, those from the household based Labour Force Survey. While the latter provides better estimates of overall employment movements at Australia and State/Territory levels, the former provides other dissections by industry and sector.

The number of employed wage and salary earners in Australia in the private and public sectors is shown in graph 7.14. The number of employed wage and salary earners in the private sector grew steadily for a number of years to 4,591,900 in December 1989 and then declined steadily to 4,171,900 in December 1991, an annual rate of decrease of 4.7 per cent. From December 1991 to December 1992 the number of private sector employees increased by 5,800 (0.1%) to 4,177,700. The number of employees in the public sector, in contrast, remained relatively constant over the same period.

7.12 EMPLOYED WAGE AND SALARY EARNERS: INDUSTRY BY SECTOR ('000)

	Private sector				*Public sector*			
Industry	*Dec. 1989*	*Dec. 1990*	*Dec. 1991*	*Dec. 1992*	*Dec. 1989*	*Dec. 1990*	*Dec. 1991*	*Dec. 1992*
Agriculture, forestry, fishing and hunting(a)	. .	. .	. .	. .	7.5	7.7	7.0	4.8
Mining	77.3	79.6	71.0	72.7	6.5	6.0	5.0	4.5
Manufacturing	1,061.3	976.0	880.6	879.8	34.1	31.2	25.8	23.0
Electricity, gas and water	2.7	1.7	3.3	3.1	114.7	111.3	102.8	94.9
Construction	277.0	243.4	221.4	210.0	44.1	43.4	38.9	42.0
Wholesale and retail trade	1,314.3	1,277.5	1,213.8	1,207.0	4.6	4.2	3.2	2.6
Transport and storage	181.1	181.0	155.8	155.0	136.8	131.1	124.8	112.8
Communication	1.6	0.9	0.8	1.1	128.4	127.9	120.5	112.7
Finance, property and business services	711.1	669.8	627.8	660.3	114.6	115.5	105.6	102.9
Public administration and defence(b)	—	—	—	—	307.0	314.3	334.0	328.1
Community services	500.1	512.0	530.5	549.0	792.5	813.0	809.3	833.5
Health	236.8	238.0	244.4	251.5	290.5	293.3	290.1	283.5
Education	108.0	115.1	121.0	113.8	373.4	384.1	382.0	408.4
Other	155.3	159.0	165.2	183.8	128.6	135.6	137.2	141.7
Recreation, personal and other services	465.5	446.7	467.0	439.7	24.6	24.3	23.4	21.0
Total all industries	**4,591.9**	**4,388.7**	**4,171.9**	**4,177.7**	**1,715.2**	**1,729.9**	**1,700.3**	**1,682.7**

(a) Out of scope of survey for private sector. (b) Excludes members of permanent defence forces and employees of overseas embassies, consulates etc.

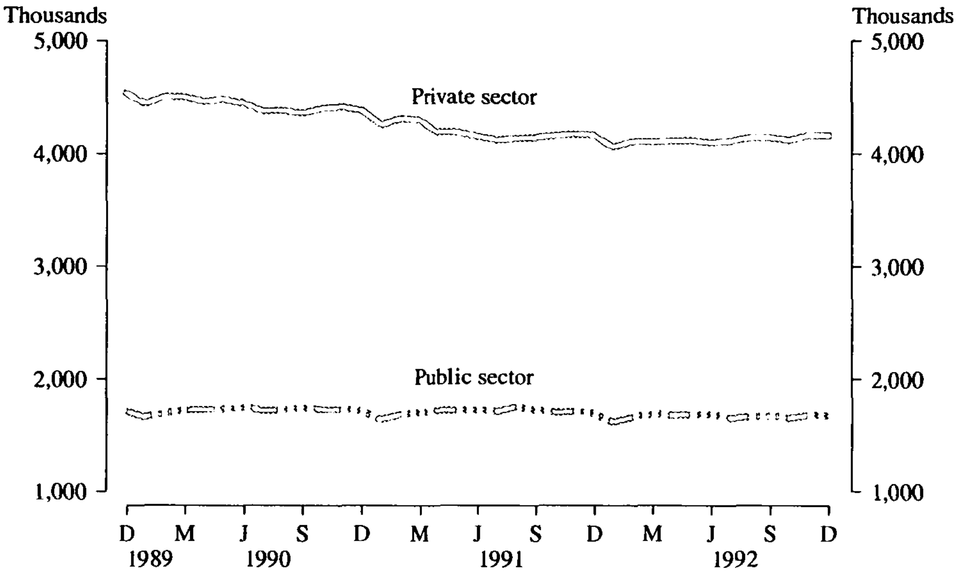
Source: Employed Wage and Salary Earners, Australia (6248.0).

7.13 EMPLOYED WAGE AND SALARY EARNERS: BY SECTOR, DECEMBER 1992 ('000)

Sector	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
Private	1,477.9	1,124.6	666.3	328.4	387.2	96.6	35.7	61.0	4,177.7
Public	534.5	429.3	277.4	143.3	160.7	46.8	18.8	72.1	1,682.7
Commonwealth	128.0	96.3	46.0	27.2	24.4	8.4	3.8	52.6	386.7
State	352.1	286.6	197.8	106.8	124.1	33.9	13.7	19.4	1,134.4
Local	54.4	46.4	33.6	9.3	12.1	4.4	1.2	—	161.5
Total	**2,012.4**	**1,553.9**	**943.7**	**471.7**	**547.9**	**143.4**	**54.4**	**133.0**	**5,860.4**

Source: Employed Wage and Salary Earners, Australia (6248.0).

7.14 EMPLOYED WAGE AND SALARY EARNERS, BY SECTOR



Source: Employed Wage and Salary Earners, Australia (6248.0).

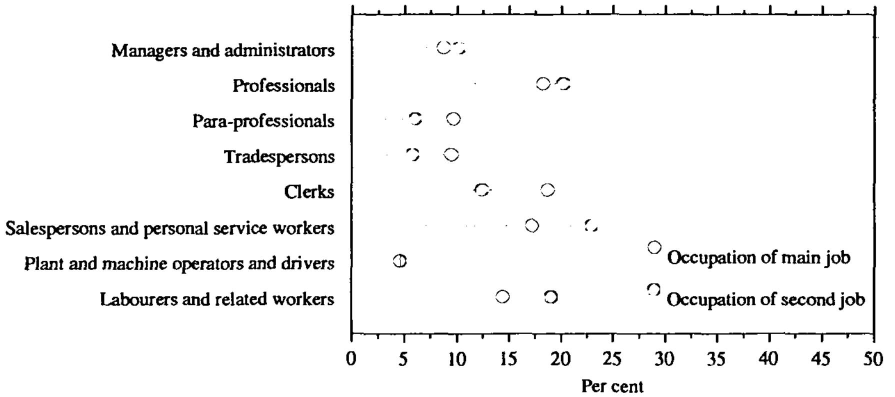
Multiple jobholders

In July 1991, there were 331,600 persons aged 15 and over who were multiple jobholders. To be classified as a multiple jobholder a person had to be a wage and salary earner in at least one of their jobs.

During the period August 1979 to July 1991, the Recreation, personal and other services industry consistently had the highest proportion of multiple jobholders to persons employed (whether in their main or second job) in that industry, followed by Agriculture, forestry, fishing and hunting and Community services. Over the same period, Manufacturing had the lowest proportion of multiple jobholders to persons employed in the Manufacturing industry.

Of the 331,600 multiple jobholders in July 1991, 31 per cent worked in the same industry in both their main and second job. For those multiple jobholders whose main job was in the Community services industry, 58 per cent had their second job in the same industry. This compared to 15 per cent of persons whose main and second job was in the Recreation, personal and other services industry.

7.15 MULTIPLE JOBHOLDERS: OCCUPATION OF MAIN JOB AND SECOND JOB, JULY 1991



Source: Multiple Jobholding, Australia (6216.0).

7.16 MULTIPLE JOBHOLDERS: SELECTED CHARACTERISTICS, BY NUMBER, PROPORTION OF EMPLOYED PERSONS AND PROPORTION OF THE LABOUR FORCE, JULY 1991

	Number ('000)			Proportion of employed persons (%)			Proportion of labour force (%)		
Characteristics	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
Marital status									
Married	109.0	110.0	219.1	3.7	5.6	4.4	3.4	5.2	4.2
Not-married	54.2	58.4	112.5	3.6	4.8	4.2	3.1	4.2	3.6
Birthplace and period of arrival									
Born in Australia	130.2	134.4	264.6	4.0	5.5	4.6	3.6	5.1	4.2
Born ouside Australia	33.0	34.0	67.0	2.8	4.5	3.5	2.5	4.0	3.1
Born in main English speaking countries	17.8	17.3	35.1	3.5	4.9	4.1	3.2	4.5	3.7
Born in other countries	15.2	16.7	31.9	2.3	4.1	3.0	2.0	3.6	2.6
Arrived before 1981	23.0	24.5	47.5	2.7	4.5	3.4	2.4	4.2	3.1
Arrived 1981 to survey date	10.0	9.5	19.5	3.2	4.4	3.7	2.6	3.7	3.0
Age (years)									
15–19	9.8	12.6	22.4	3.4	4.5	3.9	2.6	3.5	3.1
20–24	21.3	21.7	42.9	4.1	4.7	4.4	3.5	4.1	3.8
25–34	49.8	47.9	97.7	4.2	5.8	4.8	3.8	5.3	4.4
35–44	47.1	56.7	103.8	4.1	6.5	5.1	3.8	6.1	4.8
45–54	24.7	25.2	49.9	3.0	4.7	3.7	2.9	4.4	3.5
>54	10.5	4.3	14.9	2.2	2.3	2.2	2.0	2.2	2.1
Total	**163.2**	**168.4**	**331.6**	**3.7**	**5.3**	**4.3**	**3.3**	**4.8**	**3.9**

Source: Multiple Jobholding, Australia (6216.0).

UNEMPLOYMENT

Broadly, persons are considered to be unemployed if they satisfy three criteria — not employed, available for work, and taking active steps to find work.

The two most important unemployment measures are the number of persons unemployed and the unemployment rate.

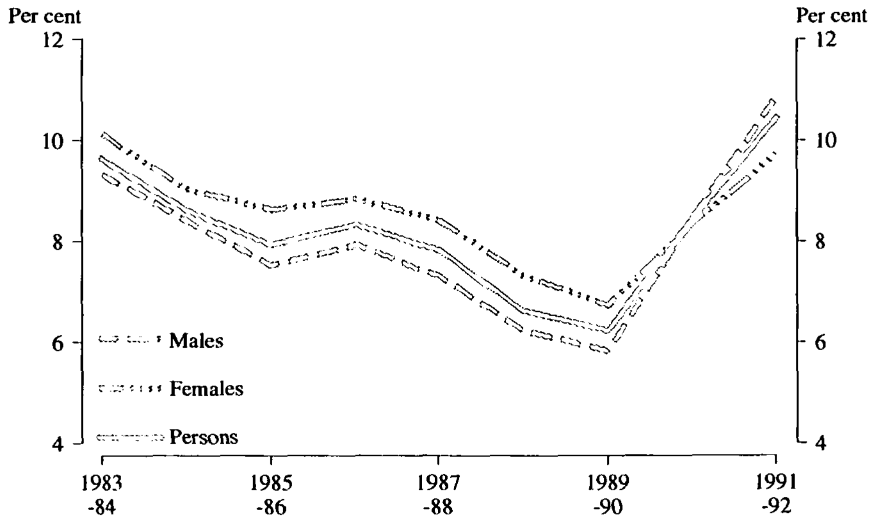
The number of unemployed increased from an average of 635,100 in 1986–87 to 888,900 in 1991–92.

The unemployment rate is defined as the number of unemployed expressed as a percentage of the size of the labour force.

The annual average unemployment rate for males rose significantly between 1989–90 and 1991–92, increasing from 5.8 per cent to 10.8 per cent. For females, the unemployment rose from 6.7 per cent to 9.7 per cent over the same period (graph 7.17).

By examining particular groups and characteristics of the unemployed, various economic and social aspects of unemployment can be analysed. While the above aggregate unemployment rates are important overall indicators, full-time and part-time unemployment levels and rates for different age groups by sex and marital status, shown in table 7.18, provide additional perspectives.

7.17 UNEMPLOYMENT RATE, ANNUAL AVERAGE



Source: The Labour Force, Australia (6203.0).

7.18 UNEMPLOYED PERSONS: AGE AND WHETHER LOOKING FOR FULL-TIME OR PART-TIME WORK, ANNUAL AVERAGE(a), 1991–92

	Number unemployed ('000)				*Unemployment rate (%)*			
Age (years)	*Males*	*Married females*	*All females*	*Persons*	*Males*	*Married females*	*All females*	*Persons*
LOOKING FOR FULL-TIME WORK								
Aged 15–19	*68.4*	**4.9*	*54.3*	*122.7*	*29.0*	*49.5*	*33.8*	*31.0*
Looking for first job	34.3	*1.6	27.7	62.0	. .	. .	. .	. .
Attending school	5.0	n.a.	2.7	7.7	59.5	n.a.	68.6	62.4
Attending a tertiary educational institution full time	3.2	n.a.	2.7	6.0	38.5	n.a.	52.0	43.7
Aged >19	*429.1*	*92.6*	*199.4*	*628.5*	*10.0*	*8.1*	*10.0*	*10.0*
20–24	100.9	13.3	61.2	162.1	18.2	12.7	15.0	16.9
Looking for first job	10.2	*1.6	11.4	21.6	. .	. .	. .	. .
25–34	134.7	33.3	61.3	196.0	10.7	9.9	10.3	10.6
35–44	90.8	27.0	43.7	134.5	7.6	7.0	8.2	7.8
45–54	54.6	16.3	28.4	83.0	6.5	6.5	8.0	6.9
>54	48.0	*2.7	4.9	52.9	10.7	4.1	4.7	9.6
Aged 15–64	*496.4*	*97.5*	*253.6*	*750.0*	*11.1*	*8.5*	*11.8*	*11.3*
Total	**497.5**	**97.5**	**253.7**	**751.2**	**11.0**	**8.4**	**11.8**	**11.3**
LOOKING FOR PART-TIME WORK								
Aged 15–19	*25.2*	*0.7*	*30.0*	*55.2*	*16.9*	*20.2*	*14.9*	*15.8*
Attending school	16.8	n.a.	19.0	35.8	19.8	n.a.	18.1	18.9
Attending a tertiary educational institution full time	5.9	n.a.	7.8	13.7	18.6	n.a.	16.1	17.1
Aged >19	*19.0*	*41.6*	*63.4*	*82.5*	*5.9*	*4.3*	*5.2*	*5.3*
20–24	7.1	3.5	11.4	18.5	9.5	9.6	8.9	9.1
Attending a tertiary educational institution full time	5.1	n.a.	4.8	9.9	14.9	n.a.	11.4	13.0
25–34	4.3	16.6	23.0	27.3	6.1	6.1	7.0	6.8
35–44	2.3	13.7	17.9	20.2	4.3	3.8	4.4	4.3
>44	5.3	7.9	11.2	16.5	4.2	2.7	3.2	3.5
Aged 15–64	*43.5*	*42.3*	*93.2*	*136.8*	*9.8*	*4.4*	*6.7*	*7.4*
Total	**44.2**	**42.3**	**93.4**	**137.6**	**9.3**	**4.4**	**6.6**	**7.3**

(a) Averages calculated on monthly estimates.
Source: The Labour Force, Australia (6203.0).

The number of persons unemployed for 52 weeks or more increased by 46.2 per cent from 176,800 in 1986–87 to 258,400 in 1991–92.

Some 29.1 per cent of all unemployed persons in 1991–92 had been unemployed for 52 weeks or more (table 7.19).

7.19 UNEMPLOYED PERSONS: DURATION OF UNEMPLOYMENT

	Duration of unemployment (weeks)					
Annual average(a)	*Under 4*	*4 and under 13*	*13 and under 26*	*26 and under 52*	*52 and over*	*Total*
1986–87	112.3	145.1	96.5	104.4	176.8	635.1
1987–88	115.9	143.7	88.3	93.6	169.1	610.5
1988–89	113.6	128.8	72.6	74.3	145.7	535.0
1989–90	118.7	135.2	72.2	72.3	116.6	515.0
1990–91	132.2	185.4	128.1	117.2	150.7	713.6
1991–92	123.5	180.8	144.4	181.8	258.4	888.9

(a) Averages calculated on monthly estimates.
Source: The Labour Force, Australia (6203.0).

Job search experience

An estimated 89 per cent of unemployed persons looking for full-time work in July 1992 were registered with the Commonwealth Employment Service (CES) compared with 36 per cent of those looking for part-time work.

In total, 82 per cent of unemployed persons were registered with the CES. Over the period July 1980 to July 1992 this estimate ranged between 73 per cent and 82 per cent.

Approximately 37 per cent of all the unemployed at July 1992 had been unemployed for over one year. For this group the most frequently reported main difficulties in finding work were 'no vacancies at all', 'considered too young or too old by employers' and 'no vacancies in line of work'.

7.20 UNEMPLOYED PERSONS: ACTIVE STEPS TAKEN TO FIND WORK AND WHETHER LOOKING FOR FULL-TIME OR PART-TIME WORK, JULY 1992 ('000)

	Looking for full-time work			*Looking for part-time work*			*Total*		
Active steps taken to find work	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
Registered with the CES and									
Took no other active steps	*3.5	*2.0	5.5	*0.5	*0.6	*1.1	4.0	*2.6	6.6
Contacted prospective employers	466.9	200.0	667.0	10.9	23.2	34.1	477.8	223.2	701.0
Took other active steps	19.3	8.5	27.8	*2.3	3.7	6.0	21.6	12.2	33.9
Total	*489.8*	*210.6*	*700.3*	*13.7*	*27.5*	*41.2*	*503.5*	*238.0*	*741.5*
Not registered with the CES and									
Contacted prospective employers	33.4	41.3	74.7	18.7	46.1	64.8	52.2	87.4	139.6
Took other active steps	6.0	*3.5	9.4	3.7	5.8	9.5	9.6	9.3	18.9
Total	*39.4*	*44.8*	*84.2*	*22.4*	*51.9*	*74.3*	*61.8*	*96.7*	*158.5*
Total	**529.1**	**255.3**	**784.5**	**36.2**	**79.4**	**115.5**	**565.3**	**334.7**	**900.0**

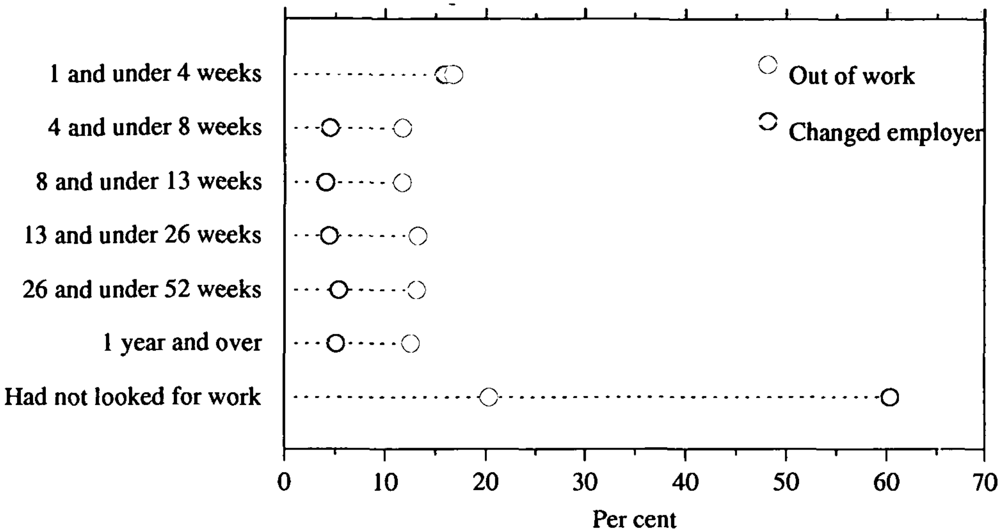
Source: Job Search Experience of Unemployed Persons, Australia (6222.0).

In the 12 months to July 1992, an estimated 1,453,000 persons started a job for wages or salary (lasting two weeks or more). Of these persons, 423,800 had changed employer to start the job.

Of the persons who started a job for wages or salary, 39 per cent obtained their job by approaching the employer without prior knowledge that the job was available, while 37 per cent approached the employer knowing that the job was available. The remaining 24 per cent of jobs had been obtained as a result of the employer approaching the jobseeker.

Younger persons were more inclined to approach an employer for a job than older persons. An estimated 78 per cent of those aged 15 to 34 years approached an employer for a job compared with 70 per cent of persons aged 35 years and over.

7.21 PERSONS WHO STARTED A WAGE OR SALARY JOB IN THE PREVIOUS TWELVE MONTHS: LENGTH OF TIME LOOKING FOR WORK BEFORE BEING OFFERED JOB AND WHETHER OUT OF WORK BEFORE BEING OFFERED A JOB, JULY 1992



Source: Successful and Unsuccessful Job Search Experience, Australia (6245.0).

7.22 PERSONS WHO STARTED A WAGES OR SALARY JOB IN THE PREVIOUS TWELVE MONTHS: AGE, WHETHER OUT OF WORK PRIOR TO STARTING JOB AND WHETHER JOB STARTED WAS IN PREFERRED OCCUPATION, JULY 1992 ('000)

Whether job started was in preferred occupation	Age group (years) *15–19*	*20–24*	*25–34*	*35–44*	*45–54*	*>54*	*Total*
OUT OF WORK PRIOR TO STARTING JOB							
Job was in preferred occupation	132.5	134.5	164.8	109.8	51.1	18.5	611.3
Job was not in preferred occupation	52.3	54.0	57.0	37.9	15.9	3.6	220.7
Preferred occupation not specified	9.4	5.5	5.5	*3.4	*1.7	*0.8	26.3
Did not have a preferred occupation	60.6	34.2	41.9	20.9	8.5	4.7	170.9
Total	*254.8*	*228.2*	*269.3*	*172.0*	*77.2*	*27.6*	*1,029.2*
CHANGED EMPLOYER TO START JOB							
Job was in preferred occupation	34.6	70.4	114.3	70.2	30.3	6.4	326.3
Job was not in preferred occupation	7.2	16.3	18.6	8.6	*3.2	*1.5	55.4
Preferred occupation not specified	*0.4	*1.5	*1.9	*1.7	*0.6	*0.5	6.6
Did not have a preferred occupation	9.4	5.9	8.6	7.2	*3.4	*1.0	35.5
Total	*51.6*	*94.2*	*143.4*	*87.7*	*37.5*	*9.5*	*423.8*

... continued

7.22 PERSONS WHO STARTED A WAGES OR SALARY JOB IN THE PREVIOUS TWELVE MONTHS: AGE, WHETHER OUT OF WORK PRIOR TO STARTING JOB AND WHETHER JOB STARTED WAS IN PREFERRED OCCUPATION, JULY 1992 — *continued*
('000)

Whether job started was in preferred occupation	*Age group (years)* 15–19	20–24	25–34	35–44	45–54	>54	*Total*
			TOTAL				
Job was in preferred occupation	167.1	205.0	279.2	180.0	81.4	24.9	937.6
Job was not in preferred occupation	59.5	70.3	75.7	46.5	19.1	5.1	276.2
Preferred occupation not specified	9.9	7.0	7.4	5.0	*2.3	*1.3	32.9
Did not have a preferred occupation	69.9	40.1	50.5	28.2	11.9	5.6	206.3
Total	**306.4**	**322.4**	**412.7**	**259.7**	**114.7**	**37.0**	**1,453.0**

Source: Successful and Unsuccessful Job Search Experience, Australia (6245.0).

JOB VACANCIES

Job vacancy statistics taken together with unemployment statistics assist in the assessment of the demand for labour.

A job vacancy is a job available for immediate filling and for which recruitment action has been taken by the employer.

The estimated number of job vacancies in Australia increased from 53,800 in May 1987 to 73,100 in May 1989 and then fell rapidly to 25,100 in May 1991. The number of job vacancies remained at a subdued level between May 1991 and May 1992.

7.23 JOB VACANCIES
('000)

Month	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
May 1987	19.9	17.6	4.0	3.5	5.5	1.0	0.7	1.6	53.8
May 1988	22.0	18.6	6.6	3.1	4.8	0.7	0.7	1.9	58.5
May 1989	26.3	24.1	10.4	3.5	4.5	0.9	1.1	2.3	73.1
May 1990	19.9	13.1	7.1	*3.4	2.7	1.0	0.7	2.3	50.1
May 1991	10.5	3.8	4.4	1.5	2.1	0.7	0.3	1.8	25.1
May 1992	6.5	5.8	5.1	1.4	3.2	0.6	0.4	1.3	24.3

Source: Job Vacancies and Overtime, Australia (6354.0).

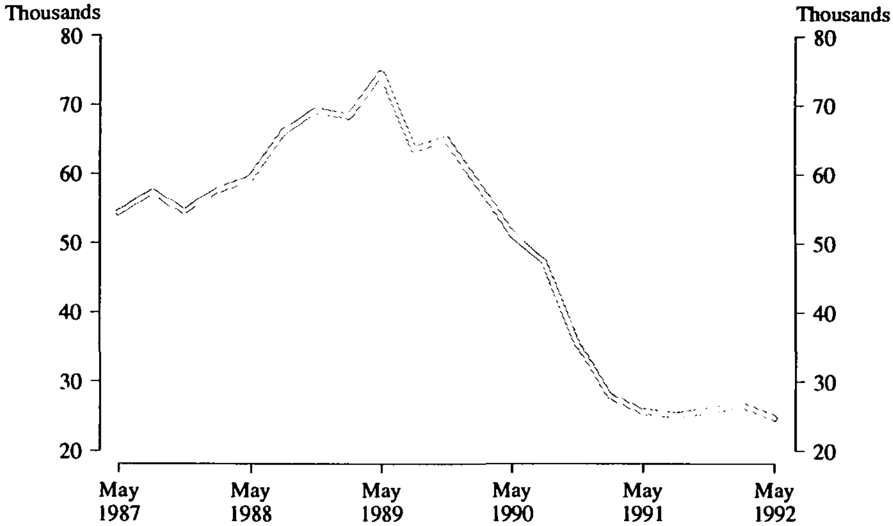
7.24 JOB VACANCY RATES(a)
(per cent)

Month	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
May 1987	1.1	1.2	0.5	0.7	1.1	0.7	1.5	1.3	1.0
May 1988	1.0	1.2	0.8	0.7	0.9	0.5	1.3	1.4	1.0
May 1989	1.2	1.5	1.2	0.7	0.9	0.6	1.9	1.7	1.2
May 1990	1.0	0.8	0.8	*0.7	0.6	0.7	1.3	1.9	0.9
May 1991	0.5	0.2	0.5	0.3	0.4	0.4	0.5	1.4	0.4
May 1992	0.3	0.4	0.6	0.3	0.6	0.4	0.6	1.0	0.4

(a) Job vacancy rate is calculated by expressing the number of job vacancies as a percentage of the number of employees plus vacancies.

Source: Job Vacancies and Overtime, Australia (6354.0).

7.25 JOB VACANCIES



Source: Job Vacancies and Overtime, Australia (6354.0).

PERSONS NOT IN THE LABOUR FORCE

Persons not in the labour force represent that group of the population who, during a particular week, are neither employed nor unemployed — *see* diagram 7.1. Interest in this group centres primarily around their potential to participate in the labour force and their reasons for their current labour force status.

Of the 3.7 million persons aged 15 to 69 years not in the labour force at September 1992, 23 per cent reported marginal attachment to the labour force and therefore were potential participants in it. An estimated 71 per cent of these potential labour force participants were female.

Marginal attachment to the labour force includes 'discouraged jobseekers'. These are persons who wanted to work and were available to start work but were not looking for work because they believed they would not be able to find a job. This was either because they believed that jobs were not available, or that they would not be acceptable to employers because of their age, their lack of skills/education, or difficulties with language or ethnic background.

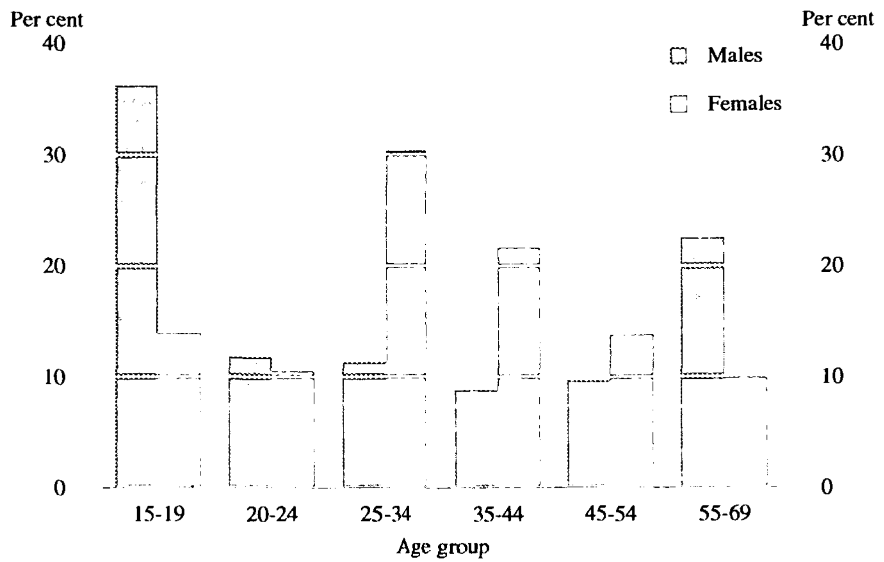
In September 1992 there were 145,600 discouraged jobseekers — five per cent more than the estimate for September 1991.

7.26 CIVILIAN POPULATION AGED 15 TO 69: LABOUR FORCE STATUS ('000)

	September 1988	*September 1989*	*September 1990*	*September 1991*	*September 1992*
Persons in the labour force	7,993.2	8,316.3	8,514.2	8,591.5	8,647.5
Persons not in the labour force	3,620.4	3,567.1	3,550.1	3,643.9	3,738.1
With marginal attachment to the labour force	721.7	708.4	752.5	819.3	846.4
Wanted to work and were actively looking for work	65.7	55.3	57.6	46.7	59.1
Were available to start work within four weeks	34.8	27.7	31.5	24.	33.8
Were not available to start work within four weeks	30.9	27.6	26.1	22.5	25.3
Wanted to work but were not actively looking for work and were available to start work within four weeks	656.0	653.1	694.9	772.7	787.3
Discouraged jobseekers	83.8	76.1	100.9	138.2	145.6
Other	572.2	577.0	594.1	634.5	641.7
Without marginal attachment to the labour force	2,898.8	2,858.7	2,797.6	2,824.6	2,891.7
Civilian population aged 15 to 69	**11,613.6**	**11,883.4**	**12,064.3**	**12,235.4**	**12,385.7**

Source: Persons Not in the Labour Force, Australia (6220.0).

7.27 PERSONS NOT IN THE LABOUR FORCE WITH MARGINAL ATTACHMENT TO THE LABOUR FORCE, AGE AND SEX, SEPTEMBER 1992



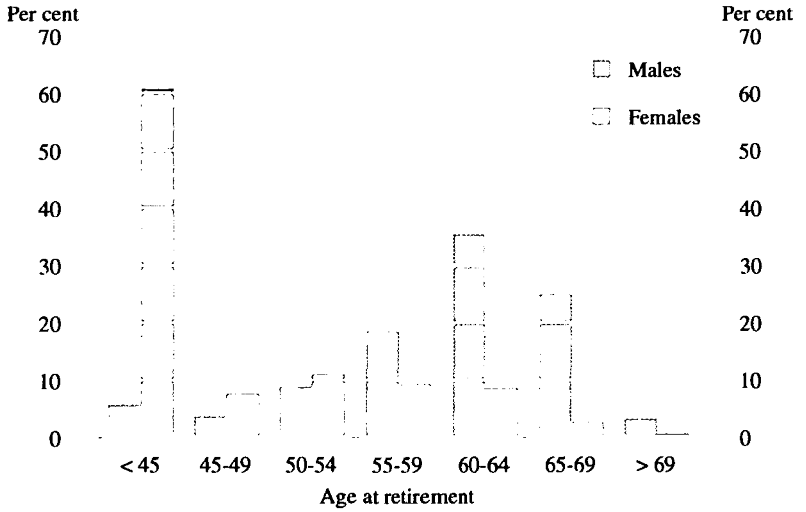
Source: Persons Not in the Labour Force, Australia (6220.0).

RETIREMENT AND RETIREMENT INCOME INTENTIONS

In November 1989 the civilian population included 4,863,400 persons aged 45 and over. Of these, 2,641,900 (54%) had retired from full-time work, 1,584,500 (33%) intended to retire from full-time work, 461,700 (9%) had never worked full time and did not intend to work full time and a further 175,300 (4%) intended never to retire from full-time work.

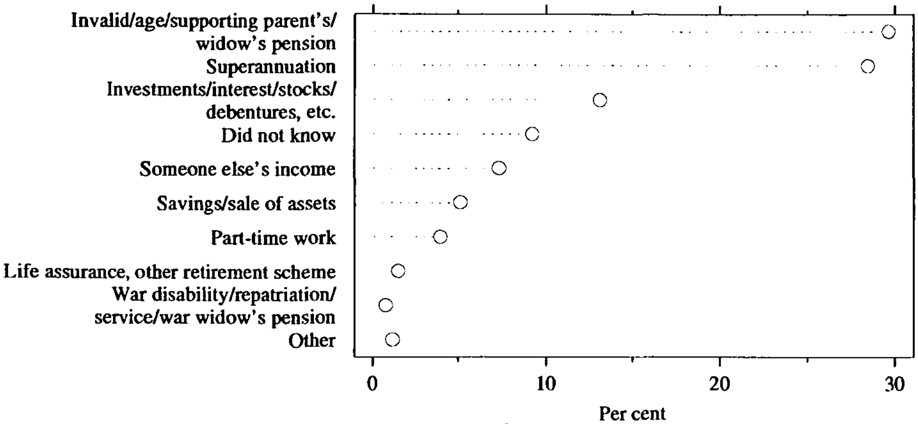
Of the 1,584,500 persons aged 45 and over who intended to retire from full-time work, 30 per cent expected their main source of income at retirement to be an invalid, age, supporting parent's or widow's pension. Some 28 per cent expected superannuation to be their main source of income.

7.28 PERSONS AGED 45 AND OVER WHO HAD RETIRED FROM FULL-TIME WORK: AGE AT RETIREMENT BY SEX, NOVEMBER 1989



Source: Retirement and Retirement Intentions, Australia (6238.0).

7.29 PERSONS AGED 45 AND OVER WHO INTENDED TO RETIRE FROM FULL-TIME WORK EXPECTED MAIN SOURCE OF INCOME AT RETIREMENT, NOVEMBER 1989



Source: Retirement and Retirement Intentions, Australia (6238.0).

7.30 PERSONS AGED 45 AND OVER(a): RETIREMENT STATUS, NOVEMBER 1989 ('000)

	Had retired	*Intended to retire*	*Did not intend to retire*	*Never had a full-time job and did not intend to work full time*	*Total*
Age (years)					
45–49	236.6	614.6	46.3	36.8	934.4
50–54	252.5	462.0	42.3	44.8	801.5
55–59	320.5	309.9	30.1	46.9	707.5
60–64	467.5	169.4	30.7	67.2	734.8
65–69	535.8	21.6	13.7	70.3	641.4
>69	829.0	6.9	12.1	195.7	1,043.8
Marital status					
Married	1,877.0	1,296.9	136.1	259.7	3,569.8
Not-married	764.9	287.5	39.1	202.1	1,293.6
Family status					
Member of a family	2,040.0	1,352.5	143.9	331.0	3,867.3
Husband or wife	1,827.4	1,247.8	130.3	252.2	3,457.8
Other family head	128.1	72.3	9.6	39.7	249.6
Other	84.5	32.4	4.0	39.1	160.0
Not a member of a family	518.8	165.0	23.4	113.9	821.1
Family status not determined	83.1	67.0	8.0	16.8	174.9

For footnotes *see* end of table.

7.30 PERSONS AGED 45 AND OVER(a): RETIREMENT STATUS, NOVEMBER 1989 — *continued*
('000)

	Had retired	*Intended to retire*	*Did not intend to retire*	*Never had a full-time job and did not intend to work full time*	*Total*
Birthplace and period of arrival					
Born in Australia	1,876.1	1,015.5	126.0	298.6	3,316.2
Born outside Australia	765.8	568.9	49.3	163.1	1,547.2
Arrived before 1961	455.2	220.1	20.2	76.1	771.5
Arrived 1961–70	187.9	190.5	16.0	38.0	432.4
Arrived 1971–80	73.4	95.1	6.4	24.1	199.0
Arrived 1981–89	49.4	63.3	6.7	25.0	144.3
Area					
Metropolitan	1,639.4	1,027.6	79.9	251.6	2,998.5
Non-metropolitan	1,002.5	556.8	95.4	210.2	1,864.9
Total	**2,641.9**	**1,584.5**	**175.3**	**461.7**	**4,863.4**
Males	**1,040.0**	**1,155.7**	**134.9**	**16.8**	**2,347.4**
Females	**1,602.0**	**428.8**	**40.3**	**444.9**	**2,516.0**

(a) Excludes persons who were institutionalised or permanently unable to work who were not in the scope of the survey.
Source: Retirement and Retirement Intentions, Australia (6238.0).

WAGE RATES, EARNINGS, COSTS OF LABOUR AND HOURS OF WORK

Industrial conciliation and arbitration

Legal rates of pay for some 80 per cent of Australian wage and salary earners, as at May 1990, are prescribed in awards and determinations of Commonwealth and State industrial tribunals or in collective agreements registered with them. Some of the major decisions handed down by the Australian Industrial Relations Commission and its predecessor, the Australian Conciliation and Arbitration Commission have been:

- In June 1983, the Commission met to consider the formulation of new wage fixing principles in relation to the determination of national wage adjustments based on movements in the consumer price index (CPI).
- On 23 September 1983, the Commission announced that it would try once again to operate a centralised system based on prima facie full indexation. Under this new system, the Commission was to adjust its award wages and salaries every six months in relation to the last two quarterly movements of the CPI unless it was persuaded to the contrary.
- In February–March 1984, the Commission recommended a 4.1 per cent increase based on CPI movements for the September and December 1983 quarters.
- In February–March 1985, a recommendation of a 2.6 per cent increase based on CPI movements for the September and December 1984 quarters was made.
- In October 1985, the Commission awarded an increase of 3.8 per cent to operate from the beginning of the first pay period to commence on or after 4 November 1985.
- In July 1986, the Commission awarded a 2.3 per cent increase, effective from 1 July 1986 in all States, except Queensland where it was effective from 7 July 1986.
- In March 1987, a two tier wage fixing system superseded the CPI-based indexation. The first tier was a flat increase of $10 per week payable to all employees. The second tier was a percentage increase of up to four per cent, a maximum rate set by the Commission, negotiable between employees and employers.
- In February 1988, the Commission awarded a flat $6 which was effective from 5 February 1988. In September 1988, the Commission again handed down a decision which allowed for a pay increase which was to be paid in two parts. The first part was an increase of three per cent which was payable from 1 September 1988 and the second was an increase of $10 which was not to be available less than six months after the first increase.

Both increases were based on the Structural Efficiency Principles as laid down by the Commission.

- In August 1989, the Commission handed down a decision allowing for a pay increase to be paid in two parts. The first part allowed for an increase of $15 (or 3% whichever was the greater) for skilled workers, $12.50 for semi-skilled workers and $10 for unskilled workers. The second part was an increase of the same amount which was not to be available less than six months after the first increase. Both increases were based on the Structural Efficiency Principles as laid down by the Commission.
- In April 1991, a 2.5 per cent increase was awarded to all States, subject to application to and ratification by the Commission.

On 9 July 1992 the *Industrial Relations Legislation Amendment Act 1992* was assented to. This Act freed the way for employers and employees to engage in negotiating enterprise based awards and agreements, which on application are registered with the Commission. These awards offer wage increases and improved working conditions in return for productivity increases. The enterprise awards are specified for a fixed term after which they may be renegotiated. Wage increases in Enterprise (Bargaining) Awards/Agreements are not reflected in award rates of pay indexes with regard to any over-award pay, for example, productivity payments. Approximately 500 enterprise bargaining awards have been registered with the Commission.

Award rates of pay indexes

The award rates of pay indexes are based on a representative sample of award designations, designed to measure trends in rates payable under awards, determinations and collective agreements. The indexes are based on the industry and occupation structures existing in May 1985. Estimates of minimum award rates of pay for each component of the series are expressed as index numbers based on June 1985 = 100.0.

Table 7.31 shows changes in the index for full-time adult males and females by industry as at June 1990 to 1992. In the 12 months to June 1992, the index rose by 3.1 per cent for full-time adult males and 3.0 per cent for full-time adult females.

7.31 WEEKLY AWARD RATES OF PAY INDEXES
FULL-TIME ADULT EMPLOYEES, BY INDUSTRY, JUNE
(Reference base year June 1985 = 100.0)

			Males			*Females*
Industry	*1990*	*1991*	*1992*	*1990*	*1991*	*1992*
Mining	132.0	133.4	135.0	. .	. .	. .
Manufacturing	132.2	135.6	139.9	134.8	138.9	143.1
Food, beverages, tobacco	129.2	133.3	137.1	129.9	134.2	138.0
Textiles; Clothing, and footwear	140.5	144.9	149.6	140.1	144.8	149.0
Metal products, machinery and equipment	132.8	135.2	139.4	134.6	137.4	141.7
Basic metal products	130.2	133.1	137.6	. .	. .	. .
Fabricated metal products; Other machinery and equipment	134.5	137.6	142.1	. .	. .	. .
Transport equipment	132.2	133.8	137.4	. .	. .	. .
Other manufacturing(a)	135.5	138.8	143.8	136.3	140.2	145.2
Construction	130.7	132.3	135.9	. .	. .	. .
Wholesale and retail trade	131.2	135.6	142.4	130.7	135.2	141.0
Wholesale trade	131.6	135.0	140.3	131.0	134.8	139.3
Retail trade	130.9	136.1	144.3	130.5	135.4	141.9
Finance, property and business services	127.8	129.3	132.9	128.1	130.9	134.0
Community services	128.0	132.4	136.7	132.3	137.0	141.1
Total all industries(b)	**130.2**	**133.2**	**137.3**	**131.7**	**135.6**	**139.6**

(a) Includes wood, wood products and furniture; non-metallic mineral products; and miscellaneous manufacturing. (b) Excludes employees in the defence forces; agriculture; services to agriculture; and employees in private households employing staff.
Source: Award Rates of Pay Indexes, Australia (6312.0).

Award coverage

Table 7.32 shows the award coverage of employees in industries. Females (83.5%) had a higher level of coverage by awards than males (77.3%), and more males were covered by Federal awards than State awards, while for females coverage was mainly by State awards.

Overall coverage was 80.0 per cent in May 1990, a decrease from May 1985 when coverage was 85.0 per cent.

Award coverage at May 1990 was highest for employees in the Communication industry (males 99.7%, females 98.6%), Electricity, gas and water (males 98.4%, females 99.5%) and Public administration and defence (males 98.3%, females 97.4%). Award coverage was lowest for employees in Chemical, petroleum and coal products manufacturing industry (males 55.3%, females 59.5%) and Wholesale trade (males 53.2%, females 63.7%).

7.32 ALL EMPLOYEES: AWARD COVERAGE RATES, BY INDUSTRY AND JURISDICTION MAY 1990 (per cent)

	Males				*Females*			
	Covered by awards, determinations and collective agreements			*Not covered by awards, etc.*	*Covered by awards, determinations and collective agreements*			*Not covered by awards, etc.*
Industry	*Federal*	*State*	*Total(a)*		*Federal*	*State*	*Total(a)*	
Mining	44.9	30.3	76.6	23.4	*13.4	36.9	51.8	48.2
Manufacturing	47.8	29.2	79.5	20.5	36.2	42.9	82.1	17.9
Food, beverages & tobacco	25.7	55.2	83.9	16.1	18.9	64.7	85.6	14.4
Textiles; Clothing & footwear	43.3	32.3	78.5	21.5	55.6	32.3	88.3	11.7
Paper, paper products, printing & publishing	51.9	26.7	81.3	18.7	33.0	43.4	80.5	19.5
Chemical, petroleum & coal products	27.7	24.1	55.3	44.7	14.1	42.7	59.5	40.5
Metal products, machinery & equipment	59.3	19.3	80.9	19.1	40.6	37.4	82.1	17.9
Basic metal products	39.4	37.0	80.5	19.5	33.6	39.6	76.4	23.6
Fabricated metal products; Other machinery & equipment	59.6	14.9	76.8	23.2	33.7	41.7	80.3	19.7
Transport equipment	73.9	15.4	90.1	9.9	66.6	22.7	90.6	9.4
Other manufacturing	42.9	35.3	80.4	19.6	34.7	42.6	82.7	17.3
Electricity, gas & water	46.9	51.0	98.4	*1.6	49.0	50.0	99.5	*0.5
Construction	30.7	43.6	76.3	23.7	6.6	29.5	45.5	54.5
Wholesale trade	22.2	27.1	53.2	46.8	12.7	47.9	63.7	36.3
Retail trade	30.4	40.6	73.3	26.7	10.2	71.2	84.2	15.8
Transport & storage	59.2	25.1	85.5	14.5	49.1	22.7	73.8	26.2
Communication	99.6	*0.0	99.7	*0.3	97.3	*0.7	98.6	*1.4
Finance, property & business services	33.3	23.1	59.2	40.8	33.9	39.4	75.5	24.5
Public administration & defence	56.1	42.2	98.3	1.7	60.1	36.7	97.4	2.6
Community services	16.3	69.7	86.7	13.3	10.6	79.9	91.1	8.9
Recreation, personal & other services	22.2	40.8	66.3	33.7	24.3	56.7	82.5	17.5
All industries	**38.0**	**37.3**	**77.3**	**22.7**	**23.2**	**58.4**	**83.5**	**16.5**

(a) Includes small numbers of employees covered by unregistered collective agreements.

Source: Award Coverage, Australia (6315.0).

Table 7.33 shows award coverage for major occupation groups. The highest award coverage rates were for Plant and machine operators, and drivers, with 92.2 per cent for males and 91.9 per cent for females followed by Labourers and related workers with 89.2 per cent for males and 92.8 per cent for females. Managers and administrators had the lowest award coverage rate with 35.0 per cent for males and 49.0 per cent for females.

7.33 ALL EMPLOYEES: AWARD COVERAGE RATES, BY OCCUPATION AND JURISDICTION
MAY 1990
(per cent)

	Males				Females			
	Covered by awards, determinations and collective agreements			Not covered by awards, etc.	Covered by awards, determinations and collective agreements			Not covered by awards, etc.
Occupation group	Federal	State	Total(a)		Federal	State	Total(a)	
Managers and administrators	18.0	14.3	35.0	65.0	13.6	32.4	49.0	51.0
Professionals	25.7	39.5	67.2	32.8	16.6	64.2	82.1	17.9
Para-professionals	35.8	45.7	82.9	17.1	18.3	72.7	91.4	8.6
Tradespersons	48.0	37.3	86.9	13.1	24.9	60.2	86.2	13.8
Clerks	48.1	31.2	81.5	18.5	25.6	49.5	78.1	21.9
Salespersons and personal service workers	22.3	40.5	66.5	33.5	18.3	68.3	88.2	11.8
Plant and machine operators, and drivers	53.3	37.0	92.2	7.8	62.0	29.1	91.9	8.1
Labourers and related workers	38.8	49.1	89.2	10.8	27.5	64.1	92.8	7.2
All occupations	**38.0**	**37.3**	**77.3**	**22.7**	**23.2**	**58.4**	**83.5**	**16.5**

(a) Includes small numbers of employees covered by unregistered collective agreements.
Source: Award Coverage, Australia (6315.0).

Average weekly earnings

Weekly total earnings include award, over-award and overtime pay while weekly ordinary time earnings relate only to that part of total earnings attributable to award, standard or agreed hours of work.

Table 7.34 shows the average weekly ordinary time earnings (AWOTE) of both males and female employed wage and salary earners over the five-year period from February 1987 to February 1992. For males the AWOTE increased by 37.6 per cent from $454.40 to $625.20 over this period and for females by 39.5 per cent from $375.70 to $523.90. The slightly higher growth in AWOTE for females has resulted in the ratio of female to male AWOTE increasing from 82.7 per cent to 83.8 over the five years to February 1992.

7.34 AVERAGE WEEKLY EARNINGS OF EMPLOYEES
($)

	Males			Females			Persons		
	Full-time adults		All males	Full-time adults		All females	Full-time adults		All employees
Pay period ending on or before	Average weekly ordinary time earnings	Average weekly total earnings	Average weekly total earnings	Average weekly ordinary time earnings	Average weekly total earnings	Average weekly total earnings	Average weekly ordinary time earnings	Average weekly total earnings	Average weekly total earnings
1987 — 20 February	454.40	487.70	444.50	375.70	384.10	291.00	429.60	455.10	381.30
1988 — 19 February	485.70	522.40	474.90	402.20	412.20	315.30	458.80	486.90	408.80
1989 — 17 February	521.90	563.70	511.60	431.30	443.30	334.80	492.30	524.30	436.30
1990 — 16 February	555.80	600.20	546.30	462.40	475.10	358.30	524.70	558.60	464.80
1991 — 15 February	597.70	642.50	585.60	499.80	511.90	385.70	564.20	597.80	496.90
1992 — 21 February	625.20	666.00	598.90	523.90	535.50	400.90	589.20	619.70	507.90

Source: Average Weekly Earnings, States and Australia (6302.0).

Composition and distribution of earnings

Statistics on the composition and distribution of average weekly earnings and hours for various categories of employees and occupation groups provide an additional perspective on earnings.

Table 7.35 presents the components of average weekly earnings and hours. Over-award pay and overtime continued to be more significant for males than females as a percentage of total weekly earnings. For full-time adult non-managerial males, over-award pay and overtime represented 1.8 and 8.7 per cent of total weekly earnings compared to 1.4 and 2.2 per cent for females. Between May 1991 and May 1992 over-award pay, as a percentage of total ordinary time earnings, remained steady at 2.0 per cent for males, and 1.4 per cent for females.

7.35 COMPOSITION OF AVERAGE WEEKLY TOTAL EARNINGS AND AVERAGE WEEKLY TOTAL HOURS PAID FOR, BY CATEGORY OF EMPLOYEE, MAY 1992

	Full-time employees								
		Non-managerial			*Total*				
	Managerial adult	*Adult*	*Junior*	*Total*	*Adult*	*Junior*	*Total*	*Part-time employees*	*All employees*
MALES									
Average weekly earnings ($)									
Ordinary time									
Award or agreed base rate of pay	828.20	537.70	291.20	525.20	597.30	291.20	584.80	200.30	544.30
Payment by measured result	5.40	9.20	*1.60	8.80	8.40	*1.60	8.10	*0.60	7.30
Over-award pay	5.90	11.10	4.50	10.70	10.00	4.50	9.80	*0.80	8.80
Total ordinary time	*839.40*	*558.00*	*297.30*	*544.80*	*615.70*	*297.30*	*602.70*	*201.70*	*560.40*
Overtime	1.90	53.30	14.40	51.30	42.80	14.40	41.60	5.90	37.80
Total	**841.30**	**611.30**	**311.70**	**596.10**	**658.50**	**311.70**	**644.30**	**207.60**	**598.20**
Average weekly hours paid for									
Ordinary time	. .	37.8	37.7	37.8	37.4	37.7	37.4	15.0	35.0
Overtime	. .	2.4	1.2	2.4	2.0	1.2	1.9	0.3	1.8
Total	. .	**40.2**	**38.9**	**40.2**	**39.4**	**38.9**	**39.3**	**15.4**	**36.8**
FEMALES									
Average weekly earnings ($)									
Ordinary time									
Award or agreed base rate of pay	653.40	503.50	279.60	488.00	519.40	279.60	504.50	224.50	391.40
Payment by measured result	*1.80	*2.20	*0.40	*2.10	*2.20	*0.40	2.10	*0.60	1.50
Over-award pay	4.50	7.10	3.20	6.80	6.80	3.20	6.60	1.00	4.30
Total ordinary time	*659.70*	*512.80*	*283.20*	*496.90*	*528.40*	*283.20*	*513.10*	*226.10*	*397.20*
Overtime	*0.90	11.70	5.50	11.30	10.60	5.50	10.30	3.40	7.50
Total	**660.70**	**524.50**	**288.70**	**508.20**	**538.90**	**288.70**	**523.30**	**229.50**	**404.70**
Average weekly hours paid for									
Ordinary time	. .	37.5	37.6	37.4	37.2	37.6	37.2	16.8	29.0
Overtime	. .	0.6	0.4	0.6	0.5	0.4	0.5	0.2	0.4
Total	. .	**38.0**	**38.1**	**38.0**	**37.8**	**38.1**	**37.8**	**17.0**	**29.4**

... *continued*

7.35 COMPOSITION OF AVERAGE WEEKLY TOTAL EARNINGS AND AVERAGE WEEKLY TOTAL HOURS PAID FOR, BY CATEGORY OF EMPLOYEE, MAY 1992 — *continued*

	Full-time employees								
		Non-managerial			*Total*				
	Managerial adult	*Adult*	*Junior*	*Total*	*Adult*	*Junior*	*Total*	*Part-time employees*	*All employees*
				PERSONS					
Average weekly earnings ($)									
Ordinary time									
Award or agreed base rate of pay	790.00	524.80	285.90	511.00	570.00	285.90	556.20	218.70	475.00
Payment by measured result	4.60	6.50	*1.00	6.20	6.20	*1.00	6.00	*0.60	4.70
Over-award pay	5.60	9.60	3.90	9.20	8.90	3.90	8.60	0.90	6.80
Total ordinary time	*800.20*	*540.90*	*290.80*	*526.40*	*585.10*	*290.80*	*570.80*	*220.20*	*486.40*
Overtime	1.70	37.60	10.30	36.00	31.50	10.30	30.50	4.00	24.10
Total	**801.80**	**578.50**	**301.20**	**562.50**	**616.50**	**301.20**	**601.30**	**224.20**	**510.50**
Average weekly hours paid for									
Ordinary time	..	37.7	37.7	37.7	37.3	37.7	37.3	16.4	32.3
Overtime	..	1.7	0.8	1.7	1.5	0.8	1.4	0.2	1.1
Total	**..**	**39.4**	**38.5**	**39.4**	**38.8**	**38.5**	**38.8**	**16.6**	**33.5**

Source: Distribution and Composition of Employee Earnings and Hours, Australia (6306.0).

Table 7.36 shows the distribution of average weekly earnings across different occupations and categories of employees.

In May 1992 the highest average weekly total earnings for full-time adult employees were recorded in the following major occupation groups:

- Managers and administrators (males $879.80, females $702.40);
- Professionals (males $818.10, females $688.60); and
- Para-professionals (males $718.00, females $655.70).

7.36 AVERAGE WEEKLY TOTAL EARNINGS, BY MAJOR OCCUPATION GROUPS AND CATEGORY OF EMPLOYEE, MAY 1992 ($)

	Full-time employees								
		Non-managerial			*Total*				
Occupation	*Managerial adult*	*Adult*	*Junior*	*Total*	*Adult*	*Junior*	*Total*	*Part-time employees*	*All employees*
				MALES					
Managers and administrators	896.40	777.80	*342.50	776.30	879.80	*342.50	879.50	329.60	868.10
Professionals	958.30	763.60	*341.60	760.70	818.10	*341.60	815.80	334.90	773.10
Para-professionals	890.60	697.90	343.30	694.50	718.00	343.30	714.70	208.80	683.70
Tradespersons	519.30	585.50	307.60	553.90	580.40	307.60	551.50	262.80	540.20
Clerks	732.70	560.00	336.60	550.80	581.40	336.60	572.40	201.20	546.30
Salespersons and personal service workers	680.20	567.80	318.20	550.90	590.90	318.20	576.10	174.40	469.20
Plant and machine operators, and drivers	575.10	618.20	298.90	615.90	617.20	298.90	614.90	219.80	591.70
Labourers and related workers	582.20	516.30	304.10	505.10	517.70	304.10	506.60	174.30	432.70
All occupations	**841.30**	**611.30**	**311.70**	**596.10**	**658.50**	**311.70**	**644.30**	**207.60**	**598.20**

... *continued*

7.36 AVERAGE WEEKLY TOTAL EARNINGS, BY MAJOR OCCUPATION GROUPS AND CATEGORY OF EMPLOYEE, MAY 1992 — *continued*
($)

		Full-time employees								
		Non-managerial			Total					
Occupation	*Managerial adult*	*Adult*	*Junior*	*Total*	*Adult*	*Junior*	*Total*	*Part-time employees*	*All employees*
FEMALES									
Managers and administrators	728.80	630.80	*393.00	628.70	702.40	*393.00	701.60	310.50	665.10
Professionals	822.80	673.60	*285.50	671.50	688.60	*285.50	686.70	299.30	573.50
Para-professionals	709.70	652.20	*363.80	647.60	655.70	*363.80	651.30	357.10	527.30
Tradespersons	414.10	428.70	239.80	382.40	427.10	239.80	385.10	232.70	335.80
Clerks	510.20	488.90	295.30	473.10	490.20	295.30	475.30	242.50	407.20
Salespersons and personal service workers	510.30	466.20	295.20	445.00	469.20	295.20	448.90	181.70	291.90
Plant and machine operators, and drivers	*484.80	412.70	*277.70	410.10	413.10	*277.70	410.50	210.90	378.90
Labourers and related workers	*422.60	428.50	286.60	422.70	428.40	286.60	422.70	202.00	289.70
All occupations	**660.70**	**524.50**	**288.70**	**508.20**	**538.90**	**288.70**	**523.30**	**229.50**	**404.70**
PERSONS									
Managers and administrators	865.30	727.80	*371.60	725.90	842.30	*371.60	841.90	318.80	822.50
Professionals	930.80	721.40	318.80	719.00	764.60	318.80	762.40	308.30	678.20
Para-professionals	849.20	681.80	353.00	677.90	696.70	353.00	693.00	335.30	612.00
Tradespersons	508.40	573.90	296.20	539.20	568.70	296.20	537.00	246.80	515.80
Clerks	617.70	511.00	302.80	496.50	519.90	302.80	506.00	239.30	443.40
Salepersons and personal service workers	639.50	514.30	302.40	493.50	531.60	302.40	512.00	180.20	355.00
Plant and machine operators and drivers	572.40	591.40	292.80	588.70	591.00	292.80	588.40	217.10	561.30
Labourers and related workers	558.50	494.00	300.50	484.40	495.20	300.50	485.70	192.00	376.40
All occupations	**801.80**	**578.50**	**301.20**	**562.50**	**616.50**	**301.20**	**601.30**	**224.20**	**510.50**

Source: Distribution and Composition of Employee Earnings and Hours, Australia (6306.0).

Non-wage benefits

In addition to wages and salaries, a large majority of employees receive one or more non-wage benefits, such as leave, holiday costs, low-interest finance, goods and services, housing, electricity, telephone, transport, medical, union dues, club fees, entertainment allowance, shares, study leave, superannuation or children's education expenses.

By their nature, it is difficult to collect data on the value of most non-wage benefits. The statistics presented in this section therefore relate to the incidence of non-wage benefits, and not to their value.

The proportion of full-time employees (excluding those attending school) receiving one or more employment benefits shows little variation with 96–97 per cent being recorded each year since 1988.

The non-wage benefits most widely available to employees are leave benefits and superannuation (table 7.37). The proportion of employees receiving a superannuation benefit (that is, belonging to a superannuation scheme or fund arranged by their employer) has increased steadily in recent years (rising to 88 per cent in 1992 for full-time employees). Details of coverage by industry, occupation and status of worker are shown in the following section on superannuation.

The following provide different views of non-wage benefits: number of employees receiving them, by weekly earnings (table 7.38) and by occupation (table 7.39), and a comparison of selected beenfits received in the public and private sectors (graph 7.40).

7.37 EMPLOYEES IN MAIN JOB: TYPE OF BENEFIT RECEIVED AND PROPORTION OF FULL-TIME AND PART-TIME EMPLOYEES RECEIVING THEM, AUGUST 1988 AND AUGUST 1992
(per cent)

	Working full time		*Working part time*		*Total employees*	
Type of benefit received	*August 1988*	*August 1992*	*August 1988*	*August 1992*	*August 1988*	*August 1992*
Superannuation	49.4	88.0	9.6	54.1	42.4	80.3
Holiday leave	92.2	91.5	31.4	32.7	81.5	78.1
Sick leave	91.5	91.1	31.3	33.4	80.9	77.9
Long-service leave	73.8	78.4	22.8	26.2	64.8	66.5
Goods and services	15.1	17.6	15.3	19.2	15.1	18.0
Transport	18.0	20.1	5.7	5.6	15.8	16.8
Telephone	9.5	9.9	4.2	3.6	8.6	8.4
Holiday expenses	4.3	4.7	0.7	0.9	3.7	3.8
Medical	3.9	3.9	0.7	1.1	3.3	3.3
Housing	3.9	3.8	1.3	1.0	3.5	3.2
Low-interest finance	3.5	3.6	0.5	0.9	2.9	3.0
Study leave	2.1	3.0	1.4	2.3	2.0	2.9
Shares	3.2	3.4	1.0	0.9	2.8	2.8
Union dues/prof. association	2.7	3.4	0.5	0.5	2.3	2.8
Electricity	2.4	2.6	1.2	1.4	2.2	2.4
Entertainment allowance	2.1	2.3	*0.1	*0.2	1.8	1.8
Club fees	1.5	1.9	*0.3	0.3	1.3	1.5
Child care/education expenses	0.4	0.3	*0.3	*0.2	0.3	0.3
No benefits	3.9	2.6	45.3	28.9	11.2	8.6

Source: Employment Benefits, Australia (6334.0).

7.38 FULL-TIME EMPLOYEES IN MAIN JOB: TYPE OF BENEFIT RECEIVED AND WEEKLY EARNINGS, AUGUST 1992
('000)

	Weekly earnings in main job ($)							
	Under 160	*160 and under 320*	*320 and under 480*	*480 and under 640*	*640 and under 800*	*800 and under 960*	*960 and over*	*Total*
Total	**78.5**	**473.2**	**1,604.5**	**1,343.8**	**645.6**	**295.8**	**325.9**	**4,767.4**
Superannuation	31.3	354.9	1,411.6	1,226.7	600.8	275.6	296.6	4,197.6
Holiday leave	38.6	387.0	1,482.3	1,262.6	614.9	280.8	296.8	4,362.9
Sick leave	36.8	384.3	1,470.4	1,259.9	612.9	282.1	296.7	4,343.1
Long-service leave	18.6	269.0	1,221.4	1,133.3	567.8	255.4	274.1	3,739.5
Goods and services	12.8	94.3	325.4	2,280.0	91.7	37.4	51.2	840.8
Transport	18.8	54.4	191.7	268.2	170.5	98.6	155.6	957.8
Telephone	15.7	34.0	73.5	118.5	81.3	51.9	95.2	470.1
Holiday expenses	*1.5	10.7	50.8	71.2	36.6	20.0	31.4	222.2
Medical	*1.5	10.5	35.3	56.7	28.5	16.3	37.7	186.6
Housing	13.1	26.5	36.9	38.3	25.8	15.2	24.7	180.3
Low-interest finance	*1.4	9.5	46.8	51.3	25.7	11.7	25.7	172.1
Study leave	*1.5	9.3	25.6	53.0	26.0	15.4	13.3	144.2
Shares	*3.1	9.1	34.8	43.4	23.2	15.4	32.5	161.6
Union dues/prof. association	4.0	8.3	25.2	32.6	29.7	18.8	44.8	163.3
Electricity	13.1	22.8	30.6	22.8	13.6	7.9	14.9	125.7
Entertainment allowance	*0.6	*1.2	8.6	25.9	20.0	17.4	34.9	108.5
Club fees	*1.6	*2.8	9.9	17.8	14.4	11.9	29.9	88.4
Child care/education expenses	*0.1	*1.1	*1.6	*2.2	3.6	*2.0	*3.2	13.9
No benefits	14.7	28.6	36.9	25.0	8.3	3.5	5.7	122.7

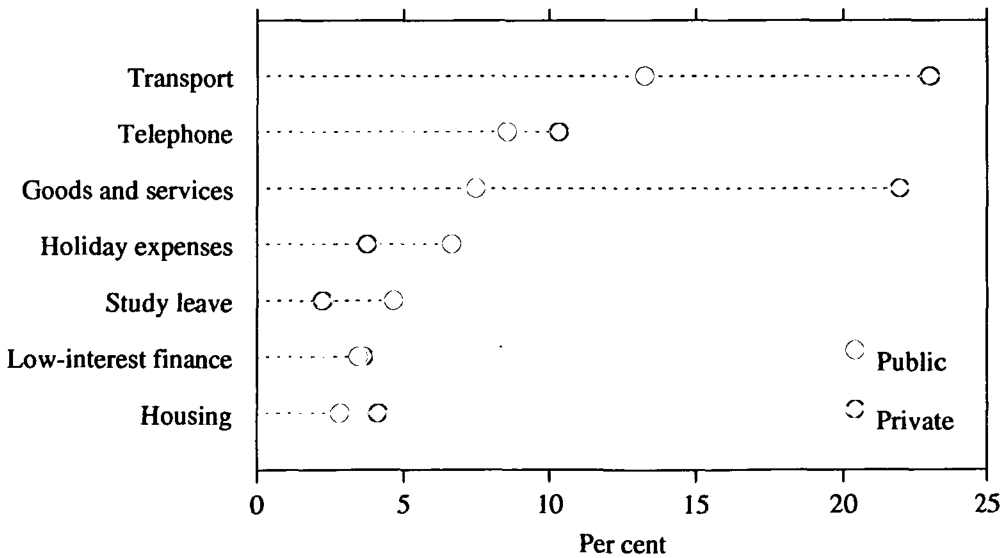
Source: Employment Benefits, Australia (6334.0).

7.39 ALL EMPLOYEES: TYPE OF BENEFIT RECEIVED AND OCCUPATION IN MAIN JOB AUGUST 1992 ('000)

	Occupation								
Type of benefit received	*Managers and administrators*	*Professionals*	*Para-professionals*	*Tradespersons*	*Clerks*	*Sales persons and personal service workers*	*Plant & machine operators, & drivers*	*Labourers and related workers*	*Total*
Total	**424.8**	**758.1**	**343.0**	**805.6**	**860.2**	**502.5**	**412.4**	**660.8**	**4,767.4**
Superannuation	365.2	684.1	315.6	698.1	791.4	422.3	369.7	551.2	4,197.6
Holiday leave	375.7	712.0	328.2	732.1	824.8	447.0	372.2	571.0	4,362.9
Sick leave	373.9	713.3	327.4	728.2	823.3	442.1	369.7	565.3	4,343.1
Long-service leave	305.8	642.5	311.5	603.1	734.0	345.7	325.9	471.0	3,739.5
Goods and services	89.9	76.2	32.6	141.1	130.7	178.7	69.5	122.1	840.8
Transport	230.2	157.5	61.1	163.4	82.7	126.5	62.1	74.4	957.8
Telephone	142.3	86.9	36.9	68.7	46.0	41.5	22.7	25.1	470.1
Holiday expenses	22.5	29.3	17.1	26.9	43.8	39.0	20.2	23.4	222.2
Medical	26.2	35.6	13.4	17.6	53.1	15.3	12.8	12.7	186.6
Housing	37.2	37.1	14.2	21.9	15.8	12.0	15.7	26.3	180.3
Low-interest finance	26.4	21.8	4.8	11.8	68.0	28.5	6.5	4.3	172.1
Study leave	11.9	47.3	19.4	13.7	33.6	8.6	*2.1	7.6	144.2
Shares	35.3	22.8	4.5	19.7	35.6	15.8	16.4	11.4	161.6
Union dues/prof. association	34.0	60.7	8.0	16.5	9.4	13.7	10.1	10.8	163.3
Electricity	26.5	25.4	6.2	19.1	11.1	8.3	10.0	19.2	125.7
Entertainment allowance	46.0	20.5	4.0	4.1	7.7	24.1	*0.8	*1.3	108.5
Club fees	29.8	26.5	*3.3	4.0	10.0	12.1	*1.1	*1.6	88.4
Child care/education expenses	4.2	4.4	*1.2	*1.1	*1.6	*0.4	*0.2	*0.7	13.9
No benefits	8.3	11.9	5.2	24.3	13.5	14.2	14.4	31.0	122.7

Source: Employment Benefits, Australia (6334.0).

7.40 PROPORTION OF FULL-TIME EMPLOYEES IN MAIN JOB RECEIVING SELECTED BENEFITS, PUBLIC AND PRIVATE SECTORS, AUGUST 1992



Source: Employment Benefits, Australia (6334.0).

Superannuation

Over recent years superannuation has assumed a major role in Australian industrial relations and government labour and social welfare policy. Less than a decade ago superannuation was available as an employment benefit only to a select group of occupations and industries. Most workers had to rely on personal savings and the age pension for income in their retirement. In response to the expected increase in age pension liabilities as Australia's population ages, moves were made by the Government for workers to be more reliant on superannuation in retirement.

In the 1986 National Wage Case a three per cent productivity-linked pay rise was awarded, payment of which was deferred through superannuation. As a consequence the number of employees covered by superannuation increased dramatically over subsequent years. In 1992 the Superannuation Guarantee Charge was introduced, which aimed to extend superannuation coverage to all employees and progressively increase the level of superannuation contributions.

This section incorporates statistics on superannuation from two ABS surveys. One is an annual survey of businesses regarding labour costs, in which data is collected on employer superannuation costs. The other is a supplementary survey to the Labour Force Survey which provides data on the characteristics of workers in relation to superannuation. Due to the different sources and methods, the level of coverage differs slightly in the two surveys thus affecting the compatibility of the resulting statistics.

Over the five years to 1990–91, the percentage of employees for whom employers made superannuation contributions increased from 42 per cent to 76 per cent. During that period contributions per employee increased 65 per cent to $1,647.

Table 7.41 shows details of employer funded superannuation by industry. The most significant increase in coverage has been in the Recreational and personal services industry with nearly half of the employees covered by superannuation in 1990–91 compared with only 13 per cent five years earlier. This industry, however, continues to have the lowest average superannuation contributions ($613).

7.41 SUPERANNUATION: COST TO EMPLOYERS, AND EMPLOYEES COVERED

	Mining	*Manufacturing*	*Electricity, gas and water*	*Construction*	*Wholesale and retail trade*	*Transport, storage and communication*	*Finance, property and business services*	*Public administration and defence*	*Community services*	*Recreation, personal and other services*	*Total*
					TOTAL COST TO EMPLOYERS ($ million)						
1986–87	145	763	247	230	501	929	838	556	1,239	95	5,542
1987–88	135	896	274	246	573	927	1,077	639	1,690	136	6,593
1988–89	155	918	306	386	653	984	890	818	1,991	143	7,245
1989–90	155	1,086	330	537	753	1,088	1,123	909	2,163	173	8,319
1990–91	188	1,174	366	492	1,014	1,185	1,384	992	2,490	248	9,532
					COST TO EMPLOYERS PER EMPLOYEE ($)						
1986–87	1,667	728	1,948	944	471	2,148	1,158	1,760	1,041	282	996
1987–88	1,671	861	2,272	1,269	500	2,210	1,478	2,043	1,339	*253	1,130
1988–89	1,905	853	2,643	1,280	537	2,415	1,155	2,639	1,543	311	1,202
1989–90	2,048	1,058	3,070	1,777	609	2,578	1,468	2,938	1,719	380	1,395
1990–91	2,429	1,205	3,451	1,821	873	2,796	1,797	3,018	1,957	613	1,647
					EMPLOYEES COVERED (%)						
1986–87	73.6	45.1	79.9	45.3	23.9	62.9	41.0	74.2	39.2	13.1	41.6
1987–88	77.2	55.3	85.2	49.3	23.2	66.8	46.3	76.8	42.3	13.2	44.0
1988–89	80.7	62.2	96.8	56.2	28.3	77.8	47.1	87.5	69.4	20.7	54.8
1989–90	85.2	78.8	97.1	68.5	48.0	78.0	59.3	89.4	79.8	29.9	66.7
1990–91	86.6	84.7	95.7	74.0	60.0	85.1	71.3	93.7	83.8	48.3	75.5

Source: Labour Costs, Australia (6348.0).

In 1990–91, the highest contributions per employee were recorded in the Electricity, gas and water industry ($3,451) and the Public administration and defence industry ($3,018). These industries also have the greatest percentage of employees covered by superannuation (96% and 94% respectively).

Table 7.42 shows that, of those persons employed in November 1991, 5,334,500 (or 71%) were covered by superannuation, that is, belonged to a superannuation scheme to which contributions were being made either by an employer or personally. The percentage of employees covered by superannuation was 78 per cent compared with 52 per cent of employers and 37 per cent of self-employed persons.

The Para-professionals occupation group had the highest level of coverage (86%), followed by Professionals (79%). The occupation groups with the lowest levels of superannuation coverage were Salespersons and personal service workers (59%) and Managers and administrators (62%). Males recorded higher levels of superannuation coverage than females across all occupation groups.

Table 7.43 shows that some 85 per cent of full-time employees were covered by superannuation compared with 50 per cent of part-time employees. Superannuation coverage amongst permanent employees was more than double that of casual employees (87% compared to 39%).

An estimated 91 per cent of employees who belonged to a trade union were covered by superannuation. In contrast, 69 per cent of employees who did not belong to a trade union were covered.

As shown in table 7.44 superannuation was expected to be the main source of income after retirement by one-third of the 1,260,400 employees aged 45 to 74 covered by superannuation. A further 23 per cent expected a government pension to be their main source of income. Fewer part-time employees (9%) compared with full-time employees (37%) expected superannuation to be their main source of income after retirement. Superannuation was less likely to be the main source of income for lower income earners. Of employees earning less than $200 per week, eight per cent nominated superannuation as their expected main income compared with 52 per cent of employees earning $600 or more per week.

7.42 SUPERANNUATION: COVERAGE OF EMPLOYED PERSONS AGED 15 TO 74, BY STATUS OF WORKER AND OCCUPATION, NOVEMBER 1991 ('000)

	Covered			*Not covered*			*Total*		
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
Status of worker									
Employers	139.9	41.6	181.6	103.4	63.9	167.4	243.4	105.6	349.0
Self-employed	255.9	61.8	317.7	322.8	208.5	531.3	578.7	270.3	848.9
Employees	2,891.0	1,935.7	4,826.7	631.6	761.9	1,393.6	3,522.6	2,697.6	6,220.2
Payment in kind/unpaid family helpers	*3.8	4.7	8.6	21.2	39.9	61.2	25.1	44.7	69.7
Occupation									
Managers and administrators	430.2	105.8	536.0	207.9	117.7	325.6	638.1	223.5	861.6
Professionals	466.0	312.4	778.5	97.9	103.7	201.6	563.9	416.1	980.1
Para-professionals	221.6	179.7	401.3	32.0	34.1	66.1	253.6	213.8	467.4
Tradespersons	817.9	62.5	880.4	244.0	50.0	293.9	1,061.8	112.5	1,174.3
Clerks	254.6	730.9	985.5	35.6	268.7	304.3	290.3	999.6	1,289.8
Salespersons & personal service workers	267.7	359.2	626.9	128.5	306.9	435.4	396.2	666.0	1,062.3
Plant and machine operators and drivers	354.3	59.5	413.8	102.9	32.2	135.1	457.2	91.7	548.9
Labourers and related workers	478.3	233.8	712.1	230.3	161.1	391.4	708.6	394.9	1,103.5
Total	**3,290.7**	**2,043.8**	**5,334.5**	**1,079.1**	**1,074.3**	**2,153.4**	**4,369.7**	**3,118.1**	**7,487.9**

Source: Superannuation, Australia (6319.0).

7.43 SUPERANNUATION: COVERAGE OF EMPLOYEES AGED 15 TO 74, BY SELECTED CHARACTERISTICS, NOVEMBER 1991

	Covered			*Not covered*			*Total*		
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
Usual gross weekly pay in current job ($)									
Under 200	103.4	267.4	370.7	185.3	382.6	567.9	288.7	650.0	938.7
200 and under 400	550.4	668.1	1,218.5	200.4	245.4	445.8	750.8	913.6	1,664.4
400 and under 600	1,111.5	677.1	1,788.6	153.1	104.1	257.1	1,264.6	781.2	2,045.7
600 and under 800	618.5	243.3	861.8	48.1	20.8	68.9	666.6	264.1	930.6
800 and under 1,000	317.9	64.1	382.1	27.2	7.9	35.1	345.1	72.1	417.2
1,000 and over	189.3	15.6	205.0	17.6	1.1	18.7	207.0	16.7	223.7
Status ('000)									
Full-time	2,808.5	1,379.7	4,188.2	461.4	288.8	750.2	3,269.9	1,668.6	4,938.4
Part-time	82.5	555.9	638.4	170.3	473.1	643.4	252.8	1,029.0	1,281.8
Permanent	2,691.2	1,652.3	4,343.5	328.7	316.6	645.4	3,019.9	1,969.0	4,988.9
Casual	199.8	283.3	483.2	302.9	445.3	748.2	502.7	728.6	1,231.4
Trade union membership ('000)									
Member of a trade union	1,415.9	811.8	2,227.7	110.7	122.6	233.4	1,526.7	934.4	2,461.1
Not a member of a trade union	1,456.1	1,114.1	2,570.2	514.5	631.5	1,146.0	1,970.5	1,745.7	3,716.2
Did not know	19.0	9.7	28.7	6.4	7.8	14.2	25.4	17.5	43.0
Total	**2,891.0**	**1,935.7**	**4,826.7**	**631.6**	**761.9**	**1,393.6**	**3,522.6**	**2,697.6**	**6,220.2**
Average usual gross weekly pay in current job ($)	598	421	527	380	235	301	559	368	477

Source: Superannuation, Australia (6319.0).

7.44 EMPLOYEES AGED 45 TO 74 COVERED BY A SUPERANNUATION SCHEME USUAL GROSS WEEKLY PAY IN CURRENT JOB AND EXPECTED MAIN SOURCE OF INCOME NOVEMBER 1991

	Expected main source of income after ceasing full-time work						
	Superannuation	*Invalid, age, supporting parents', widows' pension*	*Investments, interest, stocks, debentures, etc.*	*Dependent on someone else's income*	*Other*	*Did not know*	*Total(a)*
				— '000 —			
Usual gross weekly pay in current job ($)							
Under 200	7.0	20.6	*4.6	13.6	*4.4	9.7	90.8
200 and under 400	46.4	98.2	18.7	33.2	18.9	39.6	292.3
400 and under 600	128.2	129.8	39.2	26.0	33.4	60.1	441.3
600 and under 800	114.2	27.9	28.1	11.8	17.4	27.8	232.6
800 and under 1,000	69.6	6.5	17.8	*0.6	10.3	11.5	120.0
1,000 and over	44.6	*1.3	19.6	*—	8.0	6.4	83.3
Status							
Full-time	392.4	248.5	115.0	51.4	81.8	138.5	1,067.4
Part-time	17.7	35.9	12.9	33.8	10.5	16.6	193.0
Total	**410.1**	**284.3**	**127.9**	**85.2**	**92.3**	**155.1**	**1,260.4**
				— $ —			
Average usual gross weekly pay	709	432	731	390	607	520	568

(a) Includes persons who reported that they would never cease full-time work, persons who had already ceased full-time work and persons who had never worked full time.

Source: Superannuation, Australia (6319.0).

Labour costs

Apart from employee earnings there are a number of other costs incurred by employers. These labour costs, sometimes referred to as the 'hidden costs' of employing labour, amounted to 13 per cent of earnings in 1990–91.

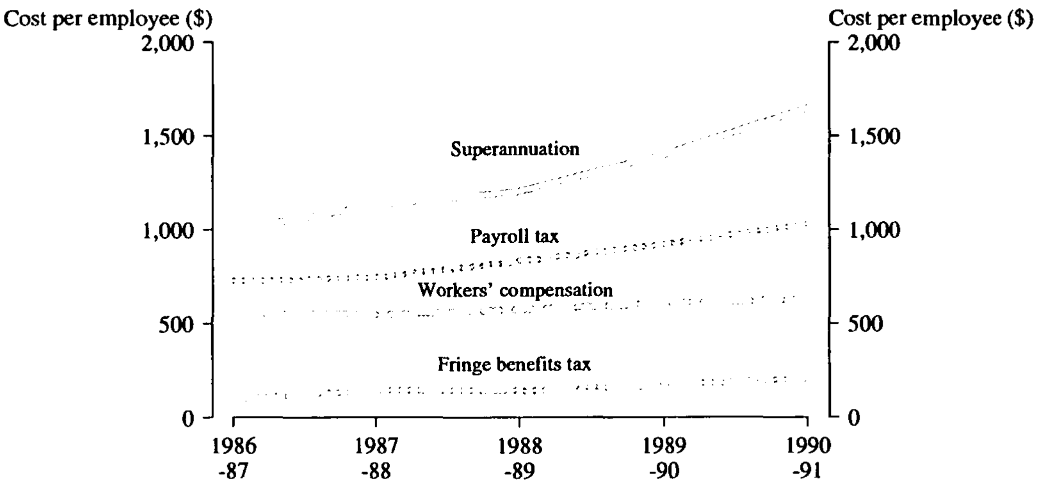
Over the past five years average earnings per employee have risen by 30 per cent. The other labour costs, however, have risen by 48 per cent. Increased costs of superannuation account for nearly half of this increase, rising by more than 65 per cent. This is due to changes in government policy which have seen superannuation contributions as a percentage of earnings rise from 4.9 per cent to 6.3 per cent in the same period. More information is contained in the previous section on Superannuation.

Graph 7.45 shows how labour costs per employee have increased from 1986–87 to 1990–91. Since its introduction in 1986, fringe benefits tax costs per employee, have more than doubled. However, it still remains a relatively minor labour cost.

Table 7.46 details average labour costs per employee for 1990–91. It shows that average total labour costs in the Mining industry are nearly three times those in the Recreation, personal and other services industry.

The table also shows the variability in workers' compensation costs per employee across industries, with costs in the Finance, property and business services industry being the lowest, and only one-fifth of the costs of workers' compensation in the Mining industry.

7.45 AVERAGE LABOUR COSTS PER EMPLOYEE



Source: Labour Costs, Australia (6348.0).

7.46 LABOUR COSTS BY INDUSTRY, 1990–91

Type of labour cost	*Mining*	*Manufac-turing*	*Elect-ricity, gas and water*	*Con-struc-tion*	*Whole-sale and retail trade*	*Transport, storage and commun-ication*	*Finance, property and business services*	*Public admin-istration and defence*	*Com-munity services*	*Recre-ation, personal and other services*	*Total*
					TOTAL COSTS ($ million)						
Earnings	3,611	27,728	3,629	7,450	24,830	13,006	22,173	9,441	33,128	6,822	151,817
Other labour costs	551	3,818	721	1,097	2,680	2,328	3,099	1,379	4,049	594	20,315
Superannuation	188	1,174	366	492	1,015	1,184	1,384	992	2,488	248	9,533
Payroll tax	201	1,394	222	278	970	681	1,021	124	877	188	5,957
Workers' compensation	109	1,054	115	267	489	393	220	237	635	129	3,648
Fringe benefits tax	53	196	18	60	206	69	474	26	47	29	1,178
Total labour costs	**4,161**	**31,546**	**4,350**	**8,548**	**27,510**	**15,334**	**25,272**	**10,820**	**37,176**	**7,415**	**172,132**
					AVERAGE COSTS PER EMPLOYEE ($)						
Earnings	46,729	28,466	34,240	27,602	21,369	30,681	28,795	28,715	26,042	16,841	26,225
Other labour costs	7,126	3,920	6,802	4,064	2,306	5,491	4,025	4,195	3,183	1,466	3,509
Superannuation	2,429	1,205	3,451	1,821	873	2,796	1,797	3,018	1,957	613	1,647
Payroll tax	2,601	1,431	2,098	1,031	835	1,605	1,326	378	689	463	1,029
Workers' compensation	1,412	1,082	1,087	991	421	926	286	720	499	319	630
Fringe benefits tax	683	201	166	221	177	164	616	80	37	71	203
Total labour costs	**53,855**	**32,386**	**41,043**	**31,666**	**23,675**	**36,172**	**32,820**	**32,910**	**29,224**	**18,306**	**29,734**

Source: Labour Costs, Australia (6348.0).

Hours of work and work patterns

Statistics of hours and patterns of work are essential for the study of economic activity, productivity, working conditions, living standards and the quality of life of working people. In this section, a range of data has been brought together on work patterns and hours of work.

In 1991–92, average weekly hours worked by persons employed full time was 41.5 hours. For persons employed in Agriculture, forestry, fishing and hunting, the average was 43.6 hours, compared with 32.0 hours for persons employed in Recreation, personal and other services and 35.5 hours for all employed persons.

7.47 EMPLOYED PERSONS: AGGREGATE AND AVERAGE WEEKLY HOURS WORKED(a) ANNUAL AVERAGE(b), 1991–92

		Females			
	Males	*Married*	*Not married*	*Total*	*Persons*
Aggregate weekly hours worked (million)	178.2	56.7	37.4	94.1	272.3
By full-time workers	171.7	41.8	31.8	73.5	245.2
By part-time workers	6.5	14.9	5.6	20.5	27.0
Average weekly hours worked	40.1	28.6	30.2	29.2	35.5
By full-time workers	42.8	39.5	38.1	38.9	41.5
By part-time workers	14.9	16.2	13.8	15.5	15.3
By wage and salary earners	38.8	28.5	30.2	29.2	34.6
By other than wage and salary earners	45.6	28.9	30.2	29.2	40.1
Average weekly hours worked by persons who worked one hour or more in the reference week	42.0	30.2	31.7	30.8	37.3
By full-time workers	44.9	41.6	40.1	40.9	43.7
By part-time workers	15.7	17.1	14.6	16.3	16.1

(a) The estimates refer to actual hours worked not hours paid for. (b) Averages calculated on quarterly estimates.
Source: The Labour Force, Australia (6203.0).

7.48 EMPLOYED PERSONS: AVERAGE WEEKLY HOURS WORKED(a) BY INDUSTRY ANNUAL AVERAGE(b), 1991–92

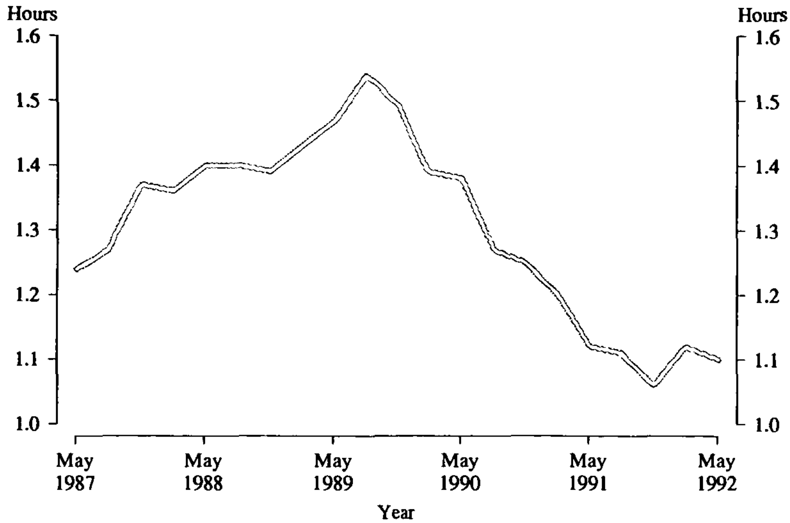
		Females		
Industry	*Males*	*Married*	*Total*	*Persons*
Agriculture, forestry, fishing and hunting	49.7	28.9	29.2	43.6
Agriculture and services to agriculture	50.4	—	29.5	44.0
Forestry and logging, fishing and hunting	41.8	—	18.7	38.8
Mining	41.7	35.4	36.1	41.1
Manufacturing	39.7	31.6	32.4	37.7
Food, beverages and tobacco	39.5	—	32.2	37.1
Metal products	40.2	—	30.5	38.8
Other manufacturing	39.6	—	32.7	37.6
Electricity, gas and water	35.9	30.3	32.1	35.3
Construction	38.7	17.8	20.3	36.4
Wholesale and retail trade	40.4	29.4	27.3	34.4
Wholesale trade	42.1	—	30.9	38.5
Retail trade	39.3	—	26.3	32.7
Transport and storage	41.3	28.8	31.2	39.2
Communication	35.3	28.4	30.1	33.8
Finance, property and business services	40.9	28.1	30.7	35.9
Public administration and defence	35.9	29.8	31.2	34.0
Community services	38.6	28.2	29.7	32.7
Recreation, personal and other services	37.8	27.7	27.3	32.0
All industries	**40.1**	**28.6**	**29.2**	**35.5**

(a) The estimates refer to actual hours worked, not hours paid for. (b) Averages calculated on quarterly estimates.
Source: The Labour Force, Australia (6203.0).

Changes in the amount of overtime worked by employees and the percentage of employees working overtime are important indicators of changing economic and labour market conditions. The following statistics show an overall decline in the amount of overtime worked since 1989.

While the average weekly hours per employee working overtime across all industries was unchanged for May 1991 to May 1992, there were notable falls in the Construction and Mining industries.

7.49 AVERAGE WEEKLY OVERTIME HOURS PER EMPLOYEE



Source: Job Vacancies and Overtime, Australia (6354.0).

7.50 OVERTIME BY INDUSTRY

Industry	*May 1987*	*May 1988*	*May 1989*	*May 1990*	*May 1991*	*May 1992*
AVERAGE WEEKLY OVERTIME HOURS PER EMPLOYEE WORKING OVERTIME						
Mining	9.4	11.1	11.7	10.7	11.6	10.0
Manufacturing	7.9	8.3	8.7	8.8	7.7	8.0
Electricity, gas and water	7.2	7.6	7.8	7.9	7.6	8.0
Construction	8.0	8.4	8.8	8.4	11.3	8.6
Wholesale trade	6.8	6.9	6.5	7.7	5.8	5.8
Retail trade	3.7	4.4	4.5	4.6	4.2	4.5
Transport and storage; Communication	7.3	9.3	8.5	7.6	7.5	8.2
Public administration and defence(a)	5.0	5.7	5.9	5.7	5.5	6.3
Community services	5.9	5.8	6.3	6.3	5.8	6.1
Other(b)	5.4	5.7	5.4	5.4	4.9	4.7
All industries	**6.8**	**7.3**	**7.4**	**7.3**	**6.9**	**6.9**
PERCENTAGE OF EMPLOYEES WORKING OVERTIME						
Mining	44.1	44.0	47.3	52.5	53.0	49.8
Manufacturing	33.6	32.6	35.5	34.1	30.6	32.2
Electricity, gas and water	21.0	23.3	25.0	27.0	24.1	23.1
Construction	21.5	26.4	28.1	31.3	21.3	22.1
Wholesale trade	15.2	19.3	19.2	18.3	18.3	17.4
Retail trade	16.8	17.9	16.3	17.5	14.6	12.7
Transport and storage; Communication	28.6	31.2	33.0	28.3	27.0	26.8
Public administration and defence(a)	13.7	14.7	13.5	16.0	14.4	14.5
Community services	7.0	6.6	6.5	7.4	7.4	6.7
Other(b)	10.0	12.1	12.6	10.5	7.6	7.3
All industries	**18.1**	**19.0**	**19.6**	**18.7**	**16.1**	**15.7**

(a) Excludes permanent defence forces. (b) Includes finance, property and business services and recreation, personal and other services.
Source: Job Vacancies and Overtime, Australia (6354.0).

INDUSTRIAL RELATIONS

Industrial disputes

This section presents statistics of industrial disputes involving the loss of 10 working days or more at the establishments where stoppages occurred. Working days lost refer to working days lost by workers directly or indirectly involved in disputes at the establishments where the stoppages occurred. In the tables which follow, except for table 7.57, the statistics relate to industrial disputes which occurred in each year, irrespective of the year in which they may have started or ended.

Over the period 1970 to 1992, the reported number of working days lost in any one year varied between 6.3 million (in 1974) and 0.9 million (in 1992). The number has been consistently less than two million since 1982 and has fallen below one million in 1992.

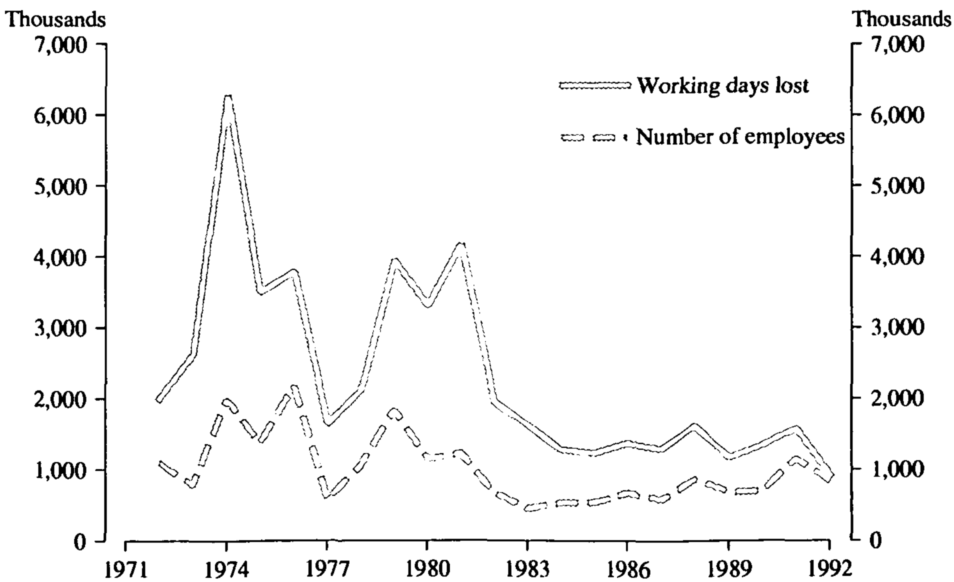
7.51 INDUSTRIAL DISPUTES IN PROGRESS, 1987 TO 1992

	Number of disputes(a)		*Employees involved ('000)*		
Year	*Commenced in year*	*Total(a)*	*Newly involved(b)*	*Total(a)*	*Working days lost ('000)*
1987	1,512	1,517	593.4	608.8	1,311.9
1988	1,502	1,508	893.9	894.4	1,641.4
1989	1,391	1,402	706.4	709.8	1,202.4
1990	1,189	1,193	725.9	729.9	1,376.5
1991	r1,032	r1,036	1,178.9	1,181.6	1,610.6
1992	726	728	871.3	871.5	941.2

(a) Prior to September 1991 disputes affecting more than one industry and/or State have been counted as separate disputes in each industry and State and in the Australian total. (b) Comprises workers involved in disputes which commenced during the year and additional workers involved in disputes which continued from the previous year.

Source: Industrial Disputes, Australia (6321.0).

7.52 INDUSTRIAL DISPUTES IN PROGRESS: WORKING DAYS LOST AND NUMBER OF EMPLOYEES INVOLVED (DIRECTLY AND INDIRECTLY)



Source: Industrial Disputes, Australia (6321.0).

There were 941,200 working days lost reported in 1992. This is the lowest figure recorded for a 12 month period ending December since 1967 when 705,300 working days were lost. A general strike in Victoria on 10 November 1992 and an Australia-wide strike on 30 Novemeber 1992 accounted for 579,100 working days lost, that is, 61 per cent of all days lost in 1992.

7.53 INDUSTRIAL DISPUTES IN PROGRESS, 1987 TO 1992: WORKING DAYS LOST BY INDUSTRY ('000)

	Mining		Manufacturing						
Year	*Coal*	*Other*	*Metal products, machinery and equipment*	*Other*	*Construction*	*Transport and storage; Communication*	*Community services*	*Other industries (a)*	*All industries*
1987	291.8	55.7	199.6	195.5	194.5	92.5	91.2	191.1	1,311.9
1988	471.3	97.4	309.5	117.4	207.9	75.0	111.4	251.5	1,641.4
1989	164.8	34.2	201.1	186.7	117.0	70.7	224.1	203.9	1,202.4
1990	150.5	86.7	536.3	133.4	62.2	129.9	199.2	78.3	1,376.5
1991	129.6	37.1	664.0	169.3	120.7	98.1	201.1	190.7	1,610.6
1992	76.8	50.8	121.4	154.6	38.4	82.4	238.9	177.7	941.2

(a) Includes: Agriculture, etc.; Electricity, etc.; Wholesale and Retail trade; Finance, etc.; Public administration, etc.; Recreation and personal services.

Source: Industrial Disputes, Australia (6321.0).

Working days lost per thousand employees decreased from 265 in the 12 months ending December 1992 to 158 in the 1992 calendar year. The Coal mining industry continued to report the highest number of working days lost per thousand employees (table 7.54) — 2,891 in the 12 months ended 1992.

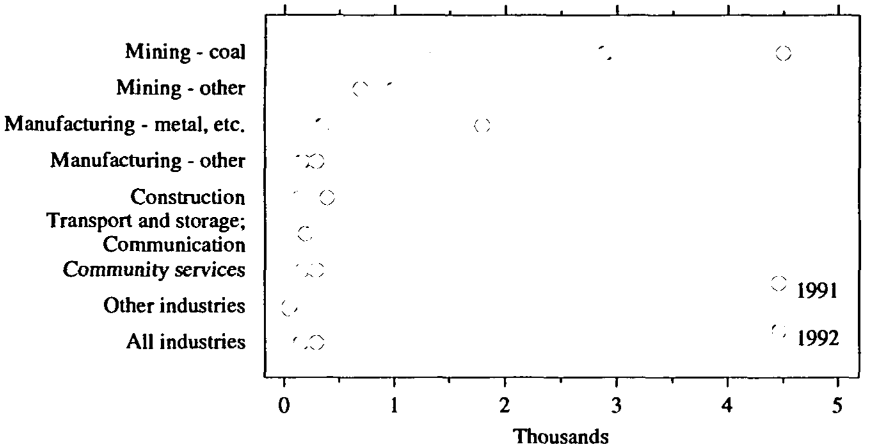
7.54 INDUSTRIAL DISPUTES IN PROGRESS, 1987 TO 1992: WORKING DAYS LOST PER THOUSAND EMPLOYEES, BY INDUSTRY

	Mining		Manufacturing						
Year	*Coal*	*Other*	*Metal products, machinery and equipment*	*Other*	*Construction*	*Transport and storage; Communication*	*Community services*	*Other industries (a)*	*All industries*
1987	8,920	1,072	479	305	743	217	75	67	223
1988	15,548	1,777	750	183	725	177	90	83	269
1989	5,505	642	473	283	374	160	176	65	190
1990	4,879	1,631	1,293	212	204	299	151	25	217
1991	4,507	735	1,820	296	428	237	150	63	265
1991	2,891	1,008	352	274	152	213	175	60	158

(a) Includes: Agriculture, etc.; Electricity, etc.; Wholesale and Retail trade; Finance, etc.; Public administration, etc.; Community services; Recreation and personal services.

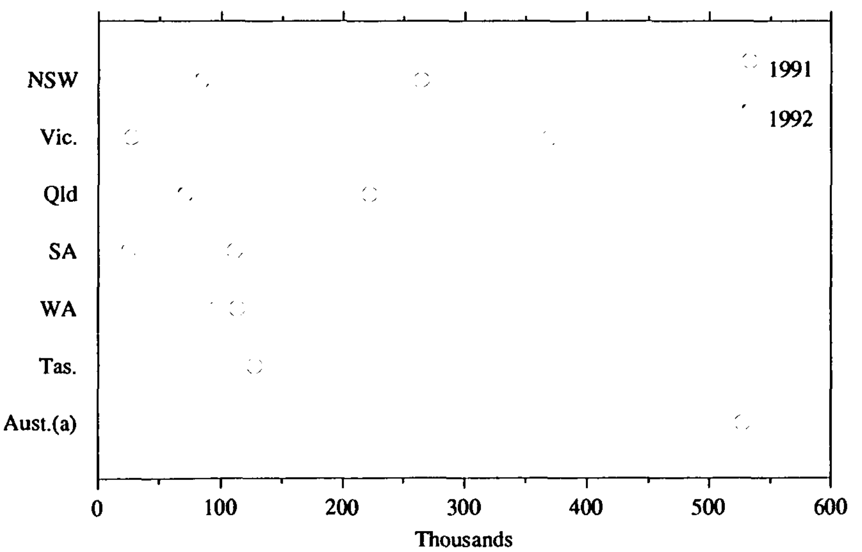
Source: Industrial Disputes, Australia (6321.0).

7.55 INDUSTRIAL DISPUTES IN PROGRESS: WORKING DAYS LOST PER THOUSAND EMPLOYEES BY INDUSTRY, 1991 AND 1992



Source: Industrial Disputes, Australia (6321.0).

7.56 INDUSTRIAL DISPUTES IN PROGRESS: WORKING DAYS LOST PER THOUSAND EMPLOYEES, STATES AND AUSTRALIA, 1991 AND 1992



(a) Includes the Northern Territory and the Australian Capital Territory.
Source: Industrial Disputes, Australia (6321.0).

Industrial disputes which lasted up to and including one day accounted for 72 per cent of all time lost in 1992. The major reported cause of disputes that ended in 1992 was Other (including political strikes) (table 7.57). This cause accounted for 621,100 working days lost (66%). Resumption without negotiation was the main reported method of settlement of disputes that ended in 1992 (83%).

7.57 INDUSTRIAL DISPUTES ENDING DURING EACH YEAR 1990 TO 1992 DURATION, CAUSE AND METHOD OF SETTLEMENT, WORKING DAYS LOST ('000)

	1990	*1991*	*1992*
DURATION OF DISPUTE			
Up to and including 1 day	440.9	r182.5	674.4
Over 1 and up to and including 2 days	601.3	r835.1	102.4
Over 2 and less than 5 days	97.8	r463.4	73.7
5 and less than 10 days	93.8	53.7	30.9
10 and less than 20 days	72.4	65.5	16.7
20 days and over	114.0	22.9	44.9
Total	**r1,420.3**	**1,623.1**	**943.0**
CAUSE OF DISPUTE			
Wages	r154.5	37.8	23.2
Hours of work	4.3	3.9	0.3
Managerial policy	r1,060.3	869.4	224.0
Physical working conditions	99.3	60.8	27.2
Trade unionism	52.4	31.2	47.2
Other(a)	49.5	620.0	621.1
Total	**r1,420.3**	**1,623.1**	**943.0**
METHOD OF SETTLEMENT(b)			
Negotiation	213.5	161.2	107.3
State legislation	167.6	80.8	18.8
Federal and joint Federal–State legislation	r374.5	548.5	27.9
Resumption without negotiation	660.9	825.6	783.5
Other methods(c)	3.9	6.9	5.5
Total	**r1,420.3**	**1,623.1**	**943.0**

(a) Includes 'Leave, pensions, compensation provisions, etc.'. (b) Method directly responsible for ending the stoppage of work. (c) Includes 'Mediation', 'Filling the places of workers on strike or locked out' and 'Closing down the establishment permanently'.
Source: Industrial Disputes, Australia (6321.0).

Trade unions

In recent years a number of union amalgamations has seen the total number of unions decrease and a trend towards larger unions. The number of trade unions with less than 1,000 members has decreased from 136 in 1990 to 104 in 1992. Unions with membership of 50,000 or more have increased their percentage of total union membership from 55.4 per cent in 1990 to 65.2 per cent in 1992.

7.58 NUMBER OF UNIONS AND MEMBERSHIP, BY SIZE OF UNION

Size of union (number of members)	30 June 1990 Number of unions	30 June 1990 Number of members ('000)	30 June 1990 Cumulative % of total members	30 June 1991 Number of unions	30 June 1991 Number of members ('000)	30 June 1991 Cumulative % of total members	30 June 1992 Number of unions	30 June 1992 Number of members ('000)	30 June 1992 Cumulative % of total members
Under 1,000	136	44.9	1.3	124	38.9	1.2	104	31.4	1.0
1,000 and under 5,000	75	182.3	6.6	68	166.1	6.1	51	122.0	4.9
5,000 and under 20,000	39	418.2	18.9	39	417.8	18.4	34	336.1	15.6
20,000 and under 50,000	27	881.8	44.6	25	810.4	42.4	18	601.6	34.8
50,000 and over	18	1,895.0	100.0	19	1,949.5	100.0	20	2,044.0	100.0
Total	**295**	**3,422.2**		**275**	**3,382.6**		**227**	**3,135.1**	

Source: Trade Union Statistics, Australia (6323.0).

A survey conducted in August 1992 found that of the 6,334,800 employees aged 15 and over, 2,508,800 were trade union members (in connection with their main job).

The survey revealed that trade union membership declined from 50 per cent in 1982 to 40 per cent in 1992.

The Electricity, gas and water, and Communications industry groups were the most unionised with 77 per cent of employees being trade union members while the Agriculture, forestry, fishing and hunting industry group, with 13 per cent, was the least unionised.

7.59 PROPORTION OF ALL EMPLOYEES WHO WERE TRADE UNION MEMBERS INDUSTRY AND WHETHER PERMANENT OR CASUAL EMPLOYEE, AUGUST 1992
(per cent)

Industry	Males Permanent employee	Males Casual employee	Males Total	Females Permanent employee	Females Casual employee	Females Total	Persons Permanent employee	Persons Casual employee	Persons Total
Agriculture, forestry, fishing and hunting	16.2	12.7	14.7	*13.8	*3.3	*6.9	15.8	9.4	12.6
Mining	63.7	*10.7	61.7	*17.7	11.1	*16.4	60.3	*11.2	57.6
Manufacturing	50.5	21.6	48.2	38.6	16.7	33.6	47.8	19.1	44.4
Electricity, gas and water	80.8	*24.8	80.1	59.5	*34.9	56.5	78.4	*30.8	77.2
Construction	55.1	23.4	47.2	*9.7	*—	*5.9	50.7	19.4	42.4
Wholesale and retail trade	19.4	19.5	19.4	30.2	20.5	25.7	23.5	20.2	22.3
Transport and storage	71.1	31.9	65.1	40.8	*7.5	33.8	65.3	25.6	58.8
Communication	84.0	*41.1	83.7	68.8	*7.0	61.6	79.8	*11.5	77.1
Finance, property and business services	31.8	7.7	28.0	33.9	7.1	28.8	32.9	7.4	28.4
Public administration and defence	70.1	*7.2	68.1	53.4	*12.0	48.0	64.4	*10.6	60.7
Community services	61.1	17.0	56.1	55.2	16.3	46.9	57.3	16.4	49.9
Recreation, personal and other services	27.9	16.2	23.5	23.9	18.2	20.5	26.1	17.5	21.8
Total	**48.1**	**18.4**	**43.4**	**42.9**	**16.5**	**34.8**	**46.0**	**17.2**	**39.6**

Source: Trade Union Members, Australia (6325.0).

TRAINING

In recent years there has been an increasing national focus on vocational training as an element of labour market reform. The need to improve skill levels is recognised as crucial to improving Australia's economic performance. Against this background several training surveys have been conducted by the ABS to support analysis of training issues and the development and evaluation of training policies and programs.

National estimates of expenditure by employers for the formal training of their employees are provided by the Training Expenditure Survey. The survey also provides estimates of the paid time employees spend receiving formal training.

National estimates of the extent and types of training and education being undertaken by wage and salary earners are provided by the 1989 survey of 'How Workers Get Their Training'. This survey covered characteristics such as age, sex, country of birth, occupation and level of educational attainment.

Training expenditure by employers

This section presents estimates of the expenditure by employers on the formal training of their employees, and of the paid time employees spent receiving formal training, obtained from a survey covering the September quarter 1990.

Formal training is defined as all training activities which have a structured plan and format designed to develop job related skills and competence. Informal training, (that is, unstructured on-the-job training, being shown how to do things as the need arises or learning by doing a job), was excluded from the scope of the survey.

It is estimated that overall, Australian employers spent the equivalent of 2.6 per cent of gross wages and salaries on the formal training of their employees during the period 1 July to 30 September 1990. Average expenditure reported on formal training was $163 per employee. Employees received an average of 5.9 hours of formal training over the three months. By comparison, during the period 1 July to 30 September 1989, training expenditure was estimated to be 2.2 per cent of gross wages and salaries, $133 was spent per employee and employees received an average of 5.7 hours training.

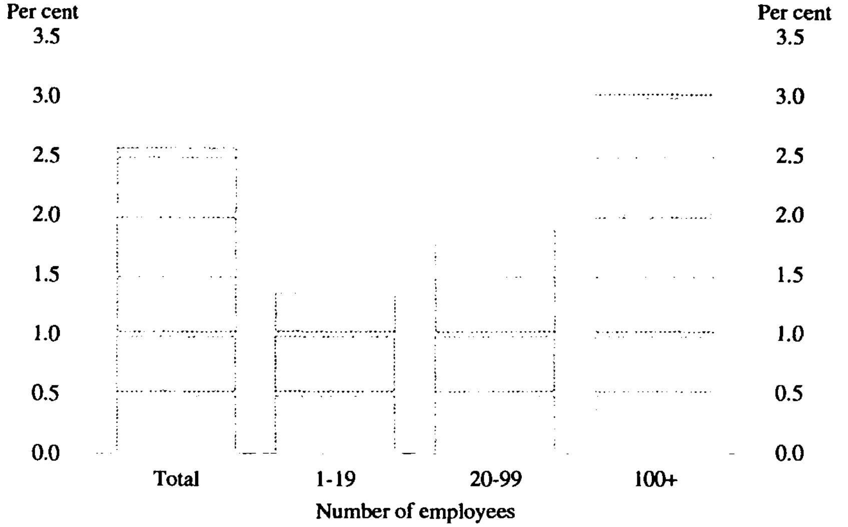
Employers in the private sector spent an average of 2.2 per cent of gross wages and salaries on formal training. An estimated 24 per cent of these private sector employers reported some training expenditure.

7.60 AVERAGE TRAINING EXPENDITURE BY EMPLOYERS, BY SECTOR AND EMPLOYER SIZE JULY TO SEPTEMBER 1990

	1–19 employees	*20–99 employees*	*100 or more employees*	*Total*
	PRIVATE			
Total training expenditure (% of gross wages and salaries)	1.35	1.89	2.79	2.22
Total training expenditure per employee ($)	67.9	112.5	181.8	132.1
Training hours per employee	4.0	4.09	5.97	4.95
Employers reporting training expenditure (% of all employers)	18.3	62.8	91.9	23.6
	PUBLIC			
Total training expenditure (% of gross wages and salaries)	*1.63	1.81	3.25	3.19
Total training expenditure per employee ($)	*75.5	127.9	234.9	229.9
Training hours per employee	*3.32	4.25	8.23	8.05
Employers reporting training expenditure (% of all employers)	*41.7	94.6	99.8	72.7
	TOTAL			
Total training expenditure (% of gross wages and salaries)	1.35	1.88	3.03	2.57
Total training expenditure per employee ($)	68.0	113.5	207.5	162.8
Training hours per employee	3.99	4.10	7.06	5.92
Employers reporting training expenditure (% of all employers)	18.5	64.3	93.7	24.4

Source: Employer Training Expenditure, Australia (6353.0).

7.61 AVERAGE TRAINING EXPENDITURE, ALL EMPLOYERS, BY EMPLOYER SIZE JULY TO SEPTEMBER 1990
(per cent of gross wages and salaries)



Source: Employer Training Expenditure, Australia (6353.0).

7.62 AVERAGE TRAINING EXPENDITURE BY EMPLOYERS, BY INDUSTRY JULY TO SEPTEMBER 1990

Source: Employer Training Expenditure, Australia (6353.0).

7.63 AVERAGE PAID TRAINING TIME PER EMPLOYEE(a), BY FIELD OF TRAINING AND SECTOR, JULY TO SEPTEMBER 1990
(hours per employee)

Field of training(b)	*In-house*	*External*	*Total*
	PRIVATE		
Induction	0.35	*—	0.35
General supervision	0.23	*0.05	0.29
General computing	0.24	0.13	0.37
Health and safety	0.17	0.06	0.22
Management and professional	0.32	0.28	0.60
Technical and para-professional	0.19	0.11	0.30
Trade and apprenticeship	0.43	1.43	1.86
Clerical, sales	0.42	0.10	0.52
Plant and machinery	0.24	0.03	0.27
Other	0.12	*0.04	0.16
All fields	**2.70**	**2.24**	**4.95**
	PUBLIC		
Induction	0.36	*0.01	0.36
General supervision	0.30	0.07	0.37
General computing	0.44	0.16	0.60
Health and safety	0.33	0.09	0.42
Management and professional	0.80	1.00	1.79
Technical and para-professional	1.81	0.43	2.24
Trade and apprenticeship	0.49	0.47	0.95
Clerical, sales	0.50	0.10	0.60
Plant and machinery	0.27	0.04	0.31
Other	0.32	0.08	0.40
All fields	**5.60**	**2.45**	**8.05**
	TOTAL		
Induction	0.35	0.01	0.36
General supervision	0.25	0.06	0.31
General computing	0.30	0.14	0.44
Health and safety	0.22	0.07	0.29
Management and professional	0.47	0.51	0.98
Technical and para-professional	0.70	0.21	0.91
Trade and apprenticeship	0.45	1.13	1.58
Clerical, sales	0.44	0.10	0.54
Plant and machinery	0.25	0.03	0.28
Other	0.18	0.05	0.24
All fields	**3.61**	**2.31**	**5.92**

(a) The total time receiving formal training averaged over the total number of employees. (b) Formal training was classified according to the main content of the course or program.

Source: Employer Training Expenditure, Australia (6353.0).

7.64 AVERAGE TRAINING EXPENDITURE BY EMPLOYERS AS A PERCENTAGE OF GROSS WAGES AND SALARIES, BY INDUSTRY, JULY TO SEPTEMBER 1990
(per cent)

	Private			*Total*		
Industry	*In-house*	*External*	*Total*	*In-house*	*External*	*Total*
Mining	2.7	1.3	4.0	2.7	1.3	4.0
Manufacturing	1.3	0.7	2.0	1.4	0.7	2.1
Food, beverages and tobacco	0.8	0.5	1.3	0.8	0.5	1.3
Textiles, clothing and footwear	1.2	0.4	1.6	1.2	0.4	1.6
Wood, wood products	*0.5	0.7	1.2	*0.5	0.7	1.3
Paper, paper products	1.5	0.8	2.3	1.5	0.8	2.3
Chemical, petroleum and coal products	2.6	0.9	3.5	2.6	0.9	3.5
Non-metallic mineral products	0.7	0.7	1.4	0.7	0.7	1.4
Basic metal products	2.4	0.9	3.4	2.4	0.9	3.4
Fabricated metal, machinery and equipment	0.9	0.8	1.7	1.0	0.8	1.8
Transport equipment	2.4	1.0	3.4	2.8	1.0	3.8
Miscellaneous manufacturing	*1.0	*0.5	1.5	*1.0	*0.5	1.5
Electricity, gas and water	2.6	1.0	3.7	2.9	1.2	4.1
Construction	0.5	1.2	1.7	0.8	1.1	1.9
Non-building construction	0.5	0.5	1.0	1.2	0.5	1.8
Other construction	0.5	1.3	1.8	0.7	1.3	2.0
Wholesale and retail trade	1.3	0.6	1.9	1.3	0.6	1.9
Wholesale trade	1.6	0.8	2.4	1.6	0.8	2.4
Retail trade	1.0	0.5	1.5	1.0	0.5	1.5
Transport and storage	1.5	0.5	2.0	2.2	0.4	2.7
Air transport	3.1	0.3	3.4	5.6	0.2	5.8
Other transport and storage	1.2	0.6	1.8	1.5	0.5	2.0
Communication	1.1	1.1	2.1	3.6	0.7	4.3
Finance, property and business services	2.2	1.0	3.3	2.2	0.9	3.1
Finance	3.4	0.9	4.3	3.5	0.8	4.3
Insurance	2.8	*1.5	4.3	2.8	*1.4	4.3
Property and business services	1.4	1.0	2.5	1.3	0.9	2.2
Public administration and defence	. .	. .	. .	2.1	1.2	3.3
Community services	1.2	0.6	1.8	1.8	0.7	2.6
Health	0.8	0.3	1.2	1.5	0.5	2.0
Other community services	1.7	1.0	2.7	2.1	0.8	2.9
Recreational, personal and other services	0.7	0.7	1.4	0.9	0.6	1.5
Entertainment and recreation	0.4	*0.2	0.7	*1.0	*0.3	1.4
Restaurants, hotels and clubs	0.7	*0.5	1.2	0.7	*0.5	1.2
Personal services	*1.3	2.0	3.4	*1.3	2.0	3.3
All industries	**1.4**	**0.8**	**2.2**	**1.8**	**0.8**	**2.6**

Source: Employer Training Expenditure, Australia (6353.0).

How workers get their training

A survey, 'How Workers Get Their Training', was conducted during the months of April, June and July 1989, and obtained information on the training and education undertaken by persons who had a wage or salary job in the previous 12 months. The survey found that the majority of these persons, some 79 per cent, received some form of training.

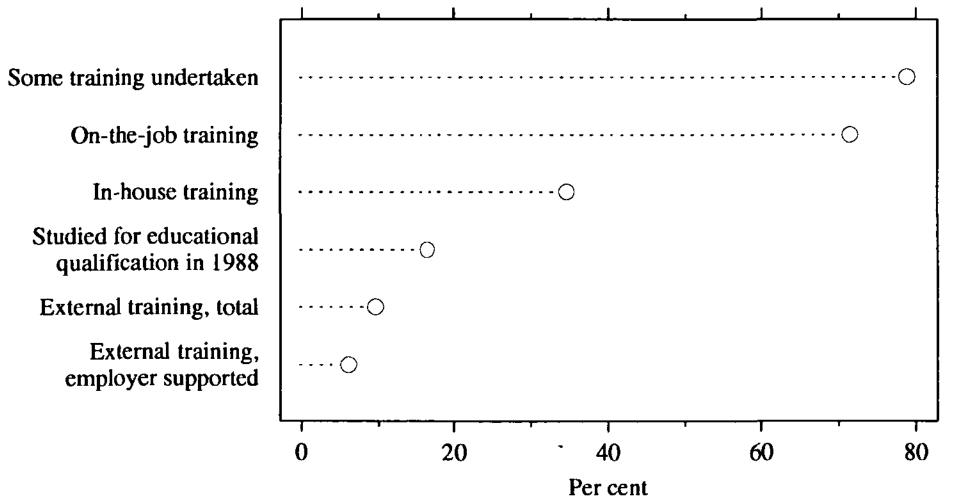
Graph 7.65 shows that, during the previous 12 months, some 72 per cent of all employees received on-the-job training. A little more than a third received in-house training courses, 17 per cent studied for an educational qualification, and 10 per cent attended at least one external training course. Some workers received more than one form of training.

Table 7.66 shows the types of training undertaken in the previous 12 months by age and educational attainment.

The number of wage and salary earners undertaking training decreased with age from 93 per cent of persons aged 15 to 24 years, to 49 per cent of persons aged 55 to 64 years. Also, persons with post-school qualifications undertook more training (84%) than those without such qualifications (75%) over the 12 month period.

Overall, a similar proportion of males and females undertook training in external courses, in-house courses, on-the-job training, and study for an educational qualification.

7.65 PARTICIPATION IN TRAINING BY WAGE AND SALARY EARNERS IN THE PREVIOUS TWELVE MONTHS, 1989



Source: How Workers Get Their Training, Australia (6278.0).

7.66 CATEGORIES OF TRAINING UNDERTAKEN BY WAGE AND SALARY EARNERS IN THE PREVIOUS TWELVE MONTHS, BY SEX, AGE AND LEVEL OF EDUCATIONAL ATTAINMENT, 1989

	Studied for educational qualification in 1988	*Training courses undertaken — External training — Employer supported*	*Training courses undertaken — External training — Total*	*Training courses undertaken — In-house*	*Training courses undertaken — On-the-job*	*Some training under-taken*	*No training under-taken*	*Total*
	— per cent —							'000
Age (years)								
15–24	37.9	4.2	7.1	30.3	87.7	92.6	7.4	1,705.3
25–34	13.8	7.8	11.9	39.6	76.0	83.2	16.8	1,939.1
35–44	9.0	8.0	12.0	40.2	68.1	77.1	22.9	1,621.9
45–54	5.2	6.5	9.3	31.5	56.5	64.6	35.4	977.9
55–64	2.9	3.1	4.7	20.4	40.9	49.0	51.0	460.5
Level of educational attainment								
With post-school qualifications	17.2	9.9	14.9	44.2	76.2	84.1	15.9	3,172.6
Post-graduate degree or graduate diploma	20.6	18.5	28.0	59.8	84.4	92.9	7.1	315.7
Bachelor degree or diploma	23.4	15.8	21.8	56.2	84.9	90.8	9.2	747.6
Trade qualification or apprenticeship	9.4	5.6	8.5	31.5	65.8	74.3	25.7	936.0
Post-secondary certificate	18.8	7.4	12.1	42.6	76.6	85.3	14.7	1,143.7
Other	*12.1	*7.9	*12.1	32.8	79.4	83.4	*16.6	29.6
Without post-school qualifications(a)	16.4	3.2	5.2	26.5	67.9	74.5	25.5	3,532.1
Attended highest level of secondary school available	33.4	6.2	8.5	36.6	79.4	87.5	12.5	1,006.6
Did not attend highest level of secondary school available	9.4	2.0	3.8	22.4	63.2	69.2	30.8	2,496.5
Left at age								
16 years or over	14.4	2.5	4.8	26.7	72.3	79.0	21.0	1,091.0
15 years or under	5.6	1.6	3.1	19.1	55.7	61.7	38.3	1,405.5
Total	16.8	6.4	9.8	34.9	71.8	79.0	21.0	6,704.7
Males	17.0	7.4	10.4	35.1	71.1	78.8	21.2	3,740.7
Females	16.5	5.2	9.1	34.6	72.7	79.4	20.6	2,964.0
	— '000 —							
Total	1,124.0	429.2	658.4	2,337.5	4,814.4	5,300.1	1,404.6	6,704.7
Males	634.1	276.5	388.3	1,311.2	2,659.0	2,947.5	793.2	3,740.7
Females	489.9	152.7	270.1	1,026.4	2,155.4	2,352.6	611.5	2,964.0

(a) Includes those who never attended school and those for whom secondary school qualifications could not be determined.
Source: How Workers Get Their Training, Australia (6278.0).

GOVERNMENT EMPLOYMENT AND TRAINING PROGRAMS

The Commonwealth Government, often in conjunction with State and Territory Governments, provides a wide range of labour market programs to assist the efficient functioning of the labour market, to encourage and assist individuals and industry to improve the productivity and skills of the work force, and to improve the skills and employment prospects of people disadvantaged in the labour market.

The Commonwealth Government, the State and Territory Governments and the industrial parties are working in cooperation to develop a 'training culture' in Australia, recognising the importance of vocational education and training for the efficiency and productivity of the Australian economy. This 'training culture' revolves around a notion of 'life-long learning', including the availability of career paths and on-going skills formation for all Australians. A key element of the 'training culture' is the implementation of a nationally consistent competency-based training system. This system aligns vocational education and training delivery, assessment and certification arrangements to competency standards developed by the industry parties.

The various employment and training programs are described in the following sections. There is a degree of interrelationship between individual programs and with some of the provisions contained in the chapter on Social Security and Welfare.

Entry Level Training

The Commonwealth encourages and assists individuals and industry to improve the productivity and skills of the work force by providing support for apprentices and trainees and through specially targeted trade training programs.

Trade apprentices. The apprenticeship system has been the principal source of supply of skilled workers to the Australian labour market and, with the Australian Traineeship System, has provided significant employment and structured training opportunities for school leavers.

Through the Commonwealth Rebate For Apprentice Full-time Training Scheme (CRAFT), incentives and support are provided to employers and apprentices within the framework of the State/Territory apprentices systems.

The aim of CRAFT is to maintain or improve the quality of and equity of access to apprentice training for young people and, having regard to labour market conditions, maintain or increase the numbers of apprentices undergoing and completing that training.

CRAFT assistance is provided in a number of ways:

- Apprentice Training Incentive (ATI), introduced on 1 January 1988 to replace the former Technical Education Rebate. Employers who take on, and indenture, apprentices after 1 January 1988 are able to apply for grants in respect of the commencement ($1,500), recommencement ($1,000) and completion ($1,500) of an apprenticeship. Employers receive an extra $1,000 for taking on a young person classified by the Commonwealth Employment Service (CES) as disadvantaged in the labour market.
- Additional Apprentice Training incentive introduced as a counter-cyclical measure on 1 January 1992 to operate until 30 June 1993. In addition to the usual $1,500 ATI commencement grant, a further $2,000 is payable to employers for each first year apprentice recruited during the period 1 January 1992 to 30 June 1993 who was additional to the number of first year apprentices employed as at 30 September 1991.
- Off the Job Training, payable to group training companies for releasing apprentices to attend approved full-time instruction at their own or other industry training centres operated by group training companies. Group training companies approved to train other group training company apprentices may also be compensated for designated training costs.
- The Disabled Apprentice Wage Subsidy (DAWS) improves the access of people with disabilities to apprentice training. This is achieved by providing a weekly wage subsidy (and workplace modification grant where appropriate and necessary) to employers who engage people with disabilities as apprentices, and through assistance to apprentices who require tutorial assistance.
- Living-Away-from-Home-Allowance, available to apprentices in their first and second year of apprenticeship where there is a need to live away from home to obtain or maintain their apprenticeship.

Non-trade traineeships. The Australian Traineeship System (ATS) seeks to enhance the long-term employment and career prospects of young people through fundamental improvements in training arrangements for non-trades employment, by developing broadly-based and structured entry level vocational training.

It achieves this through provision of financial incentives to employers and by training providers to employ and train young people as trainees, and through assistance to trainees needing to live away from home in order to take up or continue a traineeship.

The ATS is jointly administered by the Commonwealth Government and the State and Territory Governments. Employers, unions, training authorities and governments are involved in the continuing development of the system through the development of new traineeship packages as well as the monitoring and reviewing of existing ones.

Traineeships are generally for a 12 month period and involve on-the-job training and a minimum of 13 weeks formal vocational instruction (off-the-job component) in a TAFE college or other approved training centre.

The trainee is paid a trainee wage for the duration of the traineeship which is set with reference to the relevant junior rates for the time spent on the job. Since the inception of the system, over 63,000 young people have commenced traineeships in a wide range of industries and occupations. Of these, over 9,200 trainees commenced during 1991–92.

A range of financial support is available to assist with the development and operation of traineeships:

- a Training Fee of $2,000 per approved trainee to assist employers to offset the cost of providing on-the-job training. Employers are eligible to receive an additional $1,000 if they employ trainees assessed by the CES as being disadvantaged in the labour market;
- Additional Trainee Incentive, introduced as a counter-cyclical measure in July 1992. In addition to the standard $2,000 on-the-job training fee, a further $1,000 is payable to employers for each trainee recruited during 1992–93 who was additional to the number of trainees in training at 30 June 1992;
- a Re-establishment Grant of $300 per trainee to encourage employers to take on unemployed trainees and enable them to complete their training;
- an Off-the-Job Training Fee (currently $1,900 to TAFE and up to $2,000 to other training providers) for each trainee;
- a Living-Away-from-Home Allowance, available to trainees where there is a need to live away from home to obtain or maintain their traineeship; and
- Fares Assistance, available to trainees who have to move away from home to take up a traineeship.

Following the release of the report The Australian Vocational Certificate Training System in March 1992, a new system is to be introduced which will combine work and training. It will extend to young people who currently do not have the opportunity to participate, with the aim of ensuring that Australia has a more educated, skilled and productive work force.

As a first step towards introducing the new scheme, Career Start Traineeships will extend and enhance the existing Australian Traineeship System. They will provide a bridge to enable the industrial parties to move from existing training arrangements to the Australian Vocational Certificate training system, which takes into account the proposals put to the Government by major employer organisations, and is based on proposals developed by the ACTU.

A great advantage of the new scheme will be its *flexibility. It will allow* young people to move into the work force while obtaining accredited training, with up to 50 per cent of their time in training in the first year and 35 per cent in the second year.

Special trade training. The Special Trade Training Program seeks to provide young people with appropriate work force skills through innovative approaches to traditional entry level training, and to ensure that skills acquired are not lost to the national skills base. This is achieved through targeted assistance which:

- increases the access of disadvantaged groups, including women, to structured training opportunities;
- expands the availability of structured training opportunities for young people wishing to enter the work force;
- enables unemployed apprentices and trainees to complete or continue their training; and
- provides assistance to employers in financial difficulties to retain apprentices in training.

The program achieves these ends through:

- Special Assistance Program, which provides a range of measures to assist young people to maintain or complete their training so that skills are not lost to the economy; and
- Special Equity Measures, which are directed towards testing, developing and introducing new approaches to traditional apprentice training. These include special preparatory courses for women and 'Tradeswomen on the Move' projects — a joint Commonwealth/State strategy designed to encourage greater participation of young women in non-traditional trades. In addition, funding is provided to State and Territory Governments for the running of additional pre-vocational courses in TAFE and with non-TAFE providers.

There are a number of Commonwealth programs which aim to enhance the skills of the Australian work force.

The Skills Enhancement scheme provides assistance to:

- raise the quality of in-house training; and

- minimise the effect of current and emerging skills shortages of national significance.

The Trainer Training Assistance Program provides a financial incentive to employers to release personnel responsible for workplace training, and those in supervisory positions, to attend accredited trainer training courses.

The National Skills Shortages Program provides short-term training assistance to individuals and industry in occupations where skilled labour is in short supply. Particular emphasis is given to occupations identified as requiring temporary reliance on skilled migrants. The primary objective of this program is to minimise the effects of current and emerging skill shortages of national significance. Training programs are developed in conjunction with industry groups and training providers.

The program provides:

- refresher training for persons with basic qualifications or experience but whose skills need updating;
- bridging training for overseas qualified persons seeking recognition of their qualifications in Australia; and
- skills upgrading of existing employees.

In recent years the program has assisted training in a large number of areas of identified national skills shortages, including:

- physiotherapists/occupational therapists;
- specialist nurses; and
- the computer industry.

An additional mechanism to stimulate industry's commitment to training, the Training Guarantee, has applied since 1 July 1990. The scheme requires employers with an annual national payroll of $222,000 (1992–93, indexed by average weekly earnings), or more to spend one per cent of payroll (1.5% from 1 July 1992) on eligible training as broadly defined in the legislation. Under regulation, provision exists for exemption of the building and construction industry in those States/Territories where appropriate levies exist. A similar regulation exempts shearing and related occupations.

Employers who do not meet this obligation directly will be required to pay the shortfall to the Australian Taxation Office. Funds collected in this way will be paid into a Training Guarantee Fund. Commonwealth administrative costs will be recovered from the Training Guarantee Fund and any excess will be distributed through the States and Territories for training purposes.

Since late 1991, there has been provision for establishing a system to recognise, and exempt from the provisions of the Training Guarantee, employers who can demonstrate they are outstanding trainers.

Support for training activities in industry. In recognition of the pressures upon the training systems resulting from industry restructuring, the Commonwealth has instituted measures designed to encourage a cooperative national effort in the improvement of vocational education and training arrangements. Financial assistance can be provided to industry to:

- upgrade work force skills to meet structural and technological change;
- pilot test new and innovative training arrangements;
- facilitate industry restructuring through award restructuring processes; and
- develop national curricula and competencey based training and assessment procedures.

To this end the Commonwealth provides a range of support measures to assist organisations, including:

- Institutional Development Grants to employer and union organisations to enable them to employ Training Liaison Officers to facilitate new entry level training arrangements.
- Assistance to Group Training Companies, which employ apprentices and trainees under the ATS. Group Training Companies aim to increase training opportunities for apprentices and trainees, generally with small and medium size companies which would not be able to recruit apprentices and trainees in their own right. This is achieved by indenturing apprentices/trainees to a central body, such as an employer organisation or a training company formed specifically for the purpose. The Commonwealth provides joint assistance (with State and Territory Governments) to group training companies to offset their administrative costs.
- Project funding is also provided towards the cost of innovative local projects developed by

group training companies, which have the potential to increase employment and training opportunities for apprentices and trainees employed with group training companies.

Since 1987, the Commonwealth has provided assistance to establish industry based skills centres as a joint funding venture with industry, State and Territory Governments. To date, 55 skills centres have been established.

Training advisory and service organisations. Support is provided for a network of Industry Training Advisory Bodies which are autonomous, industry based and incorporated as companies or associations with membership representing employer and employee associations, the Commonwealth Government and State and Territory Governments. There are 141 National and State/Territory Industry Training Advisory Bodies covering 24 major industries representing more than two-thirds of the private sector work force.

The primary role of these Industry Training Advisory Bodies is to act as the authoritative voice on training matters within their industries and advise governments on the training implications of workplace reform, work practices and award restructuring. A secondary role is to initiate research into training matters and coordinate the development of training solutions to identified or emerging training needs.

The Commonwealth Government also supports the National Training Board (NTB). The NTB was established in February 1990 as a joint initiative of the Commonwealth Government and the State and Territory Governments. The role of the NTB is to help industry to develop and then to endorse national competency standards put forward by Competency Standards Bodies. Competency standards ratified by the Board are the benchmarks for curriculum development, course accreditation, delivery and assessment of training, and the certification of skills.

In 1991–92 the Board approved 28 Competency Standards Bodies to develop standards and endorsed eight sets of industry standards, one set of occupational standards and one set of guideline standards.

Training Services Australia (TSA) provides a range of public training courses and consultancy services designed to improve the level and effectiveness of human resource development activity in Australian industry and government. TSA operates training centres and offers training consultancy services on a cost recovery basis in all capital cities excluding Darwin and Adelaide.

Workplace Literacy Program. In 1991 the Commonwealth announced the establishment of the Workplace English Language and Literacy (WELL) Program. WELL is managed jointly by the Department of Employment, Education and Training and the Department of Immigration, Local Government and Ethnic Affairs in consultation with the Department of Industrial Relations.

The objective of the WELL program is to provide workers with English literacy and English as a Second Language (ESL) skills that are sufficient to enable them to meet the demands of their current employment and their future employment and training needs. This is achieved by assistance with the direct costs of training provision and by assistance with the development of appropriate training resources.

Consultation with all parties concerned at both National and State/Territory level is achieved by a National Consultative Group (NCG) and State/Territory Advisory Committees (SACs). The NCG ensures an appropriate national perspective to the Program while the SACs ensure that only the most appropriate proposals in each State/Territory context are recommended for funding.

The NCG agreed that, for 1993, the WELL Program would give priority to the automotive, building and construction, foodprocessing, metals, textile, clothing and footwear, and transport industries. Industries other than those on the priority list would also be assisted by the WELL Program.

The total funding available for WELL program assistance in 1992–93 is in excess of $9 million.

Employment Access Program

The Program comprises a number of measures aimed at assisting jobseekers who are disadvantaged in the labour market to gain access to and secure long-term employment.

There are four program components under the Employment Access Program:

- Employment Assistance;
- Job Search Assistance;

- Mobility Assistance; and
- Training Assistance.

Employment Assistance has six elements:

- JOBSTART;
- Contracted Placement;
- Post Placement Support;
- Work Experience for People with Disabilities;
- Post Placement Support for People with Disabilities; and
- Interpreter Service.

JOBSTART is a wage subsidy program that provides access to employment for jobseekers, who have experienced long periods of unemployment or face other disadvantages in obtaining work. Under the program, employers receive subsidy payments for set periods up to 26 weeks as an incentive for engaging and improving the employment prospects of these disadvantaged jobseekers.

Wage subsidies are offered as an incentive to private sector employers to hire jobseekers facing difficulties in their search for work. The subsidy can be provided for set durations. Rates vary according to age, length of unemployment and other disadvantages.

For employers to qualify for a subsidy they must be prepared to pay at least the award wage and fulfil award conditions. The position must normally be available for continuous employment for at least three months after expiration of the agreed subsidy period.

For 1992–93 $237.7 million was allocated to JOBSTART for approximately 104,000 clients.

7.67 NEW JOBSTART WEEKLY RATES EFFECTIVE FROM 1 SEPTEMBER 1992

Age group (years)	*Unemployed 6 months or more*	*Unemployed 12 months or more especially disadvantaged*	*Unemployed 24 months or more*
			Subsidy duration set at
	12 weeks	*18 weeks*	*26 weeks*
15–17	$70 per week	$110 per week	n.a.
18+	$160 per week	$220 per week	$270 per week

Source: Department of Employment, Education and Training.

Contracted Placement assists jobseekers who have been unemployed for two years or more and have been unable to use Commonwealth Employment Service (CES) services effectively, or benefit from labour market program assistance.

A fee for service is paid to an agency contracted by the CES to assess the jobseeker's needs, to design and implement an action plan for the jobseeker, to provide relevant assistance, place the jobseeker in employment and assist the jobseeker to retain that employment. To be eligible for assistance under Contracted Placement, jobseekers must be aged 16 years to 64 years and registered with the CES as unemployed for 24 months continuously. In 1992–93, $5.2 million was allocated to assist approximately 1,100 clients.

Post Placement Support provides support services to formerly long-term unemployed clients, who require assistance and support during the first few weeks or months of returning to employment.

There are three forms of assistance available on request from the CES:

- CES staff may counsel the clients within the limits of their expertise and counselling skills, and consistent with duty of care obligations;
- the client may be referred to other more appropriate agencies such as an Arbitration Inspectorate, the Ombudsman's Office; or
- the client may be referred to a contracted external agency to provide post placement advice and contact services.

To be eligible for support under this program, a person must:

- have been registered with the CES as unemployed for one year or longer before returning to employment;

- begin a permanent full or part-time job (that is, a job of more than three months' duration); and
- experience employment-related difficulties.

In 1992–93, $2.1 million was allocated for 2,000 commencements.

The Work Experience for People with Disabilities program aims to provide fully subsidised placements in the private sector or with community agencies, for Disability Reform Package clients (see chapter on Social Security and Welfare) with a high level of disability. These people whose disability makes them uncompetitive for immediate placement in wage subsidy programs such as JOBSTART, have activity plans developed with Disability Panels.

Two forms of assistance are available:

- Wage Subsidy: full-time positions fully subsidised to the level of the relevant award wage or equivalent, up to a maximum of $3,600 per client;
- Additional Employer Costs: reimbursement of up to $2,000 per placement may be made to an employer who incurs costs covering the lease, hire or modification of essential special equipment and the hire of specialist services required in the workplace to enable a disabled client to do the job.

To be eligible for assistance jobseekers need to be Disability Support Pension clients who have been assessed by Disability Panels as being able to work full time, part time or who volunteer for active assistance and are assessed as being able to benefit from the program. From 1992–93, 600 places are available annually.

Post Placement Support for People with Disabilities is an extension of the Post Placement Support component of the Employment Access Program. It provides individual support services for people with high levels of disability, while they are in training and for a time after they commence work. The aim is to increase opportunities for people with disabilities to participate in training and by offering 'settling in' assistance, to encourage employers to take on these clients and to help them stay employed.

Services provided include assistance with workplace familiarisation, supervision on new equipment, travel to work arrangements, meals and work break arrangements and regular contacts for advice and encouragement both while the client participates in labour market programs training or while in employment.

Services are purchased on a fee-for-service basis from agencies, particularly those with interests in special groups with disabilities.

To be eligible for assistance jobseekers need to be Disability Support Pension clients with a level of impairment of 20 per cent or more and who have been assessed as being able to benefit from involvement in the program. Some 2,000 places are available annually from 1992–93.

Interpreter services to CES clients with English language difficulties and/or a hearing impairment aim to ensure that these clients fully understand the types of assistance available to them through the CES and any reciprocal obligations on their part.

Any client considered by the CES as not able to understand spoken and/or written English is eligible for interpreter assistance. The 1992–93 allocation for interpreter services was $2.14 million.

Job Search Assistance is designed to improve jobseekers chances of finding work by developing their job hunting knowledge, skills and techniques.

Job Search Assistance has three elements:

- Self Help Job Search materials comprising a kit and video;
- Job Search Training Courses (JSTCs); and
- Job Clubs.

The Self Help Job Search materials aim to provide self help advice to CES clients from the beginning of their job search.

Job Clubs and JSTCs provide job search training and experience in a supportive environment. Job Clubs run for three weeks, while JSTCs are conducted for 22 hours over five days. While both Job Clubs and JSTCs cover similar material, Job Clubs provide more intensive training and time for participants to practise the skills that are taught.

Participants retain their entitlement to a Job Search or Newstart Allowance whilst attending Job Clubs or JSTCs. No additional allowances are paid. All facilities and materials (use of telephones, keyboarding, photocopying, stationery) are provided by the Commonwealth. Fares Assistance is available to attend job interviews.

Self Help Job Search materials are available to clients from the time of registration or on request. For Job Search Training Courses and Job Clubs, clients must have been registered as unemployed with the CES for at least three months (especially disadvantaged clients have access after one month) and have permanently left full-time education.

It is estimated that 26,000 jobseekers will participate in Job Clubs or JSTC's in 1992–93.

Mobility Assistance. The main aim of Mobility Assistance is to contribute to the efficient functioning of the labour market by giving jobseekers fair access to jobs which are not locally available, whilst also helping employers to obtain workers with appropriate skills.

Applicants for all forms of Mobility Assistance must be registered with the CES, but each element of the program then has specific eligibility requirements.

- Fares assistance is available for travel on public transport for jobseekers to attend interviews. If there is no public transport available, a petrol allowance can be given.
- Relocation assistance is available where unemployed jobseekers have an offer of permanent work in a new location and it is determined that local jobseekers will not be disadvantaged. Jobseekers who have been unemployed for 12 months or more, and find permanent work in a location beyond reasonable daily travel, may be immediately eligible for relocation assistance. Assistance includes fares and a contribution towards the expenses of moving home and family.
- Post Placement Fares Assistance is available to assist people who have been unemployed for 24 months or more and find permanent work in a location which requires excessive fares or travel time.
- Jobsearch Relocation Assistance can be provided to people who have been unemployed for 12 months or more and who are willing to move to a new area to find employment. People who find work under this provision are automatically eligible for relocation assistance.
- Immediate Minor Assistance is a one-off payment available for any registered person who finds a job, but is unable to take it up because of inability to meet the costs involved, for example to buy special equipment, or pay union dues.

Training Assistance. The Training Assistance component has four elements:

- JOBTRAIN;
- Special Intervention;
- Accredited Training Offer for Young People; and
- Landcare and Environment Action Program (LEAP).

JOBTRAIN seeks to improve the employment prospects of long-term unemployed and especially disadvantaged jobseekers by providing formal training opportunities. The assistance given is either directly related to immediate job opportunities in the local labour market, or is directed towards acquiring recognised skills to be used in the work force.

JOBTRAIN provides for the CES to contract and buy special courses and places on existing courses to meet the needs of local jobseekers and skill needs of the local labour market. Training providers include TAFE and community-based organisations, private training agencies and industry bodies. Average course length is eight to ten weeks.

In 1992–93 funding was provided to purchase additional accredited training places from TAFE and appropriate community based and private training providers for unemployed adults. Additional funding was also provided for an increased number of short-term training courses (through both JOBTRAIN and Skillshare) for long-term unemployed young people who choose not to take up an accredited training offer made to all long-term unemployed youth.

While on courses, participants may receive Formal Training Assistance, comprising their Job Search Allowance or Newstart Allowance, plus ancillary allowances to help meet training costs. Those aged 21 years or over and sole parents (including those under 21 years) also receive a $30 per week training component.

Assistance with child care is available for sole parents (with children under 16 years) who participate in JOBTRAIN.

The main eligibility requirement to participate in JOBTRAIN is to have been unemployed for six months, not be in full-time education, and to be currently registered with the CES and actively seeking work. Preference is, however, given to those unemployed for at least 12 months.

Especially disadvantaged groups such as people with disabilities, Aboriginals and Torres Strait Islanders, ex-prisoners, homeless people, spouses of Newstart recipients, youth at risk and those who are between 50 and 64 years old, are eligible for JOBTRAIN assistance after one month's registration with the CES.

Estimated expenditure for JOBTRAIN in 1992–93 was $207.3 million to assist approximately 98,000 clients.

Special Intervention is designed to help jobseekers make the transition to work or training through the provision of a professional assessment of barriers to employment faced by individual jobseekers, and assistance to help overcome those barriers.

Within the context of the other program elements of the Employment Access Program, Special Intervention provides the capacity for the CES to seek expertise beyond that available within its own network, for clients who require more detailed assessment and assistance in their efforts to gain access to either employment or training opportunities.

To remedy gaps in skills identified by assessment, Special Intervention enables the purchase or establishment of special remedial assistance or program assistance. This may include placing clients in current courses or purchasing individual forms of assistance, as appropriate.

Especially disadvantaged jobseekers are eligible immediately upon registration for the assessment phase of Special Intervention, but must be registered for a minimum period of one month before they can be assisted. Especially disadvantaged jobseekers include Aboriginals and Torres Strait Islanders, people with disabilities, jobseekers aged 50 or older, homeless people, ex-offenders, spouses of Newstart allowance recipients and youth at risk.

It was expected that around 36,000 jobseekers would be helped under Special Intervention in 1992–93 at a cost of around $79.1 million.

Accredited Training For Young People, a new measure announced in the 1992 Budget, involves the offer to all young people who have been unemployed for a year or more of a place in an accredited training course, followed by a JOBSTART wage subsidy. Each young person is given a JOBSTART card at the completion of their course, so that they can directly approach the employers of their choice.

This initiative provides additional accredited training places in TAFE colleges and with other training providers, sufficient to enable all teenagers who have been unemployed for 12 months or more to be offered an appropriate place. The courses will be for a duration of up to six months full-time study. Teenagers assisted under this program are eligible for Formal Training Allowance paying Job Search/Newstart Allowance rates and incidental expenses.

In 1992–93, $101.2 million was allocated for 19,500 accredited training places.

Landcare and Environment Action Program is a new program introduced in 1992–93 to provide young unemployed people aged 15 to 20 years who wish to participate in the development and implementation of conservation practices, with appropriate training and practical experience in a range of landcare, environment, cultural heritage and conservation activities. The program provides organisations and community groups the opportunity to undertake innovative conservation projects which will help secure Australia's heritage while providing the opportunity for a joint Government and community strategy to assist young Australians acquire vocational skills.

Brokers are contracted to act as intermediaries between participants and sponsors, providing them with an agreed structured training plan and identified outcome skills. Projects are selected on their ability to provide quality training and improved job prospects for participants. Other criteria are the significance to resource management and subsequent priority with local/regional and State resource management plans and that the projects be of public benefit.

Each project is funded for 26 weeks. Participants are paid a training allowance while on the program at the rate of $125 a week for 15–17 year olds and $150 a week for 18–20 year olds. Participation in LEAP is voluntary for those young people registered as unemployed with the CES. In 1992–93, the program aimed to assist at least 6,000 young people at a cost of $47.3 million.

Aboriginal employment and training

The overall aims of the Aboriginal Employment Development Policy (AEDP) are to achieve equitable Aboriginal representation in employment and to contribute to the promotion of Aboriginal communities by:

- increasing the level of permanent employment for Aboriginal people in the mainstream labour market; and
- generating employment within Aboriginal communities where few mainstream labour market opportunities exist.

The Training for Aboriginals Program (TAP) facilitates AEDP objectives by assisting with training and employment opportunities for Aboriginal people who wish to participate in the mainstream labour market. Specific provisions include:

- assisting major private and public sector employers to develop recruitment and career development strategies for Aboriginals;
- subsidies for other private sector employers to provide structured employment and training opportunities for Aboriginal jobseekers; and
- vocational training in formal and short-term special courses.

Training and employment assistance for Aboriginal communities is available under programs delivered through the Aboriginal and Torres Strait Islander Commission. During 1991–92 there were about 5,000 placements under TAP.

The Community Development Employment Projects (CDEP) scheme provides Aboriginal and Torres Strait Islander communities, or specific interest groups within such communities, the means to undertake community development activities designed and valued by the community or group, and which involve the employment of community members.

CDEP offers Aboriginal and Torres Strait Islander communities in remote and rural locations, small rural towns and urban areas where there are no or limited alternative employment prospects, the opportunity to pursue community goals of self management, acquisition of administrative and work skills, improvement of community economies, facilities and infrastructure, and development of outstations and homelands. A significant number of communities have established projects which generate additional income for their community.

To participate in CDEP, unemployed members of a community or group elect to forego their entitlement to Job Search (JS) or New Start (NS) allowances to undertake productive activity in return for a wage at least equivalent to their otherwise JS/NS entitlement. Communities choosing to participate in CDEP receive grants from the Aboriginal and Torres Strait Islander Commission comprising wages, 'on-costs' (to assist communities meet administrative and other costs such as workers compensation, insurance and payroll tax) and 'support' (to assist with capital costs).

In 1991–92, 185 communities and organisations participated in the CDEP scheme, providing employment opportunities to more than 20,000 Aboriginals and Torres Strait Islanders who would otherwise have been reliant on JS/NS allowances.

Community based employment and training strategies

SkillShare. The objective of the SkillShare program is to assist long-term unemployed people and other most disadvantaged unemployed people to obtain and retain employment or to proceed to further education or training through the provision of skills training, employment-related assistance (including personal support and referral) and enterprise activities by incorporated community-based organisations with a demonstrated capacity to deliver such services.

The target group for SkillShare is long-term unemployed people, particularly those unemployed for 12 months or more and other most disadvantaged unemployed people who do not have ready access to other employment, further education and training opportunities. Those deemed to be most disadvantaged include people with disabilities, people with literacy (including English language) difficulties affecting their employment prospects, Aboriginal people,

people aged 50 to 64 years and sole supporting parents.

Each project is managed by a community organisation known as a 'sponsor' which receives annual core funding to develop a range of activities linked to employment, training or education-related outcomes for the SkillShare target group. Sponsors are required to secure a contribution towards project operating costs from the local community equal to 20 per cent of SkillShare funding.

There are seven levels of core funding which ranged from $120,000 to $310,000 in 1992.

SkillShare has an important role in the Newstart strategy operating from 1 July 1991. The Newstart strategy places a strong emphasis on the principle of reciprocal obligation. The aim is to support people who are active in their efforts to obtain employment and to improve their employability. Further information on Newstart is contained in the chapter on Social Security and Welfare.

Three broad types of activities and services are offered by SkillShare projects:

- Structured Skills Training. All projects are required to offer a minimum amount of off-the-job structured skills training.
- *Open Access Activities.* All projects are required to offer a range of services to the target group including, but not limited to, volunteer referral activities, job search training, motivational and personal development activities.
- *Enterprise Activities.* Projects are encouraged to develop enterprise activities to establish project-based businesses which may generate revenue for the project and provide training opportunities in a realistic commercial environment and income for the target group. Project enterprise activities may also assist unemployed people into self-employment. Funding is complemented by an assessment process to ensure that commercial viability criteria are met. Training is also provided to ensure that project staff obtain the skills required in business planning and operations to maximise the chances for successful outcomes for project-based enterprise activities.

SkillShare sponsors establish a Project Advisory Committee for each project which is representative of their community and, as such, includes representatives of the local TAFE institution and/or other relevant education providers.

An estimated 110,000 persons were assisted through an Australia-wide network of almost 400 projects, including 10 Disability Access Support Units, in 1992.

Including Formal Training Allowance, the 1991–92 expenditure for SkillShare was $136.0 million compared with an allocation of $175.9 million in 1992–93.

The 1992–93 allocation includes $27.1 million for three new initiatives announced in the Government's Budget Youth and Employment Policies:

- project upgrading;
- SkillShare youth services; and
- extra targeted services for jobseekers with dependents.

Disadvantaged Young People Services Program (DYP). The objective of the program is to assist young people, currently unattracted to and uncompetitive in mainstream programs to secure and maintain employment, by providing assistance relevant to their particular needs.

The program funds community-based organisations to establish and operate 'mentor/broker' services for particularly disadvantaged young people who require personal support and follow-through assistance during a period of training and transition to employment. Disadvantaged young people include those in insecure accommodation and unstable domestic situations; with specific learning difficulties; from particular social and cultural groups (for example, Aboriginal youth, young people of non-English speaking backgrounds); who have been unemployed long term; and who are leaving institutional care.

The DYP Program is funded as part of the Commonwealth Government's Youth Social Justice Strategy. The allocation for DYP in 1991–92 was $2.4 million and up to 2,000 places were available. This compares with $2.2 million and 2,000 places in 1990–91.

Although not part of the SkillShare Program, the DYP Services have been shown to benefit from an association with SkillShare projects and in 1990–91, 31 of 41 DYP projects were conducted by SkillShare sponsors and co-located with their SkillShare projects. Funding allocations are made concurrently with SkillShare annual funding processes.

New Enterprise Incentive Scheme (NEIS). The objective of NEIS is to assist unemployed people to establish and operate new and viable self-employment ventures.

The scheme provides a structured and comprehensive package of support emphasising training and business advice prior to approval, and post-approval mentor support.

The five elements of the assistance package are:

- business advice and assessment;
- training in business plan development and business skills;
- assistance with negotiating access to loans or grants for start-up capital;
- income support for up to one year; and
- mentor support during the first year of business operation.

There is flexibility under the program to provide fast-track assistance for participants already possessing business and technical skills needed to establish a business and therefore requiring less initial training and mentor support.

Demonstrated commercial viability through a rigorous business planning process is a prerequisite for approval of applications.

2,752 participants were approved under NEIS in 1991–92.

An evaluation of the program finalised during 1991–92 showed that for every 1,000 NEIS participants assisted, at least 420 were still in business 12 months after program assistance ceased; up to 490 whose businesses had not survived were in other employment or training; and a further 294 new full- and/or part-time jobs were created in NEIS businesses.

In 1992 there were 84 managing agents, with agents in every State.

JOBSKILLS is a new initiative which offers NewStart allowance recipients the opportunity to broaden their skills through a combination of work experience and training.

JOBSKILLS provides a way for unemployed people to maintain and improve their skills during the current downturn to enable them to take advantage of the recovery.

JOBSKILLS placements are for up to 26 weeks and offer work experience combined with relevant on- and off-the-job training. Work experience placements are organised through Jobskills Brokers and will be primarily within the local government and community sectors.

JOBSKILLS has been allocated $154.2 million for 1992–93 which will assist 10,050 long-term unemployed people.

Labour Adjustment Assistance for Restructuring

The industry, regional and enterprise labour adjustment assistance sub-program contributes to the efficient and equitable functioning of the labour market by improving and adapting the skills and employment base of particular industries, regions or enterprises undergoing structural change and by assisting individuals affected by those changes.

The Office of Labour Market Adjustment administers the sub-program through packages which are principally directed at workers in particular regions, industries and enterprises where employment is affected by structural adjustment or downturns in the economic and business cycle.

The sub-program comprises three components: Industry–Labour Adjustment Packages; Regional Initiatives; and Enterprise-Based Measures.

Industry Labour Adjustment Packages have been developed for workers retrenched from industries that have been adversely affected by tariff reductions and industry restructuring.

The Labour Adjustment Packages operating in 1992–93 are:

- the Textile, Clothing and Footwear (TCF) Labour Adjustment Package for workers retrenched during the restructuring anticipated under the TCF Industry Plan (1988–2000);
- the Passenger Motor Vehicle (PMV) Labour Adjustment Package for workers retrenched during the restructuring anticipated under the PMV Industry Plan (1984–2000). This package replaced the assistance previously available under the Labour Adjustment Training Arrangements; and

- the Australian National Labour Adjustment Package for an estimated 1,800 rail workers to be made redundant by ANR over the coming two to three years.

Regional initiatives are designed to address the impact of structural change on specific geographical labour markets. Packages of measures contain active employment, education and training related measures designed to assist the region to respond to structural and cyclical changes, minimise the adverse impact of structural change on individuals and increase local employment opportunities.

Funding is provided to develop the infrastructure and capacity of regional communities to manage and monitor structural change and to develop strategies aimed at developing the skills of the community. Assistance measures can include:

- funding for the establishment and support of a regional employment, education and training committee to promote community involvement in developing reasons to change;
- regional skills surveys and industry profiles to assist in improving the understanding of the regional skills base and to identify emerging skills needs;
- the development and delivery of appropriate training in response to identified skill needs; and
- employment development projects including small business support services and enterprise incubators to foster local enterprise development and employment growth.

During 1991–92, regional initiatives were funded in over 80 regions across Australia, in each State and the Northern Territory.

The Training and Skills (TASK) program is designed to reduce the loss and wastage of skilled employees, during periods of economic downturn and industrial restructuring, by assisting employers to retain their staff. Training assistance is provided to allow employers to keep their work force and upgrade their skills with a view to improving enterprise productivity, and reducing the level of skill shortages which emerge during an economic upturn.

Under TASK, which commenced on 1 July 1991, assistance is available to enterprises which face major retrenchments or movement to short-time or down-time arrangements, to help them limit the shedding of labour and maintain or improve the skill levels of their employees. Support under TASK is provided to enable enterprises to:

- investigate the human resource implication of their retrenchment or restructuring process and develop an appropriate training response;
- establish an enterprise based committee to oversight and manage the review, restructuring and training delivery process; and/or
- deliver vocational skills training to employees who may be otherwise at risk of retrenchment.

Employee Skills Upgrade is a two year pilot program, which commenced in 1991–92 to assist companies to overcome their skills shortages by upgrading the skills of existing employees and backfilling their positions with suitable unemployed people.

Support from the program is provided for eligible companies to engage consultants or managing agents to develop training plans for the upgrading of skills. Assistance for the backfilling of positions is provided through the Employment Access Program (JOBTRAIN and JOBSTART).

Assistance to Firms Implementing Change is designed to provide assistance to companies which need to develop human resource management strategies and increase staff skills due to the introduction of new production methods or technology.

The program also helps companies review current production technology and methods with a view to restructuring and retooling to prevent staff retrenchments.

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FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book.* Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book.*

Chapter Eight

Social Security and Welfare

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COMMONWEALTH GOVERNMENT SOCIAL SECURITY SERVICES

On 1 July 1947, with the passage of the *Social Services Consolidation Act 1947*, all Acts providing social service benefits were amalgamated into the *Social Security Act 1947*. This Act was repealed and replaced with the *Social Security Act 1991* which commenced on 1 July 1991.

The main social security payments provided by the Commonwealth under the 1991 Act for 1991–92 and the date on which each payment came into effect are listed below.

8.1 SOCIAL SECURITY PAYMENTS, 1991–92

Type of payment	*Amount paid in 1991–92 ($m)*	*Date of operation*
The Retired		
Age Pension	9,680	1 July 1909
Wife's Pension	207	5 October 1972
Carer's Pension	37	1 November 1985
Pharmaceutical Allowance	—	1 November 1990
Bereavement Allowance	—	1 January 1990
People with Disabilities and the Sick		
Invalid Pension	1,008	15 December 1910
Disability Support Pension	1,748	12 November 1991
Sheltered Employment Allowance	36	30 June 1967
Rehabilitation Allowance	36	1 March 1983
Sickness Allowance	445	1 July 1945
Mobility Allowance	12	1 April 1983
Child Disability Allowance	104	15 November 1987
Wife's Pension	756	5 October 1972
Carer's Pension	89	1 November 1985
Pharmaceutical Allowance	—	1 November 1990
Bereavement Allowance	—	1 January 1990
The Unemployed		
Unemployment Benefit/Newstart Allowance	2,272	1 July 1945
Job Search Allowance	4,464	1 January 1988
Special Benefit	304	1 July 1945
Families with children		
Family Allowance	2,329	1 July 1941
Family Allowance Supplement	724	17 December 1987
Sole Parent Pension	3,057	1 March 1989
Double Orphan Pension	2	26 September 1973
Widowed Persons		
Widowed Person Allowance	1	1 March 1989
Class 'B' Widow Pension	566	30 June 1942

Source: Department of Social Security.

An outline of each of these social security payments and their conditions for eligibility is set out below. Certain changes were announced in the 1990–91 Budget regarding income support and related programs for people with disabilities (described in the section on the Disability Support Pension) which took effect during 1991–92. As a result, some of the items in the above table were introduced, replaced or phased out during the year and the amount paid shown against them do not relate to a full year's operations. Details of eligibility for these payments are available in the Annual Reports and Program

Performance Statements of the Department of Social Security.

Payments for the retired

Age pension is payable to men and women who have reached the ages of 65 and 60 respectively. Age pension is generally subject to residence qualifications and income and assets tests.

A wife's pension is payable to the wife of an age (or invalid) pensioner when she is not entitled, in her own right, to an age or invalid pension or rehabilitation allowance. There is no residence qualification, but income and assets tests apply.

A carer's pension is payable to a person providing constant care and attention for a severely disabled age (or invalid) pensioner living in the same house or a neighbouring dwelling where the carer is not eligible for a pension in his or her own right. Carer's pension is also subject to the pension income and assets tests.

From 1 July 1993 a carer's pension is also payable to those caring for a person who is precluded from pension entitlement because of residence qualifications. Carers will be able to study or work for up to 10 hours a week while continuing to receive full pension. They will also gain access to the Jobs, Education and Training Program (JET).

Additional pension is payable, subject to the income and assets tests, for each dependent child under 16 years (at a higher rate for children aged 13–15) and dependent full-time students aged 16 to 24 years, who are not in receipt of a prescribed educational allowance (for example, AUSTUDY). Major reform of the families assistance system in 1992–93 will make the system simpler and more consistent, provide greater assistance to low and middle income families, and stronger incentives for work force participation.

Widowed or other unmarried age (or invalid) pensioners with a dependent child may, in addition, receive mother's/guardian's allowance. Rent assistance, combined with the basic pension or benefit rate is assessed under the general pension or benefit income and assets tests. It is available to pensioners if they pay private rent or pay for lodging, or board and lodging.

Pharmaceutical allowance is paid to all pensioners and to certain older long-term beneficiaries and allowees to compensate them for expenditure on pharmaceuticals purchased under the Pharmaceutical Benefits Scheme (PBS). The amount paid to a social security recipient over the course of the year is equal to the level of the PBS concessional 'safety net' limit. The allowance is paid fortnightly but advance payments are available to those with high pharmaceutical usage and private income of less that $10 a week (single) or $20 a week (married).

Bereavement allowance is payable to eligible age, carer or invalid pensioners, in respect of the death of their spouse or the person receiving care. The allowance is equivalent to 14 weeks payment that would have been made to the spouse for that period. Allowances are available in lump sum form to assist with funeral and associated expenses. The estate of a deceased single pensioner is credited with one extra fortnightly instalment of pension following death.

From April 1993, age pensioners requiring small loans may use the Government sponsored Home Equity Loans Scheme for Aged Pensioners to access some of the savings tied up in their homes while retaining a sizeable proportion of the equity. Repayments will not have to be made until pensioners have permanently vacated their homes.

8.2 AGE PENSIONERS, 30 JUNE

Age (years)	*1990*	*1991*	*1992*
60–64	167,252	175,269	192,664
65–69	314,390	329,223	360,490
70–74	286,600	288,553	296,923
>74	572,226	582,804	596,091
Total	**1,340,468**	**1,375,849**	**1,446,168**
Number of wife's/ carer's pensioners	27,791	31,156	36,476
		— $'000 —	
Total payments during year(a)	8,182,453	9,207,544	9,924,404

(a) Includes allowances, rent assistance, and wife's pensions where applicable.

Source: Department of Social Security.

Payments for people with disabilities and the sick

Disability Support Pension. Major reforms announced in the 1990–91 Budget provided a new active approach to income support and related programs for people with disabilities. The Disability Reform Package (DRP) minimises work disincentives and provides opportunities for people with disabilities to participate in rehabilitation, labour market programs, education and employment and mainstream community activities. As part of the DRP initiatives, on 12 November 1991, the Disability Support Pension (DSP) replaced Invalid Pension (IP) and Sheltered Employment Allowance, Sickness Benefit was replaced by Sickness Allowance and Rehabilitation Allowance commenced to be phased out.

Eligibility for DSP is based on a minimum 20 per cent level of impairment and an inability to work at least 30 hours a week at full award wages in at least the next two years, due wholly or substantially to a physical, intellectual or psychiatric impairment or permanent blindness. A reduced range of non-medical factors was also introduced to target the payment more clearly to those with a significant disability.

Claimants who are assessed as having an impairment rating over 10 per cent but below 20 per cent are able to request a second impairment assessment. This is in addition to the normal appeal rights that already exist.

Referrals to rehabilitation and training is undertaken by panels comprising Social Security Disability Support Officers and officers from the Commonwealth Employment Service and Commonwealth Rehabilitation Service.

Disability support pension is paid subject to an income and assets test — with the exception of permanently blind persons who receive the payment free of any income or assets test — and disability support pensioners must satisfy residence requirements.

For those granted DSP from 12 November 1991 overseas portability of DSP will be limited to 12 months. The only exceptions will be pensioners with a severe disability and those moving to countries covered by relevant Social Security agreements.

A new payment structure for new grants to 16–20 year old disability support pensioners was also introduced and is closely aligned with unemployment assistance provisions to remove incentives for young people with disabilities to downgrade their employment potential.

8.3 DISABILITY SUPPORT PENSIONERS 30 JUNE

Age (years)	*1990*	*1991*	*1992*
16–19	7,808	7,700	8,303
20–39	63,874	68,110	84,843
40–59	164,261	173,807	197,206
>59	80,770	84,617	88,206
Total	**316,713**	**334,234**	**378,558**
Number of wife's/ carer's pensioners	95,839	99,548	108,788
		— $'000 —	
Total payments during year(a)	2,679,752	3,095,780	3,584,246

(a) Includes allowances, rent assistance, and wife's pensions where applicable.
Source: Department of Social Security.

Sickness Allowance replaced Sickness Benefit on 12 November 1991. It is payable to people aged between 16 and age pension age who have a short-term incapacity for work due to sickness, illness or accident and as a result have lost income. They must be unable to work for more than eight hours a week at award wages. Payment of sickness allowance is generally limited to 12 months (except in certain special circumstances where payment can be extended to 24 months) to avoid long-term dependence on the payment and the weakening of links with the labour market.

Payment of Sickness Allowance is available to under 16 years olds who are over the school leaving age, who previously had an attachment to the work force and who are living independently of their parents or guardian.

Job Search and Newstart Allowances (JSA/NSA) recipients who become incapacitated for work for short periods stay on JSA/NSA rather than being transferred to Sickness Allowance. Persons undertaking a Commonwealth Rehabilitation Service program for at least six weeks are also eligible to receive Sickness Allowance.

The payment rates and income and assets testing arrangements for these payments are the same as those for JSA/NSA. A pharmaceutical allowance of $2.60 per week is also available to Sickness Allowance recipients.

8.4 SICKNESS BENEFIT/ALLOWANCE, YEAR ENDED 30 JUNE

	1990	*1991*	*1992*
Number of new benefits granted	116,000	121,300	159,002
June average number on benefit	79,195	71,397	44,172
Average number on benefit at end of each week during year	78,103	76,088	52,239
Amount paid during year ($'000)	611,167	650,612	444,855

Source: Department of Social Security.

Mobility Allowance is paid free of income and assets tests to people with a disability over 16 years of age who are unable to use public transport without substantial assistance and who are engaged for a minimum of eight hours per week in vocational training (which is not a training program under the Commonwealth Rehabilitation Service) or in gainful employment (including sheltered employment). Mobility allowance is not payable if a sales tax exemption has been received for a new motor vehicle purchased within the previous two years or where a person has received a 'gift' vehicle from the Department of Veterans' Affairs.

Child Disability Allowance may be paid to a parent or guardian (usually the recipient of family allowance) of a child under 16 years or a dependent full-time student aged 16 to 24 years who lives in the family home and requires substantially more care and attention than a child of the same age who does not have a disability. The child must be medically classified as having a physical, mental or psychiatric disability.

Child disability allowance is not payable for students aged 16–24 years receiving disability support pension or sole parent pension. It is payable in addition to family allowance and is not subject to an income or assets test. Residence criteria similar to that for family allowance apply.

As at June 1992, the total number of child disability allowance recipients was 50,800 paid in respect of 54,900 children. Total expenditure for 1991–92 was $104 million.

Other payments. The following are also payable to people with disabilities or their spouses or carers: wife pension, carer pension, additional pension for dependent children, pharmaceutical and bereavement allowances and rent assistance. Details of these have been included in the section, Payments for the Retired.

Payments for the unemployed

Until 30 June 1991, unemployment benefit was payable to unemployed persons aged between 18 and the eligibility age of the age pension, and job search allowance was payable to unemployed persons aged 16 to 17.

Unemployment benefit was replaced from 1 July 1991 by a new two payment structure under the Newstart strategy. Job search allowance is now payable to those aged 18 years and over who have been unemployed for less than 12 months and to unemployed people aged 16 and 17 (and to certain 15 year olds from 1 January 1991). Newstart allowance is payable to those who have been unemployed for a year or more and who are aged 18 years and over.

To be eligible for job search or Newstart allowances, a person must be unemployed and be capable and willing to undertake suitable paid work. A job search allowance or Newstart allowance recipient must also be registered with the Commonwealth Employment Service, must be taking reasonable steps to obtain work and must not be unemployed due to industrial action.

Income support under the new structure is subject to the same income and assets tests and generally the same eligibility requirements as the old job search allowance and unemployment benefit. Added requirements are an enhanced activity test for all recipients and the Newstart activity agreement as a condition of receiving Newstart allowance.

Income support under the Newstart strategy is linked to active job search and participation in labour market programs designed to encourage an early return to the work force. Clients who approach 12 months unemployment must apply separately for the payment of Newstart allowance if they still require income support. The payment of Newstart allowance depends on the recipient entering into an activity agreement with the CES. The activity agreement sets out a course of action designed to improve the recipient's job prospects and is tailored to the needs of the client and the local labour market.

Recipients of job search allowance or Newstart allowance must be permanent residents of Australia. Eligibility is subject to an income test and an assets test. In addition, job search allowance for under 18 year olds considered dependent on their parents is subject to tests on parental income and assets.

Special benefits may be granted to persons not qualified for any other payment but who are unable to earn a sufficient livelihood for themselves and their dependents and are in hardship. The rate at which special benefit is payable may not exceed the rate of job search or Newstart allowance that would have been paid if the claimant was qualified to receive either of those allowances.

Recipients of job search or Newstart allowance or special benefit may also be eligible for supplementary payments including additional payment for dependent children, guardian allowance, rent assistance or remote area allowance. Job search allowance or special benefit for under 18 year olds is payable at a higher rate to single young people who are homeless or have established independence from parental support.

8.5 UNEMPLOYMENT BENEFIT (UB), JOB SEARCH AND NEWSTART ALLOWANCE (JSA/NSA), SPECIAL BENEFIT, YEAR ENDED 30 JUNE

	1990	*1991*	*1992*
UB/JSA/NSA			
Number of new benefits granted	725,000	1,242,200	1,677,320
June average number on benefit	419,785	676,705	851,831
Average number on benefit at end of each week during year	385,014	535,947	771,352
Special Benefit			
Number of new benefits granted	170,000	166,400	181,513
June average number on benefit	27,913	29,811	34,792
Average number on benefit at end of each week during year	26,463	30,021	34,895
		— $'000 —	
Amount paid during year(a)			
UB/JSA/NSA	3,067,796	4,561,353	6,736,363
Special Benefit	214,767	261,748	304,105

(a) Includes additional allowances.
Source: Department of Social Security.

Payments for families with children

Family allowance is payable, subject to income and assets tests, to a person with dependent children under 16 years or dependent full-time students aged 16 to 24 years who are not in receipt of a pension, benefit or allowance in their own right or prescribed educational allowance. An additional allowance, also subject to income and assets tests, is payable in respect of multiple (three or more) births until the children turn six years. Hardship provisions exist to assist those who do not meet the assets test but are in genuine hardship. Payments are usually made to the mother and are indexed each January to maintain their real value. Approved charitable, religious or government institutions are paid family allowance for children in their care.

Generally, to be granted an allowance the person and the child must be in Australia and be Australian citizens, or have been given permission to remain in Australia permanently.

8.6 FAMILY ALLOWANCES, 30 JUNE 1992

Number of children and students in family									*Number of families*
	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
1	241,606	180,349	132,924	62,548	69,256	20,997	8,955	11,145	727,780
2	246,830	190,866	135,663	67,116	77,109	22,565	7,820	12,858	760,827
3	106,972	82,212	60,180	24,712	33,562	9,811	3,814	5,677	326,940
4	30,271	21,285	17,128	6,037	9,000	2,681	1,357	1,544	89,303
5	6,261	4,172	3,581	1,032	1,779	516	429	283	18,053
6	1,637	1,054	979	252	452	150	172	58	4,754
7	403	304	291	55	128	32	41	17	1,271
8	146	85	78	14	27	9	15	5	379
9	34	32	43	6	8	3	7	4	137
>9	13	14	22	4	5	1	4	1	64
Total families	**634,173**	**480,373**	**350,889**	**161,776**	**191,326**	**56,765**	**22,614**	**31,592**	**1,929,508**
No. of children in families	1,222,820	924,285	680,362	302,326	373,002	110,098	45,158	62,037	3,720,088
Amount paid during year ($'000)	(a)795,814	584,135	446,903	193,629	234,217	68,568	5,767	(a)	2,329,028

(a) ACT expenditure included in NSW.
Source: Department of Social Security.

Family allowance supplement is paid in addition to family allowance and is subject to income and assets tests to low-income families with one or more children eligible for family allowance so long as they are not in receipt of any Commonwealth pension, benefit or allowance which provides additional payment for dependent children, and so long as the children of these families are not receiving means-tested Commonwealth payments. Levels of payment are age-related and are adjusted annually. Rent assistance is also available to recipients of family allowance supplement if they pay rent other than to a public housing authority. The number of families in receipt of family allowance supplement at 30 June 1992 was 241,241. The amount paid during the year 1991–92 was $723,848 million.

From January 1993, Family allowance, Family allowance supplement, additional pension payments for children, guardian allowance and rent assistance for eligible families with children will be combined into a single integrated family payment. The system of family payments for children will be simplified and more of the assistance will be directed to the primary care-givers, usually mothers. Families will find it easier to apply for this assistance.

Sole parent pension amalgamates the former Class 'A' widow's pension and supporting parent's benefit, the two income support payments for people bringing up a child or children without a partner. All persons who were receiving either payment at 1 March 1989 were transferred to sole parent pension without any change to their eligibility.

Maximum rates are identical to those applying to age pension.

Sole parent pension may be paid to a person who has a 'qualifying child'. This is a child under 16 years or a child attracting child disability allowance, and who is:

- a natural or adopted child; and
- in the person's legal custody; or has been in the person's care and control for 12 months and likely to remain so permanently or indefinitely.

Sole parent pension may be paid to:

- a person who is not a member of a couple (including widowed, divorced, separated or unmarried persons);
- a person whose legal or de facto spouse has been in gaol for at least 14 days; and

- a person who is unable to live with his or her spouse or de facto spouse in the matrimonial home because of the spouse's or de facto spouse's long-term illness or infirmity.

To qualify for sole parent pension, clients must meet residency requirements and are expected to undertake action to obtain maintenance where it is reasonable to expect them to do so.

Sole parent pension is indexed six monthly. Persons receiving sole parent pension may also be eligible for additional pension for each dependent child, guardian allowance and rent assistance. Employment and education entry payments are also available.

See table 8.7 for statistics on sole parent pensioners.

Jobs, Education and Training Program for sole parents. In conjunction with the Departments of Employment, Education and Training, and Health, Housing and Community Services, the Department of Social Security administers the Jobs, Education and Training (JET) program. The JET program was introduced in 1989 and provides an integrated program of assistance for sole parents in the form of individual counselling and support, and access to training, education, job search assistance and child care. Participation in the program is voluntary.

The JET program is open to all sole parent pensioners. Three groups are especially encouraged to take advantage of JET assistance: teenage sole parent pensioners, those who have received the pension for over a year and whose youngest child is at least six years old, and those who will lose eligibility for the pension within two years due to their youngest child turning 16 years.

An Employment Entry Payment of $100 is available to sole parent pensioners who have been receiving the pension for more than 12 months and obtain permanent work earning more than $400.00 (approximately) a fortnight.

Sole parent pensioners who study full or part time in AUSTUDY-approved courses may receive the AUSTUDY Education Supplement of $30 a week and an annual Education Entry Payment of $200.

From March 1993 access to the JET program is to be extended to Class 'B' widow pensioners and certain sole parents receiving special benefit. From July 1993 carer pensioners will become eligible for JET program assistance.

See table 8.8 for statistics on the JET program.

8.7 SOLE PARENT PENSIONERS, BY AGE AND TYPE, 30 JUNE

	1990	*1991*	*1992*
		— number —	
Age (years)			
Under 20	10,245	10,026	9,975
20–29	89,653	92,989	98,208
30–39	100,393	109,849	120,582
40–49	42,152	46,373	51,630
50–59	6,197	6,271	6,617
>59	246	212	216
Type of pensioner			
Females			
Unmarried mothers	47,845	49,623	52,625
Widows	9,940	9,412	9,052
Divorcees	22,817	20,208	18,025
Separated wives	138,645	153,478	170,214
Separated de facto wives	18,334	19,383	20,868

For footnotes *see* end of table.

8.7 SOLE PARENT PENSIONERS, BY AGE AND TYPE, 30 JUNE — *continued*

	1990	*1991*	*1992*
Males			
Widowers	805	864	976
Divorcees	953	1,102	1,232
Separated husbands	8,203	10,092	12,389
Separated de facto husbands	857	956	1,097
Other	487	602	750
Number of pensions	**248,886**	**265,720**	**287,228**
		— $'000 —	
Total payments during year(a)	2,334,211	2,686,319	3,056,554

(a) Includes rent assistance and allowances.
Source: Department of Social Security.

8.8 JET PROGRAM

	1989–90	*1990–91*	*1991–92*
SPPs entering JET program	13,252	31,919	46,823
Referred to the CES	9,211	20,245	29,086
Places in DEET training courses	4,658	9,531	12,471
Entering education	*1,200	3,481	8,552
Starting a job	*2,000	4,269	8,726

* Estimated.
Source: Department of Social Security.

Child Support Scheme. Stage 1 of the Child Support Scheme commenced in June 1988 with the establishment of the Child Support Agency (CSA) in the Australian Taxation Office. Under Stage 1 of the Scheme, maintenance orders and agreements made, registered or approved by the courts can be enforced by the CSA.

Stage 2 of the Scheme, which began on 1 October 1989, replaced the system of court ordered child maintenance. Instead, the custodian can apply to the CSA which will assess the amount of child support payable using a formula set out in legislation. Stage 2 is prospective in that it applies only to people who separate or have a child born on or after 1 October 1989.

Under both Stage 1 and Stage 2, the Agency can collect child support from liable parents and these payments are distributed to custodians on a monthly basis by the Department of Social Security. Alternatively, custodians can collect child support privately, providing it is at least the amount payable under the formula or court order. (Prior to 1 January 1993, DSS clients were required to have child maintenance payable under court orders or agreements collected by the Agency.)

Double orphan's pension

Double orphan's pension is payable free of income and assets tests to guardians of, or institutions caring for, children under 16 years, or dependent full-time students aged 16 to 24 years whose parents are both dead or one parent is dead and the other is missing, imprisoned or in an institution. The family allowance residence test applies. The pension may also be paid to persons caring for refugee children. The rate is indexed annually.

As at June 1992, there was a total of 1,404 recipients of double orphan's pension paid in respect of 1,783 children. Total expenditure for 1991–92 was $2 million.

Provisions for special circumstances

Widowed person allowance was introduced from 1 March 1989 and replaced Class 'C' widow's pension.

Widowed person allowance provides short-term assistance for persons whose partners die, and who are not eligible for sole parent pension. It allows a period of adjustment to make funeral arrangements, settle financial matters or to seek employment. The allowance may be granted to a person who, immediately before his or her spouse's death, was either legally married or living in a de facto relationship with that person.

There is no age restriction on the payment of widowed person allowance but the allowance cannot be paid concurrently with another pension, benefit or allowance. Widowed persons with dependent children generally qualify for sole parent pension immediately.

The allowance is payable for up to 14 weeks after the date of the spouse's death, although payment can be extended if a widow is pregnant at the time of her spouse's death. Otherwise, the allowance is paid under the same conditions as other pensions.

Class 'B' widow pension. Gradual phasing out of the Class 'B' widow pension began from July 1987. From that date, no new grants were made except to women who were aged at least 50 at that date or at least 65 and received sole parent pension or one of its pre-runners which would have made them eligible before that date.

It was payable to a widow who was either at least 50 years of age or, after having reached the age of 45, ceased to receive a Class 'A' pension by reason of ceasing to have a qualifying child or student.

8.9 WIDOW PENSIONERS/WIDOWED PERSON ALLOWANCE, BY TYPE AND AGE, JUNE

	1990	*1991*	*1992*
		— number —	
Class 'B' widow pensioners			
Aged (years)			
Under 50	3,624	1,883	114
50–59	53,810	50,613	48,047
>59	21,291	21,628	20,905
Widowed person allowance	222	315	342
Total	**78,947**	**74,439**	**69,408**
		— $'000 —	
Total payments during year(a)	553,743	577,256	566,551

(a) Includes payment to benevolent homes for maintenance of pensioners. It also includes rent assistance and allowances.
Source: Department of Social Security.

Fringe benefits

The Commonwealth Government provides eligible Department of Social Security clients with a range of fringe benefits. Eligibility for the various concessions is generally linked to possession of a Pensioner Health Benefits (PHB) card or, in the case of sickness beneficiaries, older long-term Newstart allowees and special beneficiaries, a Health Benefits (HB) card. The issue of a PHB card is subject to a special income and assets test. The benefits available to PHB card holders include:

- a range of concessional pharmaceuticals — all card holders pay $2.60 a script up to a 'safety net' of $135.20 per year;
- a telephone rental concession (to become telephone allowance from 1 July 1992) currently valued at $51.80 a year;
- assistance to blind pensioners with costs of communication material received through the mail;
- reduced fares for Commonwealth government railway services;
- postal redirections concession; and
- free hearing aids and free assessments — from 1 November 1991, pensioners are charged an annual fee of $25 to cover the repair and maintenance of hearing aids and supply of batteries.

The issue of an HB card has no separate income and assets test. The benefits available to HB card holders are as for PHB card holders except that HB card holders are ineligible for the postal redirection service and telephone allowance are available only to older Newstart allowees.

State and Territory Governments, local government authorities and private organisations also provide certain fringe benefits. The most valuable of these are public transport concessions and reductions in local government rates and utility payments such as energy.

There were 2,006,667 pensioners at 30 June 1992 with PHB cards entitling them to Commonwealth pensioner fringe benefits.

Pensioners who are not eligible for a PHB card are entitled to a Pharmaceutical Benefits Concession (PBC) card providing concessional pharmaceuticals. Newstart allowees, special beneficiaries, FAS recipients and other low income people (subject to an income test) receive a Health Care (HC) card entitling them to a range of pharmaceuticals at a concessional rate and limited non-Commonwealth concessions.

Seniors cards are currently provided to aged people (usually over 60 years) in all States and Territories except Northern Territory. These cards provide a range of State and private business concessions which vary between States/Territories.

Pharmaceutical allowance

Pharmaceutical allowance is paid to all pensioners and to certain older long-term beneficiaries and allowees to compensate them for expenditure on pharmaceuticals purchased under the Pharmaceutical Benefits Scheme (PBS). The amount paid to a social security recipient over the course of the year is equal to the level of the PBS 'safety net' limit. The allowance is paid fortnightly, but advance payments of the first ten instalments (a total of $50) are available to those with high pharmaceutical usage and private income of less than $10 per week. From January 1992, pension clients are able to receive advance payments of up to seven times the fortnightly rate of pharmaceutical allowance at any time if they meet the eligibility criteria. These criteria include continued eligibility for pharmaceutical allowance, and the expenditure on pharmaceuticals must not be less than the amount of pharmaceutical allowance received in the entitlement period.

Financial Information Service (FIS) for pensioners

The FIS in the Department of Social Security gives information that will help current and future pensioners improve their standard of living in retirement by using their own money to best advantage. FIS has branches with specialist staff in 20 Social Security Area Offices and 27 Social Security Regional Offices throughout Australia. In addition, it provides a visiting service to regional centres, a telephone hotline and an interpreter service. FIS officers can provide advice on the social security, veteran's affairs and tax treatment of investments and information and discuss financial strategies and types of investments with clients and referral to appropriate financial counselling services. They do not recommend particular investments or arrange investments for clients.

International agreements and payment of pensions abroad

Age pensions and certain categories of pensions for sole parents, widows and wives can be transferred abroad without restriction. Other pensions are either not payable abroad at all, or payable for 12 months only.

Australia has bilateral agreements with Italy, Canada, Malta, Spain, The Netherlands and Ireland which ensure full social security coverage for people who have lived or worked in those countries as well as Australia. Both countries in these agreements pay a part or full pension to a person, reflecting the length of time the person lived or worked there. Agreements have been signed with Austria, Portugal and Cyprus with effect from late 1992 to early 1993.

Australia has older agreements with New Zealand and the United Kingdom which were originally based on a 'host-country pays' principle, but which are now in need of revision due to changes in the social security laws of all three countries. The renegotiation of the agreement with New Zealand has already commenced.

More than 50 per cent of Australia's migrant population come from countries with which Australia has an operating or negotiated social security agreement.

COMMONWEALTH GOVERNMENT ASSISTANCE THROUGH WELFARE ORGANISATIONS

Supported Accommodation Assistance Program (SAAP)

SAAP is a Commonwealth/State funded, State administered program which aims to provide a range of supported accommodation and related support services to assist people who are either permanently homeless or temporarily homeless as a result of a crisis, to move to longer-term stable accommodation and eventually to assist them to achieve independent living. Examples include refuges, halfway houses and support services such as counselling, referral and advocacy services.

SAAP provides funds for equipment and recurrent costs for services. Capital housing funds for the program are available under the complementary Crisis Accommodation Program (CAP) within the Commonwealth State Housing Agreement.

8.10 SUPPORTED ACCOMMODATION ASSISTANCE PROGRAM FUNDING ($ million)

	Commonwealth	*States*	*Total*
1989–90	72.9	48.1	121.0
1990–91	81.0	50.5	131.5
1991–92	90.3	69.9	160.2
1992–93	95.6	73.6	169.2

Source: Department of Housing, Health and Community Services.

Commonwealth capital funding provided under CAP in each of the above four years is $39.655 million.

Crisis Accommodation — Youth Social Justice Strategy

This program is part of a four-year comprehensive package of measures aimed at assisting disadvantaged young people who are homeless and in crisis by offering a range of support services including accommodation.

Capital housing funds for this initiative are available under the Crisis Accommodation Program (CAP) within the Commonwealth State Housing Agreement.

8.11 CRISIS ACCOMMODATION FUNDING ($ million)

	Commonwealth	*States*	*Total*
1989–90	2.2	2.2	4.4
1990–91	4.4	4.7	9.1
1991–92	5.2	5.2	10.5
1992–93	5.3	5.3	10.6

Source: Department of Housing, Health and Community Services.

As an extension of the Youth Social Justice Strategy, the Federal Government announced a new initiative for homeless young people in August 1992. Called the Job Placement and Employment Training (JPET) program, the Federal Government will provide $10 million over two years to assist young homeless people move into meaningful employment while being supported in their housing, income, health and personal needs.

For further information on other government funded housing assistance programs, *see* the section on Commonwealth and State government housing assistance and housing in the chapter on Construction and Housing.

Children's Services Program

The goal of the Children's Services Program is to assist families with dependent children to participate in the work force and the general community by ensuring that child care is affordable for low and middle income families and by improving the supply and quality of child care.

The Program's three main objectives are to improve the supply, affordability and quality of child care. These objectives are being achieved as follows.

Since 1983, the number of funded child care places has increased from 46,000 to almost 193,000 in June 1992. These comprise 40,300 community long day care places, 53,200 private long day care places, 45,500 family day care places, 4,100 occasional care places, 1,600 Multifunctional Centre and Multifunctional Aboriginal Children's Service places, and 48,200 outside school hours care places.

8.12 CHILDREN UNDER 12 YEARS OF AGE WHO USED FORMAL CARE, NOVEMBER 1990

Type of formal care	*Number*
Before or after school care program	43,996
Preschool/kindergarten	267,227
Long day care centre	113,075
Family day centre	78,062
Other formal	57,351
Total(a)	**530,441**

(a) Sum of individual counts exceed the total because some children use more than one type of formal care.
Source: ABS Child Care Survey, November 1990.

8.13 FAMILIES WHO USED FORMAL CHILD CARE: TYPE OF CARE BY COMBINED FAMILY INCOME, NOVEMBER 1990

Type of formal child care	*No income*	*Less than $159*	*$160 to $319*	*$320 to $479*	*$480 to $639*	*$640 to $799*	*$800 and over*	*Don't know*	*Total*
Before and after school care program	**	**296	3,005	3,540	3,810	2,088	21,424	2,794	36,957
Preschool/kindergarten	2,047	4,602	32,146	47,820	49,529	37,328	81,763	16,947	272,182
Long day care centre	**	1,331	10,949	17,923	12,966	15,311	40,015	2,124	100,618
Family day care	**308	1,519	8,909	8,908	7,104	5,736	23,135	3,743	59,362
Other formal care	**263	**523	5,650	7,812	7,828	7,036	16,583	1,821	47,516
Total(a)	**2,618**	**7,785**	**54,912**	**78,137**	**76,165**	**62,510**	**159,027**	**25,692**	**466,845**
Percentage of families using formal care	0.6	1.7	11.8	16.7	16.3	13.4	34.1	5.5	100.0

(a) Sum of individual counts exceed the total because some children use more than one type of formal care.
** Subject to sampling variability too high for most practical purposes.
Source: ABS Child Care Survey, November 1990.

Table 8.13 above shows the number of families, by income level, who used formal child care facilities in 1990.

In 1992–93, an estimated 27,000 additional places will be funded under the National Child Care Growth Strategy. Of these, 17,000 will be in long day care. By 1995–96 over 250,000 places will be funded under the Children's Services Program.

The Federal Government assists low and middle income families with their child care costs through an income related fee relief system. Child Care Fee Relief is available to eligible families using private and community based services. The threshold for maximum fee relief assistance is linked with the Family Allowance Supplement cut-off point and indexed annually. The introduction of an assets test with hardship provision in July 1993 will ensure that this assistance is targeted to those most in need.

It is estimated that in 1992–93, 135,000 low and middle income families will receive assistance with their child care costs through the fee relief system. It is expected that 45 per cent of these users will be eligible for maximum fee relief assistance.

The Federal Government is encouraging employers to become more involved in the provision of child care for their employees and provides Fringe Benefit Tax exemptions as incentives for employers. As a further initiative, from January 1993, fee relief assistance will be available for employer sponsored places in funded Family Day Care schemes (in addition to Long Day Care centres) as part of the Government's efforts to encourage more employer sponsored child care.

Three independent Work and Child Care Advisory Services were established during 1991–92, one each in New South Wales, Queensland and Victoria. These services aim to make the process of employer provided care as smooth as possible by assisting employers, unions and staff to examine child care options and needs.

The Federal Government is committed to funding quality child care services which are well managed, responsive to families' needs, culturally relevant and developmentally appropriate for children.

The Government has supported quality child care through funding the provision of support, training and advice to services, including those providing services for children with special needs such as Aboriginal and Torres Strait Islander children and children with disabilities. Additional Commonwealth funding was provided in the 1992 Budget to enable commercial and employer sponsored centres, as well as community centres, to provide the extra level of care required for children with special needs.

Youth Activities Services for 11–16 year olds living in disadvantaged areas and Family Resource Centres, established to help local agencies improve the effectiveness and quality of services to families in high-need areas, are other major initiatives under this Program.

The Federal Government has also provided funding to the industry-based Interim National

Child Care Accreditation Council (which was formed in December 1991) to develop an accreditation system for child care centres.

Emergency Relief Program

The Emergency Relief (ER) Program provides funds, as supplementary grants to approved agencies, to be used for emergency financial assistance to families and individuals in crisis. Assistance is usually provided through cash relief, purchase vouchers or payments to creditors.

Reflecting the flexibility required to respond to the large number of individual crisis situations, funds under the ER program are delivered through some 900 established agencies operating through about 1,200 outlets Australia wide. These agencies are predominantly community based with the provision of emergency relief being only one part of a broader social welfare or community service role.

The allocation of funds throughout Australia takes into account the distribution of main client groups, in particular Social Security recipients and Aborigines.

8.14 EMERGENCY RELIEF PROGRAM APPROPRIATIONS ($)

1990–91	9,648,000
1991–92	14,342,000
1992–93	18,352,000

Source: Commonwealth Department of Housing, Health and Community Services.

People with disabilities

The *Disabilities Services Act 1986* was introduced to expand the opportunities for people with disabilities for integration into the Australian community. Under the Act, the Federal Government provides grants to a State or an eligible organisation for the provision of services to people with disabilities.

The kinds of services eligible for funding include accommodation support, respite care, independent living training and a range of employment services (including competitive employment training and placement and supported employment) and advocacy, information, recreation and print disability services.

In 1991–92 the Federal Government provided $314.8 million to organisations to provide services to people with disabilities.

A census undertaken in March 1991 of services provided the following information on the numbers of people with disabilities accessing services classified into the following broad categories:

8.15 USAGE OF DISABILITY SERVICES

Service description	*Number of services*	*Number of people with a disability*
Employment	479	23,231
Accommodation	684	13,629
Community participation	255	43,404
Other	169	13,935
Total	**1,587**	**94,199**

NOTE: A person with a disability may be accessing more than one service.
Source: Commonwealth Department of Housing, Health and Community Services.

The Department of Health, Housing and Community Services administers the Commonwealth Rehabilitation Service (CRS) which provides vocational and social rehabilitation services for working age people with disabilities. The major criterion for acceptance into a rehabilitation program is the expectation of significant gain towards vocational or independent living goals.

Services are provided from and arranged through a network of some 150 regional locations in metropolitan and country locations.

Programs may include:

- employment, vocational mobility and other independent living, training and education courses;
- assessment services, occupational therapy, physiotherapy, speech therapy and counselling services; and
- aids and appliances, and home, vehicle and workplace modifications, and associated accommodation and training allowances as appropriate, where required as part of a rehabilitation program.

In 1991–92, 25,786 people received rehabilitation assistance from the CRS. Expenditure on rehabilitation services in 1991–92 was $97 million.

Home and Community Care Program (HACC)

HACC is jointly funded by the Commonwealth Government and the State and Territory Governments. HACC funds organisations and community groups which provide basic maintenance and support services for the frail aged and people with disabilities to enable them to remain living at home. Support is also provided to the carers of these people.

The Program aims to enhance the independence, security and quality of life of frail aged and younger people with disabilities by avoiding their inappropriate admission to long-term residential care. It achieves this by facilitating and promoting the development of cost-effective community care alternatives which are appropriate and which can flexibly respond to individual needs.

Services funded under the Program include home help and personal care; home maintenance and modification; food services; community based care; transport services; community paramedical services; community nursing; assessment and referral; education and training for service providers and users; information and coordination.

Over 3,500 projects are funded throughout Australia, some providing a specific focus on the needs of younger people with disabilities, those with a non-English speaking background, Aboriginal and Torres Strait Islanders, those with dementia or the carers of the frail aged and younger people with disabilities.

8.16 HOME AND COMMUNITY CARE (HACC) EXPENDITURE(a), 1986–87 TO 1991–92
($ million)

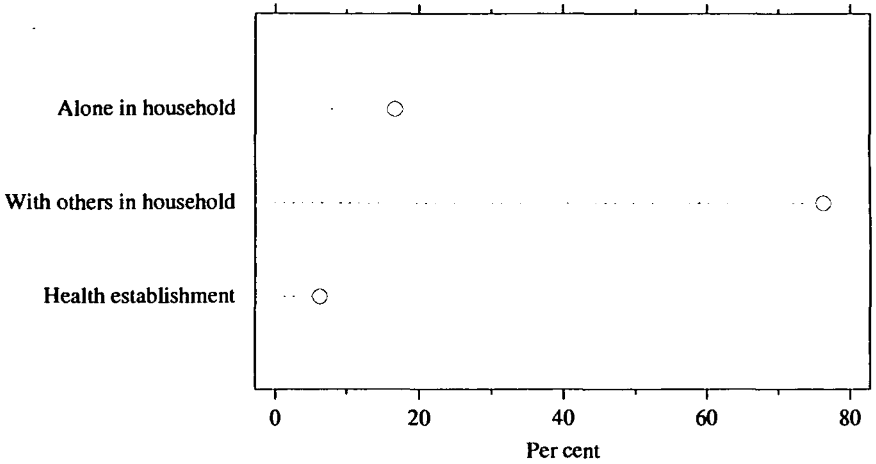
Year	*Commonwealth*	*States/ Territories(b)*	*Total*
1986–87	135.4	104.0	239.4
1987–88	169.4	127.2	296.6
1988–89	205.1	145.0	350.1
1989–90	242.1	165.8	407.9
1990–91	278.9	188.3	467.2
1991–92	315.8	205.3	521.1

(a) Includes unmatched money and planning and development but excludes running costs. (b) Estimated expenditure required for matching Commonwealth outlays and may vary to the actual cash expenditure due to the effect of recoupments in respect of previous years.
Source: Commonwealth Department of Health, Housing and Community Services.

Graph 8.17 shows the living arrangements of disabled persons, with the majority (76.5%) living with others in the household, 16.9 per cent living alone and 6.5 per cent in health establishments.

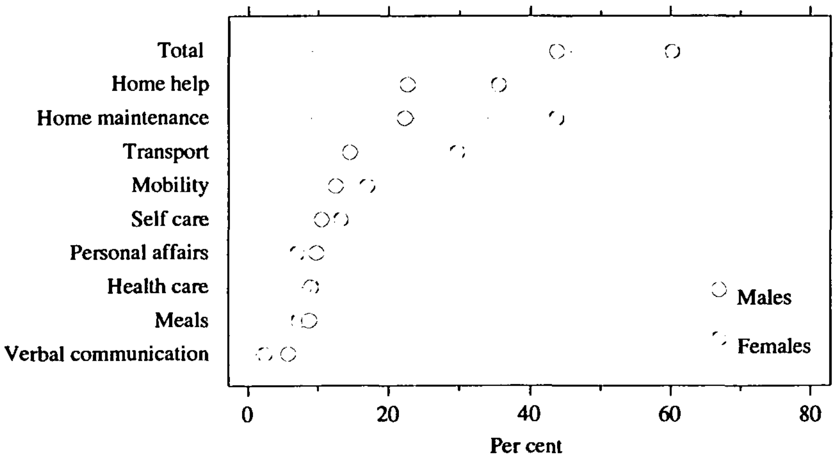
Graphs 8.18 and 8.19 show the types of activity for which disabled and aged persons surveyed reported a need for help. Home maintenance was the area that required the most help for both the disabled and the aged.

8.17 ALL DISABLED PERSONS: TYPE OF LIVING ARRANGEMENT, 1988



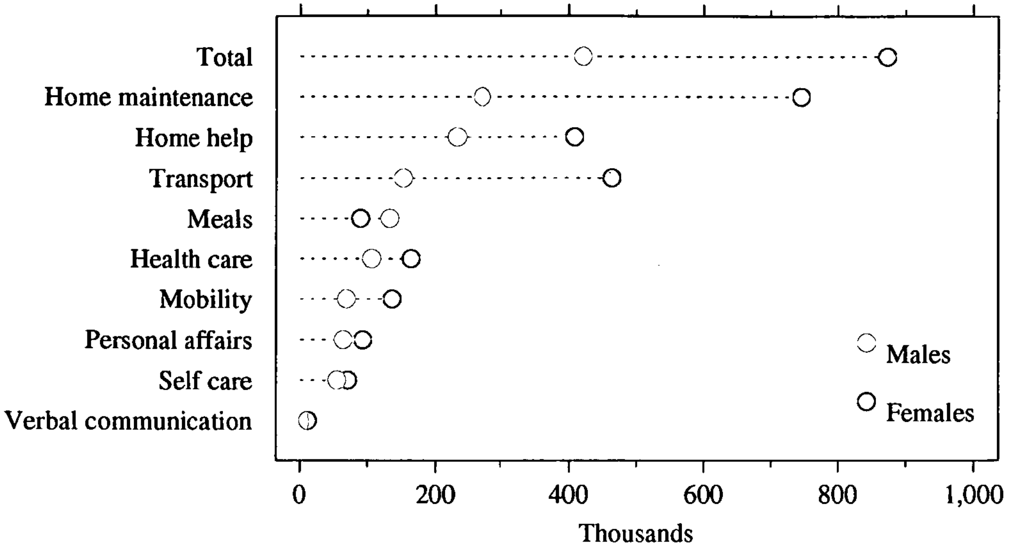
Source: Disabled and Aged Persons, Australia, Preliminary Results, 1988 (4118.0).

8.18 ACTIVITIES FOR WHICH A DEMAND FOR HELP WAS REPORTED BY DISABLED PERSONS AGED 5 TO 59 YEARS LIVING IN HOUSEHOLDS, 1988



Source: Disabled and Aged Persons, Australia, Preliminary Results, 1988 (4118.0).

8.19 ACTIVITIES FOR WHICH A DEMAND FOR HELP WAS REPORTED BY PERSONS AGED 60 YEARS OR MORE LIVING IN HOUSEHOLDS, 1988



Source: Domestic Care of the Aged, Australia, 1988 (4121.0).

Hearing Services Program

The Hearing Services Program, through Australian Hearing Services (AHS), fits approximately 60 per cent of all hearing aids in Australia.

Eligible people include holders of Pensioner Health Benefits cards and their dependents, all persons under 21 years of age, Veterans' Affairs clients, referred clients of the Commonwealth Rehabilitation Service and certain compensation claimants. Services are delivered through a network of 48 AHS Hearing Centres across Australia plus some 65 visiting centres in rural and remote areas.

The AHS Head Office at Chatswood provides equipment and training and develops procedures to support the delivery of services through the Hearing Centres. AHS staff also conduct noise and audiological research, evaluate new devices and techniques, advise on measures to prevent hearing loss and report on environmental and occupational noise problems.

Residential care for aged people

The aim of the Commonwealth Government's Aged Residential Care Program is to ensure that frail aged people who are assessed as being unable to live at home have access to residential support and care services appropriate to their needs. Support is provided by the Commonwealth for two main types of residential care and assistance — nursing homes and hostels. Nursing homes provide services for people who need continuous professional nursing and personal care, while hostels provide a wide range of personal care and accommodation services for less dependent aged people.

Two key objectives of the aged residential care program are to provide a range of accommodation and care services to meet the assessed needs of aged people, and to promote their quality of life.

8.20 COMMONWEALTH EXPENDITURE ON NURSING HOMES AND HOSTELS, 1991–92
($ million)

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*ACT*	*NT*	*Aust.*
Nursing homes for aged (recurrent)	621.4	420.2	217.3	162.8	126.4	41.6	4.7	11.1	1,605.5
Hostels (recurrent)	71.8	58.0	49.3	27.8	19.2	5.6	0.8	1.9	234.4
Nursing homes and hostels (capital)	68.7	50.4	49.5	17.5	19.5	11.3	1.5	1.6	220.0

Source: Commonwealth Department of Housing, Health and Community Services.

8.21 APPROVED NURSING HOMES, HOSTELS AND BEDS AT 1 OCTOBER 1991

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*ACT*	*NT*	*Aust.*
Approved nursing homes and beds for aged									
Nursing homes	491	420	198	155	113	53	6	6	1,442
Beds	29,061	16,841	11,988	7,077	6,107	2,166	545	173	73,958
Approved hostels and beds									
Hostels	371	280	220	144	140	38	11	8	1,212
Beds	16,272	12,151	10,336	5,855	4,563	1,155	512	120	50,964

Source: Commonwealth Department of Housing, Health and Community Services.

Future directions. As part of the 1986 Nursing Homes and Hostels Review the Government decided to reduce the reliance on nursing homes for aged care through the adoption of a needs based approach to the planning of services for the frail aged including the introduction of target ratios for nursing homes and hostels. The Government's aim is to provide 95 places per 1,000 persons aged 70 years and over across all States and Territories. The long-term target distribution within the 95 places per 1,000 is 40 nursing home and 55 hostel places.

The rationale behind the increased emphasis on the provision of hostel services is that hostels will increasingly be equipped to cater for more dependent frail aged people. In the past, before the uniform geriatric assessment program was introduced, many people were inappropriately admitted to nursing homes. Since 1986, substantial increases to the level of personal care subsidy have been provided as an incentive for hostels to cater for more dependent residents. Further, in April 1992 hostel personal care funding was restructured to provide increased funding to hostels to care for those people who have the greater care needs.

Improved community care is also proving a desirable and effective way of assisting frail elderly people who choose to remain in their own home.

Hostel funding. To facilitate the equitable redistribution of resources to alternative, less institutionalised forms of residential care, hostel resources have been substantially enhanced through capital and recurrent funding.

The Commonwealth Government has committed substantial resources to the expansion of hostel services as an integral part of its residential aged care program. Since 1986, the Government has raised the level of subsidy available for residents of approved age care hostels. In particular, the introduction of three levels of subsidy ranging from $23.55 to $29.85 in April 1992 was a major change in the way hostels are funded to provide for the range of care needs of their residents.

Major adjustments have also been made to the planning and funding mechanisms for hostels. Unnecessary restrictions on organisations' access to funds have been removed by allowing greater flexibility to raise funds themselves via borrowings and entry contributions from people with the capacity to contribute to the cost of their own accommodation.

Increasing the capacity of organisations to raise funds has allowed the Commonwealth to target capital subsidies to financially disadvantaged people and other disadvantaged groups more comprehensively. For example, significantly increased subsidies have been made available to provide accommodation for financially disadvantaged members of the community. Indeed, the Commonwealth now pays a capital grant of up to $52,550 for each hostel place which must be provided to a financially disadvantaged person.

The subsidy for general places varies depending on the proportion of financially disadvantaged people aged more than 70 in the area from which the hostel will draw its residents — the higher the percentage of financially disadvantaged residents, the higher the general place rate subsidy. This approach acknowledges that the greater the proportion of financially disadvantaged residents in a specific hostel population, the lower the number of people able to make an adequate entry contribution. Recurrent funding reflects this concern of the Government to ensure that less well off people can gain access to hostels and that hostels that provide places for financially disadvantaged people receive support. Care subsidies for financially disadvantaged people will be $3.20 more than for non-financially disadvantaged residents, at all levels of care, from January 1993.

While the residential care program focuses mainly on long-term residential care, there are provisions under the program for assistance to those aged and disabled people who wish to stay in the community.

A number of pilot projects have illustrated the potential of such an approach in enabling those people with higher and more complex care needs and most at risk of needing residential care to remain in the community, through providing the necessary care services in the home. Given the suitability of this service model, the Government announced its commitment to develop Community Aged Care Services Packages as a service alternative in the aged care program. Over 100 places were available in 1992–93 for this initiative with provision for substantial growth in later years.

In addition, short-term or respite care is available which not only allows carers a break from their responsibilities, but also provides support for frail aged people who are caring for themselves.

Domiciliary Nursing Care Benefit (DNCB) is available to assist people who choose to care at home for a person who is very frail, or perhaps has severe dementia, someone with a long-term illness or a person with a disability, who is assessed as requiring the level of care available in a nursing home.

The basic criteria for payment of the benefit are that the person being cared for must be aged 16 years or over, and live in the same residence as the carer. Certification must also be provided by a registered nurse that the carer is providing adequate continuing care.

From the first pay day in January 1993 DNCB will be increased by $10 to $52 per fortnight and thereafter the benefit will be indexed annually. The benefit will continue to be paid when the person being cared for is in overnight respite care for up to 42 days.

VETERANS' AFFAIRS

The Repatriation Commission was established under the *Repatriation Act 1920*. With the repeal of that Act on 22 May 1986, the Commission has continued in existence under the *Veterans' Entitlements Act 1986*. At present, the Commission consists of three full-time members. The functions of the Commission are set out in section 180 of the Veterans' Entitlements Act and include:

- granting pensions, allowances and other benefits in accordance with the provisions of the Act;
- establishing, operating and maintaining hospitals and other institutions for the treatment of eligible persons;
- arranging the provision of treatment and other services for eligible persons;
- advising the Minister and providing him with information on matters relating to the Act;
- performing other functions conferred on the Commission by the Act or other Acts; and
- administering the Act subject to the control of the Minister.

The Department of Veterans' Affairs provides the administrative machinery through which the Commission operates. The central office of the Department is in Canberra. There is a branch office in the capital city of each State which is under the control of the Deputy Commissioner. Regional offices are located in Newcastle, Wollongong, Canberra, Ballarat, Townsville and Darwin.

Repatriation benefits are provided under the Veterans' Entitlements Act in respect of service with the Australian Defence Forces in World War I, World War II, Korean and Malayan operations, Australian contingent of the British Commonwealth Far East Strategic Reserve, Vietnam and South-East Asia conflict and for service in the Regular Defence Forces on or after 7 December 1972. Certain civilians may also be eligible for benefits, as are Australian members of certain designated peacekeeping, observing and monitoring forces who had peacekeeping service overseas. Under the *Papua New Guinea (Members of the Forces Benefits) Act 1957*, indigenous inhabitants of Papua New Guinea who served in the Australian Forces in World War II and members of the Royal Papuan Constabulary and New Guinea Police Force who served in that conflict are eligible for compensatory type benefits. Australian mariners of World War II are eligible for compensation benefits under the *Seamen's War Pensions and Allowances Act 1940* and for income support benefits (service pension) subject to the conditions laid down in the Veterans' Entitlements Act. Members of other Commonwealth countries' forces and other allied veterans are not eligible for compensatory-type benefits in respect of their service, unless they were domiciled in Australia immediately before their enlistment. They may, however, qualify for income support payments such as the service pension.

The Annual Report of the Repatriation Commission provides more detailed information on Repatriation allowances, benefits and services.

8.22 VETERANS' AFFAIRS, TOTAL EXPENDITURE
($'000)

Class	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*	*1991–92*
Pensions, allowances and other benefits	2,766,858	3,111,508	3,180,025	3,393,270	3,674,453	3,766,548
Medical treatment(a)	778,111	511,986	526,932	575,053	662,717	719,051
Administration(b)	107,330	135,588	144,072	151,334	191,852	171,401
Works and maintenance	66,425	56,861	70,659	55,425	46,555	43,317
Total expenditure	**3,718,724**	**3,815,943**	**3,921,688**	**4,175,082**	**4,575,577**	**4,700,317**

(a) Excluding hospitals, including beneficiary transport. (b) Including property operating expenses.

NOTE: Expenditure figures exclude all operating expenses for the Repatriation General Hospitals, and all expenditure associated with the Defence Services Homes Corporation, the Australian War Memorial and Office of Australian War Graves. Total expenditure by the Veterans' Affairs Portfolio in 1991–92 was $5,331,524,000.

Source: Department of Veterans' Affairs.

Benefits Program

The principal objective of the Benefits Program is to compensate veterans and their dependants for the effects of war or defence service. Benefits such as pensions and allowances are administered under two sub-programs, the Compensation Sub-program and the Income Support Sub-program. Housing related benefits are administered under the Housing Assistance Sub-program.

Compensation Sub-program. The main benefits provided under this sub-program are the disability pension and the war/defence widow's/widower's pension.

The disability pension is a compensatory payment for incapacity due to eligible war, defence or peacekeeping service. General rate disability pensions range from 10 per cent up to and including 100 per cent, depending on the degree of war-caused or defence-caused incapacity. Higher rates of pension (intermediate rate and special rate) are payable if the degree of incapacity suffered from war or defence-caused injury or disease is determined to be at least 70 per cent and the veteran is totally and permanently incapacitated from accepted disabilities alone as to render him/her incapable of undertaking remunerative work for periods aggregating more than 20 hours per week for the intermediate rate or eight hours for the special rate.

An Extreme Disablement Adjustment, equal to 150 per cent of the general rate, is payable to severely disabled veterans who are 65 years of age or over.

The war/defence widow's/widower's pension is payable to the widow or widower of a veteran:

- whose death has been accepted as war-caused or defence-caused; or
- who at the time of his or her death was receiving or entitled to receive a special rate disability pension or the Extreme Disablement Adjustment.

As from 1 January 1993, war widow's/widower's pension is also available to the widows/widowers of former prisoners of war.

Orphan's pension is payable to the children of these veterans.

8.23 NUMBER OF DISABILITY AND WAR WIDOWS' PENSIONS

Recipient	*30 June 1991*	*30 June 1992*	*Variation %*
Veterans	159,579	157,790	-1.1
Wife's and wife widows	99,269	94,729	-4.6
Children	8,871	7,889	-11.1
War widows	78,140	79,844	2.2
Orphans	601	561	-6.7
Other dependants	1,091	1,055	-3.3
Total	**347,551**	**341,868**	**-1.6**

Source: Department of Veterans' Affairs.

8.24 NUMBER OF DISABILITY PENSIONS FOR INCAPACITATED VETERANS, 30 JUNE 1992

Pension	*World War I*	*World War II(a)*	*Korea, Malaya and FESR(b)*	*Special Overseas Service*	*Peace-time forces*	*Miscel-laneous*	*Total*
General Rate — from 10% to 100% assessed disability	290	107,608	3,756	8,870	14,910	113	135,547
Intermediate Rate	1	789	29	68	62	2	951
Special Rate (T & PI or equivalent)	70	16,637	785	1,277	645	12	19,426
Extreme Disablement Adjustment	8	1,831	16	1	7	3	1,866
Total	**369**	**126,865**	**4,586**	**10,216**	**15,624**	**130**	**157,790**

(a) Includes Interim Forces. (b) Far East Strategic Reserve.
Source: Department of Veterans' Affairs.

8.25 DISABILITY AND WAR WIDOWS' PENSIONS: NUMBER AND EXPENDITURE

	Number of disability pensions in force at 30 June				
Year	*Incapacitated veterans*	*Dependants of incapacitated veterans*	*Dependants of deceased veterans*	*Total*	*Annual expenditure(a) to 30 June ($'000)*
1987	169,257	132,971	72,884	375,112	991,744
1988	166,830	125,821	75,029	367,680	1,091,764
1989	163,660	120,325	76,360	360,345	1,123,624
1990	161,546	114,625	77,911	354,082	1,219,647
1991	159,579	108,478	79,494	347,551	1,340,420
1992	157,790	102,953	81,125	341,868	1,396,192

(a) Includes associated allowances.
Source: Department of Veterans' Affairs.

A number of specific need allowances are available to certain incapacitated veterans. They include attendant allowance, specific disability (section 27) allowance, clothing allowance, recreation transport allowance, vehicle assistance scheme benefits, temporary incapacity allowance and loss of earnings allowance. Decoration allowance is also available. Various payments intended to assist with funeral and other bereavement expenses are also available.

8.26 SPECIFIC NEED ALLOWANCES

	Number of recipients at 30 June		
Benefit	*1990*	*1991*	*1992*
Attendant allowance	1,017	999	992
Section 27 (items 1–6)	64	58	60
Section 27 (items 7–15)	1,244	1,229	1,225
Clothing allowance	2,323	2,245	2,166
Recreation transport allowance	3,211	3,138	3,068
Decoration allowance	1,321	1,326	1,350
Vehicle assistance scheme	95	67	(a)62

(a) The data source has changed and previously published data are not comparable.
Source: Department of Veterans' Affairs.

The Veterans' Children Education Scheme provides assistance with education and training for the children of special rate disability pensioners and certain other incapacitated veterans and deceased veterans whose death has been accepted as war-caused or defence-caused or who were receiving special rate disability pension or a section 27 allowance (items 1–6) at the time of death. *See* tables 8.27 and 8.28.

Income-support Sub-program. The main benefit paid under this sub-program is the service pension. This is an income and assets tested pension similar to the age and disability support pensions payable by the Department of Social Security. The pension is payable to veterans with qualifying service at age 60 (males) or 55 (females). Veterans with qualifying service may be paid the pension at any age if they are permanently incapacitated for work. Qualifying service generally means service in an area and at a time when danger from hostile enemy forces was incurred by the veteran.

Veterans of other Commonwealth and allied countries may also qualify for the service pension for service in wars or war-like conflicts in which Australia has engaged. Veterans of Commonwealth forces must have served outside the country of enlistment or be entitled to the award of a campaign medal for service within that country. Allied veterans must have served in formally raised forces. The veteran must be an Australian resident with at least ten years residency. Service pension is also available to Australian, other Commonwealth and allied mariners of World War II.

8.27 VETERANS' CHILDREN EDUCATION SCHEME, EXPENDITURE ($'000)

	Cost of education of beneficiaries						
Year	*NSW(a)*	*Vic.*	*Qld*	*SA(b)*	*WA*	*Tas.*	*Aust.*
1986–87	1,674.0	1,093.0	951.4	324.1	367.0	221.3	4,630.8
1987–88	1,754.0	1,233.1	1,166.0	387.6	349.2	267.2	5,157.1
1988–89	1,568.9	1,017.6	1,061.4	333.8	359.3	259.2	4,600.4
1989–90	1,492.2	975.3	971.6	293.6	361.9	268.8	4,363.4
1990–91	1,470.3	975.6	1,015.4	459.6	290.4	308.7	4,520.0
1991–92	1,475.8	1,068.2	1,201.6	542.5	289.6	358.8	4,936.5

(a) Includes Australian Capital Territory. (b) Includes Northern Territory.
Source: Department of Veterans' Affairs.

8.28 VETERANS' CHILDREN EDUCATION SCHEME, NUMBER RECEIVING BENEFITS AT 30 JUNE 1992

Type of training	*NSW(a)*	*Vic.*	*Qld*	*SA(b)*	*WA*	*Tas.*	*Aust.*
At school							
Primary(c)	109	79	146	30	94	42	500
Secondary	317	223	319	93	172	98	1,222
Total at school	*426*	*302*	*465*	*123*	*266*	*140*	*1,722*
Tertiary professional	141	99	82	28	32	22	404
Technical	31	—	23	1	24	16	95
Total	**598**	**401**	**570**	**152**	**322**	**178**	**2,221**

(a) Includes Australian Capital Territory. (b) Includes Northern Territory. (c) Not in receipt of an education allowance.
Source: Department of Veterans' Affairs.

From 1 April 1993, all service pensioners became eligible for 'fringe benefits', provided by the Commonwealth Government, which include medical and hospital treatment, pharmaceutical benefits and the payment of a telephone allowance.

A number of supplementary benefits are also available under the sub-program. These include:

- rent assistance;
- additional pension in respect of dependent children;
- remote area allowance;
- carer's pension;
- guardian allowance;
- bereavement payment; and
- pharmaceutical allowance.

The following tables show the total number of pensions in force as at 30 June 1992, and the annual expenditure.

8.29 NUMBER OF SERVICE PENSIONS, 30 JUNE 1992

Class	*World War I*	*World War II*	*Korea, Malaya and FESR(a)*	*Special Overseas Service*	*British Common-wealth*	*Allied Forces*	*Miscel-laneous*	*Total*
Veterans								
Old age	565	170,780	4,144	863	26,760	4,075	2,574	209,761
Permanently incapacitated	—	91	1,874	2,415	287	112	67	4,846
Tuberculosis(b)	2	388	7	1	5	—	—	403
Total	*567*	*171,259*	*6,025*	*3,279*	*27,052*	*4,187*	*2,641*	*215,010*
Wife's and widows	536	123,747	4,124	2,305	20,718	3,320	1,853	156,603
Total	**1,103**	**295,006**	**10,149**	**5,584**	**47,770**	**7,507**	**4,494**	**371,613**

(a) Far East Strategic Reserve. (b) Eligibility on these grounds ceased on 2 November 1978.
Source: Department of Veterans' Affairs.

8.30 SERVICE PENSIONS: NUMBER AND EXPENDITURE

	Pensions in force as at 30 June			*Annual expend-iture(a)*
	Veterans	*Wife's and widows*	*Total*	*($'000)*
1987	234,209	170,585	404,794	1,745,888
1988	232,711	170,153	402,864	2,011,205
1989	229,097	167,342	396,439	2,048,138
1990	223,164	163,184	386,348	2,164,449
1991	218,398	159,511	377,909	2,325,077
1992	215,010	156,603	371,613	2,377,619

(a) Includes associated allowances.
Source: Department of Veterans' Affairs.

Treatment for veterans and dependants of veterans

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 in Australia is provided for most non-service-related disabilities for: incapacitated veterans receiving disability pensions at or above the maximum (100%) general rate; World War II veterans receiving both service pension at any rate and disability pension at the 50 per cent rate or higher; veterans or nurses who served in World War I; veterans who were detained by the enemy; war widows and certain other dependants of deceased male veterans whose deaths have been accepted as service related, and of deceased Special Rate pensioners; certain service pensioners; returned servicewomen of World War II; and mariners who received both a service pension and a disability pension at or above 50 per cent of the general rate, and all Australian mariners of World War I.

Special emphasis is given to caring for the aged, aimed at limiting the dependence of veterans and war widows on nursing home care and encouraging the alternative of home care.

The Department has a Joint Ventures Scheme to assist veterans' organisations to help veterans and their dependants live at home for as long as possible.

Treatment was provided at six Repatriation General Hospitals (RGHs — one in each State); three Repatriation Auxiliary Hospitals (New South Wales, Victoria and Queensland); Anzac Hostel in Victoria; Repatriation Artificial Limb and Appliance Centres (RALACs) and the Vietnam Veterans' Counselling Service (VVCS).

In addition to the Repatriation facilities, and subject to certain criteria, entitled persons are treated in State and private metropolitan and country hospitals and nursing homes at departmental expense. During 1991–92 the estimated paid bed days for entitled persons in public hospitals was 411,698 and for private hospitals, 284,419.

Under arrangements with State Governments, entitled persons requiring custodial, psychiatric care for a service related disability are treated at departmental expense in State psychiatric hospitals.

General medical practitioner services are provided through the Local Medical Officer Scheme (LMO). There were 17,003 Repatriation LMOs in the scheme as at 1 June 1992. During 1991–92 LMO consultations totalled 3,233,867.

Entitled persons may also be provided with dental treatment through the Local Dental Officer (LDO) Scheme which comprised 6,073 LDOs as at 1 June 1992. In addition, the services of approximately 630 dental prosthetists were also available to eligible beneficiaries. During 1991–92 557,063 dental services were undertaken.

Optometrical services, including the provision of spectacles; the services of allied health professionals and a comprehensive range of aids, appliances and dressings may be provided to entitled persons.

In addition, entitled persons may be provided with pharmaceuticals through the Repatriation Pharmaceutical Benefits Scheme.

Repatriation General Hospitals

The Repatriation General Hospitals (RGHs) are teaching hospitals providing short-term treatment during an acute episode of illness. They also provide outpatient services and assessment of need for domiciliary and other community support facilities through Aged and Extended Care Departments (AECDs). During 1991–92 there were 988,867 outpatient occasions of service at the RGHs.

The RGHs contribute to State health care services by treating members of the general community where capacity exists after the needs of entitled persons have been met. Limits on the level of available beds for community patients are determined by the Repatriation Commission.

The following table gives details of in-patients (including community patients) treated at RGHs. The figures shown refer to treatment episodes, for example, a person who is admitted to hospital twice during a year is counted twice.

Repatriation General Hospital Hobart (1 July 1992) and Repatriation General Hospital Concord (1 July 1993) have been integrated into their respective State health systems. Although they still provide treatment for eligible Repatriation beneficiaries, hospital care is also provided through the Repatriation Private Patient Scheme, whereby entitled beneficiaries are treated as private patients in local public and private hospitals.

8.31 REPATRIATION GENERAL HOSPITALS: IN-PATIENTS TREATED, 1991-92

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.*
Admissions	37,321	23,211	16,053	10,600	16,134	2,852	106,171
Separations	37,338	23,183	16,017	10,577	16,107	2,858	106,080
Daily average occupied beds	602	407	358	224	276	65	1,933

Source: Department of Veterans' Affairs.

Repatriation Auxiliary Hospitals

The Repatriation Auxiliary Hospitals (RAHs) provide slow stream rehabilitation of patients; maintenance care of patients awaiting nursing home admissions and respite care for a limited number of patients. Community patients are admitted to spare capacity in some RAHs subject to maximum limits determined by the Repatriation Commission.

The following table gives details of in-patients (including community patients) treated at RAHs. The figures shown refer to treatment episodes, for example, a person who is admitted to hospital twice during a year is counted twice.

Repatriation Auxiliary Hospital Macleod (Victoria) was decommissioned in January 1993.

8.32 REPATRIATION AUXILIARY HOSPITALS: IN-PATIENTS TREATED, 1991-92

	NSW	*Vic.*	*Qld*	*Total*
Admissions	1,929	961	387	3,277
Separations	1,934	961	391	3,286
Daily average occupied beds	157	84	59	300

Source: Department of Veterans' Affairs.

Anzac Hostel provides minimal nursing supervision in a residential setting to eligible persons. The daily average occupied beds figure for 1991-92 was 26.

Artificial limbs and appliances

Entitled veterans and war widows receive free artificial limbs and appliances and surgical footwear through the Repatriation Artificial Limb and Appliance Centre (RALAC).

During 1990-91, the Free Limbs Scheme was replaced by the Artificial Limbs Scheme (ALS) which introduced charges for non-pensioners and minimum limb life expectancies. The ALS provides limbs to Australian residents who need them. Limbs can be provided through the RALACs or commercial limb manufacturers. Amputees can access these manufacturers through some 83 amputee prescribing clinics Australia wide.

RALACs are located in each State capital with sub-centres in Darwin, Townsville, Canberra, Newcastle and Albury. A mobile workshop operates in Victoria to provide services to remote locations. The Central Development Unit is located in Melbourne, and engages in research, development and evaluation in prosthetics and orthotics.

The following table gives details of production by all centres and commercial firms as a result of orders placed by the Department.

8.33 REPATRIATION ARTIFICIAL LIMB AND APPLIANCE PRODUCTION, 1991-92 (numbers)(a)

	Entitled Veterans	*Community patients*	*Total*
Artificial arms	13	116	129
Artificial legs	419	1,549	1,968
Appliances	875	490	1,366
Artificial limb repairs	1,961	6,884	8,845
Appliance repairs	866	175	1,041
Custom footwear	5,218	324	5,542
Depth footwear	1,344	106	1,450
Footwear repairs	10,434	878	11,312

(a) Figures do not include limbs (101 arms, 2,002 legs) and limb repairs (6,631) provided by commercial firms as a result of orders placed by the Department.
Source: Department of Veterans' Affairs.

Total artificial limbs for ALS clients was 3,768.

Vietnam Veterans Counselling Service

The Vietnam Veterans Counselling Service (VVCS) has centres in Canberra, Harris Park (Sydney), South Melbourne, Brisbane, Townsville, Adelaide, Perth, Hobart and Darwin. Regional centres have been established in Launceston and Albury/Wodonga. The service is intended to provide counselling to veterans and their families, as well as working with the ex-service community to promote acceptance of veterans, particularly Vietnam veterans, by the community.

The service is staffed by psychologists and social workers with detailed knowledge and experience about Vietnam service and its impact on veterans and their families, especially the impact of post-traumatic stress.

A Country Outreach Program was introduced in 1988 to extend the VVCS service to rural areas and access to counselling has been improved through provision of a 008 toll free telephone service.

The following table shows the increase in usage of the service.

8.34 VIETNAM VETERANS COUNSELLING SERVICE, 1989–90 TO 1991–92

	1989–90	*1990–91*	*1991–92*
Numbers of counselling sessions	29,464	34,323	34,996
Including:			
Face to face	16,057	14,066	12,850
Telephone (including 008)	10,818	13,108	13,180
Group	2,240	332	290
Country outreach	n.a.	6,817	8,676

Source: Department of Veterans' Affairs.

The Office of Australian War Graves

The Office of Australian War Graves has two main functions. Its major area of responsibility is the implementation of government policy for the perpetual commemoration of eligible Australian veterans whose post-war deaths are related to their war service. The authority for this program was established by a War Cabinet decision on 10 March 1922 and re-confirmed in several subsequent decisions.

It also maintains on behalf of the Commonwealth War Graves Commission, War Cemeteries and other commemorations in Australia, Papua New Guinea, Solomon Islands (Guadalcanal) and Norfolk Island. This responsibility is covered by a formal agreement between Australia and the Commonwealth War Graves Commission which was signed on 1 January 1975. Under a separate arrangement with the Commonwealth War Graves Commission the Office of Australian War Graves also maintains the Ambon War Cemetery in Indonesia.

The *War Graves Act 1980* created the statutory position of Director of War Graves. The Director is responsible under the Secretary of the Department of Veterans' Affairs for administering all matters associated with the Office of Australian War Graves' commemorative functions.

The Office maintains 19,520 war graves in 76 war cemeteries and 900 civil cemeteries. It also maintains 166,000 post-war commemorations scattered throughout 1,500 civil cemeteries. In 1991–92 it commemorated 5,500 veterans who died of war-related causes.

The Office provides an information service to those wishing to visit any of the 75,000 Australian war dead buried in some 70 countries overseas.

It holds records relating to the Commonwealth dead of World War II, the Australian dead of World War I and of the post-World War II conflicts.

Full details of the operations of the Office of Australian War Graves are contained in its Annual Report.

HOUSEHOLD INCOME AND EXPENDITURE

Household expenditure

The most recent Household Expenditure Survey (HES) undertaken by the ABS was conducted over the 12 month period July 1988 to July 1989. Similar surveys were conducted in 1974–75, 1975–76 and 1984. The next HES is scheduled to take place throughout the 1993–94 financial year. These surveys have been designed to measure levels and patterns of expenditure on commodities and services by private households in Australia, and to identify factors which influence these levels and patterns. Information from these surveys provide the basis for reviewing the weighting pattern of the Consumer Price Index (CPI), the measure used to monitor changes in the cost of living. The information is also used by government departments, research organisations and businesses for a wide range of other purposes.

The 1988–89 HES statistics in the 1992 Year Book described differences in expenditure levels between the States and Territories of Australia. This year's edition looks at how 1988–89 household expenditure levels were associated with selected household characteristics.

Household income is one of the main factors affecting levels of expenditure but various other household characteristics also influence income and expenditure levels. For example, larger households typically have more earners and thus a higher level of income and expenditure than smaller households. Household income and expenditure is also influenced by such factors as the age of the household reference person, and whether households derive a large share of their income from wages and salaries or from pensions and benefits. (For survey purposes the *reference person* is the husband in a married couple income unit, unless he is away for the survey period, the parent in a one-parent income unit and the person in a one-person income unit.)

Household size, the age of the household reference person and other factors tend to be interrelated and typically vary according to life cycle stages. The relationship between life cycle stages and levels of household income and expenditure is illustrated in table 8.35. The table presents ten household types based on household composition and, depending on composition, the age of the reference person or the age of the eldest family child. The ten types provide a simplified view of life cycle possibilities but together represent about 70 per cent of all households in Australia in 1988–89.

As can be seen the total amount spent on commodities and services generally rises through the early stages of family creation and, with increasing family size, reaches a peak as family children mature to adulthood. In subsequent stages of the life cycle household expenditure declines as household size is reduced. This trend follows very closely the trend in gross household income over the life cycle.

Household income

The effects of government benefits and taxes on household income. The ABS has completed two studies assessing the effects of government benefits and taxes on the distribution of household income based on the results of the 1984 and 1988–89 Household Expenditure Surveys (HES).

In both studies household income was adjusted according to selected government taxes paid and benefits received by households. Adjustments were made for cash benefits and pensions, personal tax and medicare liabilities, benefits from government outlays on health, education, social security and welfare, and indirect taxes imputed from household expenditure on goods and services.

The 1988–89 study showed that government benefits and taxes reduce differences in income between households. The net effect of benefits and taxes was to increase the average weekly private income of the lowest income group (the 10% of households with the lowest gross income) from –$1.05 to an average weekly final income of $146.74. In comparison, the average weekly private income of the highest income group (the 10% of households with the highest gross income) was reduced from $1,665.44 to an average weekly final income of $1,227.58.

The relative contributions of benefits and taxes to the redistribution of income from high to low income groups are shown in graph 8.36. Taxes increased proportionally with income while benefits showed an initial increase and then a fall as income rose. The initial increase in benefits among households in the lower income deciles was associated with differences in the representation of households according to their size and type.

8.35 AVERAGE WEEKLY HOUSEHOLD EXPENDITURE(a) BY EXPENDITURE GROUP FOR SELECTED LIFE CYCLE GROUPS, 1988–89
($)

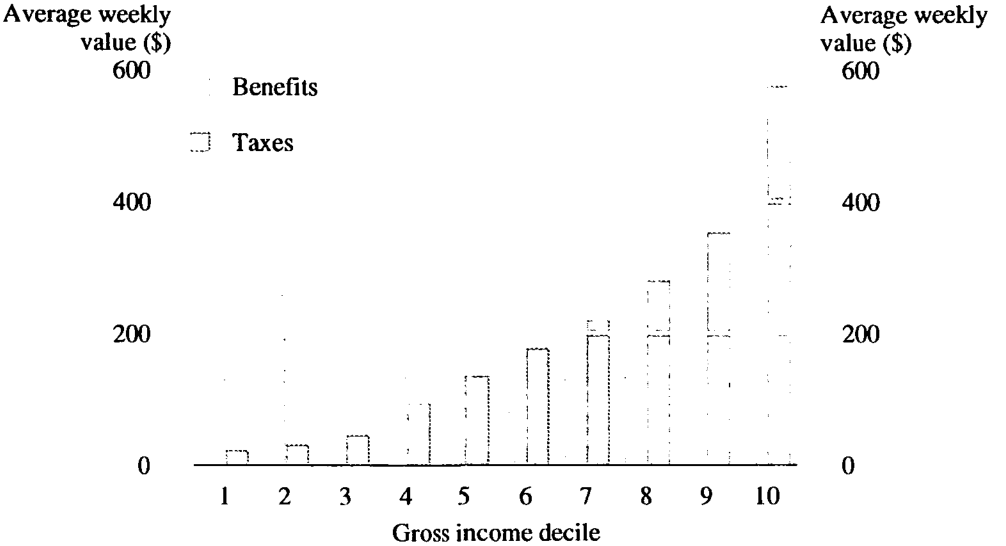
Broad expenditure group(b)	Single person only, under 35	Married couple – husband and wife only, reference person under 35	Married couple with dependent children only			Married couple with		Married couple – husband and wife only, reference person 55 to 64	Married couple – husband and wife only, reference person 65 and over	Single person only, 65 and over
			Eldest child under 5	Eldest child 5 to 14	Eldest child 15 to 24	Dependent and non-dependent children only	Non-dependent children only			
Commodity or service										
Current housing costs (selected dwelling)	80.83	123.09	108.33	97.80	76.84	77.56	49.34	38.67	29.64	25.85
Fuel and power	7.62	10.75	14.07	15.72	18.18	19.33	16.24	12.36	11.03	6.91
Food and non-alcholic beverages	52.94	89.56	98.09	120.83	140.05	166.54	138.90	83.38	70.71	34.85
Alcholic beverages	19.30	21.43	13.62	14.04	20.14	27.51	30.73	12.57	10.54	3.78
Tobacco	5.20	7.30	6.60	6.96	5.96	9.85	11.44	5.26	3.18	1.81
Clothing and footwear	15.39	38.04	29.97	34.98	47.90	70.78	47.33	21.79	15.44	10.34
Household furnishings and equipment	29.30	65.98	48.15	40.60	46.78	65.36	47.92	31.72	23.70	13.68
Household services and operation	13.67	20.49	38.16	31.03	27.75	30.88	29.34	22.15	17.53	12.92
Medical care and health expenses	9.30	20.36	25.22	26.36	32.91	33.83	32.41	24.53	18.62	11.70
Transport	57.85	88.35	74.91	79.05	92.87	149.65	140.57	75.95	48.72	12.03
Recreation	54.26	67.39	50.79	72.07	92.66	96.99	90.20	60.24	37.03	18.39
Personal care	5.94	10.82	9.33	10.81	15.95	18.80	16.99	8.04	6.43	4.63
Miscellaneous commodities and services	20.15	44.12	43.67	48.91	77.62	76.31	51.96	20.17	12.21	7.86
Total commodity and service expenditure	**371.74**	**607.69**	**560.92**	**599.15**	**695.62**	**843.40**	**703.36**	**416.83**	**304.78**	**164.75**
Average weekly household income(c)	439.80	854.34	648.41	766.37	874.40	1,100.06	1,004.75	533.79	356.93	171.72
Estimated total number in population ('000)										
Households	265.3	274.9	373.3	830.2	318.7	244.5	347.2	318.8	431.0	417.5
Persons	265.3	549.7	1,299.0	3,601.3	1,376.9	1,158.1	1,165.2	637.6	862.1	417.5

(a) The average obtained when the total estimated expenditure for a particular broad expenditure group is divided by the estimated number of households within the scope of the survey in the relevant category of household type. (b) Details of the component expenditure items of the broad expenditure groups are given in Appendix B of the *1988–89 Household Expenditure Survey, Information Paper* (6527.0). (c) Household income is the sum of the gross weekly income of all household members.

Source: Household Expenditure Survey, Australia: Household Characteristics, 1988–89 (6531.0).

Government benefits and taxes also redistributed income across the life cycle. Households containing single persons only aged under 35 years paid $155.00 per week in tax and received $36.73 per week in benefits. Married couple households with dependent children only, and the eldest aged 15 to 20, paid $284.79 per week in tax and received $268.01 per week in benefits. Households containing single persons only over 65 years paid $22.96 per week in tax and received $189.75 per week in benefits (table 8.37).

8.36 ALL HOUSEHOLDS: BENEFITS AND TAXES BY GROSS INCOME DECILE, 1988–89



Source: Household Expenditure Survey, Australia: The Effects of Government Benefits and Taxes on Household Income, 1988-89 (6537.0).

Income distribution. Surveys of income have been conducted by the ABS at regular intervals. The last such survey was conducted in the period October to December 1990. Income sources include wages or salary; own business, trade or profession; government cash benefits; superannuation; interest; rent; dividends; other sources. Income was collected both on a financial year basis (in respect of 1989–90) and on a current basis (at the time of interview). Tables 8.37, 8.38 and 8.39 provide estimated income profiles according to various characteristics of individuals and for groups of individuals such as income units, families and households.

8.37 AVERAGE WEEKLY INCOME, BENEFITS AND TAXES FOR SELECTED LIFE CYCLE GROUPS, 1988–89
($)

			Married couple with dependent children only			*Married couple with*				
Income, benefits and taxes	*Single person only, under 35*	*Married couple – husband and wife only, reference person under 35*	*Eldest child under 5*	*Eldest child 5 to 14*	*Eldest child 15 to 20*	*Dependent and non-dependent children only*	*Non-dependent children only*	*Married couple – husband and wife only, reference person 55 to 64*	*Married couple – husband and wife only, reference person 65 and over*	*Single person only, 65 and over*
Private income	**427.95**	**848.95**	**623.84**	**726.28**	**838.68**	**1,065.62**	**935.80**	**472.74**	**191.80**	**64.53**
Direct benefits										
Age pension	. .	*	*	*	*	*	13.07	9.75	100.82	83.25
Invalid pension	*	*	*	3.51	*4.26	*8.72	*24.19	*22.55	1.68	*
Veterans Affairs pension	*	*	*	0.52	1.77	*1.19	15.45	18.81	54.02	19.66
Unemployment benefits	*7.97	3.61	10.64	11.79	4.98	*7.97	9.79	5.99	*	. .
Sole parent pension	. .	. .	*	*	*	*	*	. .	. .	. .
Family allowance	. .	. .	10.03	18.52	15.51	7.48	0.10	. .	. .	. .
Other direct benefits	2.15	1.57	1.20	3.15	9.04	8.60	6.35	3.95	8.60	3.32
Total direct benefits	*11.85*	*5.39*	*24.01*	*38.06*	*35.85*	*34.44*	*68.96*	*61.05*	*165.13*	*107.19*
Gross income	**439.80**	**854.34**	**647.85**	**764.35**	**874.53**	**1,100.06**	**1,004.75**	**533.79**	**356.93**	**171.72**
Direct tax	104.10	205.06	147.18	176.05	200.94	227.47	200.07	100.61	33.58	8.28
Disposable income	**335.70**	**649.28**	**500.67**	**588.29**	**673.59**	**872.59**	**804.68**	**433.18**	**323.35**	**163.43**

... *continued*

8.37 AVERAGE WEEKLY INCOME, BENEFITS AND TAXES FOR SELECTED LIFE CYCLE GROUPS, 1988–89 — *continued*
($)

Income, benefits and taxes	*Single person only, under 35*	*Married couple – husband and wife only, reference person under 35*	*Married couple with dependent children only* — *Eldest child under 5*	*Married couple with dependent children only* — *Eldest child 5 to 14*	*Married couple with dependent children only* — *Eldest child 15 to 20*	*Married couple with* — *Dependent and non-dependent children only*	*Married couple with* — *Non-dependent children only*	*Married couple – husband and wife only, reference person 55 to 64*	*Married couple – husband and wife only, reference person 65 and over*	*Single person only, 65 and over*
Disposable income	**335.70**	**649.28**	**500.67**	**588.29**	**673.59**	**872.59**	**804.68**	**433.18**	**323.35**	**163.43**
Indirect benefits										
School education	*	*	4.57	99.48	134.43	82.05	*	*	*	*
Tertiary education	10.50	14.92	7.52	7.88	32.45	48.31	14.69	1.26	1.08	*
Other education benefits	0.35	0.54	0.72	5.41	6.13	4.62	0.50	0.07	*	*
Total education benefits	*10.92*	*15.77*	*12.81*	*112.77*	*173.01*	*134.99*	*15.50*	*1.33*	*1.10*	*
Hospital care	5.78	13.08	17.20	19.07	25.01	29.45	33.95	25.93	70.55	41.93
Medical clinics	3.97	9.18	18.38	18.48	17.38	19.28	16.70	12.93	16.39	8.79
Pharmaceuticals	0.28	0.49	1.05	1.28	1.46	1.73	4.44	4.35	14.35	8.60
Other health benefits	0.90	1.97	3.26	4.11	4.16	4.83	3.30	1.91	1.81	0.94
Total health benefits	*10.94*	*24.72*	*39.89*	*42.94*	*48.02*	*55.29*	*58.40*	*45.12*	*103.10*	*60.26*
Housing benefits	1.40	1.25	2.74	1.85	1.81	1.64	1.13	1.26	1.50	3.73
Social security and welfare benefits	1.62	0.68	6.45	10.18	9.33	8.20	12.95	13.04	31.13	18.33
Total indirect benefits	*24.89*	*42.42*	*61.89*	*167.74*	*232.16*	*200.12*	*87.97*	*60.75*	*136.83*	*82.56*
Disposable income plus indirect benefits	**360.58**	**691.74**	**562.51**	**756.05**	**905.75**	**1,072.70**	**892.66**	**493.93**	**460.17**	**246.01**

... continued

8.37 AVERAGE WEEKLY INCOME, BENEFITS AND TAXES FOR SELECTED LIFE CYCLE GROUPS, 1988–89 — *continued*
($)

Income, benefits and taxes	*Single person only, under 35*	*Married couple – husband and wife only, reference person under 35*	*Married couple with dependent children only*			*Married couple with*		*Married couple – husband and wife only, reference person 55 to 64*	*Married couple – husband and wife only, reference person 65 and over*	*Single person only, 65 and over*
			Eldest child under 5	*Eldest child 5 to 14*	*Eldest child 15 to 20*	*Dependent and non-dependent children only*	*Non-dependent children only*			
Disposable income plus indirect benefits	**360.58**	**691.74**	**562.51**	**756.05**	**905.75**	**1,072.70**	**892.66**	**493.93**	**460.17**	**246.01**
Indirect taxes by commodity group										
Petrol and petroleum products	6.57	10.79	10.94	10.88	12.66	19.33	16.60	8.76	5.27	1.69
Tobacco	3.11	4.36	3.89	4.14	3.56	5.89	8.84	3.14	1.90	1.08
Alcohol	5.53	6.21	3.98	4.19	5.89	8.27	9.10	3.80	3.04	1.08
Ownership of dwellings	5.74	8.76	7.65	6.82	5.55	5.53	3.48	2.74	2.03	1.69
Other indirect taxes	29.96	50.21	45.32	50.89	56.19	71.87	65.86	35.56	22.96	9.14
Total indirect taxes	*50.90*	*80.34*	*71.78*	*76.92*	*83.86*	*110.90*	*101.88*	*54.00*	*35.19*	*14.68*
Final income	**309.68**	**611.35**	**490.80**	**679.13**	**821.90**	**961.81**	**790.75**	**439.96**	**424.99**	**231.33**
Total benefits	*36.73*	*47.82*	*85.90*	*205.81*	*268.01*	*234.56*	*156.93*	*121.80*	*301.96*	*189.75*
Total taxes	*155.00*	*285.40*	*218.96*	*252.97*	*284.79*	*338.36*	*301.95*	*154.61*	*68.77*	*22.96*
Net benefits	*– 118.27*	*– 237.58*	*– 133.06*	*– 47.16*	*– 16.78*	*– 103.80*	*– 145.02*	*– 32.81*	*233.19*	*166.78*
Estimated total number in population										
Households	265.3	274.9	378.6	840.1	318.6	244.5	347.2	318.8	431.0	417.5
Persons	265.3	549.7	1,315.8	3,645.2	1,376.7	1,158.1	1,165.2	637.6	862.1	417.5

Source: Household Expenditure Survey, Australia: The Effects of Government Benefits and Taxes on Household Income, 1988–89 (6537.0).

8.38 FULL-YEAR, FULL-TIME WORKERS(a): MEAN GROSS ANNUAL EARNED INCOME BY EDUCATIONAL ATTAINMENT BY AGE BY SEX, 1989–90

				Mean gross annual earned income		
Educational attainment	*Males ('000)*	*Females ('000)*	*Persons ('000)*	*Males ($)*	*Females ($)*	*Persons ($)*
With post-school qualifications						
Degree	499.3	198.9	698.2	46,290	33,680	42,700
Certificate (non-trade)/diploma	521.5	520.9	1,042.4	34,820	25,330	30.080
Trade certificate	1,047.7	43.3	1,090.9	29,010	19,770	28,640
Other	25.5	2.6	28.1	31,250	21,420	30,350
Total	2,093.9	765.6	2,859.6	34,600	27,170	32,610
Without post-school qualifications						
Left school at age						
18 or over	222.5	75.4	297.9	28,610	20,890	26,660
17	299.6	163.5	463.1	27,630	21,260	25,380
16	384.4	204.2	588.6	26,490	20,690	24,480
15 or 14	593.9	299.6	893.5	25,930	19,720	23,850
13 or under	107.5	30.9	138.4	24,700	16,160	22,790
Never went to school	8.3	1.9	10.2	19,940	17,670	19,520
Total	1,616.1	775.5	2,391.7	26,630	20,270	24,570
Total	**3,710.1**	**1,541.2**	**5,251.2**	**31,130**	**23,700**	**28,950**

(a) Excludes 100,300 full-year, full-time workers whose earned income was zero.
Source: Survey of Income & Housing Costs and Amenities: Persons with Earned Income, Australia, 1990 (6546.0).

8.39 ALL INCOME UNITS: DECILE GROUPS, TYPE OF INCOME UNIT, INCOME SHARE AND MEAN GROSS WEEKLY INCOME, OCTOBER–DECEMBER, 1990

	Married couple income units									
	With dependent children		*With no dependent children*		*One-parent income units*		*One-person income units*		*All income units*	
Decile group(a)	*Income share*	*Mean weekly income*	*Income share*	*Mean weekly income*	*Income share*	*Mean weekly income*	*Income share*	*Mean weekly income*	*Income share*	*Mean weekly income*
	%	$	%	$	%	$	%	$	%	$
Gross weekly income decile										
Lowest 10%	2.3	194	2.3	158	3.4	121	1.7	59	1.5	85
2nd	4.6	387	3.8	254	5.5	194	2.9	135	3.1	162
3rd	6.0	501	4.4	297	5.7	213	5.7	151	4.2	231
4th	7.1	596	5.5	364	7.3	236	5.4	180	5.5	301
5th	8.2	688	6.9	463	7.5	261	7.0	235	6.9	383
6th	9.3	783	8.9	591	8.8	298	9.4	314	8.6	471
7th	10.6	888	11.2	746	10.3	360	11.4	386	10.6	580
8th	12.3	1,023	13.6	914	12.9	451	13.5	457	13.3	729
9th	14.4	1,210	16.9	1,128	15.5	542	16.4	553	17.2	944
Highest 10%	25.2	2,107	26.6	1,772	23.1	794	26.6	897	29.2	1,607
Total	**100.0**	**838**	**100.0**	**669**	**100.0**	**348**	**100.0**	**338**	**100.0**	**550**
Mean gross weekly income($)		. .		. .		. .		. .		. .
Median gross weekly income ($)		736		523		278		273		426
Number ('000)		2,057.3		2,007.5		385.7		3,554.5		8,005.1

(a) 10 per cent groupings of the estimated population when income units are ranked in ascending order according to each income unit's total gross income.
Source: Unpublished ABS data from the 1990 Survey of Income & Housing Costs and Amenities.

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FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Nine

Health

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This chapter provides information on various aspects of the health of the Australian population and the activities of the Commonwealth relating to health. There is, however, government responsibility for health at the State and local levels. There are constitutional limits on the Commonwealth Government's role in the health care field, and the primary responsibility for planning and provision of health services is with the State and Territory Governments.

At the national level, health services in Australia are administered by the Commonwealth Government. The Government appoints three Ministers to the Portfolio of Health. The Minister for Health exercises overall responsibility over the Commonwealth Department of Health, represents the portfolio in Cabinet and has particular responsibility for Budget matters and major policy decisions. The other two Ministers have responsibility for Family Services and Veterans' Affairs, respectively. The Commonwealth Government is primarily concerned with the formation of broad national policies, and influences policy making in health services through its financial arrangements with the State and Territory Governments, through the provision of benefits and grants to organisations and individuals, and through the regulation of health insurance.

The direct provision of health services, broadly speaking, is the responsibility of the State and Territory Governments. Each has a Minister who is responsible to the Government of his/her particular State or Territory for the administration of its health authorities. In some, the responsibility for health services is shared by several authorities whilst in others, one authority is responsible for all these functions.

Health care is also delivered by local government, semi-voluntary agencies, and profit making non-governmental organisations.

Information on the activities of government and other bodies on health-related matters is provided later in this chapter.

THE HEALTH OF AUSTRALIANS

The following information from various sources provides a profile of the health of the Australian population.

National Health Survey, 1989–90

During 1989–90 the ABS interviewed approximately 57,000 persons in the first of a new series of five yearly National Health Surveys. The survey focused on the health status of Australians, their use of health facilities and services and lifestyle factors affecting the health of the nation. The 1992 Year Book contained the survey results regarding certain aspects of health — long-term conditions, health related action and medication taken by people, and relative weight by age. This edition includes a selection of further statistics from the survey on various other aspects of health.

Health status. As shown in table 9.1, of those aged 18 years and over, 79.2 per cent reported that their health was good or excellent, while 16.3 per cent reported their health was fair and only 4.5 per cent reported they were in poor health.

Some 72.9 per cent of the population reported experiencing one or more illnesses/injuries during the two weeks prior to interview. This compared to 62.3 per cent of persons who reported a recent illness in the Australian Health Survey of 1983. Of these recent conditions, headaches (due to unspecified or trivial cause) were the most frequently reported single condition affecting 12.2 per cent of the population.

Of the total Australian population, 66.2 per cent reported having one or more long-term conditions (conditions which had lasted or were expected to last for a period of six months or more), with more females reporting such a condition than males (68.4% and 64.0% respectively).

29.4 per cent (an estimated 5,003,000 people) experienced one or more musculoskeletal conditions. These conditions may have been reported as recent illness (that is, experienced in the two weeks before interview) and/or as long-term conditions. As shown in table 9.2, the most commonly reported musculoskeletal condition was arthritis, reported by 11.4 per cent of respondents. Unspecified back trouble (9.1%) was also commonly reported.

A comparison with results from the 1977–78 Australian Health Survey shows an increase in the prevalence of musculoskeletal conditions. More than one in ten (10.6%) reported experiencing arthritis as a long-term condition in 1989–90 compared with 4.6 per cent in 1977–78. Similarly, the number of persons reporting long-term disorders of the intervertebral disc has increased from 1.0 per cent in 1977–78 to 2.6 per cent in 1989–90.

9.1 PERSONS AGED 18 AND OVER: SELF ASSESSED HEALTH STATUS(a), 1989–90
(per cent)

	Self assessed health status				
Whether experienced illness condition	*Excellent*	*Good*	*Fair*	*Poor*	*Total*
No recent or long-term conditions	47.6	48.0	4.2	*0.2	100.0
Recent conditions only	38.8	51.6	8.6	1.0	100.0
Long-term conditions only	40.4	50.6	8.5	0.5	100.0
Both recent and long-term conditions	21.7	49.9	21.5	6.9	100.0
Total					
Per cent	**29.2**	**50.0**	**16.3**	**4.5**	**100.0**
Number ('000)	**3,633.3**	**6,221.2**	**2,023.7**	**566.0**	**12,444.2**

(a) As reported by respondents.
* Relative standard error between 25 per cent and 50 per cent.
Source: National Health Survey: Summary of Results, 1989–90 (4364.0).

9.2 PERSONS WITH MUSCULOSKELETAL CONDITIONS, BY TYPE OF CONDITION, 1989–90
('000)

Type of condition	*Recent only*	*Long-term only*	*Recent and long-term*	*Number*	*Total per cent of population*
Arthritis	132.1	1,132.8	670.6	1,935.5	11.4
Rheumatism	16.3	115.7	36.4	168.4	1.0
Sciatica	11.0	81.6	22.8	115.4	0.7
Disorders of the intervertebral disc	30.4	329.2	117.1	476.8	2.8
Back trouble (unspecified)	182.2	1,096.2	274.4	1,552.9	9.1
Other musculoskeletal conditions(a)	592.4	868.9	360.7	(b)1,799.3	10.6
Total(b)	**619.6**	**2,766.3**	**1,617.3**	**5,003.1**	**29.4**

(a) Including aches and sore muscles/joints. (b) Each person may have reported more than one condition and therefore components do not add to totals.
Source: National Health Survey: Musculoskeletal Conditions, 1989–90 (4374.0).

In 1989–90, 34.7 per cent of the population reported one or more respiratory conditions (an estimated 5,896,000 people). The most commonly reported conditions included asthma (8.5% of the population), hay fever (10.3%) and the common cold (9.6%). A larger proportion of persons in younger age groups reported respiratory conditions than in the older age groups. For example, 12.4 per cent of persons under 25 years reported asthma and 55.8 per cent of all people reporting asthma were aged under 25 years. The proportion of people with respiratory conditions declined with age, except for bronchitis and emphysema which showed an increase in the age group 55 to 74 years (table 9.3).

An estimated 2,213,000 people (13.0% of the population) had a cardiovascular condition in 1989–90. Of these, 10.2 per cent reported the condition as being long-term, (an estimated 1,741,000 of the population), a notable increase since 1977–78 when 5.0 per cent reported having a long-term cardiovascular condition (785,000). In 1989–90 the most common condition was hypertension (1,537,000 persons), followed by heart disease (450,000 persons). The prevalence of cardiovascular conditions increases with age, with 53.5 per cent of persons aged 65 years or more reporting one or more conditions.

Table 9.4 shows that, of employed persons, managers and administrators had the highest prevalence of cardiovascular conditions (11.9%) and of hypertension and heart disease in particular. The lowest prevalence was recorded for professionals and para-professionals.

9.3 PERSONS WITH RESPIRATORY CONDITIONS(a), BY AGE AND SEX, 1989–90 ('000)

	Age group (years)										
Type of condition	*0–14*	*15–24*	*25–34*	*35–44*	*45–54*	*55–64*	*65–74*	*>74*	*Males*	*Females*	*Persons*
Bronchitis, emphysema	81.6	75.7	78.4	60.6	53.3	92.6	95.6	49.0	289.8	297.0	586.8
Asthma	518.6	287.8	192.2	146.5	103.8	83.6	82.9	28.6	734.4	709.7	1,444.1
Sinusitis	47.8	99.7	144.5	163.8	101.6	92.5	56.9	20.3	279.6	447.6	727.2
Hay fever	186.0	368.8	399.2	317.2	203.5	137.7	97.4	43.1	799.9	953.0	1,752.9
Other respiratory conditions(b)	934.4	512.3	428.6	334.7	214.5	173.2	145.2	85.5	1,424.5	1,404.1	2,828.5
Total persons with respiratory conditions(c)											
Number ('000)	**1,474.9**	**1,040.3**	**981.8**	**823.9**	**541.2**	**462.9**	**381.0**	**189.6**	**2,864.8**	**3,030.8**	**5,895.6**
Per cent	***39.6***	***37.7***	***35.1***	***32.2***	***30.2***	***31.8***	***31.5***	***27.6***	***33.8***	***35.6***	***34.7***
Total persons	3,723.8	2,758.1	2,799.9	2,561.2	1,794.4	1,454.4	1,209.0	688.1	8,475.5	8,513.3	16,988.8

(a) Reported as a recent and/or long-term condition. (b) Includes common cold, influenza, cough and sore throat. (c) Persons may have experienced more than one type of respiratory condition and therefore components do not add to totals.
Source: National Health Survey: Asthma and Other Respiratory Conditions, 1989–90 (4373.0).

9.4 EMPLOYED PERSONS AGED 15 TO 64 WITH CARDIOVASCULAR CONDITIONS(a) BY OCCUPATION, 1989-90 ('000)

Type of condition	*Managers & administrators*	*Professionals*	*Para-professionals*	*Tradespersons*	*Clerks*	*Sales persons, Personal service workers*	*Plant & machine operators /drivers*	*Labourers & related workers*	*Total(b)*
Hypertension	79.1	46.1	20.9	59.8	70.6	41.0	39.8	66.9	424.2
Heart disease	14.5	5.2	6.2	13.5	9.2	9.2	6.8	10.0	74.9
All other diseases of the circulatory system(c)	8.0	10.8	2.0	9.5	15.4	11.4	5.5	15.6	78.9
Ill-defined signs & symptoms of heart conditions	12.5	6.6	4.6	7.3	13.6	10.8	5.0	8.0	68.5
Total cardiovascular conditions(d)									
Number ('000)	**105.5**	**64.6**	**31.0**	**80.0**	**101.8**	**66.2**	**50.7**	**90.5**	**591.1**
Per cent of employed persons	**11.9**	**6.4**	**6.4**	**6.6**	**8.3**	**7.1**	**8.6**	**9.0**	**8.0**
Total employed persons	885.0	1,015.0	487.6	1,220.2	1,233.0	933.8	591.5	1,004.7	7,390.3

(a) Reported as a recent and/or long-term condition. (b) Includes occupation not stated. (c) Includes atherosclerosis, cerebrovascular disease, stroke after effects and other diseases of the circulatory system. (d) Each person may have reported more than one type of condition and therefore components do not add to totals.
Source: National Health Survey: Cardiovascular and Related Conditions, 1989–90 (4372.0).

In 1989–90, an estimated 234,000 people had diabetes, and a further 23,000 had high blood sugar levels. The proportion of persons with these conditions increased with age, with 6.0 per cent of persons aged 65 years or more reporting diabetes and a further 3.1 per cent indicating they had previously had diabetes or high blood sugar although it was not a current condition.

A comparison with the 1983 Australian Health Survey shows an increase in the prevalence of diabetes. One per cent of the population reported diabetes as an illness condition experienced in the two weeks prior to being interviewed in 1989–90, an estimated 170,000 people, compared with 106,000 (0.7%) in 1983.

9.5 PERSONS WITH DIABETES OR HIGH BLOOD SUGAR, BY AGE AND SEX, 1989–90 ('000)

	Age group (years)						
	<25	*25–44*	*45–64*	*>64*	*Males*	*Females*	*Persons*
Reported as a current condition(a)							
Diabetes	9.5	28.1	88.0	108.6	120.3	114.0	234.3
High blood sugar	2.2	8.1	6.7	6.1	9.2	13.9	23.0
Total	*11.7*	*36.2*	*94.7*	*114.7*	*129.5*	*127.9*	*257.3*
Reported as a previous condition(b)							
Diabetes	6.4	15.7	48.0	58.2	66.6	61.7	128.4
High blood sugar	0.8	0.1	2.4	1.1	1.6	2.7	4.4
Total	*7.2*	*15.8*	*50.4*	*59.3*	*68.2*	*64.4*	*132.8*
Total persons reporting diabetes/ high blood sugar							
Number	**18.9**	**52.0**	**145.1**	**174.0**	**197.7**	**192.3**	**390.1**
Rate(c)	**2.9**	**9.7**	**44.7**	**91.7**	**23.3**	**22.6**	**23.0**

(a) Reported as a recent and/or long-term condition. (b) Not reported as either a recent or long-term condition but previously advised by a doctor or nurse that they had the condition. (c) Rate per 1,000 population of same age and sex.
Source: National Health Survey: Diabetes, 1989–90 (4371.0).

Health risk factors. Results of the 1989–90 National Health Survey show that over 3.5 million people aged 18 years and over smoke, which is equivalent to 28.4 per cent of the adult population. A further 23.2 per cent reported they were ex-smokers. The proportion of smokers is highest in the younger age groups; 36.0 per cent of those aged 18 to 24 reported being smokers compared with 29.6 per cent of those aged 35 to 44 years, and only 8.1 per cent of those aged 75 years and over. More males than females smoked (32.1% and 24.7% respectively), although the difference was less marked in the younger age groups (table 9.6).

62.5 per cent of people aged over 18 years reported having an alcoholic drink during the week prior to interview: 73.5 per cent of males and 51.8 per cent of females. 8.9 per cent of persons reported they had never consumed alcohol.

People who consumed alcohol were grouped by health risk level according to the quantity of alcohol they consumed. These levels are based on the standards adopted by the National Health and Medical Research Council. In total, 82.2 per cent of drinkers were categorised as at low risk level, 10.9 per cent at medium risk level and 6.9 per cent at high risk level. High risk drinkers amongst males outnumbered females in this category by more than three to one (table 9.7).

Based on results of the survey, an estimated 8,671,000 persons aged 15 years and over (65.4% of the population in that age group) exercised in the two weeks prior to interview. Walking was the most common exercise, followed by moderate and then vigorous exercise (table 9.8).

9.6 PERSONS AGED 18 YEARS AND OVER: SMOKER STATUS, BY AGE AND SEX, 1989–90 (per cent)

	Age group (years)								
Smoker status	*18–24*	*25–34*	*35–44*	*45–64*	*65–74*	*>74*	*Males*	*Females*	*Persons*
Smokers									
Manufactured cigarettes only	34.6	32.1	26.8	22.4	13.3	5.9	27.0	24.2	25.6
Manufactured cigarettes and cigars or pipes	0.6	0.7	0.8	0.7	*0.2	. .	1.2	0.1	0.6
Roll your own cigarettes only	0.8	1.8	1.5	2.0	2.0	1.4	2.9	0.4	1.6
Cigars or pipes and roll your own only	. .	*0.2	*0.1	0.2	*0.2	. .	0.2	. .	0.1
Total smokers(a)	*36.0*	*34.9*	*29.6*	*26.0*	*16.5*	*8.1*	*32.1*	*24.7*	*28.4*
Ex-smoker	10.4	19.5	22.7	28.1	36.0	31.2	28.8	17.8	23.2
Never smoked	53.7	45.6	47.7	45.9	47.5	60.7	39.1	57.4	48.4
Total persons									
Per cent	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Number ('000)	**1,937.3**	**2,799.9**	**2,561.2**	**3,248.7**	**1,209.0**	**688.1**	**6,144.7**	**6,299.5**	**12,444.2**

(a) Includes other.

Source: National Health Survey: Smoking, 1989–90 (4382.0) and National Health Survey: Summary of Results, 1989–90 (4364.0).

9.7 PERSONS AGED 18 YEARS AND OVER WHO CONSUMED ALCOHOL IN THE WEEK PRIOR TO INTERVIEW: HEALTH RISK LEVEL OF ALCOHOL INTAKE(a), BY AGE AND SEX, 1989–90 (per cent)

	Age group (years)								
Risk level	*18–24*	*25–34*	*35–44*	*45–64*	*65–74*	*>74*	*Males*	*Females*	*Persons*
Low	49.6	56.0	55.8	50.9	43.4	37.0	58.6	44.3	51.5
Medium	7.9	7.5	7.3	7.0	5.0	1.9	7.8	5.9	6.8
High	6.0	4.9	4.1	4.5	2.3	0.4	7.1	1.6	4.3
Total persons who consumed alcohol(b)	*63.4*	*68.5*	*67.1*	*62.4*	*50.8*	*39.4*	*73.5*	*51.7*	*62.5*
Total persons who did not consume alcohol(b)	36.6	31.5	32.9	37.6	49.2	60.6	26.5	48.3	37.5
Total persons									
Per cent	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Number ('000)	**1,937.3**	**2,799.9**	**2,561.2**	**3,248.7**	**1,209.0**	**688.1**	**6,144.7**	**6,299.5**	**12,444.2**

(a) Based on the average daily consumption during the week prior to interview and grouped according to standards adopted by the National Health and Medical Research Council. (b) In the reference week.

Source: National Health Survey: Alcohol Consumption, 1989–90 (4381.0).

9.8 PERSONS AGED 15 YEARS AND OVER: TYPE OF EXERCISE, BY SEX, 1989–90 ('000)

Type of exercise	*Males*	*Females*	*Persons*
Vigorous	1,497.5	882.1	2,379.6
Moderate	2,311.4	2,017.8	4,329.1
Walking	2,649.5	3,276.4	5,925.8
Total persons exercising(a)	**4,329.6**	**4,341.8**	**8,671.4**
Population aged 15 years and over	6,566.6	6,698.4	13,265.0

(a) Each person may have reported more than one type of exercise and therefore components do not add to totals.

Source: National Health Survey: Exercise, 1989–90 (4383.0).

In 1989–90 an estimated 2,388,400 people (14.1% of the population) had a recent and/or long-term illness or injury caused by an accident. A comparison with results of the 1983 Australian Health Survey show a significant increase in the proportion of persons with recent illness or injury due to accidents, from 5.8 per cent in 1983 to 12.7 per cent in 1989–90.

Proportionally more males than females reported illness or injury due to accidents; 16.3 per cent compared with 11.8 per cent. For both males and females the highest proportion of people reporting accidents were in the middle age groups; 21.0 per cent of males aged 55 to 64 years and 51.1 per cent of females aged 45 to 54 years.

9.9 PERSONS WHO HAD ILLNESS OR INJURY(a) RESULTING FROM AN ACCIDENT, BY AGE AND SEX, 1989–90
(per cent)

Whether had an illness/ injury resulting from an accident	*Age group (years)*									
	<5	*5–14*	*15–24*	*25–34*	*35–44*	*45–54*	*55–64*	*65–74*	*>74*	*Total*
Males										
Illness/injury	6.3	8.5	16.8	20.4	18.8	19.5	21.0	16.9	16.1	16.3
No illness/injury	93.7	91.5	83.2	79.6	81.2	80.5	79.0	83.1	83.9	83.7
Females										
Illness/injury	5.0	7.7	11.6	12.4	12.5	15.1	15.0	13.8	14.7	11.8
No illness/injury	95.0	92.3	88.4	87.6	87.5	84.9	85.0	86.2	85.3	88.2
Persons										
Illness/injury	5.6	8.1	14.3	16.4	15.7	17.4	18.0	15.2	15.2	14.1
No illness/injury	94.4	91.9	85.7	83.6	84.3	82.6	82.0	84.8	84.0	85.9

(a) Recent and/or long-term illness or injury.
Source: National Health Survey: Accidents, 1989–90 (4384.0).

Women respondents to the survey who were aged 18 to 64 years were invited to complete a small additional questionnaire about specific women's health issues. Results of this component of the survey showed that 85.5 per cent of women in this age group reported they had at some time had a Pap Smear Test, for evidence of cervical cancer, and 42.5 per cent had last been tested in the twelve months prior to interview. An estimated 29.3 per cent of women aged 18 to 64 years had never had a Pap Smear Test or had not been tested within the last three years. Results of the survey also showed a tendency for older women to have tests less frequently than women in younger age groups.

Of women aged 18 to 64 years, 62.8 per cent regularly examine their own breasts for lumps, and 70.9 per cent reported having had a breast examination by a doctor or nurse. One-third (32.9%) of women aged 45 to 54 years reported having had a mammogram, and 17.8 per cent of women overall in the age group 18 to 64 years had been tested. Of those women who reported having had a mammogram, 74.0 per cent had last been screened within the three years prior to interview.

Communicable diseases

Notifiable diseases. State and Territory health authorities submit notifiable disease data to the Commonwealth Department of Health, Housing and Community Services for publication in *Communicable Diseases Intelligence*.

9.10 NOTIFIABLE DISEASES: NUMBER OF CASES NOTIFIED, 1991

Disease	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Total*
Arbovirus infection n.e.c.	65	1	35	72	1	25	(a)	—	199
Dengue	(a)	3	43	(a)	(a)	(a)	—	(a)	46
Ross River Virus	402	390	2,119	(a)	135	(a)	486	(a)	3,532
Brucellosis	2	2	24	—	—	—	—	—	28
Campylobacteriosis	(a)	2,303	2,644	1,581	911	729	409	95	8,672
Chlamydial infection	(a)	814	2,306	—	—	392	477	55	4,044
Diphtheria	—	1	2	—	—	—	5	—	8
Donovanosis	(a)	—	17	(a)	38	—	17	—	72
Gonococcal infection	395	162	500	67	652	14	730	10	2,530
Haemophilus influenza b	218	140	112	53	(a)	16	(a)	10	549
Hepatitis A	1,026	457	247	112	247	14	71	21	2,195
Hepatitis B	1,250	80	1,642	28	517	51	37	47	3,652
Hepatitis C	657	1,667	1,690	(a)	(a)	33	10	59	4,116
Hepatitis n.e.c.	217	13	99	4	(a)	1	—	4	338
HIV infection	—	—	—	34	—	—	—	19	53
Hydatid infection	7	3	31	—	2	1	—	—	44
Legionellosis	26	18	29	21	15	—	—	1	110
Leprosy	—	6	—	—	4	—	3	—	13
Leptospirosis	29	75	53	5	4	3	—	—	169
Listeriosis	8	26	7	(a)	—	3	(a)	(a)	44
Malaria	139	79	417	40	36	10	46	23	790
Measles	418	444	139	144	59	24	90	62	1,380
Meningococcal infection	112	80	7	18	40	14	12	2	285
Ornithosis	(a)	94	2	31	3	—	2	4	136
Pertussis	45	65	131	44	43	2	—	7	337
Q Fever	175	30	358	26	5	—	—	1	595
Rubella	59	170	192	89	—	5	3	102	620
Salmonellosis	1,161	903	1,443	491	725	210	471	36	5,440
Shigellosis	(a)	80	87	88	281	1	361	4	902
Syphilis	588	28	518	197	252	8	457	5	2,053
Tetanus	3	—	(a)	1	2	—	1	—	7
Tuberculosis	287	—	109	63	63	21	31	16	590
Typhoid	57	1	13	5	11	—	—	1	88
Yersiniosis	(a)	60	255	180	2	—	18	(a)	515
Total	**7,346**	**8,195**	**15,271**	**3,394**	**4,048**	**1,577**	**3,737**	**584**	**44,152**

(a) Not notifiable.
Source: Commonwealth Department of Health, Housing and Community Services.

9.11 NOTIFIABLE DISEASES: NUMBER OF CASES NOTIFIED, 1987 TO 1991

Disease	*1987*	*1988*	*1989*	*1990*	*1991*
Arbovirus infection n.e.c.	1,085	897	2,809	2,008	199
Dengue(a)	—	—	—	—	46
Ross River Virus(a)	—	—	—	—	3,532
Brucellosis	12	16	20	46	28
Campylobacteriosis	2,923	4,082	4,279	5,683	8,672
Chancroid	4	4	3	13	—
Cholera	—	2	—	1	—
Chlamydial infections(b)	274	268	504	5	4,044
Diptheria	32	61	1	7	8
Donovanosis	148	133	99	91	72
Gonococcal infection	4,979	4,079	3,153	1,919	2,530
Haemophilus influenza b	—	—	—	—	549
Hepatitis A	715	600	460	530	2,195
Hepatitis B	1,605	1,683	3,017	2,970	3,652
Hepatitis C	—	—	—	—	4,116
Hepatitis n.e.c.	131	69	43	707	338
HIV infection(c)	—	—	—	—	53
Hydatid infection	17	15	15	16	44
Legionellosis	96	67	104	90	110
Leprosy	31	20	34	31	13
Leptospirosis	133	104	99	121	169
Listeriosis	—	—	—	—	44
Lymphogranuloma venereum	—	—	—	—	—
Malaria	574	601	770	882	790

For footnotes *see* end of table.

9.11 NOTIFIABLE DISEASES: NUMBER OF CASES NOTIFIED, 1987 TO 1991 — *continued*

Disease	*1987*	*1988*	*1989*	*1990*	*1991*
Measles	—	248	169	880	1,380
Meningoccal infection	96	126	204	295	285
Orniothosis	13	21	25	23	136
Petussis	291	153	614	862	337
Plague	—	—	—	—	—
Poliomyelitis	—	—	—	—	—
Q Fever	355	424	353	431	595
Rabies	—	—	—	—	—
Rubella(d)	3	2	—	2	620
Salmonellosis	2,739	3,484	4,492	4,564	5,440
Shigellosis	586	581	779	610	902
Syphilis	3,190	3,056	2,099	1,643	2,053
Tetanus	5	5	11	6	7
Tuberculosis	686	1,165	1,351	684	590
Typhoid	47	40	57	70	88
Viral Haemorrhagic Fever	—	—	—	—	—
Yellow Fever	—	—	—	—	—
Yersiniosis	122	172	241	433	515
Total	**20,892**	**22,178**	**25,805**	**25,623**	**44,152**

(a) Dengue fever and Ross River fever included in the Arbovirus infection from 1987–90. (b) Notified as Trachoma from 1987–90. (c) More complete data on new diagnosis of HIV infections are compiled by the National Centre for HIV Epidemiology and Clinical Research. (d) Notified only as Congenital Rubella Syndrome from 1987–90.

Source: Commonwealth Department of Health, Housing and Community Services.

Childhood immunisation. Immunisation is recommended for all Australian children as a protection against childhood diseases such as poliomyelitis, diphtheria, measles, mumps, tetanus and whooping cough. Immunisation programs are implemented in all States and Territories of Australia. The childhood immunisation schedule, as recommended by the National Health and Medical Research Council, is available from the Commonwealth Department of Health, Housing and Community Services.

Results of the 1989–90 National Health Survey show that the immunisation status of children varies with the type of immunisation involved. For example, while 86.3 per cent of children were protected against diptheria and tetanus, only 70.9 per cent of those in the same age group were immunised against whooping cough and 72.1 per cent against polio, although a further 19.3 and 15.3 per cent respectively were partially immunised against the latter two diseases (that is, they had received less than the number of vaccinations recommended for their age).

9.12 CHILDREN AGED 0 TO 6 YEARS: TYPE OF IMMUNISATION BY IMMUNISATION STATUS(a), 1989–90 ('000)

	Immunisation status				
Type of immunisation	*Fully immunised*	*Partly immunised*	*Not immunised*	*Not known whether immunised*	*Total*
Diptheria/Tetanus	1,508.9	95.5	65.4	77.8	1,747.7
Whooping cough	1,238.7	337.3	93.8	77.8	1,747.7
Polio	1,260.8	278.4	101.3	107.2	1,747.7
Measles(b)	1,276.9	. .	163.9	44.0	1,484.8
Mumps(b)	1,195.7	. .	221.8	67.3	1,484.8

(a) Based on the number of vaccinations received compared with levels recommended by the National Health and Medical Research Council. Children who had received the recommended number of vaccinations for their age are classified as fully immunised; those who had received some, but less than the number recommended for their age are classified as partly immunised. (b) Excludes children aged less than one year.

Source: National Health Survey: Summary of Results, 1989–90 (4364.0).

Of children in the 1 to 6 years age group, 86.0 per cent (1.3 million) were immunised against measles and 80.5 per cent (1.2 million) against mumps.

Hepatitis B vaccine is currently offered to neonates born to mothers belonging to community groups in which the carrier rate for Hepatitis B is estimated to exceed five per cent.

Acquired Immune Deficiency Syndrome (AIDS). The National HIV/AIDS Strategy was launched in August 1989. The Strategy outlines the direction of AIDS policy and the specific programs to be put in place to manage the epidemic into the 1990s. It was developed following extensive national community consultations and release of the Policy Discussion Paper *AIDS: A Time to Care, A Time to Act — Towards a Strategy for Australians* in November 1988. To date the majority of National Strategy recommendations have been, or are in the process of being implemented.

The Strategy is coordinated at the national level by the AIDS/Communicable Diseases Branch of the Commonwealth Department of Health, Housing and Community Services. An evaluation of the programs outlined and funded through the National Strategy commenced in 1990 to allow consideration of future directions in the 1993–94 Budget context. The evaluation is being undertaken jointly by the Commonwealth and the States. The Branch has the responsibility for coordinating and evaluating community AIDS projects, assessing the funding of these initiatives, and undertaking liaison with a wide range of Australian and overseas agencies. In addition, the Department closely monitors medical and scientific developments in relation to the disease. It also provides executive support for national AIDS bodies which have been established to consider and advise on all aspects of AIDS, including the Australian National Council on AIDS, the Parliamentary Liaison Group, and the Intergovernmental Committee on AIDS.

In 1991–92 the Commonwealth made available approximately $88 million for the fight against AIDS. The expenditure was divided between the National AIDS Program ($29 million), the AIDS Matched Funding Program ($23 million) and Medicare payments to the States ($36 million).

Activities under the National AIDS Program include research, the national AIDS education campaign, grants to community-based organisations and to develop educational resources for health care workers, exchange of information both within Australia and internationally and support of national AIDS advisory committees.

Table 9.13 shows that 3,414 male and 104 female cases of AIDS had been reported up to 30 September 1992, an increase of 618 and 18, respectively, since 30 September 1991. There had been 2,322 known deaths from AIDS, compared with 1,820 up to 30 September 1991. Table 9.14 classifies these cases and deaths according to categories of transmission.

9.13 REPORTED AIDS CASES TO 30 SEPTEMBER 1992

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Total*
Number of cases									
Males	2,002	738	301	140	161	19	12	41	3,414
Females	63	14	9	7	8	1	—	2	104
Known deaths									
Number	1,359	523	197	82	107	14	6	34	2,322
Per cent	58.5	22.5	8.5	3.5	4.6	0.6	0.3	1.5	100.0

Source: Australian HIV Surveillance Report.

9.14 CASES OF AIDS AND KNOWN DEATHS FROM AIDS BY TRANSMISSION CATEGORY TO 30 SEPTEMBER 1992

	Cases				Known deaths			
Transmission category	*Males*	*Females*	*Total*	*Per cent of all cases*	*Males*	*Females*	*Total*	*Per cent of cases by category*
Male homo-bisexual	3,013	—	3,013	85.5	2,017	—	2,017	86.9
Male homo-bisexual IDU	96	—	96	2.7	59	—	59	2.5
Heterosexual contact	69	25	94	2.7	24	12	36	1.6
Heterosexual IDU	39	28	67	1.9	22	10	32	1.4
Haemophilia	52	—	52	1.5	37	—	37	1.6
Blood transfusion	54	38	92	2.6	38	34	72	3.1
Other/undetermined	72	8	(a)85	2.4	46	3	(a)52	2.2
Children under 13								
Mother to child	4	4	8	0.2	—	3	3	0.1
Haemophilia	5	—	5	0.1	4	—	4	0.2
Blood transfusion	10	1	11	0.3	9	1	10	0.4
Total	**3,414**	**104**	**(a)3,523**	**100.0**	**2,256**	**63**	**(a)2,322**	**100.0**

(a) Includes persons whose sex was reported as transexual.
Source: Australian HIV Surveillance Report.

Causes of death

Information relating to crude death rates and life expectancy is contained in the chapter, Demography.

All ages. Causes of death in Australia are classified according to the Ninth Revision of the International Classification of Diseases (ICD) produced by the WHO. Table 9.15 shows the number of deaths registered during 1991, classified to broad groupings of causes of death.

The major causes of death in the community in 1991 remained diseases of the circulatory system (accounting for 44.5%), neoplasms (26.5%), diseases of the respiratory system (7.5%) and accidents, poisonings and violence (6.5%). In 1991, fewer than one per cent of all deaths were due to infections and parasitic diseases.

9.15 CAUSES OF DEATH IN EACH AGE GROUP, 1991

	Age group (years)									
Causes of death	*<1*	*1–14*	*15–24*	*25–34*	*35–44*	*45–54*	*55–64*	*65–74*	*>74*	*Total (a)*
				NUMBER						
Infectious and parasitic diseases	26	34	13	26	48	49	86	138	410	830
Neoplasms	11	116	151	369	1,112	2,618	5,828	9,701	11,703	31,609
Endocrine, nutritional and metabolic diseases and immunity disorders	16	25	29	148	230	229	393	778	1,510	3,358
Diseases of the nervous system and sense organs	42	81	75	58	88	103	175	386	1,340	2,348
Diseases of the circulatory system	11	22	69	184	626	1,636	4,711	11,895	33,852	53,010
Diseases of the respiratory system	51	39	53	64	92	215	859	2,397	5,135	8,906
Diseases of the digestive system	7	5	7	64	165	271	527	857	2,160	4,063
Congenital anomalies	475	76	48	38	25	28	30	30	28	778
All other diseases(b)	796	10	87	164	119	151	313	801	3,440	5,881
Signs, symptoms and ill-defined conditions	364	19	13	27	18	21	23	32	142	660
Accidents, poisonings and violence	37	362	1,533	1,455	1,054	779	651	682	1,148	7,703
All causes	**1,836**	**789**	**2,078**	**2,597**	**3,577**	**6,100**	**13,596**	**27,697**	**60,868**	**119,146**

For footnotes *see* end of table.

9.15 CAUSES OF DEATH IN EACH AGE GROUP, 1991 — *continued*

	Age group (years)									Total
Causes of death	*<1*	*1–14*	*15–24*	*25–34*	*35–44*	*45–54*	*55–64*	*65–74*	*>74*	*(a)*
					RATE(c)					
Infectious and parasitic diseases	10	1	(d)	1	2	3	6	12	54	5
Neoplasms	4	3	5	13	42	140	398	822	1,550	183
Endocrine, nutritional and metabolic diseases and immunity disorders	6	1	1	5	9	12	27	66	200	19
Diseases of the nervous system and sense organs	16	2	3	2	3	6	12	33	177	14
Diseases of the circulatory system	4	1	2	6	24	87	322	1,009	4,483	307
Diseases of the respiratory system	20	1	2	2	4	11	59	203	680	52
Diseases of the digestive system	3	(d)	(d)	2	6	14	36	73	286	23
Congenital anomalies	185	2	2	1	1	1	2	3	4	4
All other diseases(b)	309	(d)	3	6	5	8	21	68	456	34
Signs, symptoms and ill-defined conditions	141	1	(d)	1	1	1	2	3	19	4
Accidents, poisonings and violence	14	10	55	51	40	42	44	58	152	45
All causes	**714**	**22**	**75**	**91**	**136**	**326**	**929**	**2,350**	**8,061**	**689**
					PERCENTAGE(e)					
Infectious and parasitic diseases	1.4	4.3	0.6	1.0	1.3	0.8	0.6	0.5	0.7	0.7
Neoplasms	0.6	14.7	7.3	14.2	31.1	42.9	42.9	35.0	19.2	26.5
Endocrine, nutritional and metabolic diseases and immunity disorders	0.9	3.2	1.4	5.7	6.4	3.8	2.9	2.8	2.5	2.8
Diseases of the nervous system and sense organs	2.3	10.3	3.6	2.2	2.5	1.7	1.3	1.4	2.2	2.0
Diseases of the circulatory system	0.6	2.8	3.3	7.1	17.5	26.8	34.6	42.9	55.6	44.5
Diseases of the respiratory system	2.8	4.9	2.6	2.5	2.6	3.5	6.3	8.7	8.4	7.5
Diseases of the digestive system	0.4	0.6	0.3	2.5	4.6	4.4	3.9	3.1	3.5	3.4
Congenital anomalies	25.9	9.6	2.3	1.5	0.7	0.5	0.2	0.1	(f)	0.7
All other diseases(b)	43.4	1.3	4.2	6.3	3.3	2.5	2.3	2.9	5.7	4.9
Signs, symptoms and ill-defined conditions	19.8	2.4	0.6	1.0	0.5	0.3	0.2	0.1	0.2	0.6
Accidents, poisonings and violence	2.0	45.9	73.8	56.0	29.5	12.8	4.8	2.5	1.9	6.5
All causes	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

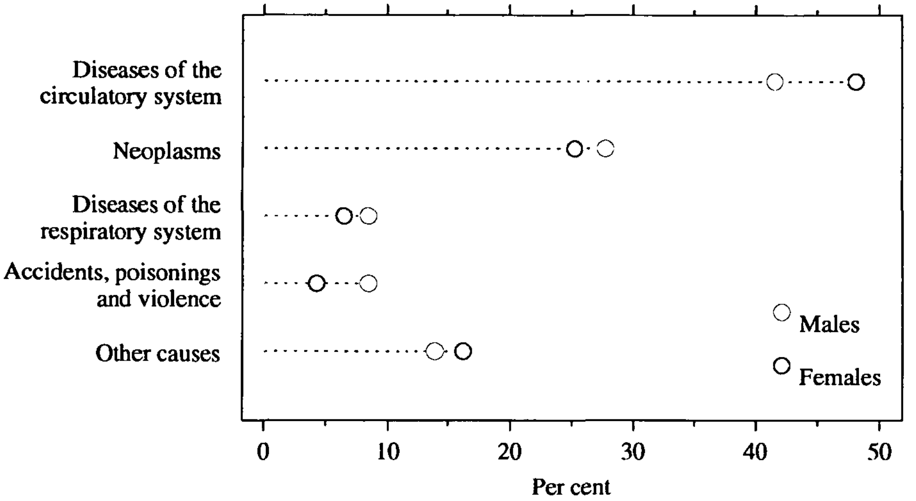
(a) Total includes 8 deaths where age is not known. (b) Includes 798 deaths from conditions originating in the perinatal period and 1,969 deaths from diseases of the genitourinary system. (c) Rates are per 100,000 of population at risk, except for children under one year of age which are per 100,000 live births registered. (d) Less than 0.5. (e) Percentage of all deaths within each age group. (f) Less than 0.05.

Source: Causes of Death, Australia (3303.0).

The relative importance of groups of causes of death varies with age. Diseases of the circulatory system and neoplasms are predominant in middle and old age. Accidents, particularly those involving motor vehicles, are the primary cause of death in childhood and early adulthood. The majority of infant deaths (62.2% in 1991) occur within less than 28 days of birth.

As well as differing by age, the relative significance of certain causes of death also varies by sex, as illustrated in graph 9.16.

9.16 CAUSES OF DEATH: MALES AND FEMALES, 1991



Source: Causes of Death, Australia (3303.0).

There has been an upward trend in the number and rates of death by suicide in recent years, which is concentrated among males. In 1991, the total of 2,360 suicide deaths exceeded the 2,112 people killed in road traffic accidents.

9.17 SUICIDE DEATHS, BY SEX AND AGE GROUP, 1971–91

	1971	*1976*	*1981*	*1986*	*1987*	*1988*	*1989*	*1990*	*1991*
					MALES				
Age group (years)									
<25	190	187	242	302	349	394	342	385	382
25–44	389	420	490	646	723	710	704	742	823
45–64	412	334	353	368	448	384	380	380	407
>64	159	155	173	215	252	242	232	228	235
Total(a)	*1,150*	*1,098*	*1,259*	*1,531*	*1,773*	*1,730*	*1,658*	*1,735*	*1,847*
Rate(b)	18	16	17	19	22	21	20	20	21
					FEMALES				
Age group (years)									
<25	70	51	57	73	81	61	47	60	88
25–44	214	119	147	166	168	187	178	173	200
45–64	230	183	146	144	132	131	122	105	144
>64	74	53	63	68	86	88	91	88	81
Total(a)	*588*	*406*	*413*	*451*	*467*	*467*	*438*	*426*	*513*
Rate(b)	9	6	6	6	6	6	5	5	6
					PERSONS				
Total(a)	1,738	1,504	1,672	1,982	2,240	2,197	2,096	2,161	2,360
Rate(b)	13	11	11	12	14	13	12	13	14

(a) Total includes suicide deaths where age was not stated. (b) Per 100,000 of estimated resident population.
Source: Unpublished ABS data under the title Causes of Deaths, Australia (3303.0).

Perinatal deaths. Since deaths within less than 28 days of birth (neonatal deaths) are mainly due to conditions originating before or during birth, and the same conditions can cause fetal death (stillbirth), special tabulations are prepared combining the two. These are termed 'perinatal deaths'. The statistical definition of perinatal deaths in Australia was amended in 1979 from that previously used, in accordance with a recommendation of the Ninth Revision Conference (1975) of the World Health Organization 'that national perinatal statistics should include all fetuses and infants delivered weighing at least 500 grams (or, when birth-weight is unavailable, the corresponding gestational age (22 weeks) or body length (25 cm crown–heel), whether alive or dead'. Table 9.18 incorporates a further recommendation of the Conference in that it shows the number of fetal, neonatal and total perinatal deaths in Australia classified by both the main condition in the fetus/infant and the main condition in the mother.

The perinatal death rate for Australia decreased from 10.27 per 1,000 total births in 1990 to 9.63 in 1991.

Of the conditions in the child, the three main groups responsible for perinatal deaths were Hypoxia, birth asphyxia and other respiratory conditions (38.0% of the total), Other conditions originating in the perinatal period (24.0%) and Congenital anomalies (20.6%). 41.9 per cent of all perinatal deaths did not mention any condition in the mother as contributing to the death. Where maternal conditions were reported, 29.2 per cent of all perinatal deaths were reported as being due to Complications of placenta, cord and membranes.

9.18 PERINATAL DEATHS BY CAUSE, 1991

	Number of deaths			*Rate*		
Cause of death	*Fetal*	*Neonatal*	*Perinatal*	*Fetal(a)*	*Neonatal (b)*	*Perinatal (a)*
Conditions in fetus/infant						
Slow fetal growth, fetal malnutrition and immaturity	99	142	241	0.38	0.55	0.93
Birth trauma	1	20	21	—	0.08	0.08
Hypoxia, birth asphyxia and other respiratory conditions	667	280	947	2.58	1.09	3.66
Fetal and neonatal haemorrhage	25	67	92	0.10	0.26	0.36
Haemolytic disease of fetus or newborn	8	2	10	0.03	0.01	0.04
Other conditions originating in the perinatal period	507	90	597	1.96	0.35	2.31
Congenital anomalies	161	351	512	0.62	1.36	1.98
All other causes	10	60	70	0.04	0.23	0.27
Conditions in mother						
Maternal conditions which may be un-related to present pregnancy	171	70	241	0.66	0.27	0.93
Maternal complications of pregnancy	133	304	437	0.51	1.18	1.69
Complications of placenta, cord and membranes	594	134	728	2.30	0.52	2.81
Other complications of labour and delivery	26	15	41	0.10	0.06	0.16
No maternal condition reported	554	489	1,043	2.14	1.90	4.03
All causes						
1991	1,478	1,012	2,490	5.71	3.93	9.63
1990	1,590	1,122	2,712	6.02	4.27	10.27
1989	1,451	1,058	2,509	5.75	4.22	9.95
1988	1,473	1,164	2,637	5.95	4.73	10.65
1987	1,432	1,159	2,591	5.84	4.75	10.56

(a) Per 1,000 births registered (live births and stillbirths) weighing 500 grams or more at birth. (b) Per 1,000 live births registered weighing 500 grams or more at birth.

Source: Perinatal Deaths, Australia (3304.0).

HOSPITALS

Repatriation hospitals and institutions

Details of repatriation hospitals, institutions and other facilities are given in the chapter, Social Security and Welfare.

Mental health institutions

The emphasis has shifted from institutions for care of patients certified insane to a range of mental health services provided for in-patients and outpatients at psychiatric hospitals, admission and reception centres, day hospitals, outpatient clinics, training centres, homes for the mentally ill and geriatric patients, psychiatric units in general hospitals, and the like. The presentation of meaningful statistics of mental health services has become increasingly difficult because of a shift since the 1970s away from institutional care of mental patients. Statistics relating to mental health institutions are available from relevant agencies in most States.

Hospital 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 possible to present national statistics. Figures for Victoria, Queensland, and South Australia, however, are published in the ABS publications *Public Hospital Morbidity, Victoria* (4301.2), *Hospital Morbidity, Queensland* (4303.3) and *Hospital Statistics, South Australia* (4308.4) (ABS/SAHC). Statistics for New South Wales, Western Australia, Tasmania, the Northern Territory and the Australian Capital Territory are available from the relevant State and Territory health authorities.

In 1992, the Australian Bureau of Statistics introduced a new national statistical collection to obtain information on facilities, activities, staffing and expenses from all private hospitals in Australia. This collection will be for the 1991–92 financial year. This information will contribute to the first comprehensive set of national statistics relating to hospitals. The collection is based on the National Minimum Dataset for Institutional Health Care developed by the Australian Institute of Health and Welfare through the Australian Health Ministers' Advisory Council.

HEALTH WORK FORCE

Health personnel

Between 1981 and 1991, total employment in the health industry increased from 406,100 to 580,000 people (about 6.8% of the civilian labour force and 7.6% of all employed persons). In that period, the average annual increase in employment in the health industry was 3.6 per cent, compared with increases of 2.3 per cent in the civilian labour force (which includes employed and unemployed people) and 1.8 per cent in the number of persons employed in industries other than the health industry. Between 1990 and 1991, the number of people working in the health industry increased by almost 4 per cent, compared with an increase of 0.7 per cent in the civilian labour force and a decrease of 2.0 per cent in the number of employed persons in other industries.

Employment in selected health occupations

At present, detailed figures of the numbers of people employed in different occupations in the health industry on a national basis are available only through the ABS five-yearly population censuses. At the request of Australian Health Ministers' Advisory Council (AHMAC), the Australian Institute of Health and Welfare (AIHW) is working on the development of a National Health Labourforce Collection, which will cover all registered health occupations. According to the 1986 Census there were 32,790 medical practitioners (23,790 general practitioners and 9,000 specialists) and 138,220 registered nurses in Australia (table 9.19).

In an attempt to improve medical work force data, AHMAC established a Medical Workforce Data Review Committee (MWDRC) in 1989. In a recent report to AHMAC, the MWDRC (1992) estimated that there were between 38,500 and 42,000 active medical practitioners in Australia, representing a doctor:population ratio of between 225 and 239 per 100,000. Other evidence presented in the Committee's report suggests that the doctor:population ratio for Australia is slightly lower than that for Canada and the United States, and higher than that for New Zealand and the United Kingdom. The Committee recommended that AHMAC should establish, as a planning target, a ratio of around 200 medical practitioners per 100,000.

9.19 PERSONS EMPLOYED IN SELECTED HEALTH OCCUPATIONS BY SEX, 30 JUNE 1986

Occupation	*Males (%)*	*Females (%)*	*Persons (no.)*
Dental nurses	1	99	8,800
Dentists	86	14	6,310
Medical practitioners			
General practitioners	75	25	23,790
Specialists	84	16	9,000
Nurses			
Enrolled	6	94	35,220
Registered	8	92	138,220
Occupational therapists	7	93	2,770
Pharmacists	61	39	10,640
Physiotherapists	16	84	5,930
Radiographers	37	63	4,270
Speech pathologists	4	96	1,320

Source: Characteristics of Persons Employed in Health Occupations, Australia, Census of Population and Housing (4346.0).

HEALTH EXPENDITURE

Health expenditure by Australian governments and individuals in 1990–91 was $30.9 billion or $1,796 per person. Health expenditure per person increased at an average annual rate of 2.2 per cent in real terms between 1984–85 and 1990–91. Health expenditure as a proportion of gross domestic product (GDP) was estimated to be 8.1 per cent in 1990–91. This increase from the previous year's ratio of 7.6 per cent is the result of the fall in real GDP during the recession, rather than because of a large health expenditure increase. Real health expenditure grew by only 3.1 per cent in 1990–91. This was lower than the average of 4.0 per cent over the previous five years. The average annual growth rate in real health expenditure for the period after the introduction of Medicare from 1984–85 to 1990–91 was 3.8 per cent. The growth rate in the last three years has been lower than during the first three years of the period.

9.20 TOTAL HEALTH EXPENDITURE AND RATE OF GROWTH, 1982–83 TO 1990–91

	Amount ($m)		*Rate of growth (%)*	
Year	*Current prices*	*Constant 1984–85 prices(a)*	*Current prices*	*Constant 1984–85 prices(a)*
1982–83	13,241	14,967	. .	. .
1983–84	14,957	15,916	13.0	6.3
1984–85	16,541	16,541	10.6	3.9
1985–86	18,575	17,427	12.3	5.4
1986–87	21,091	18,124	13.5	4.0
1987–88	23,276	18,749	10.4	3.5
1988–89	26,145	19,677	12.3	4.9
1989–90(b)	28,381	20,111	8.6	2.2
1990–91(b)	30,923	20,729	9.0	3.1

(a) Health expenditure 1982–83 to 1990–91 deflated to constant prices using specific health deflators (AIHW 1991, *Health Expenditure Information Bulletin* No. 6, Table 16, and AIHW unpublished data). (b) Based on preliminary ABS estimates.
Source: Australian Institute of Health and Welfare, Health Expenditure Bulletin, No. 7, July 1992.

HEALTH INSURANCE AND BENEFITS

Medicare

Details of the health financing arrangements under the Medicare program introduced by the Commonwealth Government in February 1984 are available in *Year Book Australia 1984*.

The Medicare levy was increased from 1 per cent to 1.25 per cent of taxable income on 1 December 1986 and is to increase to 1.4 per cent on 1 July 1993.

From 1 July 1992 no levy is payable by single people earning less than $11,887 per annum or by sole parents and married couples with combined income of less than $20,070 per annum, with a further $2,100 per annum allowed for each dependent child.

'Shading-in' arrangements apply in respect of persons with taxable incomes marginally above the threshold.

Medicare benefits. The Health Insurance Act provides for a Medicare Benefits Schedule which lists medical services and a schedule fee applicable in respect of each medical service. The Schedule covers services attracting Medicare benefits rendered by legally qualified medical practitioners, certain prescribed services rendered by approved dentists and optometrical consultations by optometrists. Medical services in Australia are generally delivered by either private medical practitioners on a fee-for-service basis, or medical practitioners employed in hospitals and community health centres. The Schedule is constantly being reviewed through ongoing consultation with the medical profession and it is updated twice yearly to reflect current medical practice.

Medicare benefits are payable at the rate of 85 per cent of the schedule fee services except those for private in-patients in hospitals.

For medical services rendered to private in-patients in hospitals or day-hospital facilities, the level of Medicare benefit is 75 per cent of the schedule fee for each item with no maximum patient gap. The private health insurance funds cover the remaining 25 per cent gap (that is, up to the level of the schedule fee) for insured patients.

Fee-for-service rebates are paid at differential rates if a medical practitioner has been recognised by the Minister for Community Services and Health as a specialist or consultant physician (or psychiatrist) and the patient has been referred by another practitioner. Similar arrangements apply to general practitioners who are vocationally registered.

Currently, Australia has reciprocal health care agreements with the United Kingdom, New Zealand, Italy, Sweden, Malta, Finland and the Netherlands whereby Australian visitors to those countries, and from those countries to Australia, are entitled to access the host country's public health system for immediately necessary medical and hospital treatment.

In 1991–92 claims associated with 157 million services were processed by the Health Insurance Commission involving benefit payments of $4,584 million. Summary statistics on benefits paid for medical services are provided in tables 9.21 and 9.22.

9.21 MEDICARE: NUMBER OF SERVICES, BENEFITS PAID AND PERCENTAGE OF SERVICES DIRECT BILLED, 1991–92

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*O'seas*	*Aust.*
Number of services ('000)	59,875	37,956	26,527	12,713	12,894	3,727	921	2,172	3	156,788
Benefits paid ($ million)	1,755.4	1,117.8	767.3	381.6	365.9	106.3	25.2	64.0	0.1	4,583.6
Direct billed (per cent)	67.0	59.3	63.1	58.3	63.0	50.4	66.6	50.4	80.0	62.8

Source: Commonwealth Department of Health, Housing and Community Services.

Hospital benefits. From 1 February 1984, basic public hospital services have been provided free of charge. Under Medicare, in-patient accommodation and care in a shared ward by a doctor employed by a public hospital are provided free of charge, together with a range of casualty and outpatient services. The scheme does not cover hospital charges for private accommodation in a public hospital, private hospital treatment, nor care in a public hospital by a doctor of the patient's choice. It is possible, however, for persons to take out hospital insurance with registered health benefits organisations to cover these situations and Medicare benefits are available for private medical practitioners' charges in respect of those medical services provided in hospital.

9.22 MEDICARE BENEFITS BY BROAD TYPE OF SERVICE, 1991–92
($ million)

Type of service	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*O'seas*	*Aust.*
GP attendances										
VRGP(a)	364.2	247.3	195.3	104.8	78.2	28.5	3.2	17.5	—	1,038.9
Non-VRGP	283.8	178.2	94.7	41.4	59.4	14.2	5.5	7.1	—	684.4
Other GP	15.6	11.9	7.6	9.0	5.0	1.6	0.2	0.5	—	51.4
Total	*663.6*	*437.3*	*297.6*	*155.2*	*142.6*	*44.2*	*9.0*	*25.0*	—	*1,774.6*
Specialist attendances	272.5	187.3	104.6	64.8	48.5	15.3	2.5	9.7	—	705.2
Obstetrics	20.9	16.3	8.6	4.6	5.5	1.6	0.6	1.3	—	59.3
Anaesthetics	32.3	26.6	16.0	8.4	7.5	2.4	0.5	1.2	—	94.9
Pathology	248.0	138.0	119.4	42.7	53.5	13.6	5.4	8.2	—	628.8
Diagnostic imaging	238.5	133.9	88.8	43.0	49.4	12.4	3.4	8.5	—	577.7
Operations	172.3	112.0	88.1	40.7	36.8	10.5	2.3	6.1	—	468.8
Assistance at operations	6.1	5.4	4.6	2.8	0.9	0.3	0.1	0.2	—	20.4
Radio and nuclear med. therapy	8.1	3.9	2.4	1.5	1.6	0.7	0.1	0.4	—	18.7
Optometry	39.1	25.3	18.4	8.0	9.5	3.2	0.9	1.7	—	106.2
Miscellaneous	53.9	31.7	18.9	10.0	10.1	2.2	0.4	1.7	—	128.9
Total	**1,755.4**	**1,117.8**	**767.3**	**381.6**	**365.9**	**106.3**	**25.2**	**64.0**	**0.1**	**4,583.6**

(a) Vocationally Registered General Practitioners.
Source: Commonwealth Department of Health, Housing and Community Services.

Patients who are accommodated in either private or public hospitals for continuous periods in excess of 35 days and who have not been certified as acute care patients, are classified as nursing home-type patients and are required to make a statutory non-insurable patient contribution in the same way that a patient in a nursing home does. For a private nursing home-type patient in a public hospital, fees are reduced and hospital benefits paid by registered health benefits organisations are decreased accordingly. These patients are also required to make the patient contribution. In a private hospital, the benefits are reduced to $100 a day, less the amount of the patient contribution. Any charges by private hospitals in excess of available benefits plus the statutory patient contribution become the responsibility of the patient.

Where a patient's doctor considers that a patient has continuing need of acute care, the doctor may issue a certificate under section 3B of the Health Insurance Act to that effect, and the nursing home-type patient arrangements do not apply. The arrangements also provide for a review mechanism in the form of the Acute Care Advisory Committee which, when requested (for example, by a private health fund) to do so, may review such certificates and recommend that they be varied or revoked.

Since 1 October 1986 basic health insurance benefits for patients in private hospitals have been structured according to a system of patient classification. Under this system, basic health insurance benefits are set to more appropriately relate hospital costs to the actual medical needs (that is, complexity of service) of patients. Initially there were three classification groupings: advanced surgical, surgical/obstetric and other (medical) patients. These groupings were expanded from 1 March 1987 to include psychiatric and rehabilitation patients. Additional supplementary health insurance benefits for higher private hospital charges are similarly orientated towards the patient classification model.

In December 1989, differential Basic Table benefits were introduced. Previously only one flat level of benefit was available, now there are four levels with the top level (Band 4) being equivalent to an overnight stay benefit. The purpose is to promote and encourage greater use of day surgery. Current statistics indicate that day surgery is an accepted everyday occurrence in overseas countries. Australia has the potential to emulate those practices and the differential day benefit arrangement is a crucial factor in expounding the benefits of day surgery to the Australian health industry.

Health insurance coverage

Surveys about the levels and types of private health insurance cover in the Australian community have been conducted for the years 1979–84, 1986, 1988, 1990 and 1992. The 1984 survey covered employed wage and salary earners in capital cities only.

Results of the June 1992 survey showed that 47.8 per cent of the population was covered by private health insurance, with 43.0 per cent covered for hospital expenses and 38.8 per cent for expenses associated with ancillary services such as dental, physiotherapy and ambulance. However, the proportion covered and the types of cover held differed markedly according to the type of contributor unit to which the persons belonged (tables 9.23 and 9.24).

9.23 CONTRIBUTORS: COMPOSITION OF UNIT(a) BY TYPE OF PRIVATE HEALTH INSURANCE, JUNE 1992

	With private health insurance						
Composition of contributor unit	*Hospital and ancillary*	*Hospital only*	*Ancillary only*	*Type of insurance not known*	*Total*	*Without private health insurance*	*Total*
				— '000 —			
Contributor only	1,106.2	337.4	138.5	51.1	1,633.2	2,672.0	4,305.3
Contributor and dependant children	169.3	35.6	48.9	10.3	264.2	967.8	1,231.9
Contributor and partner only	1,319.8	409.3	92.8	14.6	1,836.6	1,725.9	3,562.4
Contributor, partner and dependant children	3,369.4	671.9	439.3	26.7	4,507.4	3,629.7	8,137.0
Total(b)	**5,964.8**	**1,454.3**	**719.5**	**102.8**	**8,241.4**	**8,995.3**	**17,236.7**
				— per cent —			
Contributor only	25.7	7.8	3.2	1.2	37.9	62.1	100.0
Contributor and dependant children	13.7	2.9	4.0	0.8	21.4	78.6	100.0
Contributor and partner only	37.0	11.5	2.6	0.4	51.6	48.4	100.0
Contributor, partner and dependant children	41.4	8.3	5.4	0.3	55.4	44.6	100.0
Total(b)	**34.6**	**8.4**	**4.2**	**0.6**	**47.8**	**52.2**	**100.0**

(a) A contributor unit consists of a contributor plus all persons in the same family who are covered by the health insurance arrangements of the contributor. The term also applies to those families or members within families not covered by private health insurance. (b) Includes dependant members or contributor units reporting single rate insurance who were not therefore covered by that insurance and are not included elsewhere in the table.

Source: Health Insurance Survey, Australia (4335.0).

9.24 COMPARISON OF NUMBER OF PERSONS WITH PRIVATE HEALTH INSURANCE 1986 TO 1992

	March 1986	*June 1988r*	*June 1990*	*June 1992*
		— '000 —		
With private health insurance	8,208.1	8,663.8	8,916.7	8,241.4
Without private health insurance	7,170.0	7,891.3	8,220.4	8,995.3
Total(a)	**15,457.2**	**16,573.3**	**17,160.2**	**17,259.0**
		— per cent —		
With private health insurance	53.1	52.3	52.0	47.8
Without private health insurance	46.4	47.6	47.9	52.1
Total(a)	**100.0**	**100.0**	**100.0**	**100.0**

(a) Includes persons for whom insurance details were unknown.
Source: Health Insurance Survey, Australia (4335.0).

Pharmaceutical Benefits Scheme

The Scheme (PBS) was established under the provisions of the *National Health Act 1953* and provides a large range of drugs and medicinal preparations. These can be prescribed by medical and dental practitioners for the Australian community. The medicines can be dispensed by an approved pharmacist upon presentation of a prescription.

Depending on the circumstances, the patient may pay as little as $2.60, and should pay no more than $15.90, for the same medicine. (These figures are adjusted for inflation once a year.)

If the patient is a pensioner or other client of either the Department of Social Security, or the Department of Veterans' Affairs they should have one of the following approved concession cards:

- Pensioner Health Benefits Card;
- Health Benefits Card;
- Pharmaceutical Benefits Concession Card;
- Health Care Card; and
- Veterans' Affairs Lilac or Red Cards.

These cards entitle the pensioner to pay no more than $2.60 for each prescription item. A compensatory payment of $2.60 per week is added to the pension to cover this cost.

There is a safety net limit on payments for PBS medicines. It is especially designed for people who are chronically ill and for families who have a lot of unexpected sickness in a particular year.

The safety net limit varies according to the patient's circumstances, but for most families it is $361.50 each calendar year. (This figure is adjusted for inflation at the beginning of each calendar year.) Once the patient or his/her immediate family has spent $309.90 on PBS medicines in a year, they need only pay $2.60 for additional PBS items. When they have spent another $51.60 in this way they are able to get PBS medicines free for the rest of the calendar year.

If the patient holds one of the special concession cards listed earlier, the safety net limit is $135.20 per calendar year (similarly adjusted for inflation). When the patient has spent $135.20 on PBS medicines for themselves and/or his/her dependants they can get further PBS medicines free for the rest of the year.

In 1991–92, the total cost of the PBS, including patient contribution of prescriptions processed for payment, was $1,455 million (table 9.25). This figure does not include the cost of drugs supplied through special arrangements, such as the Royal Flying Doctor Service, methadone maintenance programs and hormone treatment programs.

NATIONAL HEALTH STRATEGY

The Minister for Health, Housing and Community Services, announced the establishment of the National Health Strategy on 21 August 1990. The aim of the strategy is to refine and improve Medicare, deal with pressures in the health system, and combat future problems.

The strategy's terms of reference cover:

- the distribution of health costs and their impact on individuals and families;
- factors creating demand for medical services, and options to contain costs at reasonable levels;
- identification of the causes of the increasing demand for and costs of hospital services and of options to contain demand and cost while maintaining accepted standards of quality and access;
- the role of the private sector, particularly private hospitals and private health insurance, in relation to Medicare and the Australian health care delivery system;
- methods to stimulate an increased focus on preventive services and integrate them with community services and hospital and medical services;
- service delivery systems that better integrate health and community services;
- the effect of current financial and organisational arrangements on effective health care delivery; and
- the balance between supply and demand for health workers.

The strategy is exploring the arrangements under which health services are funded by a variety of measures involving the Commonwealth Government, State and Territory Governments, private health insurance and patient contributions. In particular, the strategy is examining how fragmentation of responsibility, uncertainty due to artificial boundaries, historical arrangements, and undefined roles between the Commonwealth, the States and Territories, and the public and private sectors have hindered efficient health care planning and delivery.

9.25 NUMBER AND COST OF THE THIRTY MOST FREQUENTLY PRESCRIBED DRUG GROUPS, 1991-92

	Prescriptions		*Total cost of prescriptions*	
Drug group	*'000*	*%*	*$'000*	*%*
Anti-asthmatics and anti-bronchitics	9,134	9.70	155,080	10.66
Antihypertensives (other than Beta-blockers)	6,774	7.20	209,321	14.38
Benzodiazepines, sedatives and hypnotics	6,207	6.59	32,049	2.20
Penicillins	5,799	6.16	72,716	5.00
Non-steroidal anti-inflammatory drugs	5,630	5.98	63,843	4.39
Anti-anginals	4,349	4.62	84,976	5.84
Beta-blockers	3,514	3.73	36,203	2,49
Anti-depressants	3,292	3.50	28,421	1.95
Non-narcotic analgesics	3,090	3.28	19,250	1.32
Diuretics	3,039	3.23	30,274	2.08
Narcotic analgesics	2,383	2.53	19,213	1.32
Drugs for gastric and duodenal ulcers	2,318	2.46	94,947	6.52
Water, salts and electrolytes	2,204	2.34	17,215	1.18
Topical corticosteroids	2,166	2.30	14,660	1.01
Anti-hyperlipidaemics	2,110	2.24	102,499	7.04
Tetracyclines	1,904	2.02	17,380	1.19
Anti-emetics	1,691	1.80	13,464	0.92
Eye preparations(a)	1,556	1.65	17,026	1.17
Sex hormones (other than oral contraceptives)	1,441	1.53	29,655	2.04
Eye anti-irritants and anti-allergics	1,411	1.50	11,463	0.79
Vaccines	1,248	1.32	23,157	1.59
Sulphonamides and urinary antiseptics	1,247	1.32	10,746	0.74
Topical antifungals	1,233	1.31	8,120	0.56
Antacids	1,228	1.30	10,843	0.74
Cephalosporins	1,186	1.26	13,558	0.93
Anti-diabetics (other than insulins)	1,149	1.22	15,523	1.07
Systemic corticosteroids	1,060	1.13	9,856	0.68
Macrolides — antibiotics	1,025	1.09	8,587	0.59
Oral contraceptives	945	1.00	12,096	0.83
Anti-epileptics	902	0.96	25,520	1.75
Other drug groups	12,886	13.69	247,759	17.02
Total	**94,121**	**100.00**	**1,455,420**	**100.00**

(a) Other than antivirals, antibacterials, anti-irritants and anti-allergics.

Note: Includes patients' contributions. Excludes government expenditure on miscellaneous services. Includes extemporaneously prepared items in other drug groups. Includes Doctor's Bag items.

Source: Commonwealth Department of Health, Housing and Community Services.

Mental health

Commonwealth funding of $135 million over six years was approved in the 1992 Budget to assist in implementing the National Mental Health Policy to accelerate the process of reform in the mental health sector. Of this approximately $107 million will be made available directly to the States and Territories, about $22 million will be allocated to innovate projects of national significance, and $5 million will be used to support a mental health research network.

The main objectives of the reform process include: providing community-based mental health services to replace outdated, inefficient psychiatric institutions; improving consumer rights; reforming mental health legislation; restructuring the mental health work force; and promoting mental health and community awareness of mental health problems and mental disorders.

COMMONWEALTH GOVERNMENT SUBSIDIES AND GRANTS TO ORGANISATIONS

The Commonwealth Government gives financial assistance to certain organisations concerned with public health. Examples of organisations included in this category are outlined below.

Commonwealth Government funding of hospitals

In 1991–92 hospital funding grants by the Commonwealth Government, totalling $3,784 million to the States and Territories, provided $3,705 million for hospital and related services; $43 million for incentives in the areas of post-acute and palliative care and day surgery procedures; $36 million towards hospital care for AIDS patients; and an additional $2.581 million was allocated for National Diagnosis Related Groups (Casemix) projects.

Homeless youth

The Innovative Health Services for Homeless Youth Program was established in 1989 as part of the $100 million strategy 'Towards Social Justice for Young Australians'. The Program develops and implements innovative primary health care services for homeless youth. The Commonwealth has allocated $7 million over four years to this program ($14 million when cost shared with States and Territories).

Emphasis is being placed on community involvement in service delivery, and on the coordination of this Program with other Commonwealth and State programs directed at homeless youth.

The ultimate objective of the Program is to encourage a more positive attitude among homeless young people towards their personal health care.

Family planning program

Commonwealth funding is provided to approved non-government organisations to assist them to provide clinical and non-clinical services associated with family planning. Eligible activities may include medical practitioner and nursing services; training of health professionals in family planning techniques; counselling services for clients; preparation and dissemination of information and publicity; workshops; and research. The Commonwealth allocation for family planning in 1992–93 was $13.9 million.

Women's health

In addition to the following, the section on the national health survey earlier in this chapter contains statistics on certain women's health issues.

National Women's Health Program. This Program, which commenced in 1989–90, is a four year, $33.7 million program which aims to improve the health and well-being of all women in Australia with a focus on those most at risk, and to encourage the health system to be more responsive to the health needs of women. The Program is cost shared with the States and Territories on a dollar for dollar basis. The Program provides funding to the following components: improvements in health services for women; establishment of an information and education strategy; and for the provision of training and education on women's health issues for health care professionals.

Alternative Birthing Services Program. In recognition of increased community desire for greater choice in birthing services, the Commonwealth introduced a $6.4 million four year incentive package in 1989–90 to assist States and Territories to provide a range of alternative birthing services.

National Program for the Early Detection of Breast Cancer. In 1990, the Commonwealth Government committed $64 million for the first three years of this National Program which is being implemented over five years. The goal of the Program is to reduce mortality and morbidity from breast cancer which is a major cause of death amongst women.

A national network of dedicated and accredited breast cancer screening and assessment services is being established within each participating State or Territory to provide screening to women over 40 years of age.

Following a start-up phase in which the Commonwealth provided $11.4 million to establish or expand screening services, the Program is being cost shared equally between the Commonwealth Government and State/ Territory Governments.

Organised Approach to Preventing Cervical Cancer. In April 1992, all health ministers endorsed an Organised Approach to Preventing Cervical Cancer, which promotes:

- an increased number of women tested in the age range 11 to 70 years;
- more reliable and accessible services for taking, interpreting and reporting Pap tests;
- improved management of screen detected abnormalities; and
- monitoring and evaluation.

The Approach seeks to reduce mortality from cervical cancer from the current rate of 350 per year. Cervical cancer is largely preventable if detected and appropriately managed in its pre-cancerous stages.

Of the $23 million allocated to this program over four years by the Commonwealth, $17 million will be directed to the States/Territories for development of cervical cytology registries and supplementary field services to meet the needs of special groups. States/Territories will contribute a further $9 million.

The balance of the Commonwealth's contribution will go towards a comprehensive communication strategy directed towards service providers and women, reviews of quality assurance in cervical cytology and optimal management of abnormalities detected by screening.

National Health Advancement Program

The National Health Advancement Program (NHAP) replaces the National Health Promotion Program (NHPP) and the National Better Health Program (NBHP) following completion of their terms of agreement and subsequent evaluation.

The NHAP refocuses the aims of the previous Programs and builds upon their achievements. It aims to improve the health of all Australians through the commitment of $22.1 million in four target areas, with specific emphasis on reducing the health status inequalities of the lower socio-economic groups.

The four target areas are:

- further development, refinement and application of the new set of national health goals and targets into the Australian health system.
- establishment of a national framework to protect the health of all Australians from environmental impacts on their health and well-being, including the development of environment and health based guidelines, standards and indicators.
- implementation of the national food and nutrition policy in areas of nutrition education, information monitoring and surveillance, structural changes in the food supply and distribution to improve accessibility to affordable nutritious food, and programs for disadvantaged groups through local government initiatives.
- planning and development of a coordinated national injury control strategy to provide a framework applicable to injuries in the areas of the home, transport, workplace, sport, the community and injuries of a deliberate nature.

The funding arrangements include continuing arrangements of funds flowing to the participating States and Territories through the previous program and retention of funds from the development of the initiatives in the four target areas.

Public Health Education and Research Program

The Public Health Education and Research Program was one of the initiatives resulting from the 1985 Independent Review of

Research and Educational Requirements for Public Health and Tropical Health in Australia.

The program has funded (from 1986–87 to 1993–94) nine universities and research institutions throughout Australia, with the aim of strengthening public health education and research.

Royal Flying Doctor Service

The Royal Flying Doctor Service (RFDS) is a non-profit organisation providing medical and emergency evacuation services in rural and remote areas of Australia. Up to 90 per cent of the operating costs are shared between the Commonwealth Government and State/Territory Governments with the balance being provided by the RFDS, mainly through donations. The Commonwealth and the RFDS share on a 50:50 basis the costs of approved capital programs. During 1991–92 the Commonwealth contributed $11.49 million towards the operating costs and $2.86 million towards capital purchases.

Red Cross Blood Transfusion Service

The Blood Transfusion Service (BTS) is conducted by the Australian Red Cross Society throughout Australia. The operating costs of the BTS are met by the States/Territories paying 60 per cent, the BTS contributing 5 per cent of operating costs or 10 per cent of appeals and donations whichever is the lesser and the balance being met by the Commonwealth. The costs of jointly approved capital programs are cost shared between the Commonwealth and the State/Territories on a 50:50 basis. During 1991–92 the Commonwealth contributed $30.53 million towards the operating costs and $2.50 million towards the capital costs.

Australian Bone Marrow and Organ Donor Register

The organ and tissue donation strategies are aimed at increasing the rate of organ transplantation for patients suffering from diseases relating to bone marrow and organ degeneration, by increasing the number of donor organs available. The Commonwealth and the States share the cost of the Register and support activities related to organ donation and transplantation. In 1991–92 the Commonwealth contributed $500,000 towards the program.

National Heart Foundation of Australia

The Foundation is a voluntary organisation, supported almost entirely by public donations, established with the objective of reducing the toll of heart disease in Australia. It approaches this objective by programs sponsoring research in cardiovascular disease, community and professional education directed to prevention, treatment and rehabilitation of heart disease and community service programs including rehabilitation of heart patients, risk assessment clinics and surveys, and documentation of various aspects of heart disease and treatment of heart disease in Australia.

The Foundation's income in 1991 was $24.9 million of which $17.7 million was from public donations and bequests. Commonwealth, State and semi-government authorities made grants of $0.4 million for specific projects conducted by the Foundation. Since the inception of the Foundation, research has been a major function and a total of $6.4 million was expended in 1991 in grants to university departments, hospitals and research institutes and for fellowships tenable in Australia and overseas. It is notable however that with increasing opportunities for prevention and control of heart disease, the Foundation's education and community service activities are increasing significantly. In 1991 the expenditure on research, education and community service totalled $12.5 million.

In 1989 the National Heart Foundation repeated its 1980 and 1983 surveys of risk factor prevalence in Australia. The 1989 Risk Factor Prevalence Survey asked over 9,000 randomly selected adults aged 20 to 69 living in Australian capital cities about factors related to heart health, such as exercise, smoking and dietary habits. They also had their weight, blood pressure and blood cholesterol levels checked. The survey was undertaken in collaboration with the Australian Institute of Health and Welfare and Commonwealth Department of Health, Housing and Community Services. A major analysis of trends in risk factor prevalence over the three surveys is in progress. Copies of the report of the 1989 survey can be obtained from National Heart Foundation offices.

World Health Organization

The WHO is a specialised agency of the United Nations having as its 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 1992 was $7,336,126.

International Agency for Research on Cancer

The IARC was established in 1965 within the framework of the World Health Organization. The headquarters of the agency are located in Lyons, 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 1992 was $980,000.

NATIONAL HEALTH SERVICES AND ADVISORY ORGANISATIONS

Australian Health Ministers' Conference and the Australian Health Ministers' Advisory Council

The Australian Health Ministers' Conference (AHMC) and its advisory body, the Australian Health Ministers' Advisory Council (AHMAC) provide a mechanism for the Commonwealth Government, State and Territory Governments to discuss matters of mutual interest concerning health policy, services and programs. Neither the Conference nor the Council has statutory powers, and decisions are reached on the basis of consensus. Their constitution rests on the formal agreement by the Commonwealth Government, and State and Territory Governments of the membership and functions.

The AHMC comprises the Commonwealth, State and Territory Health Ministers. Other Commonwealth Ministers may be invited to speak on items relevant to their portfolio. The New Zealand and Papua New Guinea Health Ministers may attend meetings as observers.

Health services organisations

Australian Radiation Laboratory. The Laboratory is concerned with the development of national policy relating to radiation health and:

- formulates policy by developing codes of practice and by undertaking other regulatory, compliance, surveillance and advisory responsibilities at the national level with respect to public and occupational health aspects of radiation;
- maintains national standards of radiation exposure and radioactivity;
- provides advice in relation to the quality and use of radio-pharmaceutical substances; and
- in support of the above activities, undertakes research and development in the fields of ionising and non-ionising radiations which have implications for public and occupational health.

Therapeutic Goods Administration. The TGA is an organisation within the Department of Health, Housing and Community Services. Its role is to undertake activities with the goal of ensuring that therapeutic goods available in Australia are safe, effective and of high quality. Therapeutic goods include prescription drugs, non-prescription medicines, traditional remedies and all types of medical equipment (therapeutic devices).

TGA monitors the quality of therapeutic goods available in Australia by sampling products for testing and investigating problems and deficiencies. The various laboratories analyse therapeutic goods for acceptable quality and carry out developmental research associated with new or improved testing methods and the development of standards.

In 1991–92 tests were performed on 1,462 products for human use to check compliance with official standards. A total of 158 of these products failed to comply. Investigations were also conducted on reported drug (164) and device (700) problems. These investigations resulted in the recall of 5 drug products and 144 device products.

National Health and Medical Research Council

The NHMRC advises the Commonwealth Government and State Governments on matters of public health administration and the development of standards and guidelines for pesticides, agricultural chemicals, water and air. It also advises the Commonwealth Government and State Governments on matters concerning the health of the public and on the merits of reputed cures or methods of treatment which are from time to time brought forward for recognition. The objective of the NHMRC is to advise the Australian community on the achievement and maintenance of the highest practicable standards of individual and public health and to foster research in the interests of improving those standards.

The Council has nominees of State and Territory health authorities, professional and scientific colleges and associations, unions, universities, business, consumer groups, welfare organisations, the Commonwealth administration, including the Aboriginal and Torres Strait Islander Commission, and conservation groups. The Council meets twice a year to consider and make decisions on reports from committees and working parties.

The NHMRC funds medical and public health research in Australia and supports many of the medical advances made by Australians. NHMRC is currently funding 1,039 research projects as well as providing block funding for several major research centres and institutes.

The Council advises the Commonwealth Minister for Health, Housing and Community Services on medical research and on the application of funds from the Medical Research Endowment Fund. NHMRC research funding is on a triennial arrangement. Expenditure for 1991–92 for medical research was $98.6 million. Funds are also appropriated for public health research through the Public Health Research and Development Committee. Expenditure in 1991–92 was $4.76 million.

Communicable Diseases Network — Australia

The Communicable Diseases Network — Australia was established in 1990 under the auspices of the National Health and Medical Research Council and the Australian Health Ministers' Advisory Council to enhance the national capability in communicable disease control. The Network's functions include: the collection, analysis and dissemination of surveillance information on communicable diseases, the coordination of responses to epidemic or endemic problems, development of policy recommendations for the NHMRC and AHMAC, and the training of public health professional staff.

Surveillance of communicable diseases is conducted using data derived from four major sources: notifiable diseases surveillance carried out by States and Territories, the Communicable Diseases Intelligence laboratory reporting schemes, reports from sentinel general practices (Australian Sentinel Practice Research Network of the RACGP), and from specialised schemes such as the Central Malaria Register.

Quarantine and inspection

The Australian Quarantine and Inspection Service (AQIS) carries significant health related responsibilities in export inspection and quarantine administration.

Export inspection activities are derived from the Export Control Act 1982, which is the principal legislation for export activities, and subordinate legislation comprising regulations enabled under this Act and Ministerial Orders made under these regulations.

Inspection covers meat, fish, dairy products, processed foods and vegetables, dried fruit, fresh fruit and vegetables, grains, horticultural and plant products, live animals, and some animal products. The aims of the inspectorate are to assist the export of Australian agricultural, forestry and fishery products by providing information, services and facilities that enable exporters to comply with the animal and plant health requirements of importing countries. It also aims to provide effective inspection services for food and other products under AQIS control to ensure they are safe and welcome, are informatively described, meet international requirements and facilitate trade.

Inspection services are provided by AQIS on behalf of State Governments in New South Wales, Victoria, South Australia, the Northern Territory and the Australian Capital Territory for meat produced for domestic consumption. The total value of products inspected by AQIS in 1991–92 was approximately $9.4 billion. Of this, $4.7 billion worth of meat and meat products was inspected, of which about $3.2 billion worth was exported. In excess of $4.7 billion worth of non-meat products was inspected by AQIS in 1991–92, all of which was exported.

AQIS' quarantine activities derive from the Quarantine Act 1908 and the Biological Control Act 1984. Programs are designed to address the risk of introduction of disease while enabling the importation of cleared agricultural products. Animal and plant health requirements are negotiated with exporting countries involving the latest technology for assistance of quarantine safety.

Quarantine activities are contracted to State Departments of Agriculture on the Commonwealth's behalf, and include both monitoring and surveillance elements. Monitoring covers incoming passengers, live animals, cargo and mail as well as incoming ships and aircraft. In summary, it involves clearance of over 4.83 million passengers arriving in Australia each year (growing at an annual rate of 0.6%) and over 610,000 container units. The discharge of ballast water from overseas shipping, estimated at some 66 million tonnes annually, poses a particular quarantine risk which is subject to specific control arrangements. Imports of biological materials for research, diagnosis and industry are also controlled.

The Australian National Parks and Wildlife Service coordinates and administers with AQIS the introduction and release of biological control agents aimed at combating existing pest and disease problems in Australia under the Biological Control Act.

Quarantine responsibilities include the administration of animal quarantine stations at Sydney, Melbourne, Adelaide and Perth and a high security quarantine station on Cocos (Keeling) Islands, and the supervision of a range of plant quarantine stations, private facilities for both animal and plant quarantine.

Consignments of high and medium risk imported foods are also subject to food inspection. Since July 1991, AQIS has sampled over 2,970 consignments of risk-categorised foods with over 200 failing to meet Australian food safety standards giving an overall failure rate of almost seven per cent. The major problems with imported food have been microbiological problems in cooked prawns and other crustaceans, molluscs, high aflatoxin levels in peanuts and heavy metals in fish. Of particular concern has been the incidence of failure in some canned foods, notably canned mushrooms. Where an overseas government's inspection system can be shown to provide equivalent safety assurances to Australia's food inspection system, food accompanied by that agency's certification is allowed entry without additional routine testing on arrival. Two such agreements were finalised in 1991–92 making a total of five currently operating.

AQIS has significant international involvement in the development of international food safety standards and related additions of hygiene and manufacturing practice by the joint FAO/WHO Food Standards Program (Codex Alimentarius Commission), and in the development of international approaches to plant and animal health and quarantine, animal welfare protocols in such international bodies as the office of International des Epizooties (OIE) and the Food and Agriculture Organisation of the United Nations.

Australian Institute of Health and Welfare

The Institute, established in 1987, is a statutory authority within the Health, Housing and Community Services portfolio. It is a Commonwealth health and welfare statistics and health research agency which, as part of its national role, also provides support to the States and Territories in these areas primarily through the Australian Health Ministers' Advisory Council, the standing Committee of Social Welfare Administrators and State and Territory housing authorities.

The mission of the Institute is to contribute to the improvement of the health and welfare of Australians and to the efficient use of resources in the provision of services, including those directed at health promotion and illness prevention, by pursuing its legislative mandate to:

- collect and assist in the production of health related information and statistics;
- conduct and promote research into the health of Australians and their health services;
- undertake studies into the provision and effectiveness of health services and technologies; and
- make recommendations on the prevention and treatment of diseases and the improvement and promotion of health and health awareness of the people of Australia.

The Institute also has responsibility for collation, analysis and publication of statistics relating to national welfare services, community services, and housing assistance.

In addition, the Institute has four external units.

The National Injury Surveillance Unit is based in Adelaide and is affiliated with Flinders University. The Unit's main role is to improve the availability of statistics relating to injury control and for monitoring the effectiveness of new initiatives.

The National Perinatal Statistics Unit, based at the University of Sydney, collects national data on perinatal health and mortality and on congenital anomalies, conducts epidemiological studies in this field, and operates a register of IVF (in-vitro fertilisation) pregnancies.

The Dental Statistics and Research Unit at the University of Adelaide undertakes statistical collection and research on oral health, the dental labour force and on dental health status.

The National Reference Centre for Classification in Health was established at the Queensland University of Technology in February 1992. It is a national resource centre for matters relating to disease classification.

National Occupational Health and Safety Commission

The National Commission (known by its working title as Worksafe Australia) is a tripartite body comprising representatives of the Commonwealth Government, State and Territory Governments, and peak employee and employer bodies.

The mission of the National Occupational Health and Safety Commission is to lead national efforts to provide healthy and safe working environments, and to reduce the incidence and severity of occupational injury and disease.

National Campaign Against Drug Abuse

The National Campaign Against Drug Abuse (NCADA) is a program aimed at minimising the harm caused to Australian society by the misuse of drugs, both licit and illicit.

A feature of the Campaign, and one which differentiates it from previous approaches in Australia and the approach used by a number of other nations, is its focus on both the reduction of the demand for drugs and on the control of drug supply.

The Campaign was launched following the special Premiers' Conference on Drugs in April 1985, when all Governments — Commonwealth, State and Territory — committed themselves to this initiative, involving both the allocation of new financial resources and new ways of addressing drug problems in Australia. Evaluations of NCADA in 1988 and 1991 have documented significant achievements in the areas of policy development, increases in the number and range of relevant programs and services, positive changes in alcohol, tobacco and other drug use trends and positive changes in people's attitudes toward alcohol and other drug use.

A National Drug Strategic Plan 1992–97 has been developed proposing appropriate goals and objectives, key national indicators and program priorities and the next five years will build on these initial achievements, once again, with the cooperation of the Federal Government and State/Territory Governments and the goodwill of the Australian community.

The Commonwealth contributed $38.9 million in 1991–92, of which $25.3 million was allocated to the States and Territories which matched it on a dollar for dollar basis, and $13.6 million to national initiatives in the areas of prevention, including The Drug Offensive, data management and research.

During 1991–92, over 380 separate projects were funded under the Commonwealth–State cost sharing arrangements. These projects cover such areas as education, training, residential and non-residential treatment, community development and consultancy, research, evaluation and monitoring.

The range of projects involved reflects the diversity of drug abuse problems in Australia, and the recognition by NCADA of the special needs of groups within the community such as youth, Aboriginal people, prisoners, women, intravenous drug users and people of non-English speaking background.

Information research and evaluation are central parts of the national NCADA activities and include:

- a national media information program, 'The Drug Offensive', which is aimed at increasing public awareness of the harm caused by drugs and providing information on them through campaigns such as the young women and smoking campaign and the adolescent alcohol abuse campaign;
- provision of almost $7.9 million in support of 128 research projects since 1985;
- establishment of two national centres for drug research — the Commonwealth in 1991–92 allocated $1.7 million per annum to a Sydney-based centre for drug treatment and rehabilitation, and to the Perth-based centre on research into the prevention of drug abuse; and
- further development of a national drug abuse data system aiming to provide reliable health and law enforcement information on the nature and extent of drug abuse in order to help identify NCADA needs, priorities and achievements and measure progress against those indicators and objectives outlined in the National Drug Strategic Plan.

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FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Ten

Education

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COMMONWEALTH AND STATE GOVERNMENT RESPONSIBILITIES IN EDUCATION

The Governments of the six Australian States and the two Territories have the major responsibility for education including the administration and substantial funding of primary, secondary and technical and further education. The Commonwealth also plays a significant role in education policy, programs and funding. The total outlay of expenditure on education in 1989–90 was $19,728 million (*see* later section), which represented 4.8 per cent of Gross Domestic Product.

The State Governments administer their own systems of primary, secondary and technical and further education through government departments and agencies responsible to State Ministers. Detailed information on the education systems of the States may be found in the respective State *Year Books*.

The Commonwealth Government has direct responsibility for education in external Territories (Norfolk Island, Christmas Island and the Cocos (Keeling) Islands) under the Minister for the Arts, Sport, the Environment, and Territories — *see* chapter on the Territories of Australia. The Commonwealth Government also has special responsibilities for Aborigines and for migrants, as well as the power to provide assistance for students. Moreover, the Commonwealth Government is responsible for international relations in education. The education responsibilities entail grants to schools; student assistance; overseas students; awards and exchanges; tertiary education; language policy; educational research and statistics; publications; Aboriginal education; multicultural education; Asian and women's studies; and education and the arts.

The Australian Constitution empowers the Commonwealth Government to make grants to the States and to place conditions upon such grants. The Commonwealth Government is principally responsible for the funding of higher education institutions, and provides supplementary funding for schools, and technical and further education. Apart from its significant financial role the Commonwealth is involved in promoting national consistency and coherence in the provision of education across Australia. Further information on Commonwealth government activities is contained later in this chapter.

PRESCHOOL EDUCATION

All States and Territories have a policy of making preschool education available universally for children in the years prior to school entry. A majority of the States and Territories have made considerable progress towards this goal. Most preschools are conducted on a sessional basis (that is, sessions of two to three hours for two to five days per week). Preschool programs generally favour the free play approach with emphasis on children's social and emotional development through creative activities. Parents often contribute by assisting at some sessions or by the purchase of play materials and educational resources. Attendance fees are not usually charged in those States where preschools are government-run, but in others fees may be payable to private or voluntary organisations.

PRIMARY AND SECONDARY EDUCATION

School attendance is compulsory throughout Australia between the ages of 6 and 15 years (16 years in Tasmania). In 1991 the number of full-time students attending school totalled 3,075,137, comprising 2,217,226 (72.1%) in government schools and 857,911 (27.9%) in non-government schools.

Each State or Territory has its own specific requirements. The majority of children commence primary school at about five years of age. Primary schooling generally begins with a preparatory or kindergarten year, followed by twelve grades to complete a full secondary course of study. While the final two years of schooling generally fall outside the compulsory stage of education, in 1991 86 per cent of students remained at school until Year 11 and 71 per cent remained until Year 12.

School organisation and operation

Primary schooling provides a general elementary program lasting for seven or eight years until Years 6 or 7. Students enter secondary schools at Year 7 in some State systems and at Year 8 in others. Secondary education is generally comprehensive and coeducational. Most students attend schools reasonably near to their homes. Usually primary and secondary schools are separate institutions, but in some country areas there are area or central schools which provide both forms of schooling. Non-government schools follow a similar pattern, but a significant though declining proportion are single sex institutions. In Tasmania and the Australian Capital Territory, attendance for the final two years of government schooling is at separate secondary colleges.

Generally, schools in Australia have a considerable degree of autonomy. Most State departments have established regional administrations which are responsible for matters such as planning school buildings and deploying staff while a central curriculum unit provides general guidelines on course planning. In general, individual schools determine teaching and learning approaches within the guidelines and offer options within resources available and the attitudes and interests of students. Some systems encourage school-based curriculum development and, in the case of Queensland and the Australian Capital Territory, school-based assessment in place of external examinations. In Victoria a combination of school-based assessment and external exams culminate in the Victorian Certificate of Education. While schools usually have a parents' association, there has been encouragement of greater community participation in general decision making at school level in some systems through parent representation on school councils and boards.

Specialist services and programs provided in schools include educational or vocational counselling by a permanent or visiting teacher; English as a Second Language program by specialist teachers, especially in schools with significant numbers of children from non-English speaking backgrounds (*see* further information in the chapter on Culture); special programs designed to assist Aboriginal school children (including the widespread use of Aboriginal teachers' aides and bilingual education programs in communities where the children's first language is an Aboriginal language); a variety of programs for gifted and talented children; and remedial assistance for children with learning difficulties. The English as a Second Language and the Community Languages (formerly Ethnic Schools) Programs are outlined in the chapter, Culture and Leisure.

In primary education 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 and community languages and instrumental music.

Students in Australian primary schools usually have only one teacher for all subjects, and are promoted each year on the basis of completing the previous year, rather than on achievement. In schools where open plan learning styles have been adopted, the method of team teaching (more than one teacher to a class) and multi-age grouping of students is often practised.

In secondary education, 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, for example, a foreign language, a further humanities or social science subject, commerce, art, crafts, music, home economics, a manual arts subject, agriculture, physical education or health education. Some schools offer optional courses in subjects such as consumer education, conversational foreign languages, word processing, secretarial studies, 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.

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 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 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, higher education institutions and other post-school institutions.

Students' eligibility for entry to higher education institutions is assessed during, or at the end of, the final two years of secondary schooling. Five States and the Northern Territory use different combinations of school assessment and public examinations. In Queensland and the Australian Capital Territory eligibility to enter higher education is determined from moderated and standardised school assessments. Several education systems are currently reviewing their senior secondary school assessment procedures.

Number of schools, students and teaching staff

Of the 9,980 schools operating in Australia in 1991, 7,470 (74.8%) were government schools operated by the State Directors-General of Education (or equivalent) and 2,510 (25.2%) were non-government schools.

In August 1991 the number of full-time students attending primary and secondary schools totalled 3,075,137, comprising 2,217,226 (72.1%) in government schools and 857,911 (27.9%) in non-government schools.

The number of full-time students attending government schools in 1991 increased by 23,879 (1.1%) from the 2,193,347 attending in 1990. The number of full-time students attending non-government schools also increased by 1.1 per cent (9,601) from the 848,310 attending in 1990.

10.1 SCHOOLS, STUDENTS AND TEACHING STAFF: BY CATEGORY OF SCHOOL (AND NON-GOVERNMENT AFFILIATION), AUGUST 1991

	Government schools	*Non-government schools*				*All schools*
		Anglican	*Catholic*	*Other*	*Total(a)*	
Number of schools	7,470	119	1,705	686	2,510	9,980
Number of students						
Males	1,137,101	45,059	300,288	86,067	431,414	1,568,515
Females	1,080,125	38,999	297,922	89,576	426,497	1,506,622
Persons	**2,217,226**	**84,058**	**598,210**	**175,643**	**857,911**	**3,075,137**
FTE of teaching staff(b)						
Males	56,826	2,854	11,583	5,104	19,540	76,367
Females	89,068	3,471	23,054	7,571	34,097	123,166
Persons	**145,895**	**6,325**	**34,638**	**12,675**	**53,638**	**199,532**

(a) Includes special schools administered by government authorities other than the State Ministry of Education in Victoria.
(b) Full-time teaching staff plus full-time equivalent of part-time teaching staff.
Source: Schools, Australia (4221.0).

10.2 STUDENTS BY CATEGORY OF SCHOOL AND SEX, JULY

	1986	*1987*	*1988*	*1989*	*1990*	*1991(a)*
			GOVERNMENT SCHOOLS			
Males	1,134,704	1,128,722	1,128,011	1,123,993	1,123,008	1,137,101
Females	1,073,097	1,068,020	1,069,692	1,070,362	1,070,339	1,080,125
Persons	*2,207,801*	*2,196,742*	*2,197,703*	*2,194,355*	*2,193,347*	*2,217,226*
			NON-GOVERNMENT SCHOOLS			
Males	397,705	404,723	413,253	420,188	425,504	431,414
Females	395,883	403,418	411,373	416,844	422,806	426,497
Persons	*793,588*	*808,141*	*824,626*	*837,032*	*848,310*	*857,911*
			ALL SCHOOLS			
Males	1,532,409	1,533,445	1,541,264	1,544,181	1,548,512	1,568,515
Females	1,468,980	1,471,438	1,481,065	1,487,206	1,493,145	1,506,622
Persons	**3,001,389**	**3,004,883**	**3,022,329**	**3,031,387**	**3,041,657**	**3,075,137**

(a) As at August.

Source: Schools, Australia (4221.0).

10.3 NUMBER OF STUDENTS(a): BY CATEGORY OF SCHOOL, SEX AND LEVEL/YEAR OF EDUCATION AUGUST 1991

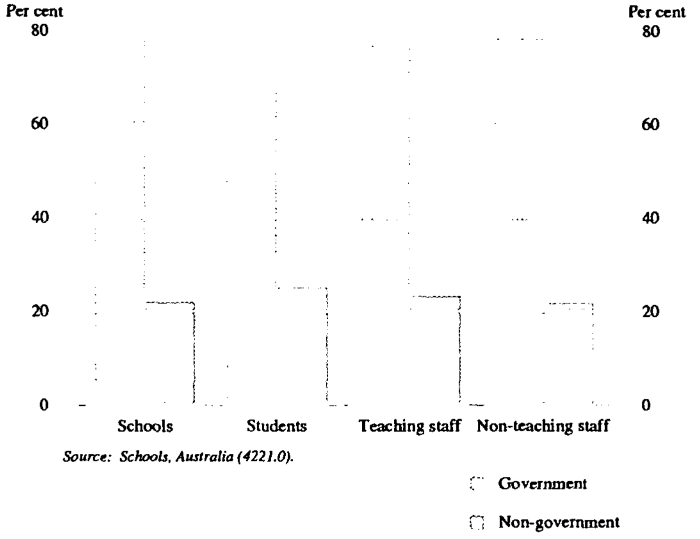
Level /Year of education	*Government schools*	*Non-government schools(a)*				*All schools*		
		Anglican	*Catholic*	*Other*	*Total*	*Males*	*Females*	*Persons*
Primary								
Pre-Year 1(b)	133,431	2,120	37,168	8,090	47,378	92,769	88,040	180,809
Year 1	195,725	2,707	48,918	10,664	62,289	132,433	125,581	258,014
Year 2	192,114	2,720	48,689	10,535	61,944	130,298	123,760	254,058
Year 3	190,780	3,346	49,401	10,641	63,388	130,296	123,872	254,168
Year 4	186,938	3,645	48,589	10,563	62,797	127,656	122,079	249,735
Year 5	180,849	4,660	48,174	11,060	63,894	125,476	119,267	244,743
Year 6	174,422	5,011	47,556	11,093	63,660	122,216	115,866	238,082
Year 7 *(Qld,SA,WA,NT)*	66,589	2,013	13,685	4,256	19,954	44,442	42,101	86,543
Ungraded	17,768	24	693	1,892	2,609	12,497	7,880	20,377
Total primary	*1,338,616*	*26,246*	*342,873*	*78,794*	*447,913*	*918,083*	*868,446*	*1,786,529*
Secondary								
Year 7 *(NSW,Vic.,Tas.,ACT)*	101,331	6,267	33,170	10,345	49,782	77,130	73,983	151,113
Year 8	163,264	10,125	48,332	17,634	76,091	122,744	116,611	239,355
Year 9	165,872	10,377	47,880	17,379	75,636	123,515	117,993	241,508
Year 10	165,768	10,498	47,297	17,613	75,408	122,943	118,233	241,176
Year 11	145,699	10,565	41,379	16,979	68,923	106,270	108,352	214,622
Year 12	120,678	9,947	36,723	15,909	62,579	87,398	95,859	183,257
Ungraded	15,998	33	556	990	1,579	10,432	7,145	17,577
Total secondary	*878,610*	*57,812*	*255,337*	*96,849*	*409,998*	*650,432*	*638,176*	*1,288,608*
Total	**2,217,226**	**84,058**	**598,210**	**175,643**	**857,911**	**1,568,515**	**1,506,622**	**3,075,137**

(a) Includes full-time students attending special schools administered by government authorities other than the State Departments of Education. As from 1990 students attending special schools have not been identified separately and have been allocated to either primary or secondary level of education. (b) Pre-year 1 comprises kindergarten in New South Wales and Australian Capital Territory; preparatory in Victoria and Tasmania; reception in South Australia; and transition in the Northern Territory.

Source: Schools, Australia (4221.0).

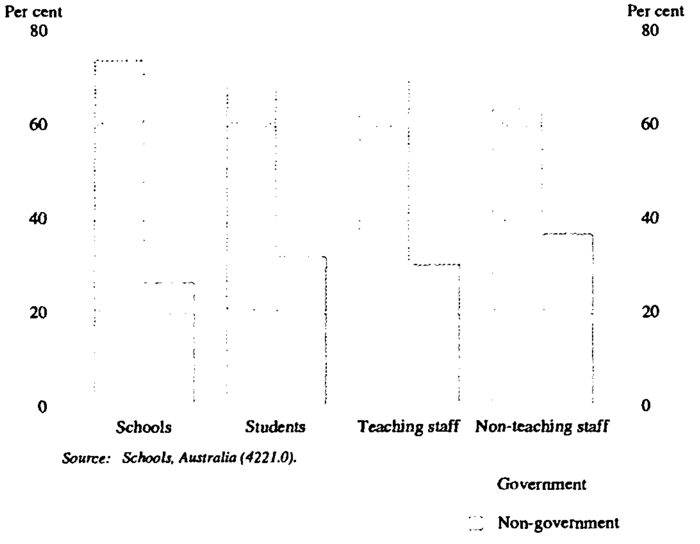
10.4 PERCENTAGE OF STUDENTS AND SCHOOL STAFF (FTE(a)) BY CATEGORY OF SCHOOL, AUGUST 1991

PRIMARY SCHOOLS



Source: Schools, Australia (4221.0).

SECONDARY SCHOOLS



Source: Schools, Australia (4221.0).

(a) Full-time teaching staff plus full-time equivalent of part-time teaching staff.

NOTE: Combined Primary/Secondary and Special schools are not included in the above graphs; however, the associated students and staff are included.

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 provisions for children in isolated areas. Schools of the Air operate in New South Wales, South Australia, Queensland, Western Australia and the Northern Territory.

Children of some Aboriginal groups in remote areas of the Northern Territory who have moved away from larger centres onto small decentralised communities called outstations or homeland centres, receive schooling from Aboriginal teaching assistants supported by visiting teachers from established schools.

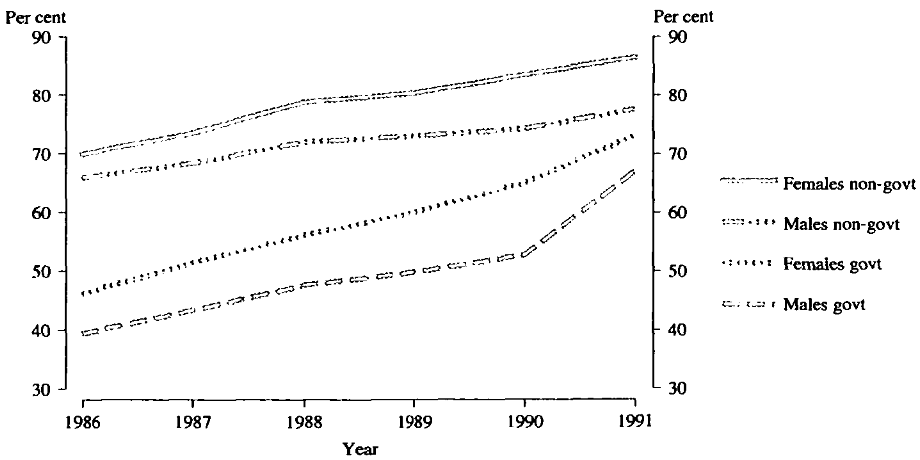
Special education is provided by State Governments and non-government authorities in specialist schools, in special classes or units in regular schools or by withdrawal from regular classes for periods of intensive assistance by special staff. In all States and particularly in New South Wales, Queensland and Victoria, parents have formed voluntary organisations to establish additional schools catering for their children's special needs. The Commonwealth Government provides funds to State and non-government authorities and community groups to assist in the provision of services and upgrading of special education facilities.

Boarding facilities are available at some non-government schools mainly in the larger towns and cities. A small number of government schools, in particular those catering for groups such as Aborigines, have residential hostels close by.

Apparent retention rates

Apparent retention rates are an important measure of performance of education systems and related government policies. The 1991 Year 12 apparent retention rate of 71.3 per cent exceeded the Commonwealth Government's objective of a retention rate of 65 per cent by the early 1990s.

10.5 APPARENT RETENTION RATES OF SCHOOL STUDENTS TO YEAR 12 BY CATEGORY OF SCHOOL AND SEX, JULY 1986–91(a)



(a) Data for 1991 as at August.
Source: Schools, Australia (4221.0).

The apparent retention rate is the percentage of students of a given cohort group who continued to a particular level/year of education. In the above diagram, apparent retention rates have been calculated for students who continued to Year 12 from their respective cohort group at the commencement of their secondary schooling.

Care should be exercised in the interpretation of apparent retention rates since a range of factors affecting their calculation have not been taken into account. At the Australia level these include students repeating a year of education, migration and other changes to the school population.

Comparisons between government and non-government schools must be made with caution because of the net transfer of students from government to non-government schools which tends to inflate the non-government school retention rates and reduce the government school rates. International comparisons are another area where structural differences must be taken into account.

The apparent retention rate of secondary school students to Year 12 rose from 64.0 per cent in 1990 to 71.3 per cent in 1991. As in previous years, the retention rate for female students (76.7%) was higher than the corresponding rate for males (66.1%). The rate varied between States and Territories, ranging from 52.6 per cent in Tasmania to 95.6 per cent in the Australian Capital Territory. The apparent retention rate increased between 1990 and 1991 in all States and Territories.

Funding of schools

Major responsibility for funding government schools lies with State Governments which provide about 90 per cent of schools' running costs. The Commonwealth contribution represents about 10 per cent. The Commonwealth is the major source of public funding for non-government schools, providing about 65 per cent, while the States provide about 35 per cent.

Non-government schools operate under conditions determined by government authorities, usually registration boards, in each State and Territory. These conditions require that minimum education standards are met and that the schools have satisfactory premises. The majority of non-government schools are Catholic and there is a Catholic Education Commission in each State and at the national level. Most other non-government schools are under the auspices of, or run by, other religious denominations.

In 1985 the Commonwealth introduced a funding plan which provides stability and long-term security by means of significant increases to both sectors, over an eight year period to 1992.

The arrangements announced by the Commonwealth Government for recurrent funding for non-government schools beyond 1992 build on the features of the present successful scheme, and will provide real increases for the neediest schools and maintain funding for schools in other categories.

Progress has been made towards increased public accountability for schools. In 1990, a National Report on Schooling was published by the Australian Education Council for the first time. These annual reports inform the Commonwealth Parliament and the community about the achievements of Australian schools. The reports include information on school curriculum, participation and retention rates, student achievements, the use of financial resources in schools, and other topics of national interest.

Primary and secondary education is free in government schools in all States and Territories. Fees for the hire of text books and other school equipment, however, may be charged, particularly in secondary schools. Most State Governments provide financial assistance to parents under specified conditions for educational expenses. Assistance includes various types of scholarships, bursaries, transport and boarding allowances, many of which are intended to assist low-income families. The Commonwealth Government also provides a number of schemes of assistance to facilitate access to education. An estimated 241,986 secondary students aged 16 and over from low income families received assistance in 1991 under AUSTUDY. During 1991 13,337 children were given assistance under the Assistance for Isolated Children (AIC) Scheme, and 25,153 Aboriginal children were given assistance under ABSTUDY (Schooling).

A summary of student assistance schemes and their expenditure is contained in the

Government Assistance to Students section of this chapter.

TERTIARY EDUCATION

Tertiary education is provided in universities and Technical and Further Education (TAFE) institutions. Since the publication of the Government's White Paper, *Higher Education: A Policy Statement, July 1988*, the Australian higher education system has undergone major structural change. The former binary system of universities and colleges of advanced education has been abolished and a unified national system of about 35 universities has been established. These universities receive Commonwealth funding according to an academic profile agreed between them and the Government.

A few institutions of higher education outside the unified national system receive Commonwealth funding for teaching courses on a contract basis.

Apart from the Australian National University, the University of Canberra and the Australian Maritime College (not a member of the unified national system), which are established under Commonwealth legislation, Australian universities operate under State legislation. They are autonomous bodies responsible for their own governance and make their own decisions on, for example, matters of allocation of their funding, staffing and academic courses. TAFE institutions operate as part of State-wide TAFE systems.

Three private universities have been established under State legislation — Bond University, University of Notre Dame, Australia, and the Australian William E Simon University.

Technical and further education (TAFE)

Most TAFE education in Australia is provided in government administered colleges, or centres of technical and further education. There is also some TAFE provision in some higher education institutions, schools, agricultural colleges and adult education authorities.

Each of the States provides the bulk of the recurrent finance for its own institutions. The Commonwealth Government provides supplementary funds to the States and provides about 65 per cent of capital works funding.

Government TAFE institutions offer an extremely wide range of vocational and non-vocational courses. Courses are available at pre-vocational, traineeship, trade technician and para-professional levels. Programs provide entry-level training, specialised instruction in particular aspects of job skills, pre-vocational training prior to employment, preparatory or bridging instruction to permit entry to a chosen vocational course, or supplement previous training (classified as streams 2100–4500). In addition, adult education courses are available for personal interest, leisure or general enrichment purposes (classified as stream 1000). Stream is a term used to classify courses into categories which are similar to the type of vocation for which education is being undertaken and the level of that education. TAFE currently support 17 streams. Field of study also classifies courses but by major discipline or subject matter orientation.

There are additionally 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.

10.6 TECHNICAL AND FURTHER EDUCATION: STUDENTS (STREAMS 2100–4500) BY AGE GROUP, SEX AND TYPE OF ATTENDANCE, 1991

	Males			*Females*			*Persons*		
Age group (years)	*Full-time*	*Part-time*	*Total*	*Full-time*	*Part-time*	*Total*	*Full-time*	*Part-time*	*Total*
16 and under	4,143	22,024	26,167	3,123	19,417	22,540	7,266	41,441	48,707
17	5,460	24,888	30,348	3,915	15,195	19,110	9,375	40,083	49,458
18	8,745	36,204	44,949	8,706	19,367	28,073	17,451	55,571	73,022
19	7,229	37,392	44,621	6,666	18,728	25,394	13,895	56,120	70,015
19 and under	*25,577*	*120,508*	*146,085*	*22,410*	*72,707*	*95,117*	*47,987*	*193,215*	*241,202*
20–24	12,243	97,006	109,249	10,866	64,748	75,614	23,109	161,754	184,863
25–29	4,261	63,547	67,808	4,242	49,267	53,509	8,503	112,814	121,317
30–39	4,885	99,479	104,364	6,213	89,924	96,137	11,098	189,403	200,501
40–49	1,922	53,092	55,014	3,207	59,063	62,270	5,129	112,155	117,284
50–59	546	17,844	18,390	773	19,534	20,307	1,319	37,378	38,697
60–64	109	3,564	3,673	104	4,570	4,674	213	8,134	8,347
>64	130	2,705	2,835	113	4,147	4,260	243	6,852	7,095
Not stated	1,012	29,518	30,530	745	29,559	30,304	1,757	59,077	60,834
Bulk enrolments(a)	—	3,200	3,200	—	2,602	2,602	—	5,802	5,802
Total	**50,685**	**490,463**	**541,148**	**48,673**	**396,121**	**444,794**	**99,358**	**886,584**	**985,942**

(a) The term 'bulk enrolments' is used to describe students who are doing part-time courses and for whom complete personal details were not collected. Some double counting may occur where this involves students already enrolled in a TAFE course.

Source: Department of Employment, Education and Training 'Selected TAFE Statistics, 1991'.

10.7 TECHNICAL AND FURTHER EDUCATION: DUTY HOURS(a) OF TEACHING STAFF ('000) AND FULL-TIME TEACHING STAFF NUMBERS BY TYPE OF APPOINTMENT, 1991

Type of appointment	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
Full-time									
Teaching hours	2,897.5	2,773.2	1,443.8	892.9	1,006.5	272.7	196.6	203.8	9,687.1
Non-teaching hours	4,139.7	3,779.9	1,772.7	1,499.2	639.8	326.6	276.7	368.8	12,803.5
Total duty hours	*7,037.3*	*6,553.1*	*3,216.5*	*2,392.1*	*1,646.4*	*599.3*	*473.4*	*572.6*	*22,490.6*
Number of staff	6,027	4,471	2,607	1,772	1,606	490	301	453	17,727
Part-time									
Teaching hours	3,145.7	1,186.4	564.5	387.6	493.0	162.5	58.5	103.1	6,101.2
Non-teaching hours	227.1	423.0	76.2	9.8	6.7	7.8	15.5	2.9	769.1
Total duty hours	*3,372.8*	*1,609.4*	*640.7*	*397.3*	*499.7*	*170.3*	*74.0*	*106.0*	*6,870.3*
All teaching staff									
Teaching hours	6,043.2	3,959.5	2,008.4	1,280.5	1,499.6	435.2	255.1	306.8	15,788.3
Non-teaching hours	4,366.9	4,203.0	1,848.9	1,509.0	646.5	334.4	292.2	371.7	13,572.6
Total duty hours	**10,410.1**	**8,162.5**	**3,857.2**	**2,789.5**	**2,146.1**	**769.6**	**547.4**	**678.5**	**29,360.9**

(a) Actual teaching hours performed as part of the normal duties of full-time teachers over the teaching year.

Source: Department of Employment, Education and Training 'Selected TAFE Statistics, 1991'.

10.8 TECHNICAL AND FURTHER EDUCATION: ALL STUDENTS BY STREAM AND FIELD OF STUDY, 1991

Stream		*01*	*02*	*03*	*04*	*05*	*06*	*07*	*08*	*09*	*10*	*11*	*12*	*Net*
1000	Recreation, leisure	10.772	14,011	145.475	32,772	2,402	9,704	79,969	259	14,157	96	30,529	31,363	585,274
2100	Basic employment skills	696	1.627	16.374	10,797	3,476	3,976	5.334	71	1.029	—	4,936	106,665	151.135
2200	Educational preparation	630	445	16.134	5.933	706	969	2,092	12	2,818	—	3,883	61,567	93,654
3100	Operatives: initial	10.184	14,650	26,870	66,978	1.139	29,432	14,366	390	23,987	480	35,937	5,129	220,637
3211	Recognised trades: part exempt	91	1,616	—	57	—	1,540	13	—	312	—	735	5,133	9,448
3212	Recognised trades: complete	5,982	31,780	692	—	—	66,993	481	—	—	—	18,815	924	125,329
3221	Other skills: part exempt	1,498	889	2,812	19,753	805	6,379	2,621	—	68	25	5,698	12,190	51,475
3222	Other skills: complete	9,340	1,152	8,759	38,716	47	12,629	3,100	1,070	1,769	531	10,923	1,159	88,446
3300	Trade technician/supervisory	6,963	6,682	7,274	44,900	336	19,844	3,115	85	6,438	198	12,705	3	107,950
3400	Para-professional technician	635	2,725	1,398	9,889	19	3,334	882	224	5,823	—	236	—	24,805
3500	Para-professional higher technician	1,363	5,377	8,553	48,168	1,450	18,411	6,889	2,408	4,579	178	3,936	60	100,614
3600	Professional	—	315	2,520	610	—	58	194	—	18	—	819	182	4,714
4100	Operatives: post initial	1,230	1,263	843	2,561	163	2,037	542	11	3,469	—	1,630	10,101	23,654
4200	Trades/other skills: post initial	8,383	6,129	4,357	19,180	3,667	27,692	2,234	815	2,971	—	9,721	794	84,658
4300	Trade technician/supervisory: post initial	931	212	225	1,290	128	2,885	115	—	1,405	—	142	—	7,284
4400	Para-professional technician: post initial	1	91	49	51	14	231	42	—	129	—	20	52	678
4500	Para-professional higher technician: post initial	—	76	229	266	117	1,920	458	3	323	—	665	35	4,048
Total net(a) streams 2100–4500		*45,621*	*71,844*	*92,654*	*253,445*	*12,016*	*183,562*	*41,304*	*5,074*	*52,909*	*1,390*	*106,125*	*197,145*	*985,942*
Total net(a) all streams		**56,194**	**85,699**	**236,831**	**285,628**	**14,372**	**192,851**	**120,894**	**5,333**	**66,928**	**1,486**	**136,190**	**228,154**	**1,554,098**

01 Land & Marine Resources, Animal Husbandry; 02 Architecture, Building; 03 Art, Humanities and Social Sciences; 04 Business Administration, Economics; 05 Education; 06 Engineering, Surveying; 07 Health, Community Services; 08 Law, Legal Studies; 09 Science; 10 Veterinary Science, Animal Care; 11 Services, Hospitality, Transportation; 12 TAFE Multi-field Education.

(a) The sum of the stream of study components does not add to the total as students enrolled in two or more streams have only been counted once in the total.

Source: Department of Employment, Education and Training 'Selected TAFE Statistics, 1991'.

Higher education

Higher education institutions offer a great variety of courses embracing such areas as agriculture, architecture, arts, business, dentistry, economics, education, engineering, health, law, medicine, music, science and veterinary science. Fields of study with the largest numbers of total students in 1989 and 1990 were Arts (22.6%), Business and Administration (21.6%) and Education (15.4%). These fields also had the largest numbers of completing students. 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 is keen demand for higher education places at most institutions.

Higher education institutions are funded by the Commonwealth under the *Higher Education Funding Act 1988*. In 1992 expenditure on higher education totalled approximately $4,200 million. Students are required to contribute to the cost of their education through the Higher Education Contribution Scheme (HECS). Under the Scheme students can pay their contribution up-front or defer payment for collection through the taxation system. In 1993 the annual course contribution, which is indexed annually, is $2,331.

The basic undergraduate course at most institutions is a bachelor degree course of three or four years duration. At some institutions, courses may also be offered at the diploma or associate diploma level. Most institutions also offer postgraduate level study. One to two years of full-time postgraduate study is required for a masters degree and three to five years for a doctoral degree. Postgraduate diplomas are offered in some disciplines. In 1990, over 70 per cent of higher education students were enrolled in bachelor courses with a further 16 per cent enrolled in postgraduate courses.

All institutions provide full-time and part-time courses. In addition some institutions offer education courses which associate full-time study with periods of employment. Distance education courses are also offered through eight Distance Education Centres and a number of specialist providers which operate in conjunction with a Centre.

In 1991, 61 per cent of students were enrolled in full-time study, 28 per cent in part-time study and 11 per cent in external studies.

The system of tuition in higher education institutions is normally by means of lectures, tutorials, seminars and supervised practical work. Normally, assessment of a student's progress is made by examination and/or completion of prescribed coursework or of individual research.

Many institutions have halls of residence on the campus which accommodate some of the students currently enrolled, usually those from remote or country areas. Student organisations on campus provide a wide range of sporting and social facilities for students.

10.9 HIGHER EDUCATION: ALL STUDENTS BY LEVEL OF COURSE AND FIELD OF STUDY, 1991

Level of course	*Agri-culture, animal husbandry*	*Archi-tecture, building*	*Arts, humanities and social sciences*	*Business admin-istration, economics*	*Education*	*Engineering and surveying*	*Health*	*Law, legal studies*	*Science*	*Veterinary science*	*Non-award courses*	*Total*
Higher doctorate	—	—	16	—	—	1	137	16	5	2	—	177
Ph.D	455	105	2,662	507	850	1,218	1,411	91	3,525	136	—	10,960
Master's by research	336	164	2,452	382	910	1,077	715	213	1,834	60	—	8,143
Master's by coursework	190	593	4,370	7,902	5,430	1,533	2,154	1,080	1,684	49	—	24,985
Postgraduate qualification/preliminary	18	107	685	671	1,355	210	464	1	484	4	—	3,999
Graduate (post) diploma — new area	241	335	4,137	5,502	8,796	922	1,804	646	3,518	6	—	25,907
Graduate (post) diploma — extension area	91	434	1,748	1,964	4,598	690	1,505	691	1,408	3	—	13,132
Graduate certificate	4	—	219	529	409	20	60	45	114	1	—	1,401
Bachelor's postgraduate	—	308	633	2	2,562	27	356	311	—	—	—	4,199
Bachelor's honours	46	32	3,609	593	223	678	240	198	2,116	21	—	7,756
Bachelor's pass	4,787	8,882	95,162	91,448	40,045	31,442	29,848	12,177	57,713	1,330	—	372,834
Diploma	188	31	1,038	284	12,659	107	21,847	—	348	—	—	36,502
Associate diploma	3,453	252	3,852	2,858	1,269	2,195	1,277	446	2,858	—	—	18,460
Other award courses	—	—	15	—	4	50	4	398	19	—	—	490
Enabling courses	67	—	755	24	488	37	53	—	335	—	—	1,759
Non-award courses	—	—	—	—	—	—	—	—	—	—	3,834	3,834
Total courses	**9,876**	**11,243**	**121,353**	**112,666**	**79,598**	**40,207**	**61,875**	**16,313**	**75,961**	**1,612**	**3,834**	**534,538**

Source: Department of Employment, Education and Training 'Selected Higher Education Statistics, 1991'.

10.10 HIGHER EDUCATION: COURSES COMPLETED BY ALL STUDENTS, LEVEL OF COURSE AND FIELD OF STUDY, 1990

Level of course	*Agri-culture, animal husbandry*	*Archi-tecture, building*	*Arts, humanities and social sciences*	*Business admin-istration, economics*	*Education*	*Engineering and surveying*	*Health*	*Law, legal studies*	*Science*	*Veterinary sciences*	*Total*
Higher doctorate	1	—	2	—	1	1	39	—	10	1	55
Ph.D.	68	10	296	42	71	149	166	8	510	26	1,346
Masters by research	48	6	206	44	80	120	66	17	189	11	787
Masters by coursework	29	115	746	1,435	804	313	265	68	251	11	4,037
Postgraduate qualification/preliminary	17	12	110	71	480	24	50	—	38	—	802
Graduate (post) diploma — new area	120	53	1,233	1,667	4,317	214	575	92	775	4	9,050
Graduate (post) diploma — extension area	36	158	446	384	1,763	122	347	774	423	9	4,462
Graduate certificate	5	—	3	24	115	—	4	36	2	—	189
Bachelor's postgraduate	—	88	200	—	827	3	—	185	—	—	1,303
Bachelor's honours	27	22	1,683	249	71	255	91	84	1,539	20	4,041
Bachelor's pass	709	1,455	13,449	12,285	8,064	3,558	4,774	1,906	7,669	272	54,141
Diploma	32	3	218	—	5,923	7	4,334	—	112	—	10,629
Associate diploma	510	44	933	586	265	390	242	61	526	—	3,557
Total persons	**1,602**	**1,966**	**19,525**	**16,787**	**22,781**	**5,156**	**10,953**	**3,231**	**12,044**	**354**	**94,399**

Source: Department of Employment, Education and Training 'Selected Higher Education Statistics, 1990'.

10.11 HIGHER EDUCATION: COMMENCING STUDENTS BY LEVEL OF COURSE AND FIELD OF STUDY, 1991

Level of course	*Agri-culture, animal husbandry*	*Archi-tecture, building*	*Arts, humanities and social sciences*	*Business admin-istration, economics*	*Education*	*Engin-eering and surveying*	*Health*	*Law, legal studies*	*Science*	*Veterinary science*	*Non-award courses*	*Total*
Higher doctorate	—	—	13	—	—	—	36	8	4	1	—	62
Ph.D	139	36	813	193	301	382	401	43	1,025	34	—	3,367
Master's by research	135	78	1,066	186	373	541	314	87	731	25	—	3,536
Master's by coursework	135	333	2,388	3,913	2,597	836	1,126	507	930	21	—	12,786
Postgraduate qualification/preliminary	11	58	452	348	841	119	237	1	368	1	—	2,436
Graduate (post) diploma — new area	197	172	2,606	3,092	6,248	554	1,094	443	1,925	5	—	16,336
Graduate (post) diploma — extension area	72	225	1,088	1,207	2,637	377	935	639	925	3	—	8,108
Graduate certificate	4	—	209	505	361	20	59	45	96	1	—	1,300
Bachelor's postgraduate	—	77	266	—	1,446	19	101	115	—	—	—	2,024
Bachelor's honours	1	—	496	79	96	16	82	10	333	7	—	1,120
Bachelor's pass	1,739	2,846	36,852	32,104	16,294	10,680	10,050	3,710	23,461	347	—	138,083
Diploma	76	—	470	171	4,656	36	9,107	—	151	—	—	14,667
Associate diploma	1,881	114	1,815	1,208	739	820	595	160	1,368	—	—	8,700
Other award courses	—	—	14	—	3	32	4	398	14	—	—	465
Enabling courses	67	—	720	18	423	21	52	—	325	—	—	1,626
Non-award courses	—	—	—	—	—	—	—	—	—	—	3,324	3,324
Total courses	**4,457**	**3,939**	**49,268**	**43,024**	**37,015**	**14,453**	**24,193**	**6,166**	**31,656**	**445**	**3,324**	**217,940**

Source: Department of Employment, Education and Training 'Selected Higher Education Statistics, 1991'.

10.12 HIGHER EDUCATION: ALL STUDENTS(a) BY SEX AND LEVEL OF COURSE

	Higher doctorate	*Ph.D*	*Masters research*	*Masters course-work*	*Post-graduate quali-fication*	*Post-graduate diploma*	*Post-graduate certi-ficate*	*Post-graduate bachelor*	*Bachelor honours*	*Bachelor pass*	*Total under-graduate bachelor*	*Diploma*	*Associate diploma*	*Other*	*Total*
Males															
1986	173	5,540	3,685	9,055	800	16,786	44	993	2,057	133,358	135,415	9,887	13,825	3,645	199,848
1987	176	5,618	3,990	8,224	909	15,671	39	894	2,263	134,624	136,887	8,945	12,420	2,611	196,384
1988	148	5,816	4,110	8,979	920	16,279	37	807	2,496	141,937	144,433	9,181	12,248	2,816	205,774
1989	119	5,485	3,861	9,564	2,053	14,111	267	1,226	2,676	150,450	153,126	8,341	11,199	1,933	211,285
1990	155	6,065	4,222	11,532	1,998	15,527	219	1,220	3,044	163,365	166,409	8,045	11,713	2,315	229,420
1991	140	7,012	4,781	14,096	1,694	17,710	664	1,227	3,807	177,803	181,610	7,329	10,484	2,929	249,676
Females															
1986	21	2,330	2,147	4,943	652	15,897	24	1,599	1,895	118,808	120,703	28,071	9,666	4,067	190,120
1987	24	2,493	2,266	5,177	684	15,981	26	1,541	2,493	124,797	127,290	29,606	9,231	3,031	197,350
1988	33	2,747	2,435	5,957	723	17,476	38	1,523	2,699	136,329	139,028	32,191	8,922	4,003	215,076
1989	38	2,783	2,465	6,417	2,596	16,061	231	2,718	2,760	149,820	152,580	33,057	8,954	1,891	229,791
1990	50	3,233	2,810	8,250	2,524	18,304	221	2,432	3,193	170,996	174,189	32,140	8,729	2,773	255,655
1991	37	3,948	3,362	10,889	2,305	21,329	737	2,972	3,949	195,031	198,980	29,173	7,976	3,154	284,862
Persons															
1986	194	7,870	5,832	13,998	1,452	32,683	68	2,592	3,952	252,166	256,118	37,958	23,491	7,712	389,968
1987	200	8,111	6,256	13,401	1,593	31,652	65	2,435	4,756	259,421	264,177	38,551	21,651	5,642	393,734
1988	181	8,563	6,545	14,936	1,643	33,755	75	2,330	5,195	278,266	283,461	41,372	21,170	6,819	420,850
1989	157	8,268	6,326	15,981	4,649	30,172	498	3,944	5,436	300,270	305,706	41,398	20,153	3,824	441,076
1990	205	9,298	7,032	19,782	4,522	33,831	440	3,652	6,237	334,361	340,598	40,185	20,442	5,088	485,075
1991	177	10,960	8,143	24,985	3,999	39,039	1,401	4,199	7,756	372,834	380,590	36,502	18,460	6,083	534,538

(a) Includes State-funded basic nursing students who would previously have been trained in hospitals.
Source: Department of Employment, Education and Training 'Selected Higher Education Statistics, 1991'.

The proportion of higher education students who are female has risen from around 49 per cent in 1986 to over 53 per cent in 1991 as the following table shows. This table also illustrates that higher education students are predominantly in the younger age groups (57% are 24 years of age or under).

10.13 HIGHER EDUCATION: STUDENTS BY AGE GROUP AND SEX

	1986	*1987*	*1988*	*1989*	*1990*	*1991*
19 and under						
Males	52,165	56,099	61,068	66,531	71,254	74,820
Females	59,198	65,741	72,985	81,892	90,589	96,617
Persons	*111,363*	*121,840*	*134,053*	*148,423*	*161,843*	*171,437*
20–24						
Males	61,914	60,759	62,896	65,482	71,902	80,304
Females	51,123	52,558	56,899	61,182	69,273	79,967
Persons	*113,037*	*113,317*	*119,795*	*126,664*	*141,175*	*160,271*
25–29						
Males	30,869	29,251	29,327	28,630	30,153	32,334
Females	23,443	23,088	24,768	25,321	27,447	30,693
Persons	*54,312*	*52,339*	*54,095*	*53,951*	*57,600*	*63,027*
30 and over						
Males	54,464	50,022	52,333	50,642	56,111	62,218
Females	56,083	55,733	60,249	61,396	68,346	77,585
Persons	*110,547*	*105,755*	*112,582*	*112,038*	*124,457*	*139,803*
Age not stated						
Males	436	253	150	—	—	—
Females	273	230	175	—	—	—
Persons	*709*	*483*	*325*	—	—	—
Total						
Males	**199,848**	**196,384**	**205,774**	**211,285**	**229,420**	**249,676**
Females	**190,120**	**197,350**	**215,076**	**229,791**	**255,655**	**284,862**
Persons	**389,968**	**393,734**	**420,850**	**441,076**	**485,075**	**534,538**

Source: Department of Employment, Education and Training 'Selected Higher Education Statistics, 1991'.

10.14 HIGHER EDUCATION: ALL STUDENTS, BY TYPE OF ENROLMENT AND SEX

	1986	*1987*	*1988*	*1989*	*1990*	*1991*
Internal						
Full-time						
Males	107,342	114,739	122,433	129,437	140,247	153,210
Females	107,903	119,415	130,980	142,664	159,264	175,197
Persons	*215,245*	*234,154*	*253,413*	*272,101*	*299,511*	*328,407*
Part-time						
Males	67,619	59,475	60,606	59,668	65,279	71,652
Females	57,585	54,374	58,647	60,898	67,573	77,557
Persons	*125,204*	*113,849*	*119,253*	*120,566*	*132,852*	*149,209*
External						
Males	24,887	22,170	22,735	22,180	23,894	24,814
Females	24,632	23,561	25,449	26,229	28,818	32,108
Persons	*49,519*	*45,731*	*48,184*	*48,409*	*52,712*	*56,922*
Total						
Males	**199,848**	**196,384**	**205,774**	**211,285**	**229,420**	**249,676**
Females	**190,120**	**197,350**	**215,076**	**229,791**	**255,655**	**284,862**
Persons	**389,968**	**393,734**	**420,850**	**441,076**	**485,075**	**534,538**

Source: Department of Employment, Education and Training 'Selected Higher Education Statistics, 1991'.

10.15 HIGHER EDUCATION: COURSE COMPLETIONS, BY LEVEL OF COURSE AND SEX

	1985	*1986*	*1987*	*1988*	*1989*	*1990*
Higher degree						
Research						
Males	1,216	1,276	1,257	1,455	1,458	1,465
Females	424	516	476	634	651	723
Persons	*1,640*	*1,792*	*1,733*	*2,089*	*2,109*	*2,188*
Coursework						
Males	1,866	1,940	1,622	1,944	1,969	2,499
Females	821	968	900	1,042	1,207	1,538
Persons	*2,687*	*2,908*	*2,522*	*2,986*	*3,176*	*4,037*
Other						
Postgraduate degree						
Males	5,693	5,719	5,982	6,707	6,648	6,517
Females	6,149	6,637	7,135	8,980	9,380	9,289
Persons	*11,842*	*12,356*	*13,117*	*15,687*	*16,028*	*15,806*
Bachelor degree						
Males	23,113	24,347	24,372	24,895	25,554	27,029
Females	21,186	22,886	24,845	26,317	28,539	31,153
Persons	*44,299*	*47,233*	*49,217*	*51,212*	*54,093*	*58,182*
Other non-degree						
Males	4,620	4,879	4,300	4,705	4,711	4,114
Females	8,347	8,613	9,368	10,180	10,365	10,072
Persons	*12,967*	*13,492*	*13,668*	*14,885*	*15,076*	*14,186*
Total						
Males	**36,508**	**38,161**	**37,533**	**39,706**	**40,340**	**41,624**
Females	**36,927**	**39,620**	**42,724**	**47,153**	**50,142**	**52,775**
Persons	**73,435**	**77,781**	**80,257**	**86,859**	**90,482**	**94,399**

Source: Department of Employment, Education and Training 'Selected Higher Education Statistics, 1990'.

EDUCATION CHARACTERISTICS OF THE POPULATION

Participation in education

A large proportion of persons in the age group 15 to 24 participate in education well beyond the compulsory school age of 15 (16 in Tasmania). Table 10.16 shows that, in September 1991, 66 per cent of 17 year olds were still at school while a further 12 per cent had moved on to tertiary education. Overall the education participation rate of 15 to 24 year olds in September 1991 was 48 per cent.

10.16 EDUCATION PARTICIPATION RATES OF PERSONS AGED 15 TO 24: WHETHER ATTENDING AN EDUCATIONAL INSTITUTION, TYPE OF INSTITUTION ATTENDING, AGE, SEPTEMBER 1991
(per cent)

Type of institution	*Age (years)* 15	*16*	*17*	*18*	*19*	*20*	*21*	*22*	*23*	*24*	*Total*
Attending	96.1	87.2	77.9	57.8	42.3	39.9	28.3	22.3	17.1	16.7	47.9
School	95.5	83.1	66.4	21.5	2.3	*1.7	*0.4	*0.4	*0.2	*0.3	25.8
Tertiary(a)	*0.6	4.2	11.5	36.3	40.0	38.2	27.9	21.9	16.9	16.4	22.0
Higher education	*—	*0.1	2.7	18.4	21.7	22.9	18.0	13.3	9.1	9.1	11.9
TAFE	*0.4	*3.7	7.6	16.1	17.1	13.8	8.7	6.4	6.5	5.3	8.8
Not attending	3.9	12.8	22.1	42.2	57.7	60.1	71.7	77.7	82.9	83.3	52.1
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Includes persons who were attending 'Other educational' institutions.
Source: Labour Force Status and Educational Attendance, Australia (6235.0).

10.17 PERSONS AGED 15 TO 64 WHO ATTENDED AN EDUCATIONAL INSTITUTION IN 1991: TYPE OF ATTENDANCE AND LABOUR FORCE STATUS, MAY 1992

Type of attendance in 1991			Employed: Full-time	Employed: Part-time	Employed: Total	Unemployed	Labour force	Not in labour force	Total	Unemployment rate
									'000	(%)
Full-time										
Attending in May 1992			52.9	332.8	385.7	90.2	475.9	697.4	1,173.3	19.0
	School	Full-time	*0.9	157.5	158.4	39.9	198.3	443.1	641.4	20.1
		Part-time	*0.3	*0.8	*1.1	*0.5	*1.6	*0.5	*2.1	*31.3
		Total	**1.1*	*158.4*	*159.5*	*40.4*	*199.9*	*443.7*	*643.6*	*20.2*
	Tertiary	Full-time	18.0	155.1	173.1	36.5	209.6	247.2	456.8	17.4
		Part-time	33.8	19.3	53.1	13.3	66.4	6.6	72.9	20.0
		Total	*51.8*	*174.4*	*226.2*	*49.8*	*276.0*	*253.7*	*529.7*	*18.1*
Not attending in May 1992			138.2	57.2	195.4	86.2	281.6	27.6	309.2	30.6
Total			*191.1*	*389.9*	*581.1*	*176.4*	*757.5*	*725.0*	*1,482.5*	*23.3*
Part-time										
Attending in May 1992			322.9	65.7	388.6	27.6	416.2	55.5	471.7	6.6
Not attending in May 1992			397.3	84.4	481.7	59.7	541.4	68.2	609.6	11.0
Total			*720.2*	*150.1*	*870.3*	*87.3*	*957.5*	*123.7*	*1,081.2*	*9.1*
Total										
Attending in May 1992			375.8	398.5	774.3	117.8	892.1	752.9	1,645.0	13.2
	School	Full-time	*0.9	157.7	158.6	40.0	198.6	443.1	641.7	20.1
		Part-time	*1.3	*1.0	*2.3	*1.2	3.5	*2.2	5.6	*34.2
		Total	**2.2*	*158.7*	*160.9*	*41.2*	*202.0*	*445.3*	*647.3*	*20.4*
	Tertiary	Full-time	24.2	161.9	186.1	40.2	226.3	263.1	489.3	17.8
		Part-time	349.4	77.9	427.3	36.5	463.8	44.5	508.3	7.9
		Total	*373.6*	*239.8*	*613.4*	*76.7*	*690.1*	*307.6*	*997.6*	*11.1*
Not attending in May 1992			535.6	141.5	677.1	145.9	823.0	95.8	918.8	17.7
Total			**911.4**	**540.0**	**1,451.3**	**263.7**	**1,715.0**	**848.7**	**2,563.7**	**15.4**

Source: Transition from Education to Work, Australia (6227.0).

Education attendance and the labour force

An ABS survey in May 1992 revealed that an estimated, 2,563,700 persons aged 15 to 64 years had attended an educational institution in the previous year. At the time of the survey only 64 per cent (1,645,000) were still attending. Among this group were 75,000 persons who had changed from full-time to part-time study and 34,100 of these were employed full time.

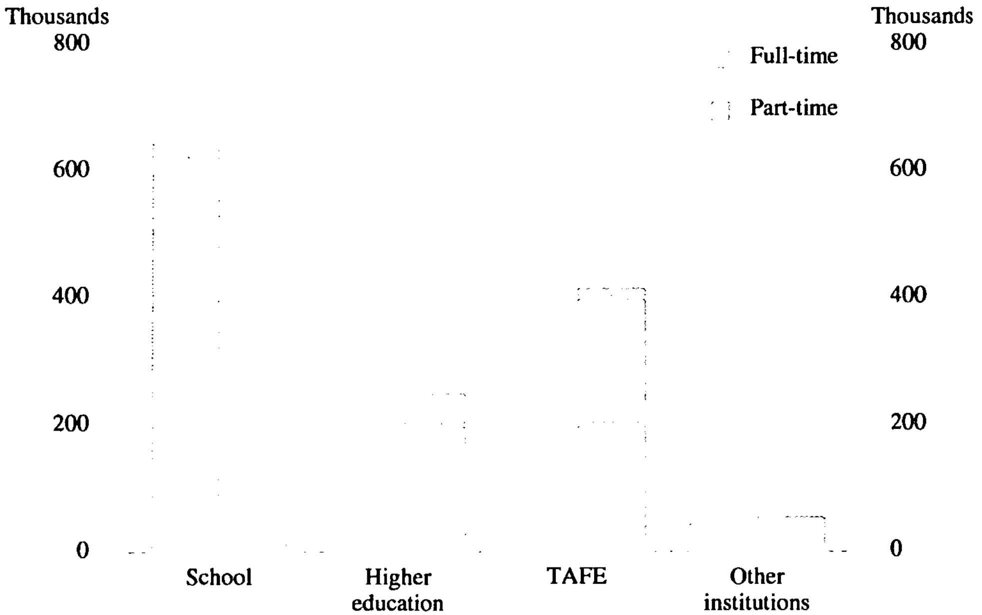
Of the 918,800 persons who had ceased education since the previous year, 677,100 were employed, 145,900 were unemployed and the remaining 95,800 were not in the labour force.

A large number of persons were involved in both study and work. The 1,645,000 persons continuing at an educational institution in May 1992 included 774,300 (47%) employed (375,800 of these in full-time employment) and 117,800 who were looking for work. There were also 25,200 persons who reported combining full-time study and full-time employment.

Graph 10.18 gives an indication of the spread of full-time and part-time study across the various types of education.

Part-time education in schools is confined to less than two per cent of students, whereas its vocational education counterpart, Technical and Further Education, shows 75 per cent of students studying part time. At higher education institutions 39 per cent of students were studying part time.

10.18 PERSONS AGED 15 TO 64 ATTENDING AN EDUCATIONAL INSTITUTION IN MAY 1992



Source: Transition from Education to Work, Australia (6227.0).

Educational attainment

In February 1992, 5,076,500 persons aged 15 to 69 were estimated as having obtained a post-school qualification.

By far the largest group in terms of level of educational qualifications was the 2,272,800 persons with a certificate or diploma, with 1,620,200 having a trade certificate, 1,139,500 having a degree or higher qualification and 44,000 reporting some other qualification (table 10.19).

All other persons were either without post-school qualifications (6,485,200) or still attending school (593,400).

Of persons holding a degree or higher qualification in February 1992, 58 per cent were males, while 90 per cent of persons with a trade qualification were males. Some 68 per cent of persons holding a certificate or diploma were females (graph 10.20).

10.19 PERSONS AGED 15 TO 69: EDUCATIONAL ATTAINMENT AND AGE, FEBRUARY 1992 ('000)

	Age (years)						
Educational attainment	*15–19*	*20–24*	*25–34*	*35–44*	*45–54*	*55–69*	*Total*
With post-school qualifications	84.1	546.8	1,442.7	1,374.9	890.0	738.1	5,076.5
Degree	*0.9	114.4	354.7	379.5	185.9	104.1	1,139.5
Trade qualification	13.4	158.4	440.8	388.1	307.4	312.2	1,620.2
Certificate or diploma	67.3	267.6	638.2	595.6	388.5	315.5	2,272.8
Other	*2.5	6.4	9.0	11.7	8.1	6.3	44.0
Without post-school qualifications(a)	643.6	844.2	1,336.8	1,246.9	1,047.7	1,366.0	6,485.2
Attended highest level of secondary school available	368.0	415.7	365.9	280.0	145.6	133.6	1,708.7
Did not attend highest level of secondary school available	275.3	427.9	962.1	954.8	884.8	1,206.4	4,711.3
Left at age							
18 and over	*2.3	16.5	24.7	21.5	9.6	8.6	83.1
16 or 17	155.5	254.9	497.2	341.9	176.8	143.1	1,569.4
14 or 15	115.7	148.7	413.5	525.6	575.5	806.9	2,586.0
13 and under	*1.7	7.9	26.7	65.8	122.9	247.8	472.8
Never attended school	*—	*—	*3.4	6.5	11.0	20.3	41.3
Still at school	590.6	*2.9	*—	*—	*—	*—	593.4
Total	**1,318.2**	**1,393.9**	**2,779.5**	**2,621.8**	**1,937.7**	**2,104.1**	**12,155.2**

(a) Includes persons for whom attendance at a secondary school could not be determined.
Source: Labour Force Status and Educational Attainment, Australia (6235.0).

10.20 DISTRIBUTION OF POST-SCHOOL QUALIFICATIONS, FEBRUARY 1992

Source: Labour Force Status and Educational Attainment, Australia (6235.0).

SOURCES OF STUDENT INCOME

In 1991 a survey of students, aged 15 to 64 and not employed full time, revealed that the average weekly income for all students was $119.80. Average weekly income varied little between males and females but rose steeply on an age basis — from $32.90 a week for 15 and 16 year olds to $245.00 a week for students aged 25 years or more.

Students living with parents or a guardian reported an average income of $83.40 a week compared to $189.40 a week for those living away from home and $255.50 for students living with dependents or a spouse.

Students whose principal source of finance was wages, salary and investments had an average weekly income of $198.00. This compared to $107.10 for students relying on government or other benefits and $43.50 for those receiving income from family or friends.

Secondary school students reported their average weekly income as $42.40 and tertiary students $185.60.

10.21 AVERAGE WEEKLY TOTAL INCOME OF STUDENTS: SELECTED STUDENT CHARACTERISTICS BY PRINCIPAL SOURCE OF FINANCE, 1991
($)

	Principal source of finance			
Student characteristics	*Government and other benefits*	*Wages, salaries and investments*	*Family and other*	*All students*
Sex				
Male	99.70	217.00	41.20	120.20
Female	114.40	181.00	46.20	119.40
Age group (years)				
15–16	60.00	55.90	11.40	32.90
17–18	70.90	128.50	26.50	74.60
19–20	98.50	208.90	99.30	153.50
21–24	143.70	230.50	108.70	168.20
>24	176.90	340.80	109.90	245.00
Living arrangements				
Living with parent(s) or guardian	80.00	148.80	23.30	83.40
Living with spouse and/or children	188.50	346.30	113.00	255.50
Living away from home	144.20	273.80	165.40	189.40
Student type				
Secondary	65.70	65.40	14.70	42.40
Tertiary				
Full time	98.40	110.80	35.30	77.50
Part time	157.30	340.10	157.30	261.10
Apprentice(a)	*147.70	287.00	*1.00	276.10
Total	*140.10*	*256.30*	*97.10*	*185.60*
Higher education				
Full time	136.20	164.60	90.90	132.60
Part time	*148.40	379.00	*258.30	304.00
Total	*137.80*	*228.50*	*108.10*	*164.90*
Technical and further education				
Full time	120.40	*153.20	*56.40	115.90
Part time	166.30	337.60	*116.30	259.60
Total	*139.90*	*293.20*	*64.50*	*199.40*
Other	172.90	189.60	29.10	136.30
All students	**107.10**	**198.00**	**43.50**	**119.80**

(a) Apprentices have been shown as a separate category and included in the Tertiary Total estimates, but excluded from all other student type estimates.
Source: Student Finances, Australia (6550.0).

ADULT EDUCATION

Adult education is the most decentralised of the education sectors. Many courses provide a valuable starting point for encouraging people to go on to award courses at formal educational institutions. Other courses fulfil the cultural, recreational and social needs of community members without leading to formal qualifications. The range of course providers is enormous: from commercial and private industry, church and cultural groups to professional and semi-professional bodies, from the YMCA and similar institutions, higher educational institutions (including tertiary bodies), Technical and Further Education Institutions, primary and secondary schools, workers' educational associations, personal tuition, and State and Commonwealth departments to public libraries, museums and galleries.

Throughout the 1980s there was a significant growth in non-government community based adult education run on a voluntary or semi-voluntary basis. These courses originate from the requirements, demands and initiatives of local communities and are offered by learning centres, community care centres, community schools, education centres (particularly in country areas), voluntary teaching networks, literacy groups, women's education programs, teachers' centres, ethnic networks, discussion centres and a variety of neighbourhood centres. Courses range from general interest, recreational and leisure activities, personal development, social awareness and craft through to vocational, remedial and basic education. Community based adult education constitutes a new trend in education. It is open to all, and non-formal characteristics demonstrate the capacity of the community to develop alternatives to institutionalised education.

The higher education sector plays an integral part in adult education through programs of continuing education in professional development, preparatory skills, and general education. These courses are offered by institutions in response to industry and government initiatives and are at a level consistent with the general teaching of the institutions. The TAFE sector is the largest provider of adult recreational and leisure courses.

GOVERNMENT ASSISTANCE TO STUDENTS

The Commonwealth Government spent more than $1,400 million on student assistance in 1991–92.

10.22 STUDENT ASSISTANCE SCHEMES 1991–92

Scheme	*Number of students*	*Assistance $'000*
AUSTUDY Tertiary	214,237	761,021
AUSTUDY Secondary(a)	241,986	548,090
ABSTUDY (Schooling)	25,153	38,745
ABSTUDY (Tertiary)	16,762	61,031
Assistance for Isolated Children	13,337	20,863

(a) Includes adult secondary.
Source: Department of Employment, Education and Training.

AUSTUDY

AUSTUDY is the Commonwealth Government's means-tested and non-competitive scheme of financial assistance to secondary and tertiary students aged 16 and above. The scheme is a major element in the Government's drive to increase participation in full-time education in the upper secondary and tertiary levels.

Maximum allowance rates for married students with dependent children and for single students aged 16 to 20 are aligned with the corresponding rates for unemployed people and all rates are indexed annually. The types of allowances available are:

- standard rate (generally for those living at home);
- away from home rate;
- independent rate;
- a pensioner Education Supplement ($30 per week) for certain Department of Social Security pensioners; and
- dependent spouse and fares allowances for eligible students.

AUSTUDY also has special provisions for young people unable to live at home because of exceptional or intolerable circumstances. These provisions allow young people to be classified as independent, thus free from the application of the parental means test in assessing their eligibility for AUSTUDY.

The number of students assisted under AUSTUDY has increased substantially since the introduction of the scheme in 1987, from about 225,000 students in that first year to around 450,000 in 1992.

Significant improvements to AUSTUDY from 1993 provide more generous and flexible support to help alleviate difficulties faced by many students by:

- extension of AUSTUDY to cover the wider range of accredited TAFE-type courses in the private sector. All accredited private sector TAFE-type and higher education courses are now covered by the scheme;
- lowering of the age of independence from 25 years to 24, to be progressively reduced to 22 years by 1995; and
- a 20 per cent increase in the personal income test threshold which allows AUSTUDY students to earn up to $6,000 in 1993 before affecting their entitlement (up from $5,000 for 1992).

ABSTUDY

ABSTUDY provides assistance to Aboriginal and Torres Strait Islander people who are undertaking secondary studies, (or who are attending primary school and are aged 14 years or older on 1 January of the year of study) and part-time and full-time tertiary students.

ABSTUDY represents a major component of the Government's commitment under the Aboriginal Education Policy (AEP) to encourage Aboriginal and Torres Strait Islander people to take full advantage of the educational opportunities offered to them, to promote equality of educational opportunity and to improve educational outcomes.

The allowances available to ABSTUDY students are:

- Living Allowance
  — at home rate,
  — away from home rate,
  — independent rate;
- Dependent Spouse Allowance;
- Pensioner Education Allowance; and
- Away from base entitlements.

In addition, the following allowances are available to ABSTUDY School students:

- School Fees Allowance; and
- Schooling Education Supplement.

The following allowances are available to ABSTUDY tertiary students:

- Incidentals Allowance;
- Fares Allowance; and
- Part-time Allowance.

In 1992, ABSTUDY assisted approximately 42,000 persons.

Supplementation scheme

A new voluntary AUSTUDY/ABSTUDY Supplement gives eligible tertiary students the chance to 'trade in' all or part of their grant, up to a limit of $2,000 on a $1 for $2 basis to obtain more money to support their studies. It is entirely optional and is provided at no real rate of interest. The Supplement is, however, a loan and is repayable. Repayments do not commence until after five years, after which recovery is made through the taxation system when taxable income reaches the level of average weekly earnings.

These changes involve significant increases in funds for AUSTUDY and ABSTUDY to about $1,500 million in 1992–93 with an increase in the number of beneficiaries from around 510,000 to about 560,000.

The Assistance for Isolated Children Scheme (AIC) assists the families of primary and secondary students who, because of geographic isolation, a disability or other reason (for example, family itinerancy), do not have reasonable daily access to appropriate government schooling.

Assistance is available for isolated children who board away from home, study by correspondence, or live in a second home so that they can attend school daily.

AIC provides the following allowances which are free from income or assets testing:

- Boarding Allowance ($2,500 per year);
- Second Home Allowance ($2,500 per year); and
- Correspondence Allowance ($10 per week for primary students; $20 per week for secondary students).

These allowances are available to eligible students under 19 years of age.

As well, the annual boarding allowance can be increased up to $3,048 for primary students and $3,384 for secondary students up to the age of 16 years, depending on the family's income and assets.

Families can also continue to receive Department of Social Security Family Payments for eligible students. This option is not available under AUSTUDY.

In 1992, AIC assisted approximately 13,300 students.

The National Aboriginal and Torres Strait Islander Education Policy (AEP) is a joint commitment by the Commonwealth Government, and the State and Territory Governments in consultation with the Aboriginal community, to achieve broad equity between Aboriginal people and other Australians in access, participation and outcomes at all stages of education.

The AEP is a concerted effort to address the educational needs of Aboriginal people, by cooperatively directing the strategies of the Commonwealth, the States and Territories, non-government education authorities and educational institutions at all levels to achieve:

- full involvement of Aboriginal people in educational decisions;

- equality of access to educational services;
- increased participation at all levels of education; and
- equitable and appropriate educational outcomes.

Through the AEP the Commonwealth has supplemented its recurrent and capital funding with a three year forward commitment in one consolidated program — the Aboriginal Education Strategic Initiatives Program. This has replaced all previous Commonwealth education funding programs except income support through ABSTUDY. ABSTUDY continues to provide education income support for secondary and tertiary students. The Aboriginal Tutorial Assistance Scheme (ATAS), provides assistance to all levels of Aboriginal students seeking help in their accredited coursework.

ADMINISTRATION OF EDUCATION AT THE NATIONAL LEVEL

The Commonwealth Department of Employment, Education and Training is responsible for education matters at the national level, to which a number of bodies contribute.

The National Board of Employment, Education and Training (NBEET) was established under the *Employment, Education and Training Act 1988*. Proclaimed on 1 July 1988, it is the mechanism for providing coordinated and independent advice to the Government on employment, education, training and research in the context of the Government's broad social, economic and resource policies.

The Board provides for input from providers of education and training, and from business, industry and union organisations, as well as interested bodies in the community. It is assisted by four Councils:

- The *Schools Council* advises on the Commonwealth's policies and programs relating to schools, including the general development of primary and secondary education.
- The *Higher Education Council* advises on the general development of higher education in Australia, priorities and arrangements for the funding of higher education institutions and overseas marketing of Australian higher education products.
- The *Employment and Skills Formation Council* advises on technical and further education, employment and skills formation policies, programs and services, and the promotion of effective training through business and industry.
- The *Australian Research Council* recommends to the Minister on the distribution of resources allocated to its research funding schemes, and provides advice to the Board on national research priorities and coordination of research policy.

In addition to the NBEET arrangements, the Commonwealth Government has established advisory arrangements in a number of specific areas including women, Aborigines, and in language policy and multicultural education:

- A *Women's Employment, Education and Training Advisory Group* has been formed to ensure appropriate consideration of issues relating to women's access and participation in employment, education and training, and to enhance links within the portfolio.
- The *National Aboriginal and Torres Strait Islander Education Policy* was launched in October 1989. Policy objectives are implemented through the Aboriginal Employment, Education and Training Committee.
- The *Australian Advisory Council on Languages and Multicultural Education* has also been established to advise and assist the Government with policy and implementation matters and to provide a forum for discussion on needs and priorities.

A number of bodies at the national level have an important coordinating, planning or funding role:

- The *Vocational Education, Employment and Training Advisory Committee (VEETAC)*, composed of Commonwealth and State and Territory heads of department, two industry representatives and a representative of the National Training Board, was established in November 1990 to provide advice to Commonwealth and State Ministers in relevant areas. The Ministerial Council on Vocational Education, Employment and Training (MOVEET) provides a forum for meetings of Ministers in those areas.

- The *Australian Education Council, (AEC)*, membership is made up of State and Territory Ministers for Education, and usually meets at least annually as a consultative body to consider matters of mutual interest and generally to facilitate the exchange of information and the coordination of common programs.
- *The Standing Committee Schools* normally meets twice each year. Matters discussed and decisions reached 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.
- The *Australian Council for Educational Research (ACER)* is an independent national research organisation. The Council is funded by annual grants from the Commonwealth Government, and each of the State and Territory Governments, as well as from its own activities. The Council is involved in its own and contract research in cooperation with education systems and plays a central role in the areas of educational measurement and evaluation as well as research into learning and teaching and in the social context of education. Authority for ACER's policy rests with its governing council.
- The *TAFE National Centre for Research and Development Ltd* was established in 1980 and is a company limited by guarantee. The main sources of funding are the Commonwealth Government (50%) and the States and Territories (on a per capita basis). Initially involved in curriculum development issues, the Centre's general research thrust is now aimed towards industries' requirements of TAFE, common skills across crafts, multi-skilling, skill formation and retraining. The National TAFE Clearing House within the Centre provides a service disseminating information on research and development activities within TAFE in Australia.
- The *Register of Australian Tertiary Education* (RATE) was set up in January 1990 by the Australian Education Council. RATE constitutes a single national register of authorities (including institutions) empowered by State/Territory or Commonwealth governments to accredit tertiary education award courses. It is the responsibility of those authorities/institutions to accredit tertiary award courses.
- *The National Training Board* (NTB) is a tripartite body, incorporated as a company and limited by guarantee, with representation from Commonwealth Government, and the State and Territory Governments. The principal purpose of the NTB is to enforce, within a national framework, national competency standards proposed by industry groups. The National Standards set by the NTB are benchmarks for industry bodies, State and Territory vocational, education and training authorities and other bodies involved in curriculum development and accreditation/approval of both institutional and non-institutional training. *See* also the chapter on Labour.

There are also a number of non-government organisations which have coordinating roles in their specific segments of education and training at the national level. These include the National Catholic Education Commission, the National Council of Independent Schools Associations, the Australian Vice-Chancellors' Committee, the Australian Conference of Directors of TAFE and the Australian High School Principals' Association.

NEW DEVELOPMENTS IN EDUCATION

Schools curriculum development

Eight areas of learning have been identified for cooperative development. These areas are English; mathematics; science; language other than English; arts; technology; studies of society and environment; and health.

Work has commenced on mapping these areas to identify common goals across States and Territories and similarities in ways of achieving these goals. Work has also been undertaken on developing national statements of common curriculum principles and on developing subject profiles to provide a common framework for reporting student achievement for Years 1 to 12.

Participation in post-compulsory education

Following the (Finn) report of the committee of enquiry into post-compulsory education, the establishment of a new national education and training system was announced in July 1992.

The administration of the new national system will comprise:

- a Ministerial Council, chaired by the Commonwealth Minister, to determine national policy, strategic directions, funding arrangements and planning processes for vocational education and training;
- a new Australian National Training Authority (ANTA), to be established as a Commonwealth statutory authority and to have strong industry representation. ANTA will advise the Ministerial Council on policy and funding issues; receive and allocate Commonwealth and State funding; administer relevant national programs; and take part in the detailed planning for the delivery of vocational education and training; and
- State training agencies, to manage the delivery of vocational education and training consistent with the national strategic plan. These agencies will be accountable to State Ministers for operational matters and to the Ministerial Council on matters of national policy.

The new arrangements are expected to take effect from 1 January 1994, with appropriate transitional arrangements to apply in the meantime.

The Finn Committee's report titled *Young People's Participation in Post-compulsory Education and Training* also led to the establishment of the Mayer Committee. This committee is expected to undertake further exploratory work on the definition of 'key competencies', which are the minimum basic skills an individual would need to acquire in preparation for employment.

Key competencies and 'vocational competencies recognised as meeting national Training Board standards' will form the basis of course content for the new Australian Vocational Certificate (AVC) expected to be introduced in January 1995. The AVC Training System will use a combination of education, training and structured work experience.

Teaching issues

The National Project on the Quality of Teaching and Learning (NPQTL) was established to provide research and development support for award restructuring in teaching and to foster cooperative development of national education strategies.

In 1992 the project established three working parties to further its objectives. These are the Working Parties on: Work Organisation and related Pedagogical Issues; National Professional Issues; and Professional Preparation and Career Development.

EXPENDITURE ON EDUCATION

This section provides information on the extent and composition of both government and private expenditure on education in recent years. Estimates of government and private expenditure have been compiled in accordance with national accounting concepts. An explanation of these concepts is contained in *Australian National Accounts: Concepts, Sources and Methods (5216.0), Classification Manual for Government Finance Statistics, Australia (1217.0),* and also in *Expenditure on Education, Australia (5510.0)* 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 not only the relative importance of that sector in the provision of educational services but also the lack of detailed information relating to expenditure on educational activities in the private sector. However, the information provided shows the order of magnitude of private sector spending, and also the aggregate supply of education services and facilities.

Table 10.23 presents the total outlays on education by the government and private sectors, and their components, and the percentages of Gross Domestic Product (GDP) which they represent, for 1989–90 and preceding years.

The total final expenditure on education (comprising the final consumption and gross fixed capital expenditures of the public and private sectors made directly into the education system) increased by 9.3 per cent from \$16,274 million in 1988–89 to \$17,786 million in 1989–90. It remained at a constant 4.8 per cent of GDP over these two years, having previously fallen from 5.4 per cent since 1984–85. This decrease has been concentrated in the government sector, the private sector expenditure having remained a constant percentage of GDP (*see* also graph 10.24).

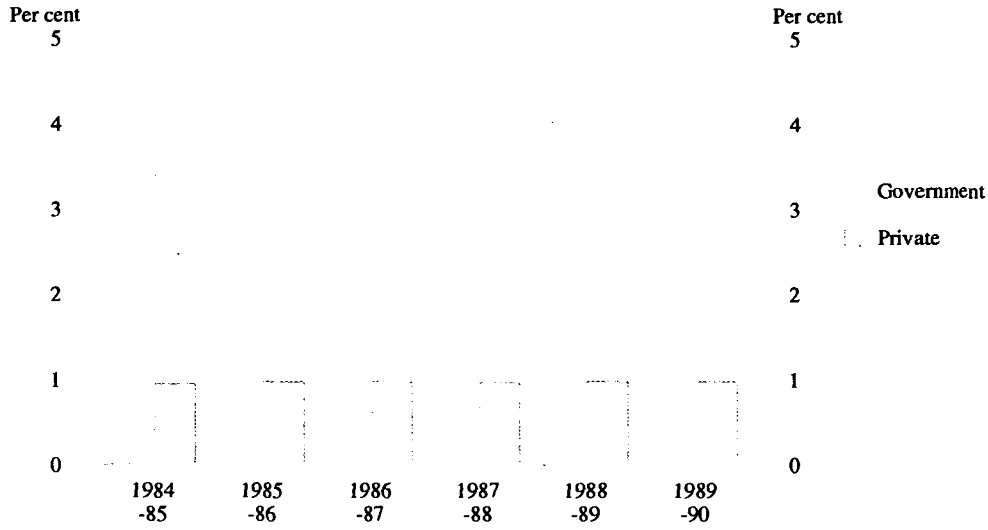
10.23 GOVERNMENT AND PRIVATE EXPENDITURE ON EDUCATION

Description	*1984–85*	*1985–86*	*1986–87*	*1987–88*	*1988–89*	*1989–90*
			— $ million —			
Government						
General government final consumption expenditure	8,793	9,602	10,301	10,872	11,820	12,748
Gross fixed capital expenditure	877	1,036	1,155	996	1,064	1,287
Increase in stocks	—	1	2	2	2	3
Government final expenditure (1)	*9,671*	*10,639*	*11,458*	*11,870*	*12,886*	*14,038*
Personal benefit payments (2)	734	825	954	1,208	1,352	1,502
Grants and advances to persons and non-profit institutions(a)	1,253	1,412	1,519	1,611	1,775	1,996
Advances to persons for Higher Education Contribution Scheme(3)	—	—	—	—	226	435
Other (4)	27	28	4	– 4	– 13	5
Total government outlay on education	*11,684*	*12,905*	*13,934*	*14,685*	*16,226*	*17,976*
Private						
Private final consumption expenditure	1,879	2,130	2,326	2,597	2,979	3,401
Gross fixed capital expenditure	175	224	278	312	409	347
Private final expenditure (5)	*2,054*	*2,354*	*2,604*	*2,909*	*3,388*	*3,748*
Total final expenditure on education (1)+(5)	*11,725*	*12,993*	*14,062*	*14,779*	*16,274*	*17,786*
Total outlays on education (1)+(2)+(3)+(4)+(5)	**12,486**	**13,847**	**15,019**	**15,983**	**17,839**	**19,728**
Gross Domestic Product(b)	216,150	240,319	264,564	298,335	340,440	370,805
			— per cent of Gross Domestic Product —			
Total government outlays	5.4	5.4	5.3	4.9	4.8	4.8
Total final expenditure on education	5.4	5.4	5.3	5.0	4.8	4.8
of which						
General government final consumption expenditure	4.1	4.0	3.9	3.6	3.5	3.4
Private final consumption expenditure	0.9	0.9	0.9	0.9	0.9	0.9
Government gross fixed capital expenditure	0.4	0.4	0.4	0.3	0.3	0.3
Private gross fixed capital expenditure	0.1	0.1	0.1	0.1	0.1	0.1
Total outlays on education	5.8	5.8	5.7	5.4	5.2	5.3

(a) Excludes Commonwealth advances for Higher Education Contribution Scheme purposes. (b) The figures for Gross Domestic Product are obtained from *Australian National Accounts: National Income and Expenditure, December 1991 (5206.0).*

Source: Expenditure on Education, Australia (5510.0).

10.24 FINAL EXPENDITURE ON EDUCATION AS A PERCENTAGE OF GDP



Source: Expenditure on Education, Australia (5510.0).

In addition to the final expenditure made directly on education by both sectors, the government also makes indirect expenditure relating to education, in the form of personal benefit payments, grants and advances to persons and institutions, and net advances to students under the Higher Education Contribution Scheme (this applies to students who do not make up-front HECS payments. The net figure reflects an imputed advance made to the student less any repayments of the advance made by the student at a later date). These together with total final expenditure, make up the total outlays on education. Table 10.23 shows that total outlays rose 10.6 per cent from $17,839 million to $19,728 million between 1989–89 and 1989–90, and increased as a percentage of GDP from 5.2 to 5.3 per cent.

Table 10.25 and graph 10.26 show the components of government outlays on education in 1989–90.

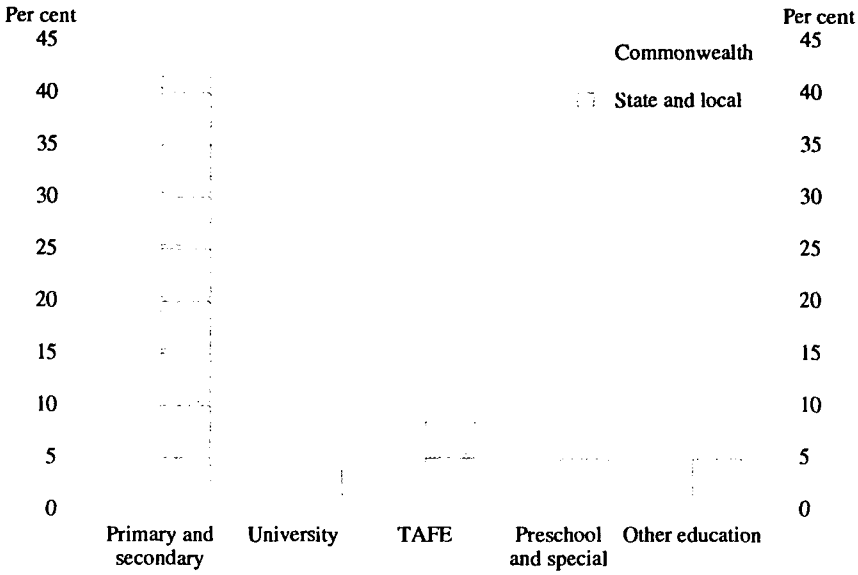
10.25 GOVERNMENT OUTLAYS ON EDUCATION, BY ECONOMIC TRANSACTION AND PURPOSE 1989–90 ($ million)

Purpose	General government final consumption expenditure	Personal benefit payments	Expenditure on new fixed assets	Expenditure on second-hand fixed assets (net)	Other (a)	Intergov-ernmental grants (b)	Own source outlays (c)
Primary and secondary education	7,016	472	689	-71	1,811	—	9,918
Commonwealth	-1	318	—	—	8	2,143	2,468
State and local	7,017	154	689	-71	1,803	-2,143	7,450
Tertiary education	4,505	633	572	34	423	—	6,168
Commonwealth	174	629	21	-1	440	2,720	3,983
State and local	4,332	3	551	36	-17	-2,720	2,185
University education	3,001	443	245	38	403	—	4,130
Commonwealth	174	442	21	-1	438	2,382	3,456
State and local	2,828	1	224	39	-35	-2,382	674
Technical and further education	1,491	95	327	-3	20	—	1,929
Commonwealth	—	92	—	—	2	339	433
State and local	1,491	2	327	-3	18	-339	1,496
Tertiary education n.e.c.	13	95	—	—	—	—	109
Commonwealth	—	95	—	—	—	—	95
State and local	13	—	—	—	—	—	14
Preschool and other special education	729	19	38	1	175	—	961
Commonwealth	74	14	4	—	18	12	122
State and local	655	5	33	1	157	-12	839
Transportation of students	134	374	6	—	16	—	530
Commonwealth	—	—	—	—	—	—	—
State and local	134	374	6	—	16	—	530
Education n.e.c.	364	4	21	-3	15	—	400
Commonwealth	90	—	-3	—	6	14	106
State and local	274	4	24	-3	9	-14	294
Total	**12,748**	**1,502**	**1,326**	**-39**	**2,440**	**—**	**17,976**
Commonwealth	**336**	**961**	**22**	**-1**	**472**	**4,889**	**6,679**
State and local	**12,412**	**541**	**1,303**	**-38**	**1,969**	**-4,889**	**11,298**

(a) Mainly current grants to non-government schools and subsidies for teacher housing. (b) Specific purpose grants from the Commonwealth Government to State Governments. The amounts concerned are shown as a deduction from outlays in the rows for State and local governments. (c) Outlays on education less specific purpose grants received from other levels of government. In the case of the Commonwealth Government this simply represents their total outlays but in the case of State and local governments it represents outlays financed from their own resources and non-specific Commonwealth grants.

Source: Expenditure on Education, Australia (5510.0).

10.26 EDUCATION OUTLAYS BY PURPOSE, 1989–90
(percentage of total government outlays on education)



Source: Expenditure on Education, Australia (5510.0).

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Schools, Australia (4221.0)

Student Finances, Australia (6550.0)

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The Australian Research Council Awards
Census of Non-government Schools
DEET Programs: Impact on TAFE
Department of Employment, Education and Training Annual Report
Education at a Glance
Education Participation Rates
Higher Education Funding for the 1991–93 Triennium
Higher Education Series
Retention and Participation in Australian Schools
Schooling in Australia: Statistical Profile
Selected Higher Education Statistics
Selected TAFE Statistics
TAFE 1990: Commonwealth Programs and Priorities

The annual reports of the respective State education departments also provide detailed statistical information.

FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Eleven

Law and Order

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THE LAW IN AUSTRALIA

Nature and composition

The laws of a country represent the common body of rules, whether proceeding from legislation, executive action, court judgements or custom, that a State or community recognises as binding on its citizens or members, and which are enforceable by judicial means. In Australia, the law consists basically of:

- Acts passed by the Commonwealth Parliament acting within the scope of its powers under the Australian Constitution, together with the regulations, rules and orders made under such Acts;
- Acts and Ordinances passed in respect of the Australian Capital Territory and the Northern Territory, together with the regulations, rules and orders made under such Acts and Ordinances;
- Acts passed by State Parliaments and the Legislative Assembly of the Northern Territory and the Australian Capital Territory, together with the regulations, rules and orders made under such Acts;
- so much of the common or statute law of England that still applies to Australia and remains unrevoked by Australian domestic legislation; and
- the common law, consisting of judicial decisions.

These various laws relate to a number of subject matters, including constitutional law, criminal law, civil law, family law and industrial law.

Commonwealth and State responsibilities

Under the Australian Constitution, the Commonwealth of Australia is empowered to make laws in relation to certain matters specified in the Constitution, for example, in relation to trade and commerce, taxation, defence and external affairs. In relation to some of these matters, the powers of the Commonwealth are concurrent with those of the Australian States and Territories in that they may be exercised by either the Commonwealth, the States or the Territories. In relation to some other specified topics the Commonwealth's power is absolute, and, in all areas of federal jurisdiction, Commonwealth laws are binding on the Australian States and Territories.

The Australian States and Territories have independent legislative power in relation to all matters that are not otherwise specifically invested in the Commonwealth of Australia, and it is the statute law and the common law of the States and Territories that primarily govern the day-to-day lives of most Australians.

Administration and expenditure

Administration of the law in Australia is undertaken by the responsible government concerned, principally through the Commonwealth, State and Territorial police forces, the National Crime Authority, and State and Territorial corrective or penal services. There is no independent federal corrective service, and the relevant State or Territorial agencies provide corrective services for federal offenders.

In 1990–91, almost $4.6 billion (or approximately $266 per person) was expended by the Commonwealth, State, Territorial and local governments on law and order.

11.1 GOVERNMENT CURRENT AND CAPITAL EXPENDITURE: LAW AND ORDER
($ million)

	1988–89	*1989–90*	*1990–91*
Police services(a)	2,173	2,335	2,543
Law courts and legal services(b)	840	1,113	1,148
Prisons and corrective services(c)	766	766	881
Total	**3,779**	**4,214**	**4,572**

(a) Includes outlays on police colleges, police training and police laboratories. (b) Includes outlays on legal representation and advice on behalf of the government and others, costs of crown prosecutions, trusteeship. Excludes outlays associated with industrial law and tribunals and appeal boards that can be classified to specific purpose categories. (c) Excludes residential child care institutions that are not places of secure detention.

Source: Unpublished ABS data available under the title Government Financial Statistics (5512.0).

Law reform

Commonwealth, State and Territory laws are altered and reformed principally by the relevant legislature. For Commonwealth laws and for the laws of the Territories (except the Australian Capital Territory, the Northern Territory and Norfolk Island) the relevant legislature is the Commonwealth Parliament. Each State has its own State Parliament and the Australian Capital Territory, the Northern Territory and Norfolk Island each have their own Houses of Assembly. Each jurisdiction has established advisory bodies to advise governments and parliaments on reform of the law. Some of these bodies have a general law reform function; others are specialist bodies, restricted to particular areas of the law. General law reform commissions have been established as statutory authorities for the Commonwealth (the Australian Law Reform Commission — ALRC) and all of the States except South Australia. Specialist law reform agencies at the Commonwealth level include the Companies and Securities Advisory Committee (undertaking work in the area of corporate law) and the Copyright Law Review Committee (undertaking work in the area of intellectual property law).

The Australian Law Reform Commission

The Australian Law Reform Commission is the Commonwealth Government's general law reform advisory body. It commenced operation in 1975 under the *Law Reform Commission Act 1973*. Its principal objectives are:

- to influence reform of Commonwealth laws; and
- to promote uniformity of law throughout all Australian jurisdictions.

The Commission works on references from the federal Attorney-General and in some instances conducts joint projects with other law reform agencies.

The Commission conducts its inquires in a public and open manner, publishing discussion papers and holding consultations with interest groups before making the recommendations for reform of the law.

The Commission makes its recommendations in reports to the federal Attorney-General, which are tabled in the Federal Parliament.

Since June 1991, the Commission has completed reports on:

- Censorship procedure, 1991 (ALRC 55);
- Multiculturalism and the law, 1992 (ALRC 57);
- Choice of law, 1992 (ALRC 58);
- Collective investments: Superannuation, 1992 (ALRC 59);
- Customs and excise, 1992 (ALRC 60); and
- Administrative penalties in custom and excise, 1992 (ALRC 61).

See earlier Year Books for previous reports.

FEDERAL COURTS

The judicial power of the Commonwealth of Australia is vested in the High Court of Australia, in the federal courts created by the Commonwealth Parliament and in the State courts invested by Parliament with federal jurisdiction. The nature and extent of the judicial power of the Commonwealth is prescribed by Chapter III of the Australian Constitution.

High Court of Australia

The Australian Constitution provides that the judicial power of the Commonwealth of Australia should be vested in a 'Federal Supreme Court, to be called the High Court of Australia'. The Constitution requires that there shall be a Chief Justice and not less than two other Justices of the High Court. Currently there are six other Justices. Originally, Justices were appointed for life. However, following an amendment to the Constitution in 1977, Justices appointed after that date retire at seventy years of age.

The Australian Constitution vests two types of jurisdiction in the High Court: appellate, under section 73; and original, under sections 75 and 76.

Original jurisdiction is conferred by section 38 of the *Judiciary Act 1903* in respect of:

- matters arising directly under any treaty;
- 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;
- suits by the Commonwealth of Australia, or any person suing on behalf of the Commonwealth, against a State, or any person suing or being sued on behalf of a State;
- 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; and

- matters in which a writ of mandamus or prohibition is sought against an officer of the Commonwealth of Australia or of a federal court. (However, the High Court shares some of its jurisdiction under this section with the Federal Court of Australia.)

The High Court is empowered to remit to another court any matters under section 38 of the Judiciary Act. In addition, the High Court is the Commonwealth Court of Disputed Returns.

The appellate jurisdiction of the High Court of Australia derives from the Judiciary Act, together with the *Federal Court of Australia Act 1976* and the *Family Law Act 1975*, and permits the High Court to grant leave to appeal from decisions of:

- State Supreme Courts;
- State courts exercising federal jurisdiction;
- the Federal Court of Australia; and
- the Family Court of Australia.

In considering whether to grant an application for leave to appeal from a judgment, the High Court may have regard to any matters that it considers relevant, but it is required to have regard to whether the application before it:

- involves a question of law that is of public importance, or upon which there are differences of opinion within, or among, different courts; or
- should be considered by the High Court in the interests of the administration of justice.

The High Court is now the final court of appeal in Australia.

Federal Court of Australia

The Federal Court of Australia was created by the *Federal Court of Australia Act 1976*.

The Federal Court consists of an Industrial Division and a General Division. Matters arising under the *Industrial Relations Act 1988* are dealt with in the Industrial Division and all other matters are dealt with in the General Division. The Court sits as required in each Australian State, in the Australian Capital Territory and the Northern Territory.

The Federal Court has such original jurisdiction as is invested in it by laws made by the Commonwealth Parliament. Except in cases where a hearing had actually commenced before 1 February 1977, the jurisdiction formerly exercised by, respectively, the Federal Court of Bankruptcy and the Australian Industrial Court have been transferred to the Federal Court.

The Federal Court has been invested with original jurisdiction, concurrent with that of the High Court of Australia, in relation to matters in which a writ of mandamus or prohibition or an injunction is sought against an officer of the Commonwealth of Australia.

The Federal Court has appellate jurisdiction in relation to the decisions of single judges of the Court, decisions of the respective Supreme Courts of the Australian Territories (but not the Northern Territory), and certain decisions of State Supreme Courts when exercising federal jurisdiction (for example, under the *Income Tax Assessment Act 1936* and the *Patents Act 1990).*

Family law

The *Family Law Act 1975*, which commenced operation on 5 January 1976, introduced a new law dealing with the dissolution and nullity of marriage, custody and welfare of the children, maintenance and the settlement of property between the parties to a marriage in Australia. The Act also created the Family Court of Australia as a specialist court dealing only with matrimonial and associated proceedings.

The Act provides that there is only one ground for divorce — that of irretrievable breakdown of a marriage — which ground is established if the husband and wife have been separated and have lived apart from each other for 12 months and there is no reasonable likelihood of their reconciliation. Statistics on divorce are contained in the chapter, Demography.

The provisions of the Family Law Act dealing with the maintenance, custody and welfare of children of a marriage have, since 1 April 1988, applied to all children (including ex-nuptial children) in New South Wales, Victoria, Queensland, South Australia, Tasmania, the Australian Capital Territory, the Northern Territory, and Norfolk Island. In Western Australia, the Family Law Act does not apply to ex-nuptial children, who are subject to State laws.

Proceedings under the Family Law Act are dealt with by the Family Court of Australia and by certain other courts in the Australian States and Territories. Except in certain areas of Western Australia, Magistrates Courts and Courts of Petty Sessions have jurisdiction in all proceedings under the Act except for:

- proceedings for dissolution or nullity of marriage. (The courts in which an undefended application for dissolution may be instituted or heard have been limited by regulation.)
- defended proceedings for custody or concerning property worth more than $1,000, unless the parties agree to the matter being heard by a Magistrates Court or Court of Petty Sessions.

A State Family Court has been established in Western Australia to deal with family law matters in that State. That Court applies the provisions of the Family Law Act in dealing with matters related to dissolution and nullity of marriages, the custody and welfare of children of marriages, and maintenance and property settlements.

In relation to the guardianship and custody of children, the Family Law Act provides that both parents are guardians, and have, subject to a court order to the contrary, the joint custody of their children under 18 years of age. However, a parent or another interested person can apply to the Court for sole custody of a child at any time.

Since 1 June 1988, the Child Support Agency, an office established within the Australian Taxation Office, collects periodic child maintenance and some spousal maintenance for a wide range of persons, including pension recipients, sole parents who have separated since that date, or who have never cohabited with the parent of a child born since that date. The Child Support Agency uses maintenance collection and enforcement methods similar to those used for the collection and enforcement of income tax.

Since 1 October 1989 the *Child Support (Assessment) Act 1989* has provided a formula for the administrative assessment of maintenance by the Registrar of Child Support. The purpose of an administrative assessment is the determination of maintenance. The scheme aims to ensure that parents share the cost of child support according to their capacity to pay and to provide for adequate support of their children. The Act applies only to children born after 1 October 1989, or those whose parents separated after that date. The new legislation does not, however, prevent parents from reaching their own child maintenance agreements, or from seeking a judicial review of an administrative assessment.

The Court has power to settle disputes about the parties' family assets, including the power to order a transfer of legal interests in matrimonial property. When dealing with these disputes, the court considers the interest each party has in the property, the financial and non-financial contributions made by each party during the marriage, and the matters the Court is required to consider in dealing with maintenance applications.

The Family Law Act also established two statutory bodies that assist and advise the Commonwealth Attorney-General on family law matters. They are the Family Law Council, an advisory body that is based in Canberra, and the Australian Institute of Family Studies, a research body that is based in Melbourne.

Family Court of Australia

The Judges of the Family Court of Australia are chosen because of their suitability to deal with matters of family law by reason of their training, experience and personality. Staff who are attached to the Court include trained counsellors and legally qualified Registrars and Deputy Registrars.

Proceedings under the Family Law Act in the Family Court are heard in open court, although persons may be excluded from the Court by court order. Some proceedings may be heard in chambers. No publicity that identifies the person or persons involved in any proceedings under the Act is permitted unless otherwise directed by the Court. The publication of law court lists and law reports, or other publications of a technical character directed to the legal or medical professions, is, however, exempted from this prohibition.

In 1991 there were 45,630 divorces granted, a seven per cent increase over 1990. Of these, 24,726 (54.2%) involved children. The total number of children involved was 46,697.

STATE AND TERRITORY COURTS

Australian State and Territory courts have original jurisdiction in all matters brought under State or Territory statute laws, and in matters arising under federal laws, where such matters have not been specifically reserved to courts of federal jurisdiction. Most criminal matters, whether arising under Commonwealth, State or Territory law, are dealt with by State or Territory courts.

Each State and Territory court system is organised and operates independently. However, within each system, which comprises both courts and general jurisdiction and certain specialist courts and tribunals, the courts are organised hierarchically according to the nature of the several matters with which they may deal.

Appeals

The various State County and District Courts and State and Territory Supreme Courts have jurisdiction to hear appeals against the decisions of lower courts and some specialist tribunals in their respective jurisdictions. The procedures concerning the right of appeal are laid down by statute in each State and Territory and appeals may be lodged against matters such as the correctness of the verdict or the severity of the sentence imposed.

Special courts and tribunals

Each Australian State and Territory administers particular areas of the law through specialist courts or tribunals, such as Small Claims Courts and Licensing Courts. These courts or tribunals deal primarily with civil matters or matters of an administrative nature.

Courts of Marine Inquiry

Matters that come within the jurisdiction of Courts of Marine Inquiry are contained in the *Commonwealth Navigation Act 1912*. The principal areas of these Courts' jurisdiction are to make inquiries into casualties, including missing ships and events entailing loss of life on or from ships. Courts of Marine Inquiry are convened by the request of the Minister for Transport and Communications.

ADMINISTRATIVE REVIEW ACTIVITIES

Administrative Appeals Tribunal

The Administrative Appeals Tribunal was established by the *Administrative Appeals Tribunal Act 1975*. Its President is a judge of the Federal Court of Australia. The Tribunal is an independent body whose function is to review the decisions made by Commonwealth Ministers of State, Commonwealth authorities and officials under certain laws of the Commonwealth of Australia. The Tribunal is able to substitute its own decision in those areas in which it has jurisdiction, which covers decisions made under more than 200 Commonwealth enactments, including decisions under the *Social Security Act 1947*, the *Migration Act 1958*, the *Customs Act 1901*, the *Export Market Development Act 1974*, the *Freedom of Information Act 1982*, the *Repatriation Act 1920*, the *Veterans' Entitlements Act 1986* and the *Civil Aviation Act 1988*.

The Administrative Review Council was also established by the *Administrative Appeals Tribunal Act 1975*. The principal functions of the Administrative Review Council are to make recommendations to the Commonwealth Attorney-General on rights of review of administrative decisions and on the procedures of administrative tribunals.

Administrative Decisions (Judicial Review) Act 1977

The *Administrative Decisions (Judicial Review) Act 1977* provides for judicial review by the Federal Court of Australia of administrative action taken under Commonwealth legislation. Where an order of review is sought by an aggrieved person, the Court is empowered to review the lawfulness of a decision, the conduct leading up to the making of a decision, or circumstances where there has been failure to make a decision. The grounds on which review may be sought and the powers of the Court are set out in the Act. In many cases, a person who is entitled to seek judicial review in respect of an administrative decision may seek a statement of reasons for the decision from the decision maker.

Commonwealth and Defence Force Ombudsman

The Office of the Commonwealth Ombudsman was established by the *Ombudsman Act 1976* to investigate complaints about the administrative actions of Commonwealth government departments and prescribed authorities.

The Ombudsman has special powers to investigate complaints against the Australian Federal Police and actions of agencies relating to freedom of information, and to inspect record-keeping procedures for telephone interceptions under the *Complaints (Australian Federal Police) Act 1981*, the *Freedom of Information Act 1982*, and the *Telecommunications Act (Interception) Act 1979* respectively.

The Ombudsman was designated the Defence Force Ombudsman in 1983 by amendment to the Ombudsman Act, with power to investigate matters relating to service in the Australian Defence Force by serving and former members.

The Commonwealth Ombudsman has extensive powers to require the production of documents and information. On completion of an investigation, consideration is given to whether the action in question was illegal, unjust, oppressive, improperly discriminatory, or wrong. The Ombudsman can also assess and report on the reasonableness of any law, rule or policy under which the action was taken.

11.2 COMMONWEALTH OMBUDSMAN COMPLAINTS RECEIVED

Type of complaint	*1990–91*	*1991–92*
	no.	no.
Commonwealth Ombudsman (includes Freedom of Information)		
Written complaints	3,134	4,338
Per 100,000 of population	18.3	24.9
Oral complaints	9,086	11,664
Per 100,000 of population	52.9	67.0
Defence Force Ombudsman		
Written	298	305
Oral	663	513
Australian Federal Police	675	693

Source: Commonwealth Ombudsman.

If necessary, the Commonwealth Ombudsman can recommend to the agency concerned that it take appropriate remedial action. If the agency fails to comply with such a recommendation, the Ombudsman can report to the Prime Minister and to the Commonwealth Parliament.

The Ombudsman is also the Ombudsman for the Australian Capital Territory, a separate position created by the *A.C.T. Ombudsman Act 1989.*

11.3 COMMONWEALTH AND DEFENCE FORCE OMBUDSMAN JURISDICTIONS COMPLAINTS FINALISED

Method of finalisation	*1990–91*	*1991–92*
	no.	no.
Written complaints		
Outside Ombudsman's jurisdiction	554	625
Discretion exercised	702	938
Withdrawn or lapsed	188	168
Substantially in favour of complainant	718	892
Partly in favour of complainant	444	578
In favour of agency	920	997
Total	*3,526*	*4,198*
Oral complaints		
Discretion exercised	3,266	3,652
Written complaint advised, withdrawn, etc.	1,775	2,544
Substantially in favour of complainant	1,600	1,854
Partly in favour of complainant	1,411	1,822
In favour of agency	1,697	1,792
Total	*9,749*	*11,664*

Source: Commonwealth Ombudsman.

The Human Rights and Equal Opportunity Commission

The Human Rights and Equal Opportunity Commission was established by the Australian Government on 10 December 1986 and replaced the Human Rights Commission that had existed for the previous five years. The Commission's functions include the promotion of understanding, acceptance and public discussion of human rights in Australia, including those set out in the following United Nations instruments:

- the Convention Concerning Discrimination in Respect of Employment and Occupation;
- the International Covenant on Civil and Political Rights;
- the Declaration on the Rights of the Child;
- the Declaration of the Rights of Mentally Retarded Persons;
- the Declaration on the Rights of Disabled Persons;
- the International Convention on the Elimination of All Forms of Racial Discrimination; and
- the Convention on the Elimination of All Forms of Discrimination Against Women.

The major functions of the Commission include: the examination of proposed Commonwealth legislation to ascertain whether any provisions are inconsistent with, or contrary to, human rights; inquiry into practices that may be inconsistent with, or contrary to, human rights, and the settlement of matters arising therefrom by inquiry and conciliation or report to the Commonwealth Attorney-General, as appropriate; undertaking research and educational programs relating to human rights; and the examination of international instruments to ascertain whether changes need to be made in domestic laws to comply with international agreements to which Australia is a party.

On 1 January 1990 regulations came into effect which enable the Commission to investigate and conciliate in relation to complaints of discrimination in employment or occupation on any of a number of new grounds. These grounds are: age; medical record; criminal record; impairment; marital status; mental, intellectual or psychiatric disability; nationality; physical disability; sexual preference; and trade union activity. Discrimination on these grounds is not, however, actually made unlawful by the regulations.

The Privacy Commissioner

The Office of Privacy Commissioner was established on 1 January 1989 when the *Privacy Act 1988* commenced. The Privacy Commissioner is an ex-officio member of the Human Rights and Equal Opportunity Commission.

The Privacy Act:

- *establishes standards for the handling of* personal information by Commonwealth agencies (the Information Privacy Principles);
- establishes guidelines for protecting the privacy of tax file numbers (the Tax File Number Guidelines); and
- establishes a regime for protecting the privacy of individuals' consumer credit records.

The Privacy Act also defines the role, powers and functions of the Privacy Commissioner. The functions can be divided broadly into the following areas:

- the investigation of complaints about practices which may breach the Information Privacy Principles, the Tax File Number Guidelines, or the Act's provisions relating to credit reporting;
- ensuring, by way of audits, compliance with the Tax File Number Guidelines, the Information Privacy Principles, and the provisions relating to credit reporting;
- issuing Guidelines required by the Privacy Act and other Guidelines as necessary to assist agencies avoid breaching the Act; (under this power the Privacy Commissioner is preparing Guidelines relating to data matching by Commonwealth agencies);
- advising on developments in technology and privacy policy issues; and
- examination of proposed legislation and advising the relevant Minister of State on its privacy implications.

Freedom of Information Act

The *Freedom of Information Act 1982* has two objectives:

- to make available to the public information about the rules, practices and operations of Australian government departments and authorities; and
- to create a general right of access to documents in the possession of Commonwealth Ministers of State and Commonwealth agencies.

In order to achieve these objectives the Act defines the rights of members of the public to obtain access to documents, and sets out a range of obligations and restrictions on Commonwealth agencies and the public for exercising these rights.

The right of access does not extend to all documents or to all agencies. Exempt documents include:

- documents that affect national security, defence, international relations and relations with States;
- Cabinet and Executive Council documents;
- unreasonable disclosure of internal working documents;
- documents that affect enforcement of the law and protection of public safety;
- other documents that are exempt by reason of secrecy provisions listed in Schedule 3 of the Act, financial or property interests of the Commonwealth of Australia, personal privacy and legal professional privilege;
- documents concerning business affairs or confidential material; and
- documents made available for purchase or open access upon payment of a fee.

Agencies which are exempt either wholly or in relation to certain of their competitive commercial activities include security intelligence agencies, and those agencies which are wholly or partly engaged in commercial activities in competition with the private sector. These agencies are listed in Parts 1 and 2 of Schedule 2 to the Act.

The Act contains extensive provisions for review of decisions made under the Act, including review by the Administrative Appeals Tribunal and the Commonwealth Ombudsman.

OTHER COMMONWEALTH BODIES

Commonwealth Royal Commissions

Australian Governments have, from time to time, established Royal Commissions to inquire into, and report on, matters of public concern.

A Royal Commission is established by the Governor-General, on the advice of the Australian Government, issuing a commission to a person or persons to inquire into and report on specified matters. At the end of its inquiry, a Royal Commission presents its report to the Governor-General for consideration by the Government. These reports are usually also tabled in the Commonwealth Parliament.

The power to issue Letters Patent to inquire is a prerogative of the Crown. The *Royal Commissions Act 1902* confers powers on a Royal Commission to compel the attendance of persons, the giving of evidence, and the production of papers. It also creates a number of offences (for example, failure to attend a Royal Commission when summoned, or failure to produce papers) and gives some protection to Commissioners and witnesses against legal liability. The constitutional foundation of the Royal Commissions Act is section 51(xxxix) of the Australian Constitution, which provides that the Commonwealth Parliament may make laws with respect to 'matters incidental to the execution of any power vested by this Constitution in the Parliament or in either House thereof, or in the Government of the Commonwealth, or in the Federal Judicature, or in any department or officer of the Commonwealth'.

Royal Commissions conducted between 1 July 1984 to 30 June 1992 were:

- The Royal Commission into British Nuclear Tests in Australia;
- The Royal Commission of Inquiry into Alleged Telephone Interceptions;
- The Royal Commission of Inquiry into the Chamberlain Convictions;
- The Royal Commission into Grain Storage, Handling and Transport; and
- The Royal Commission into Deaths in Custody of Aboriginals and Torres Strait Islanders.

National Crime Authority

The National Crime Authority (NCA) was established by the Commonwealth Government in July 1984 as provided by the *National Crime Authority Act 1984*. Similar legislation was passed in each State, the Northern Territory and subsequently the Australian Capital Territory, to underpin the work of the NCA in those jurisdictions, making the NCA the only law enforcement agency in Australia whose investigations are not limited by jurisdictional or territorial boundaries.

The decision to establish the NCA was taken in response to the findings of several Royal Commissions conducted in the late 1970s and early 1980s, which revealed the extent of organised criminal activity in Australia. The NCA's mission is to counteract organised criminal activity and reduce its impact on the Australian community, working in cooperation and partnership with other agencies. The term 'organised crime' is not in fact used in the *National Crime Authority Act 1984*, which instead describes such activity in terms of 'relevant criminal activity' and 'relevant offence'.

In conducting investigations, the NCA is required to assemble admissible evidence relating to offences against the laws of the Commonwealth, States or Territories to enable the prosecution of offenders and to provide that evidence to the appropriate Attorney-General or relevant law enforcement agency, such as the Director of Public Prosecutions.

Information may be passed to prosecution authorities to enable such agencies to pursue civil remedies or other action to confiscate the proceeds of criminal activity.

The NCA may also make recommendations to relevant ministers for law or administrative reform.

Apart from the normal powers of a law enforcement agency, the NCA may use special powers when it has been given a reference by a member of the Inter-Governmental Committee. These powers include the power to issue summonses and conduct in-camera hearings at which witnesses are required to give evidence or produce documents, and the power to seek the delivery to the NCA of the passport of a person who has been summonsed to appear at a hearing, but who is suspected of seeking to leave Australia.

The work of the NCA is monitored by the Inter-Governmental Committee and by the Parliamentary Joint Committee on the NCA. The Act provides for the review by the Federal Court of certain decisions, and other decisions are subject to review pursuant to the *Administrative Decisions (Judicial Review) Act 1977*.

Statistics on the operations and results of NCA activities, such as numbers of investigations, persons charged, convictions obtained, and consequential taxation reclaimed are contained in its Annual Report.

At 30 June 1992, the NCA had a staff of 393 persons, including 85 police officers. The proceeds of crime frozen/secured by the NCA was $29,002,000. The amount of understated/undeclared income notified to the Australian Taxation Office (ATO) was $17,626,312. The notification of understated/undeclared income by the NCA to the ATO can and has led to the issue of formal taxation assessments.

Consumer affairs

The Commonwealth involvement in consumer affairs derives substantially from the *Trade Practices Act 1974*. The Commonwealth Attorney-General has responsibility for Part V (Consumer Protection) of the Act that deals with unfair practices, provides private law rights against sellers, manufacturers and importers, and provides for product safety (including provision for the banning and/or recall of goods considered to be unsafe) and information standards.

The Federal Bureau of Consumer Affairs, located in the Attorney-General's Department:

- provides the Minister for Justice and Consumer Affairs with advice on the consumer protection provisions of the Trade Practices Act and on a range of consumer issues;
- reviews and develops Commonwealth policy on recalls and consumer product safety;
- reviews and develops Commonwealth policy on packaging and labelling; and
- administers product safety and information standards of the Trade Practices Act, including monitoring and enforcing compliance with standards and initiating product recalls if necessary.

The National Consumer Affairs Advisory Council provides independent advice to the Minister for Justice and Consumer Affairs on consumer affairs issues. The members of this Council have backgrounds in consumer affairs, industries, trade unions and government.

The Trade Practices Commission is generally responsible for the administration and enforcement of the Trade Practices Act, except for Division 1A of Part V of the Act. The Commission receives complaints from consumers but is primarily concerned with issues of national significance. The activities of the Trade Practices Commission are distinct from those of Australian State and Territory consumer affairs agencies, which administer their own legislation and provide the principal consumer complaint handling mechanisms.

Coordination of consumer affairs activities is undertaken by the Standing Committee of Consumer Affairs Ministers and through meetings of Officers of Consumer Affairs. There is also a Commonwealth/State Consumer Products Advisory Committee to provide a coordinated approach to product safety and information matters. The Commonwealth Government also promotes consumer awareness through financial support to two peak consumer organisations — the Australian Federation of Consumer Organisations and the Australian Financial Counselling and Credit Reform Association.

Australian Security Intelligence Organisation (ASIO)

The Australian Security Intelligence Organisation was established in 1949 and is currently governed by the provisions of the *Australian Security Intelligence Organisations Act 1979.* The functions of this organisation are:

- obtain, correlate and evaluate intelligence relevant to security;
- communicate security intelligence as appropriate;
- advise Ministers and Commonwealth authorities on matters relating to security;
- advise Ministers and Commonwealth authorities and some others on protective security; and
- obtain within Australia, foreign intelligence using special powers granted to it under warrant and communicate the intelligence as appropriate.

ASIO is an advisory body and has no powers to enforce measures for security. Nor must its activities limit the rights of any person to engage in lawful advocacy, protest or dissent, which in themselves are not actions prejudicial to security. Its policies are to be kept free of party political or other sectional bias. ASIO is under the control of the Director-General of Security subject to the direction of the Attorney-General, who is the Minister responsible.

LEGAL AID

The objective of the Commonwealth's legal aid scheme is to maximise access to justice by all members of the community.

Legal aid policy and service development, evaluation and coordination is largely undertaken at the Commonwealth level by the Office of Legal Aid and Family Services and delivered throughout the country by independent Legal Aid Commissions, Aboriginal Legal Services and other community based legal centres and services.

The Commonwealth provides over half of the funding for legal aid, with the rest made up by State Government, Law Society trust account funds and contributions from clients. Legal aid services and advice are provided directly by staff lawyers or by way of subsidies to the private legal profession. Assistance is directed to those persons who are most in need by way of merit and means tests.

In addition to the provision of services in family, criminal, civil and administrative law matters by the agencies described above, the Commonwealth Attorney-General's Department also provides assistance for special interest and test cases, Royal Commission hearings, War Crimes cases, veterans' matters, internal disputes in federal trade unions and actions under international conventions (for example, relating to child abduction, overseas maintenance and civil and political rights).

THE POLICE

The principal duties of the police are the prevention and detection of crime, the protection of life and property, and the enforcement of law to maintain peace and good order. They may perform a variety of additional duties in the service of the State, including the regulation of street traffic, acting as clerks of petty sessions, Crown land bailiffs, foresters, mining wardens and inspectors under the Fisheries and other relevant Acts. With the exception of the Australian Federal Police, police forces in Australia are under the control of the respective State and Northern Territory Governments, but their members perform certain functions on behalf of the Australian Government, such as the registration of aliens, and, in conjunction with the Australian Federal Police and other Commonwealth officers, they enforce various Commonwealth Acts and Regulations.

Australian Federal Police (AFP)

The AFP was formed in October 1979 and has its headquarters in Canberra. Its Criminal Investigations Program is conducted through six Regional Commands, its Headquarters Investigations Department and its 29 Liaison Officers in 12 overseas countries. A group of AFP members is attached to the United Nations Peacekeeping Force on Cyprus and in Cambodia. In the Australian Capital Territory, the AFP provides a full range of general community policing services, including traffic control, special operations, search and rescue services and conventional crime investigations.

The objectives of the AFP are:

- to enhance the Commonwealth's ability to prevent, detect, investigate, and present for prosecution, criminal offences committed against its laws, revenue and expenditure;
- to continue to improve the quality and responsiveness of police services provided to the community of the Australian Capital Territory;
- to improve the quality of police services required to protect other Commonwealth interests;
- to provide leadership in developing effective relationships with other police services, law enforcement and related agencies to ensure cohesion and coordination in countering criminal threats and activities against the Australian community;
- to maintain operational excellence through people, technology and leadership; and
- to foster a culture which demonstrates reliability, integrity and ethical behaviour and respects the rights of the individual.

Size of police forces

The number of sworn police officers is shown in table 11.4. The figures have been supplied by the respective police agencies, and are not directly comparable (for example, the figures do not differentiate between full-time and part-time officers). Further detail on the operations of each force may be found in the respective police annual reports to their Ministers.

11.4 POLICE FORCES

At 30 June	*AFP(a)*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*
1990	2,392	12,903	9,443	5,524	3,424	3,751	1,072	708
1991	3,217	13,203	9,726	5,895	3,535	3,994	993	693
1992	3,154	12,593	9,877	6,271	3,673	4,107	1,018	669

(a) Excludes protective services units.

CRIME STATISTICS

Crimes against the Commonwealth

The Australian Federal Police is responsible for the prevention, detection and investigation of criminal offences such as drug offences, money laundering, organised crime, identifying the proceeds of crime, and fraud against Commonwealth revenue and expenditure, for example, social security fraud and taxation fraud.

11.5 INVESTIGATIONS OF CRIMES AGAINST THE COMMONWEALTH, 1991–92

Analysis of investigations	*Number*
Drugs	
Matters referred for investigation	4,586
Referred matters not investigated	659
Registered operations	
Initiated	158
Completed	153
Arrest, summonses & warrants of apprehension issued	785
Convictions	294
Large-scale fraud	
Matters referred for investigation	41
Operations completed	21
Arrest, summonses & warrants of apprehension issued	66
Convictions	3
Lesser fraud (under $500,000)	
Matters referred for investigation	2,353
Referred matters not investigated	37
Investigations	
Initiated	2,316
Completed	2,325
Arrest, summonses & warrants of apprehension issued	1,331
Convictions	477
General crime	
Matters referred for investigation	2,803
Referred matters not investigated	24
Investigations	
Initiated	2,779
Completed	2,428
Arrest, summonses & warrants of apprehension issued	817
Convictions	191
Specific references	
Matters referred for investigation	9
Referred matters not investigated	—
Investigations completed	16
Arrest, summonses & warrants of apprehension issued	—
Convictions	—
Currency matters	
Matters referred for investigation	1,156
Investigations completed	810
Currency seizures	1,178
Arrest, summonses & warrants of apprehension issued	53
Convictions	19

Source: Australian Federal Police.

During 1991–92 the Australian Federal Police undertook 10,907 matters involving drugs, lesser fraud, general crime, currency offences and other significant referrals. In addition it had 41 major fraud matters referred totalling $170.36 million.

The *Proceeds of Crime Act 1987* came into force on 5 June 1987 and provides for the confiscation of assets derived from criminal conduct including drug trafficking. Similar provisions in the *Customs Act 1901* (which were enacted in 1979) provide for forfeiture and the imposition of pecuniary penalties in narcotic related matters.

All States with the exception of Tasmania have enacted confiscation legislation. In the case of Tasmania, the *Poisons Act 1971* contains provision for the forfeiture of assets which have been acquired from narcotic-related activities.

The Cash Transaction Reports Act enacted in 1988 requires mandatory reporting to the Cash Transaction Reports Agency by cash dealers of cash transactions of $10,000 or more ($5,000 in the case of an international transaction), suspect transactions, and verification of the identity of anyone opening accounts with cash dealers.

Drug offences

Australia ratified the Single Convention on Narcotic Drugs 1961 in December 1967, and the Protocol Amending the Single Convention on Narcotic Drugs on 22 December 1972. Australia is also a signatory to the Convention on Psychotropic Substances 1971. There is cooperation between the Commonwealth Government, State and Territory Governments, the various police forces, and other agencies in order to combat the perceived serious and growing threat to good order which is posed by the traffic in and abuse of drugs of dependence. The Australian Customs Service has responsibility for the enforcement of laws controlling the illicit importing and exporting of drugs, but each police force has a drug squad or squads, staffed by selected officers with special training and ability to understand the complexities of drug abuse and drug trafficking. Drug laws incorporate the controls and penalties for offences as required by international drug conventions.

11.6 SELECTED DRUG SEIZURES(a) BY COMMONWEALTH AGENCIES(b)

	1990–91		*1991–92*	
Type of drug	*Number of drug seizures*	*Weight (gms)*	*Number of drug seizures*	*Weight (gms)*
Cannabis	1,313	. .	1,899	. .
Cannabis resin	910	418,525	714	4,533,803
Amphetamines	71	3,034	101	29,433
Heroin	288	74,152	259	68,206
Cocaine	97	69,784	79	22,434
Opium	9	576	14	1,021
Opium seed	. .	. .	1	1
LSD	25	3,428	43	1,068
Other	34	. .	25	. .
Total	**2,747**	. .	**3,135**	. .

(a) Annual totals of illicit drugs seized cannot be regarded in isolation as a measure of enforcement performance, any more than they can be said to be indicative of the relative availability of illicit drugs. Not all weights have been confirmed by analysis. (b) Includes Australian Customs Service and Australian Federal Police, but excludes seizures involving the National Crime Authority.

Source: Australian Federal Police.

Further information on the widespread problems arising from drug abuse in Australia, and how these problems are being approached, may be found in the annual report *Illicit Drugs in Australia*, by the Australian Federal Police.

CORRECTIVE SERVICES

The term 'correction' (or its derivatives) as used here refers to the objectives of the criminal justice system regarding detention and supervision of offenders.

The principal objectives of sentencing are to deter potential offenders, to express society's disapproval, to reduce the opportunity for further crime, to rehabilitate the offender, and to compensate the victim(s).

These objectives are reflected to varying degrees in the different forms of correctional options which are available to the courts in each State and Territory. These options fall broadly into three main categories:

- those that do not involve supervision or detention of the offender, such as fines, bonds and unsupervised recognisances;
- those involving supervision in the community, usually for a specified period, or until some educational or community reparative target is achieved, such as probation or community service orders; and
- those involving detention, either in prisons or other institutions, or at home subject to a home detention order.

In recent years it has become common for courts to impose sentences combining several different components, in order to ensure that the punishment is appropriate to the crime and the circumstances of the offender.

All States and the Northern Territory operate prisons and other correctional services. Separate provisions exist in each State and Territory for dealing with juvenile offenders. Convicted adult prisoners from the Australian Capital Territory serve their sentences in New South Wales prisons, but local provision is made for the short-term custody of remand prisoners, and for probation and parole services. The Commonwealth Government does not operate any prisons or other correctional services, and federal offenders (that is, persons convicted of offences under Commonwealth laws) fall within the jurisdiction of State agencies for correctional purposes.

Characteristics of prisoners

The Australian Institute of Criminology conducts an annual prison census on the night of 30 June of all persons, convicted or not convicted, who were held in custody in gazetted Australian prisons for adult offenders. This includes those prisoners temporarily absent from prison (for example, prisoners in hospitals, or away on work release schemes).

11.7 NUMBER OF SENTENCED PRISONERS BY TYPE OF SENTENCE IMPOSED(a), 30 JUNE 1991(b)

Type of sentence	*Number of prisoners*
Life	670
Governor's pleasure	90
Administrative(b)	3
Indefinite(c)	6,255
Fixed term	4,600
Fine default only	227
Periodic detention	1,143
Unknown	48
Total	**13,036**

(a) Type of sentence is determined by the cumulative effect of all sentences imposed. (b) Includes unsentenced prisoners subject to deportation orders. (c) Refers to cases where both a minimum and a maximum term are set and the actual sentence to be served lies somewhere between the two limits.

NOTE: This table excludes all remandees.

Source: Australian Institute of Criminology.

11.8 NUMBER OF PRISONERS BY MOST SERIOUS OFFENCE/CHARGE(a) BY AGE(b), 30 JUNE 1991

	Age group (years)								
Offence/charge(a)	*<20*	*20-24*	*25-29*	*30-34*	*35-39*	*40-44*	*45-49*	*>49*	*Total*
Homicide	50	267	292	270	216	150	121	144	1,510
Assault	109	505	349	239	148	69	37	28	1,484
Sex offences	46	227	255	277	247	178	119	173	1,522
Other offences against the person	10	42	38	34	27	13	4	3	171
Robbery	99	486	424	341	182	88	34	20	1,674
Extortion	1	7	11	8	2	1	4	3	37
Break and enter	266	826	607	343	157	64	23	15	2,301
Fraud and misappropriation	9	70	92	103	79	65	65	80	563
Receiving	16	73	80	55	30	23	16	16	309
Other theft	230	512	319	171	90	46	16	26	1,410
Property damage	34	81	37	41	13	12	8	12	238
Environmental	1	—	—	1	—	2	—	1	5
Government security	—	1	—	5	1	—	1	4	12
Justice procedures	69	322	226	123	72	35	20	20	887
Unlawful possession of weapon	3	11	10	7	5	2	3	2	43
Other offences against good order	12	39	27	22	19	13	9	10	151
Possession, use of drugs	4	29	46	49	35	19	13	5	200
Deal/traffic drugs	9	94	205	236	204	133	71	57	1,009
Manufacture/grow drugs	2	14	21	26	28	26	11	27	155
Driving offences	14	114	108	108	82	51	29	21	527
Licence, registration	13	60	52	41	28	10	7	10	221
Other traffic offences	21	107	67	39	21	12	6	1	274
Other offences	15	28	38	65	61	42	26	36	311
Offences in custody	—	—	1	—	—	—	—	—	1
Unknown	1	2	1	—	1	—	—	1	6
Total persons	**1,034**	**3,917**	**3,306**	**2,604**	**1,748**	**1,054**	**643**	**715**	**15,021**

(a) The most serious offence/charge is that offence for which a prisoner received the longest sentence, or that charge which carries the longest statutory maximum penalty. (b) The age at which a convicted person would normally become liable to imprisonment in an adult prison varies from State to State, being seventeen years in Victoria, Queensland, Tasmania and Northern Territory, and eighteen in other jurisdictions, although younger persons convicted of a particularly serious offence may be sent to an adult prison. Inmates of juvenile corrective institutions are not included in this census.

NOTE: The total number of prisoners shown in this table is greater than the total prisoners shown in the previous and following tables. Data in this table include 1,974 remandees not convicted, awaiting sentence or deportation, and 11 whose legal status was not known or stated in the prison census.

Source: Australian Institute of Criminology.

11.9 NUMBER OF SENTENCED PRISONERS BY MOST SERIOUS OFFENCE(a) AND AGGREGATE SENTENCE(b), 30 JUNE 1991

			Duration of aggregate sentence					
Offence	*Periodic detention*	*Under 3 months*	*3 months and under 2 years*	*2 and under 5 years*	*5 and under 10 years*	*10 years and over(c)*	*Not known*	*Total*
Homicide	26	1	30	87	185	895	36	1,260
Assault	177	47	586	254	134	66	—	1,264
Sex offences	68	1	125	371	539	251	4	1,359
Other offences against the person	6	1	17	37	50	15	—	126
Robbery	33	—	112	423	563	294	—	1,425
Extortion	5	—	8	9	7	2	—	31
Break and enter	101	28	945	694	197	36	1	2,002
Fraud and misappropriation	99	10	203	142	42	9	—	505
Receiving	31	10	141	49	19	4	—	254
Other theft	105	61	769	263	47	7	1	1,253
Property damage	18	17	88	54	24	8	—	209
Environmental offences	—	2	2	1	—	—	—	5
Government security	—	—	3	4	3	1	—	11
Justice procedures	59	76	465	144	40	28	—	812
Possession of weapon	—	3	17	4	5	1	—	30
Other offences against good order	10	19	58	21	7	3	—	118
Possession/use drugs	15	21	49	26	33	11	1	156
Deal/traffic drugs	104	5	178	242	216	110	—	855
Manufacture/grow drugs	17	5	35	36	22	10	—	125
Driving offences	135	81	283	10	2	—	—	511
Licence, registration	—	46	164	10	—	—	—	220
Other traffic offences	128	37	92	3	3	—	—	263
Other offences(d)	6	8	45	48	86	47	—	241
Offences in custody	—	—	—	1	—	—	—	1
Unknown	—	—	1	—	—	—	—	1
Total persons	**1,143**	**479**	**4,416**	**2,933**	**2,224**	**1,798**	**43**	**13,036**

(a) Most serious offence is that for which a prisoner received the longest sentence. (b) The longest period that a person may be detained under sentence in the current episode. (c) Includes sentences of life and detention at the Governor's pleasure. (d) Includes other offences and unknown offences.

NOTE: This table excludes all remandees.

Source: Australian Institute of Criminology.

CRIMINOLOGICAL RESEARCH

Australian Institute of Criminology

The Australian Institute of Criminology was established as a statutory authority under the *Criminology Research Act 1971* and the *Criminology Research Amendment Act 1986.*

The functions of the Institute, as defined in the Criminology Research Acts, include:

- the conduct of criminological research (that is, research in connection with the causes, prevention and correction of criminal behaviour and related matters), and the communication of the results of such research to the Commonwealth and States;
- the provision of advice on needs and programs relating to criminological research, and advice and assistance in relation to any research funded through the criminology research council;
- the conduct of seminars and courses of training and instruction for persons engaged in criminological research or work related to the prevention or correction of criminal behaviour;
- the collection and dissemination of statistics relevant to crime and criminal justice;
- the provision of advice in relation to the compilation of statistics in relation to crime; and
- the publishing of material resulting from, or relating to, its activities.

BANKRUPTCY AND COPYRIGHT

Bankruptcy

Bankruptcy is a statutory regime for the release of debtors from the payment of their debts and the repayment of creditors out of the proceeds of realisation of the debtor's property.

The *Bankruptcy Act 1966* deals with matters relating to the insolvency of individuals and partnerships only. Both business and non-business bankruptcies relating to individuals/sole proprietors and partnerships are covered by the Bankruptcy Act. Company insolvencies are under the jurisdiction of the Australian Securities Commission.

The term 'insolvency' covers not only bankruptcies and orders for the administration in bankruptcy of the estates of deceased persons, but also persons who have entered into an assignment, arrangement or composition under Part X of the Bankruptcy Act. Part X of the Act involves a debtor placing before their creditors a 'Deed of Assignment', 'Deed of Arrangement' or a 'Composition' if the debtor is unable to meet their debts.

Under a Deed of Assignment, all the debtor's divisible assets are put up in full settlement of their debts. Creditors would receive less than 100 cents in the dollar.

Under a Deed of Arrangement, the debtor agrees to pay off debts over a period of time. This arrangement can be used, for example, where a debtor's business continues to trade. Creditors could, eventually, obtain 100 cents in the dollar.

A Composition is a combination of the Deed of Arrangement and the Deed of Assignment.

If creditors fail to accept an option under Part X, then the creditors or the debtor can petition for bankruptcy.

The Attorney-General's Department has the responsibility for the administration of the Act. The Minister for Justice and Consumer Affairs oversights the administration of the Insolvency and Trustee Service, Australia, a division of the Attorney-General's Department.

The administration is carried out through the Registrars in Bankruptcy (who are part of the Federal Court of Australia), the Inspector-General in Bankruptcy and the Official Receivers (who comprise the Insolvency and Trustee Service, Australia), and public accountants who are registered under the provisions of the Act as trustees in bankruptcy and who are primarily under the control and supervision of the Courts exercising jurisdiction in bankruptcy.

The increase in bankruptcies since the late 1980s is reflected in the statistics in tables 11.10, 11.11, 11.12 and 11.13.

Comprehensive statistics on bankruptcy, and a more detailed account of the bankruptcy administration, are included in the Annual Report on the operation of the *Bankruptcy Act 1966*.

Copyright

Copyright in Australia is administered by the Commonwealth Attorney-General's Department and is regulated by the Commonwealth *Copyright Act 1968*. The Act does not contain any provisions requiring or enabling the completion of formalities (such as publication, registration or the payment of fees) in order to obtain copyright protection in Australia. Protection is granted automatically from the moment of making a work or other subject matter.

11.10 BANKRUPTCIES AND ORDERS FOR ADMINISTRATION(a)

Year	*Number administered(b)*	*Assets ($m)*	*Liabilities ($m)*
1988–89	7,435	88.1	571.7
1989–90	8,552	145.4	643.5
1990–91	13,091	318.4	792.8
1991–92	16,780	n.a.	n.a.

(a) Orders for administration of deceased persons estates. (b) These figures do not necessarily equal the sum of the totals in tables 11.11 and 11.12, mainly because proceedings involving two or more partners are treated as one administration whereas in tables 11.11 and 11.12 details are counted for each of the partners.

Source: Commonwealth Attorney-General's Department — Insolvency and Trustee Service, Australia.

11.11 CAUSES OF BUSINESS BANKRUPTCY(a)

Cause	*1987–88*	*1988–89*	*1989–90*	*1990–91*	*1991–92*
Lack of sufficient capital(b)	491	491	562	534	533
Lack of business ability(c)	581	489	721	963	1,025
Failure to keep proper books	12	26	12	34	27
Economic conditions(d)	339	240	524	1,233	1,730
Seasonal conditions(e)	28	30	52	57	60
Excessive interest(f)	145	95	172	267	295
Inability to collect debts(g)	63	76	107	120	145
Excessive drawings(h)	110	129	78	102	118
Gambling	20	15	18	26	16
Personal reasons(i)	147	121	267	279	244
Other	323	465	435	588	1,194
Total	**2,259**	**2,177**	**2,948**	**4,203**	**5,387**

(a) The sum of business and non-business bankruptcies shown in the tables on the major causes of bankruptcy do not necessarily add to the totals shown in the table 11.10. This is chiefly because proceedings involving two or more partners are treated as one administration. However, in tables 11.11 and 11.12 details are published for each of the partners. The total is also affected by the lack of returns from registered trustees. (b) Lack of sufficient initial working capital. (c) Lack of business ability, acumen, training or experience resulting in such matters as underquoting, mistakes in estimating, lack of supervision and failure to assess potential of business or to detect misrepresentations. (d) Economic conditions affecting industry, including competition and price cutting, credit restrictions, fall in prices, increases in charges and other overhead expenses, high cost of repairs and maintenance of equipment and changes in the character of business location (for example, by-pass roads). (e) Seasonal conditions including floods and drought. (f) Excessive interest payments on hire purchase and loan monies and capital losses on repayments. (g) Inability to collect debts due to disputes, faulty work or bad debts. (h) Excessive drawings including failure to provide for taxation, either personal or wage tax deductions. (i) Personal reasons including ill health of self or spouse, domestic discord and other personal reasons.

Source: Commonwealth Attorney-General's Department — Insolvency and Trustee Service, Australia.

11.12 CAUSES OF NON-BUSINESS BANKRUPTCY(a)

Cause	*1987–88*	*1988–89*	*1989–90*	*1990–91*	*1991–92*
Excessive use of credit(b)	2,937	2,560	2,098	3,203	3,845
Liabilities on guarantees	249	273	279	551	721
Unemployment	1,214	699	1,225	2,269	3,145
Gambling(c)	72	63	133	90	86
Ill health(d)	285	259	409	426	498
Adverse litigation	171	205	218	238	347
Domestic discord	221	245	362	623	418
Other	716	935	822	1,488	2,433
Total	**5,865**	**5,239**	**5,546**	**8,888**	**11,493**

(a) The sum of business and non-business bankruptcies shown in the tables on the major causes of bankruptcy do not necessarily add to the totals shown in the table 11.10. This is chiefly because proceedings involving two or more partners are treated as one administration. However, in tables 11.11 and 11.12 details are published for each of the partners. The total is also affected by the lack of returns from registered trustees. (b) Excessive use of credit facilities including pressure selling, losses on repossessions and high interest rates. (c) Gambling, speculation and extravagance in living. (d) Absence of health insurance or extensive ill health.

Source: Commonwealth Attorney-General's Department - Insolvency and Trustee Service, Australia.

11.13 INSOLVENCIES(a)

	Deeds of assignment			*Deeds of arrangement*		
Year	*Number*	*Assets ($m)*	*Liabilities ($m)*	*Number*	*Assets ($m)*	*Liabilities ($m)*
1987–88	400	12.5	93.9	434	10.8	36.7
1988–89	228	11.6	40.7	263	5.4	30.0
1989–90	197	8.3	28.1	156	2.3	5.4
1990–91	185	7.9	54.6	279	8.7	60.1
1991–92	170	7.9	16.9	343	5.8	115.5

For footnotes *see* end of table.

11.13 INSOLVENCIES(a) — *continued*

	Compositions			*Total*		
Year	*Number*	*Assets ($m)*	*Liabilities ($m)*	*Number*	*Assets ($m)*	*Liabilities ($m)*
1987–88	451	4.0	43.9	1,285	27.4	174.6
1988–89	304	3.0	43.9	795	20.0	114.6
1989–90	208	1.9	34.0	561	12.5	67.5
1990–91	341	2.9	57.0	805	19.5	171.8
1991–92	440	2.8	99.1	953	16.4	231.5

(a) Under Part X of the Bankruptcy Act.
Source: Commonwealth Attorney-General's Department — Insolvency and Trustee Service, Australia.

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FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Twelve

Culture and Leisure

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Cultural and leisure activities are essential to a shared sense of quality of life, and take many forms. At a national level these forms range across cultural heritage, creative and performing arts, literature, film and video, libraries, radio and television, sports and recreation, language and religious practice, adult education, active attachment to custom and place, and activities around the conservation and enjoyment of the natural environment.

Tourism is closely bound to cultural and leisure activities. Cultural and recreational venues and events attract visitors; events and institutions are linked both to tourist patronage and to support from local populations; while a general perception of the vitality of these activities is an important factor in drawing visitors from overseas.

This chapter reviews cultural and leisure activity supported by the Commonwealth and its agencies, and by national non-government organisations.

CULTURAL AND NATURAL HERITAGE

Australia's heritage is drawn from its cultural and natural environments.

The cultural environment includes not only historic places such as old residential, commercial and industrial buildings, streetscapes, towns and gardens, but also Aboriginal sites such as galleries of rock art, fishtraps, carved trees and mission stations. The natural environment encompasses places which can range from wilderness areas and extensive stretches of coast, forest, wetland and desert, outstanding geological features and landscapes, to smaller sites which may be important habitats for native flora and fauna.

The functions of identifying and conserving Australia's national heritage are shared between all levels of government. The voluntary conservation movement, including National Trusts and other conservation bodies in each State, as well as academic and professional bodies and concerned individuals, have played a major role in alerting governments to conservation needs.

The Register of the National Estate which is compiled and maintained by the Australian Heritage Commission, is the national list of all those parts of Australia's natural, historic and Aboriginal heritage which should be kept for present and future.

Governments can support delineation and conservation of heritage by establishing statutory authorities charged with providing policy advice and by undertaking or sponsoring research, and by administering grants for heritage related activities.

While the Commonwealth Government works in partnership with State and Territory Governments, it also undertakes some national heritage activities on its own account. Some examples include the nomination of sites for World Heritage Listing, the protection of Aboriginal heritage and advice about proposals which might affect the National Estate. These functions are administered respectively by the Department of the Arts, Sport, the Environment and Territories, the Aboriginal and Torres Strait Islander Commission and the Australian Heritage Commission.

National Estate

Australia's National Estate comprises those natural, Aboriginal, Torres Strait Islander and historic places which Australians want to keep for present and future generations.

In the Australian Heritage Commission Act the National Estate is defined as:

> '... those places, being components of the natural environment of Australia or the cultural environment of Australia that have aesthetic, historic, scientific or social significance or other special value for future generations, as well as for the present community.'

Both publicly and privately owned places form part of the National Estate. It encompasses places which are important to local communities, as well as those which are of regional or State significance, and others which have national, and sometimes international significance. The National Estate therefore includes broad stretches of coastline, desert or forest, and national parks, as well as isolated geological monuments and small areas which might provide habitats for endangered plant or animal species. It can cover whole villages and suburbs, streetscapes, single mansions, cattlemen's huts, railway yards and other reminders of Australia's industrial heritage. It includes places of Aboriginal significance such as rock engravings, galleries of rock art, fish traps, carved trees and reminders of a post-European existence such as mission stations.

The Australian Heritage Commission, established under the *Australian Heritage Commission Act 1975*, is the Commonwealth Government's adviser on the National Estate. One of the Commission's main tasks is compiling and maintaining the Register of the National Estate. At June 30 1992 there were 10,775 natural, Aboriginal and historic places throughout Australia in the Register and 255 places on the Interim List of the Register. The Interim List includes those places which meet the criteria for entry in the Register, and are awaiting a period of up to three months for any public objections based on national estate values prior to listing.

Listing on the register alerts planners, decision makers, researchers and the community at large to the heritage value of places. Under section 30 of the Australian Heritage Commission Act the Commonwealth Government is obliged to inform the Commission of any Commonwealth action which might significantly affect a place on the Register. If a place is on the Register or on the Interim List, the Commonwealth Government is obliged to seek 'feasible and prudent' alternatives to actions that will significantly alter a place in the Register and, if no such alternatives exist, to minimise any changes. Listing does not impose any direct legal constraints on the way private, or State or local government owners manage places in the Register.

The following table summarises the 8,217 historic places across States and Territories listed on the Register of the National Estate at June 1992, 2,425 of these being residential houses.

12.1 HISTORIC ENVIRONMENT PLACES IN THE REGISTER OF THE NATIONAL ESTATE AT 30 JUNE 1992

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT(a)*	*Ext. Terr.*	*Total*
Number listed(b)	2,651	2,109	565	716	829	1,125	97	111	14	8,217
Types of place										
Residential houses	654	851	123	141	180	444	11	20	1	2,425
Commercial buildings (shops, offices, etc.)	227	139	60	56	115	85	2	2	2	688
Hotels, motels, inns	135	77	30	26	53	75	2	5	—	403
Banks and financial institutions	62	61	21	18	14	9	—	—	—	185
Government functions										
Government buildings (parliaments, customs, town halls, etc.)	32	25	13	18	19	14	1	3	1	126
Courthouses, police stations, prisons	196	81	19	47	36	23	8	1	—	411
Libraries, hospitals, civic structures, etc.	105	60	18	20	19	11	6	4	—	243
Military barracks, bases, fortifications	41	23	10	5	10	15	12	3	—	119
Scientific research facilities	3	3	—	—	—	—	—	1	—	7
Places of recreation (theatres, halls, race courses, etc.)	66	84	23	21	38	28	—	5	—	265
Transport and communications										
Rail, road and air transport places	52	32	13	16	15	8	8	—	—	144
Harbour facilities, ports, piers, docks, etc.	9	7	2	3	2	2	1	—	—	26
Lighthouses	24	10	3	16	6	13	2	1	—	75
Post offices, telegraph stations, etc.	66	31	14	14	22	15	5	—	—	167
Bridges	85	62	32	38	6	18	1	1	—	243
Shipwrecks	2	3	—	6	43	1	1	—	—	56

For footnotes *see* end of table.

12.1 HISTORIC ENVIRONMENT PLACES IN THE REGISTER OF THE NATIONAL ESTATE AT 30 JUNE 1992 — *continued*

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT(a)*	*Ext. Terr.*	*Total*
Primary industry (agricultural, pastoral, processing, etc.)	158	194	31	53	65	144	7	18	2	672
Towns, precincts, conservation areas	209	47	15	34	27	27	4	8	2	373
Industrial sites and buildings	28	26	6	20	11	9	1	3	—	104
Mines and mineral processing works	9	11	21	15	4	2	2	—	—	64
Churches and other places of religion	204	154	61	84	58	111	4	10	1	687
Schools and places of education	138	68	14	28	37	32	1	7	—	325
Monuments and memorials	23	8	14	7	9	2	—	5	—	68
Cemeteries and graves	20	6	5	4	15	13	6	4	—	73
Parks and gardens	72	33	11	16	17	13	4	10	—	176
Historic and miscellaneous places	29	13	6	10	8	11	8	—	5	92

(a) Australian Capital Territory figures include Jervis Bay. (b) Includes both registered places and places on the interim list.
Source: Australian Heritage Commission.

The table below summarises the 1,751 natural places listed in the Register of the National Estate at June 1992. National parks (551), Other Reserves (621) followed by Landscapes (426) were the three largest categories of natural places protected under the National Estate Register.

12.2 NUMBER OF NATURAL PLACES LISTED IN THE REGISTER OF THE NATIONAL ESTATE JUNE 1992

Category	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Ext. Terr.*	*Total*
Number listed(a)	396	188	260	360	219	225	60	27	16	1,751
Category (number of places)										
National parks	67	42	173	155	48	44	19	2	1	551
Other reserves	171	88	46	73	135	74	22	5	7	621
Wilderness areas	22	13	25	22	6	20	5	2	—	115
Marine regions	8	7	18	22	14	20	3	—	3	95
Geological monuments	73	12	26	66	14	32	9	9	2	243
Wetlands	57	26	48	69	47	30	10	1	—	288
Arid regions	7	2	9	85	60	—	17	—	—	180
Alpine regions	1	31	—	—	—	17	—	1	—	50
Endangered species	56	24	23	68	27	55	14	5	3	275
Landscapes	186	44	47	50	36	51	6	3	3	426
Miscellaneous	18	10	6	20	15	3	16	8	—	96

(a) Includes both places on the register and on the interim list. Note that individual sites may be represented in more than one category.
Source: Australian Heritage Commission.

Aboriginal heritage protection

The Aboriginal and Torres Strait Islander Commission has responsibility for the administration of the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984.*

The Act preserves and protects places, areas and objects of particular significance to Aboriginal tradition. The legislation complements existing State and Territory laws, and is intended to be used only as a last resort where those laws do not provide effective protection from injury or desecration for significant Aboriginal areas and objects.

Table 12.3 provides a summary of the types of Aboriginal places listed on the Register of the National Estate. The table reflects the national estate significance of the Aboriginal places in the Register. Most of these places encompass a number of Aboriginal sites. There are many thousands of sites covering a wide range of site types in the Register. At present there are no Torres Strait Islander places on the Register of the National Estate. Current Heritage Commission priorities are designed to redress this situation.

In 1992, 807 Aboriginal places were listed on the National Estate register. The two major place types protected under the National Estate, namely Aboriginal art sites (194) and Aboriginal place complexes (105) accounted for a total of 37.2 per cent of all places listed on the register.

12.3 ABORIGINAL AND TORRES STRAIT ISLANDER PLACES IN THE REGISTER OF THE NATIONAL ESTATE AS AT JUNE 1992

Types of place	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT(a)*	*Total*
Aboriginal occupation site	16	8	18	6	9	26	3	2	88
Aboriginal shell midden	10	15	5	14	—	18	—	—	62
Aboriginal fish/eel trap	3	3	6	4	1	—	1	—	18
Aboriginal hunting hides/traps	—	—	3	—	1	—	—	—	3
Aboriginal grinding grooves	6	8	—	2	—	—	—	2	18
Aboriginal quarries	3	7	10	7	3	5	—	1	36
Aboriginal wells	1	3	4	3	—	—	—	—	11
Aboriginal modified trees (scarred and carved)	23	8	2	9	2	—	—	1	45
Aboriginal art sites	64	16	41	26	25	6	14	2	194
Aboriginal stone arrangements	9	4	8	25	3	3	—	1	53
Aboriginal ceremonial sites	5	3	—	10	—	—	—	—	18
Sites of spiritual or mythological significance	21	—	10	9	8	—	33	—	81
Aboriginal burials/cemeteries/graves	11	12	1	2	1	2	1	—	30
Aboriginal historic/contact sites	15	9	6	2	6	1	5	—	44
Aboriginal site complexes	18	4	18	15	15	12	23	—	105
Total of Aboriginal places listed(b)	**205**	**100**	**132**	**134**	**73**	**74**	**80**	**9**	**807**

(a) Australian Capital Territory figures include Jervis Bay. (b) Includes registered places and places on the interim list.
Source: Australian Heritage Commission.

Aboriginal and Torres Strait Islander community and land

Detailed descriptions of activities on the following topics will be found either in *Year Book Australia 1990* or *1991*:

- Aboriginal and Islander community (including the impact of European settlement, a statistical profile of the location of the community throughout Australia as at June 1986, a brief statement on government policies toward the community, and consultative arrangements);
- Aboriginal land (including information on the Aboriginal Land Rights (Northern Territory) Act;
- National parks on Aboriginal land in the Northern Territory; and
- Aboriginal land in the States and the Australian Capital Territory and homeland centres and outstations.

Australian Council of National Trusts

The Australian National Trust movement is the major organisation promoting the conservation of Australia's cultural heritage. The Australian Council of National Trusts serves the national interests of the eight State and Territories Trusts.

Since the inception of the National Trusts in Australia, they have played a leading role in identifying those parts of our natural, Aboriginal and historical environment which are historically, aesthetically or scientifically significant and which are worthy of preservation.

Historic registers established by the Trusts in Australia include buildings, urban areas, landscapes and industrial sites.

The Trusts own a wide variety of properties, including historic buildings, nature reserves, gardens and two paddle-steamers. All properties are open for the enjoyment of Australians and international visitors alike. The National Trusts are community organisations with membership open to everyone.

12.4 AUSTRALIAN NATIONAL TRUSTS

State/Territory	Number of Trusts members 1991–92	Number of volunteers	Properties classified/listed by National Trusts	
			1991–92	Total
New South Wales	27,000	1,500	—	—
Victoria	23,000	2,000	67	3,704
Queensland	5,890	180	22	1,458
South Australia	6,709	2,000	(a)	(a)
Western Australia	2,500	350	64	1,330
Tasmania	4,000	1,000	6	2,890
Northern Territory	610	110	60	416
Australian Capital Territory	1,207	300	9	250

(a) Function of S.A. State Heritage Branch since January, 1991.
Source: Australian Council of National Trusts.

Protection of movable cultural heritage

The *Protection of Movable Cultural Heritage Act 1986* provides safeguards for the retention of those objects of the greatest heritage significance by requiring export permits for particular categories of objects of cultural significance which owners wish to send or take out of the country.

As a general rule objects of Australian Aboriginal and Torres Strait Islander heritage comprising bark and log coffins, human remains, rock art, and carved trees are not allowed to be sent or taken out of the country.

Objects that may be exported (temporarily or permanently) at the discretion of the Minister for the Arts, Sport, the Environment and Territories include:

- archaeological and ethnographic objects;
- some Aboriginal heritage objects;
- objects of geological, scientific or technological interest;
- military objects;
- pieces of decorative art, fine arts, books, film and sound recordings;
- numismatic and philatelic objects; and
- objects of social history.

MUSEUMS AND ART MUSEUMS

Museums are defined by the International Council of Museums as 'institutions, generally housed in one or more buildings, primarily engaged in the collection, acquisition, conservation and exhibition of the material evidence of people, their culture and environment, for purpose of education and enjoyment by the general public and/or specialists'.

Museums include art museums and historical theme parks such as Sovereign Hill, but exclude commercial art galleries as they are regarded as being retail outlets for statistical purposes. The major art museums are the Australian National Gallery in Canberra, and the State art museums in each capital city. In addition, there are more than 220 regional, local and private art museums and art spaces located in arts centres, performing arts complexes and tertiary institutions.

During the last quarter of 1991, there were 1,893 museums of all types operating in Australia. Of these 236 were art museums and 115 historical theme parks. The number of museums and art museums is constantly changing as new ones open and others close.

12.5 MUSEUMS BY STATE/TERRITORY 1991

State/Territory	*Number*
New South Wales	418
Victoria	454
Queensland	326
South Australia	252
Western Australia	235
Tasmania	136
Northern Territory	38
Australian Capital Territory	18

Source: Statistical Advisory Group to the Cultural Ministers Council, Survey of Museums and Art Museums.

Attendances

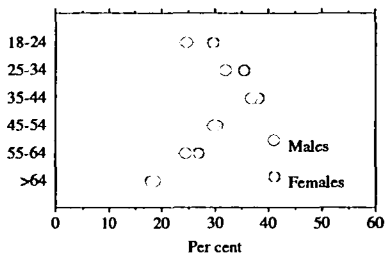
The ABS Survey of Attendance at Selected Cultural Venues, conducted in June 1991, found that 3.6 million people aged 18 years and over had attended a museum at least once in the preceding year, representing a participation rate of 31.8 per cent.

12.6 ATTENDANCE AT MUSEUMS, 1990–91 ('000)

State/Territory	*Attendees*	*Total visits*
New South Wales	1,215.2	2,620
Victoria	849.1	1,830
Queensland	559.7	1,210
South Australia	374.3	920
Western Australia	376.9	910
Tasmania	117.3	320
Northern Territory	41.6	130
Australian Capital Territory	98.8	310
Australia	**3,632.9**	**8,250**

Source: ABS Survey of Attendance at Selected Cultural Venues, Australia, June 1991.

12.7 PARTICIPATION RATE, MUSEUMS, BY AGE GROUP AND SEX, 1990–91



Source: Attendance at Selected Cultural Venues, Australia, June 1991 (4114.0).

The highest participation rate was that of people aged 35 to 44 years (37.7%) and people aged 25 to 34 years (33.9%). The lowest participation rate recorded was for males and females over 64 years (18.5%).

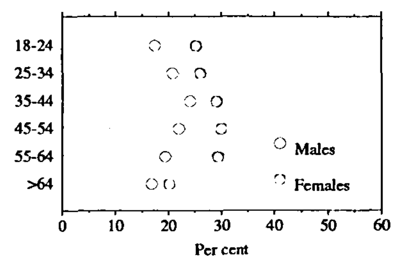
In the 12 months to June 1991, 2.9 million people attended an art museum at least once. This represents a participation rate of 23.9 per cent.

12.8 ATTENDANCE AT ART MUSEUMS, 1990–91 ('000)

State/Territory	*Attendees*	*Total visits*
New South Wales	891.2	2,830
Victoria	756.3	2,760
Queensland	482.5	1,470
South Australia	249.0	810
Western Australia	304.1	1,030
Tasmania	89.1	330
Northern Territory	31.9	140
Australian Capital Territory	82.7	340
Australia	**2,886.8**	**9,710**

Source: ABS Survey of Attendance at Selected Cultural Venues, June 1991.

12.9 PARTICIPATION RATE, ART MUSEUMS, BY AGE GROUP AND SEX, 1990–91



Source: Attendance at Selected Cultural Venues, Australia, June 1991 (4114.0).

The greatest number of people attending an art museum at least once during the year were persons aged 35 to 44 which constituted 684,400 persons and represented a participation rate of 26.9 per cent. The participation rate was lowest for males over 64 years (17.1%), followed by males 18 to 24 (17.8%). The participation rate was 16.4 per cent for people with no qualifications, compared with 55.4 per cent for people with Bachelor degrees or higher qualifications.

National Museum of Australia

Over the next nine years, Australia has the opportunity to develop a national museum in Canberra which is due to become fully operational in 2001. Its theme will incorporate the formation of the continent and the evolution of Australia's unique flora and fauna, Aboriginal prehistory, settlement and development since European occupation, and the interaction of Australian people with their environment. During 1990–91, 25,635 people visited the National Museum of Australia's Visitor Centre in Canberra. Of this number, 12,815 people attended the exhibition 'More than Meets the Eye — Reflections on the Aboriginal Arts and Craft Industry' which explores aspects of the marketing of Aboriginal culture. The museum's floating exhibit, the paddle-steamer *Enterprise*, maintains a regular steaming schedule on Lake Burley Griffin, arranged by volunteers. It attracted 9,509 visitors in 1990–91.

Australian National Maritime Museum

The Australian National Maritime Museum, at Darling Harbour, Sydney, was established by the Commonwealth Government to increase knowledge, appreciation and enjoyment of Australia's past and continuing involvement with the sea.

Four galleries house the permanent exhibitions, including the largest, the ANZ Tall Gallery, and the United States of America Gallery which is funded by a $US5 million Bicentennial gift from the USA.

The building also includes a gallery for temporary and visiting exhibitions, a 200-seat theatre, the Cunard Members Lounge, and other tourist facilities.

The Museum presents its exhibitions on six themes:

- Discovery — the finding of Australia;
- Passengers — the long sea voyage;
- Commerce — the working sea;
- Navy — protecting Australia;
- Leisure — sun, surf and sails; and
- Australia–USA — linked by the sea.

The Museum's National Maritime Collection comprises more than 12,000 items ranging in size from historic vessels to tunic buttons.

In front of its building the Museum has two 90-metre long finger wharfs to moor a fleet of 15 vessels. A list of these can be found in the 1992 Year Book.

Science and Technology Centres

The National Science and Technology Centre (Questacon), built as part of a joint Australia–Japan project for the 1988 Bicentennial, is located on the foreshores of Lake Burley Griffin in Canberra. It attracts about 500,000 visitors to the centre or its travelling programs each year.

It is an interactive centre for learning about science and technology — a place where the visitor becomes part of the exhibits, where participation is essential to the learning process, and where people, particularly students, are encouraged to think of science and technology as viable careers.

Australian Science and Technology Centres have now been established in Sydney (at the Powerhouse Museum and the Sydney Children's Museum); Newcastle (Supernova at the Newcastle Regional Museum); Wollongong (at the Science Centre of the University of Wollongong); Melbourne (Scienceworks); Brisbane (Sciencecentre); Perth (Scitech Discovery Centre); and Adelaide (The Investigator Science and Technology Centre).

The National Gallery of Australia

On 12 October 1992, the National Gallery of Australia (formerly named the Australian National Gallery) celebrated its 10th birthday since it was opened by Her Royal Highness Queen Elizabeth II on the same day in 1982. Since the commencement of Gallery's Travelling Exhibition Program in 1988 there have been 17 exhibitions installed at 94 locations around Australia (27 in New South Wales, 15 in Victoria, 15 in Queensland, 11 in South Australia, 10 in Western Australia, 8 in Tasmania, 6 in Northern Territory, 1 in the Australian Capital Territory and 1 international in Manila, Philippines). Over 1,250,000 Australians have viewed aspects of their National Collection outside Canberra. The Gallery has an active education department which during 1991–92, provided services to 70,000 students and to 30 per cent of all Gallery visitors.

Other collections

For information about other institutions such as the Australian War Memorial, the Australian National Botanic Garden, and further information on the Australian National Gallery, refer to *Year Book Australia 1991.*

LIBRARIES AND ARCHIVES

A concentration of library functions appropriate to the national reference, curatorial and bibliographic services, and the national archival service for the Commonwealth administration, are provided by the National Library of Australia and the Australian Archives, respectively.

In 1988 there were some 13,000 libraries in Australia of which an estimated 10,000 were school libraries. These are funded by State Governments and supported by the efforts of parents and school bodies. Around 1,400 (11%) were public libraries. These operate in each State, are funded by local councils with some State assistance, and are accessible to all. In addition, almost 200 libraries were located in higher education institutions. As well, there were 1,300 special libraries located in government departments, commercial enterprises, professional practices, political and religious organisations, trade unions and so on.

Attendances at libraries

In the 12 months to June 1991, 37 per cent of the population aged 18 years and over (4.4 million people) had used a library at least once. This represents a participation rate of 36.7 per cent. There was a significant difference in the use of libraries by women (43%) compared with men (30%).

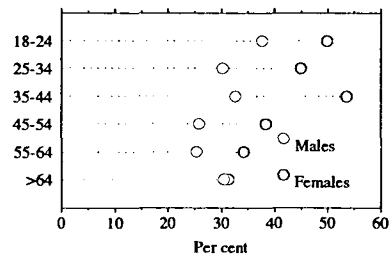
For all categories, females had a higher participation rate than males. Participation rates ranged from 53.4 per cent for females aged 35 to 44 years to 25.0 per cent for males aged 55 to 64 years. People with Bachelor or higher degrees had a higher participation rate (62.8%) than people with no qualifications (30.2%). Estimates of book reading and borrowing activities were contained in *Year Book Australia 1991.*

12.10 ATTENDANCE AT LIBRARIES, 1990–91 ('000)

State/Territory	*Attendees*	*Total visits*
New South Wales	1,409.1	22,990
Victoria	1,142.5	19,170
Queensland	713.0	11,340
South Australia	423.2	7,240
Western Australia	496.8	7,830
Tasmania	129.9	2,050
Northern Territory	37.7	710
Australian Capital Territory	90.2	1,490
Australia	**4,442.5**	**72,820**

Source: ABS Survey of Attendance at Selected Cultural Venues, June 1991.

12.11 PARTICIPATION RATES, LIBRARIES, BY AGE GROUP AND SEX, 1990–91



Source: Attendance at Selected Cultural Venues, Australia, June 1991 (4114.0).

National Library of Australia

The National Library, the six State and two Territory library services are responsible for the acquisition and conservation of copies of all significant publications originating in the country or State. They also provide advice and support, interlibrary loans and other extension services to other libraries; and research, information, and reference facilities and services to the public.

A detailed description of the National Library and its holdings, the National Bibliographic Control System, the National Bibliographic Database, the Australian Bibliographic network, the Australian Council of Libraries and Information Services, the National Libraries Online Information and Interlibrary Lending Services, and the international and national coordination roles of the National Library can be found in *Year Book Australia 1991.*

Details of National Library holdings are shown below.

12.12 NATIONAL LIBRARY HOLDINGS

	1989	*1990*	*1991*
Collection volumes(a)(million)	4.389	4.534	4.625
Serial titles	197,172	204,279	200,503
Paintings, drawings and prints	39,742	40,125	40,490
Photographs	508,234	511,520	513,649
Manuscripts (in shelf metres)	7,799	8,104	8,560
Music scores	140,922	150,415	153,817
Maps	387,734	400,419	408,375
Films and video cassettes	22,644	23,263	23,966
Aerial photographs	563,843	563,843	563,843
Oral history and folklore tapes (approx.)	44,100	45,565	57,625

(a) Includes microform equivalents.
Source: National Library of Australia.

Other Commonwealth libraries

Other Commonwealth libraries are located in government organisations including the Patent Office, Commonwealth Scientific and Industrial Research Organisation, The Australian War Memorial Research Centre, the Australian Heritage Commission, the Commonwealth Parliament, the Australian Bureau of Statistics and the Antarctic Division. For more detailed information relating to these library services *see Year Book Australia 1991.*

Archives and records

Archives are institutions whose primary function is the permanent preservation of unique records selected because of their administrative, financial, legal or other information value, and which are generally no longer required for the conduct of current activities by government agencies, non-government organisations or private individuals. While much archival work is an adjunct to other activity, there is a growing number of archival bodies, funded by governments and private sources, employing specialist staff to serve the legal, administrative and research needs of individuals and organisations.

While general interest in archives in Australia was aroused following the celebration of the centenary of the colonisation of New South Wales in 1888, it was not until the twentieth century that measures were taken for the preservation, storage and servicing of original records. Initially, major libraries throughout Australia undertook the collection of historical records from both official and private sources. Today, archives and records organisations exist for government records at Commonwealth and State levels.

In 1961 the Archives Division of the Commonwealth National Library was reconstituted as a separate agency known as the Commonwealth Archives Office, which was renamed the Australian Archives in 1974. The *Archives Act 1983* provides a statutory basis for its operations and institutes arrangements for the management and proper disposition of the vast body of records created by Commonwealth agencies, past and present.

12.13 AUSTRALIAN ARCHIVES: HOLDINGS AND ENQUIRIES

Year	*Total holdings*	*Official reference inquiries*	*Public reference inquiries*
	shelf metres	no.	no.
1989–90	470,180	2,184	18,025
1990–91	479,725	2,248	20,183
1991–92	494,144	2,258	25,799

Source: Australian Archives, Annual Report, 1991–92.

Since 1961, some State and Territory archives have been established as separate authorities (New South Wales, Victoria, South Australia, Tasmania and the Northern Territory). Others still operate broadly under State library control.

In addition, archives have been established by some churches, business corporations, universities and city councils. The Australian War Memorial collects private material concerning Australians at War and is also custodian of certain official Commonwealth records relating to war or warlike operations. The National Film and Sound Archive collects cultural material relevant to the film and sound media. Other corporate and private records continue to be collected by some State archives offices, libraries and universities.

Many of the bodies in the archives or records field are members of the Australian Council of Archives which provides a means of promoting cooperation on issues of common concern.

CREATIVE ARTS

Government support

The Commonwealth Government formulates policy guidelines for the support of the arts generally and allocates funds annually to the national cultural institutions under its jurisdiction.

The arts in Australia receive considerable financial support from the Commonwealth Government both in the form of direct grants and through the provision of taxation benefits. This support is complemented by State, Territory and local governments. Governments provide funds for virtually all aspects of creative artistic life. There are major performing arts facilities in the following capital cities — Canberra, Sydney, Melbourne, Brisbane, Perth, Adelaide and Darwin. The number of regional art museums and performing arts centres is increasing each year. In the past decade the number of major international art exhibitions touring capital cities has increased. Community and folk arts have gained recognition, and the Australian film industry is once again a major contributor, in economic and artistic terms, to Australian cultural life.

The total outlays of the three levels of government are included in tables 12.14 and 12.15. A total of over $1,624 million in current and capital outlays was provided to organisations in the cultural industry in 1990–91.

Table 12.16 shows the average household expenditure on selected culture items.

12.14 TOTAL OUTLAYS ON CULTURE BY COMMONWEALTH, STATE AND LOCAL GOVERNMENTS, 1990–91
($ million)

Purpose	*Commonwealth*	*State*	*Local*	*Total*
Libraries	—	80	254	334
Broadcasting and film production	670	8	—	678
Cultural facilities/services(a)	155	379	78	612
Total	**825**	**467**	**332**	**1,624**

(a) Includes outlays for the creative and performing arts, museums and art galleries.
Source: Unpublished ABS data.

12.15 TOTAL GOVERNMENT OUTLAYS ON CULTURE
($ million)

	1986–87	*1987–88*	*1988–89*	*1989–90*	*1990–91*
Libraries	332	335	329	354	334
Broadcasting and film production	567	59	582	696	678
Cultural facilities/services(a)	601	688	676	560	612
Total	**1,490**	**1,082**	**1,587**	**1,610**	**1,624**

(a) Includes outlays for the creative and performing arts, museums and art galleries.
Source: Unpublished ABS data.

To obtain information on the organisation/individuals engaged in cultural activities and in receipt of subsidies in the form of recurrent or project grants, the Statistical Advisory Group to the Cultural Ministers Council conducted the Subsidised Industry Survey. Results from the survey show that general operating and project grants from Commonwealth and State/Territory arts departments, the Australian Film Commission and the Australia Council were $355.1 million. Table 12.16 shows where these general operating and project grants were geographically directed.

12.16 VALUE OF GRANTS BY STATE OF RESIDENCE OF RECIPIENT, 1990
($ million)

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
General operating grants	118.93	67.45	55.62	33.52	8.48	12.88	0.30	2.89	300.07
Project grants	20.77	15.83	4.60	2.73	6.21	1.61	1.73	1.54	55.02
Total	**139.70**	**83.28**	**60.22**	**36.25**	**14.69**	**14.49**	**2.04**	**4.43**	**355.10**

Source: Statistical Advisory Group, Cultural Ministers Council: Subsidised Industry Survey.

Household expenditure on culture

Table 12.17 shows the average household expenditure on selected items of culture in 1988–89.

12.17 AVERAGE HOUSEHOLD EXPENDITURE ON CULTURE, SELECTED ITEMS, 1988–89
($)

Expenditure item	*Weekly*	*Annual*
Pre-recorded video cassettes and discs	0.14	7.28
Records (audio)	0.62	32.24
Audio cassettes and tapes	0.59	30.68
Books	2.50	130.00
Musical instruments and accessories(a)	0.49	25.48
Cinema admission charges	0.71	36.92
Live theatre admission charges	0.92	47.84
National park and zoo fees	0.08	4.16
Art gallery and museum fees	0.05	2.60
Cultural and other non-sporting lessons	0.73	37.96
Total average household expenditure	**6.83**	**355.20**

(a) Relative standard error is greater than 25 per cent.
Source: 1988–89 Household Expenditure Survey, Australia: Detailed Expenditure Items (6535.0).

Cultural Ministers Council

The Cultural Ministers Council was established in 1984 to provide a forum for the exchange of views on issues affecting cultural activities in Australia. It currently comprises Australian Commonwealth, State and Territory, and New Zealand Government Ministers responsible for arts and cultural heritage. The corresponding Minister from Papua New Guinea participates with observer status.

For the purposes of the Council, cultural activities are defined as: creative arts; performing arts; cultural heritage, including collecting institutions; libraries and information services; and film.

The activity of governments in encouraging and supporting culturally important activities is complemented by non-government sponsors, organisers, entrepreneurs and patrons of the arts. Private and corporate investment in the arts is being encouraged, and joint ventures between government and corporate sponsors for large-scale events, tours or exhibitions are not uncommon.

The Statistical Advisory Group (SAG) advises the Council on the information needs of the Australian cultural industry. Since 1991, SAG has concentrated on refining user requirements for cultural statistics and educating all levels of the cultural industry about the value and use of statistics.

In 1991, it was agreed to form a National Culture/Leisure Statistical Unit within the ABS.

The role of the NCLSU is to:

- develop the statistical Advisory Group's statistical framework for culture/leisure statistics;
- coordinate statistical activity and draw together results of culture/leisure statistical work for use in policy development and planning; and
- participate in investigations, development and conduct of new and existing collections in accordance with the framework.

The unit is located in the Adelaide office of the ABS.

The Heritage Collections Working Group was formed by the Council in 1990 to advise on ways of improving access to and preservation of, heritage collections in Australia. The Working Group has gathered information on the nature and extent of collections in Australia and their state of preservation and is now preparing national strategies to improve access to heritage collections for consideration by the Council in 1993.

Australia Council

The Australia Council is the Commonwealth Government's arts funding and advisory body. Established as a statutory authority in 1975, its responsibilities are detailed in the *Australia Council Act 1975*. Broadly speaking, the Council's brief is to formulate and carry out policies to foster a strong artistic life throughout the nation by promoting excellence in and development of the arts. It also actively encourages involvement in the arts by all Australians and nurtures a culturally diverse national identity. The Australia Council comprises 14 members.

Two important principles guide the work of Council. It operates at arms length from government which ensures that decision making on specific grants is made independently of the political process. It also operates under the principle of peer review by which decisions on policy, priorities and grant selections are made by professional peers of the applicants. In 1991–92, the Council received 5,377 applications and made 2,095 grants of which 576 were to individuals and 1,519 to organisations. The Council is divided into five Boards — Aboriginal Arts, Community Cultural Development, Literature, Performing Arts and Visual Arts/Crafts. Their roles are to implement policy, devise support programs, monitor grants and advise the Council on broader issues of arts policies and needs. A brief description of their functions is contained in the 1992 Year Book.

12.18 ALLOCATION OF AUSTRALIA COUNCIL FUNDS ($'000)

	1990–91	*1991–92*
Arts support grants		
Aboriginal arts	3,325	4,071
Community cultural development	5,174	5,370
Literature	4,518	4,361
Performing arts	28,075	28,222
Visual arts/craft	6,636	7,210
Council programs & special projects	2,071	1,936
Australian artists creative fellowships	783	1,117
Total	*50,582*	*52,287*
Administration	8,742	8,674
Total operating expenses	**59,324**	**60,961**
Parliamentary appropriation	58,128	60,142

Source: Australia Council.

Another unit within the Australia Council, Strategic Development, monitors trends in the arts industry, advises Council on future planning and supports initiatives to develop the arts industry nationally. The Unit also manages the Australian Artists Creative Fellowships Scheme, which is administered by the Australia Council on behalf of the Federal Government. The Stategic Development Unit of the Australia Council conducts an annual survey of museums and art museums with paid staff. In 1990–91, 202 museums and art museums in the survey recorded attendances of 14.5 million. They employed the equivalent of 3,881 full-time staff and had a combined operating expenditure of $254 million.

Art Exhibitions Australia Limited

Art Exhibitions Australia Limited (AEAL), previously International Cultural Corporation of Australia Limited (ICCA), was established by the Commonwealth Government in 1980 as a non-profit public company to arrange and manage cultural exhibitions and events.

The company is self-supporting and has attracted a total of $15 million of sponsorship support from 72 companies in the corporate sector and 16 public sector authorities, over $24 million in total from admissions to exhibitions, more than $14 million from merchandising, and over $4 million from investments and grants.

The company works closely with the Department of the Arts, Sport, the Environment and Territories (which is the manager of the Government's indemnity scheme), the Department of Foreign Affairs and Trade and other government and cultural agencies in Australia and overseas. Its continuing contractual partners in exhibition activities are the Australian galleries and museums.

To date, the AEAL has managed 40 exhibitions. Total audiences have exceeded 7 million. Exhibitions managed by AEAL have included the Entombed Warriors from China, Philip Guston from the United States, Pop Art from the Museum of Modern Art, New York, Picasso from Europe, Gold of the Pharaohs from Egypt, Ancient Macedonia from Greece, The Age of Sultan Suleyman The Magnificent from Turkey, Flowers and Nature: Brueghel to Van Gogh from the Netherlands, the Secret Treasures of Russia, Golden Summers and The Great Australian Art Exhibition (the latter two from Australia).

Commonwealth schemes in support of the arts

The Public Lending Right Scheme, established by the Commonwealth Government in 1974, makes compensatory payments to Australian authors, illustrators, translators, editors and their Australian publishers for the use of their books in public lending libraries. Eligible books must be created by Australian citizens and residents and meet certain eligibility criteria. The *Public Lending Right Act 1985*, placing the Scheme on a statutory basis, began operation on 1 July 1987. In 1990–91 the Government provided $3.32 million for payments and administration. The Scheme's 1990–91 payments to eligible claimants totalled $3.03 million. Payments to authors and publishers are based on annual sample surveys of book stocks of public lending libraries throughout Australia.

For details of other Commonwealth support schemes for the Arts, namely, Artbank, Historic Memorials Committee, Taxation Incentives and Commonwealth Indemnification of Exhibitions *see Year Book Australia 1991.*

Other arts organisations

The Arts Council of Australia is a national federation of community based Arts Councils. Each State division is funded through the Australia Council and their respective State Government.

The Arts Council of Australia is administered through the State office in which the Federal President resides.

The Council acts as a coordinating body for the activities of the States. These programs cover a wide range of community arts activities initiated by local Arts Councils, an extensive program of professional performances in schools and tours by major theatre companies to towns and cities outside the capitals. There are now about 300 Arts Councils around Australia. Each local Arts Council initiates its own program of activities which are supported by the State offices.

The Australian Elizabethan Theatre Trust was originally formed in 1954 to present drama, opera, ballet and puppetry throughout Australia. The Trust's revenue is obtained from its membership subscriptions, a theatre ticketing service and an industry superannuation scheme.

Between 28 March 1991 and 3 August 1992 the Trust was placed in provisional liquidation at the request of the directors. Since the 3 August 1992, the Trust has continued under a scheme of Agreement, unanimously agreed to by the Trust's creditors.

Festivals

Festivals devoted solely or partly to the arts now total about 300 a year. Amongst the biggest are Adelaide's biennial and Perth and Sydney's annual festivals, both of which last several weeks and present overseas artists as well as leading Australian companies.

Many country centres now have arts festivals which attract performers and artists from a wide area. Seminars, arts workshops and community participation programs are increasingly popular.

MUSIC

Attendances at performances

Attendance at music performances is a significant aspect of the cultural life of Australians. Tables 12.19 and 12.21 show that in the 12 months to June 1991, 3.5 million people aged 18 years and over, attended at least one popular music concert; and 986,000 attended at least one classical music concert.

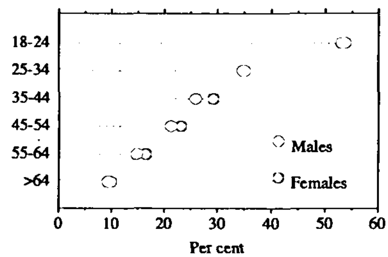
The total participation rate at popular music concerts was 28.6 per cent. There was a large difference in participation rates across all ages. The highest was for 18 to 24 year olds (53.6% of all people aged 18 to 24) and the lowest was 9.7 per cent for people aged 65 years and over. There was little difference in attendance levels between males and females for all age groups.

12.19 ATTENDANCE AT POPULAR MUSIC CONCERTS, 1990–91 ('000)

State/Territory	*Attendees*	*Total visits*
New South Wales	1,166.2	4,860
Victoria	869.7	3,370
Queensland	604.5	2,100
South Australia	279.6	1,060
Western Australia	331.9	1,440
Tasmania	99.1	380
Northern Territory	31.6	130
Australian Capital Territory	73.9	270
Australia	**3,456.4**	**13,610**

Source: ABS Survey of Attendance at Selected Cultural Venues, June 1991.

12.20 PARTICIPATION RATES, POPULAR MUSIC CONCERTS, BY AGE GROUP AND SEX, 1990–91



Source: Attendance at Selected Cultural Venues, Australia, June 1991 (4114.0).

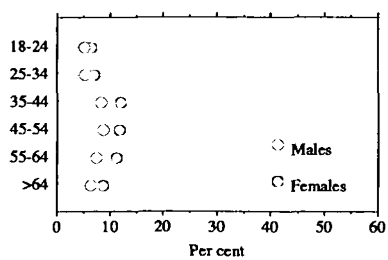
The total participation rate for classical music concerts was 8.2 per cent. The largest user groups were the 35 to 44 and 45 to 54 age groups (both 10.2%).

12.21 ATTENDANCE AT CLASSICAL MUSIC CONCERTS, 1990–91 ('000)

State/Territory	*Attendees*	*Total visits*
New South Wales	342.3	1,100
Victoria	243.8	750
Queensland	142.4	430
South Australia	86.2	230
Western Australia	97.7	330
Tasmania	32.2	120
Northern Territory	7.7	30
Australian Capital Territory	33.6	120
Australia	**985.9**	**3,110**

Source: ABS Survey of Attendance at Selected Cultural Venues, June 1991.

12.22 PARTICIPATION RATES, CLASSICAL MUSIC CONCERTS, BY AGE GROUP AND SEX, 1990–91



Source: Attendance at Selected Cultural Venues, Australia, June 1991 (4114.0).

Music organisations

Musica Viva is Australia's national chamber music entrepreneur. A non-profit company founded in 1945 with headquarters in Sydney, Musica Viva has a Board drawn from all over Australia, a State committee structure and branch offices in all capital cities.

Musica Viva derives income from ticket sales, mainly through subscriptions from corporate sponsorship and individual donations as well as receiving subsidies from the Performing Arts Board of the Australia Council and several State Governments.

As well as its international subscription series in Brisbane, Newcastle, Sydney, Canberra, Melbourne, Hobart, Adelaide and Perth, Musica Viva also conducts an extensive country touring program. In addition, Musica Viva operates an extensive Schools' Performance program in New South Wales, Victoria, Tasmania and Western Australia. It commissions new music from Australian composers and manages tours by Australian artists overseas, often in association with the Department of Foreign Affairs and Trade.

12.23 MUSICA VIVA AUDIENCES, 1991

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Total*
Regional touring	16,969	4,228	3,529	284	—	799	—	—	25,809
Education	205,357	—	—	—	13,537	—	—	—	218,894
Subscriptions and special events	39,016	27,926	9,366	10,368	11,509	2,381	—	11,326	111,892
Overseas	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	87,200

Source: Musica Viva, Annual Report, 1991.

The Australian Folk Trust Inc. was formed in response to the need for a national coordinating body for folk arts and folk life heritage. The Trust receives funds from the Australia Council and AFT members, as well as donations from individuals supporting Australia's folk heritage. Its aims are to assist with community development in all aspects of traditional and contemporary folklore/folk life, including music, song, dances, craft, lore, verse, customs, beliefs and traditional lifestyles, speech, games, food practices; to promote, maintain and preserve all facets of folklore/folk life; and to coordinate these activities on a national basis.

THE PERFORMING ARTS

The performing arts sector includes all forms of theatre, dance, opera and music theatre, variety and cabaret. The ABS Survey of Attendance at Selected Cultural Venues showed that in the 12 months to June 1991, 1.3 million people aged 18 years and over attended at least one dance performance; 2.2 million attended at least one performance of theatre; and 2.4 million attended at least one performance of musical theatre (includes opera).

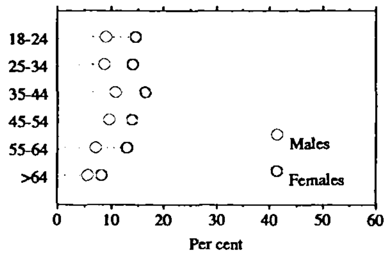
The total participation rate for dance performance was 11.2 per cent. The largest group attending this venue were people aged 35 to 44 years. An estimated 346,400 people in this age group attended which represents a participation rate of 13.6 per cent. Participation rates were greater for females than males (13.5% and 8.7% respectively). These sex differences in attendance levels were consistent for all age groups.

12.24 ATTENDANCE AT DANCE PERFORMANCES, 1990–91 ('000)

State/Territory	*Attendees*	*Total visits*
New South Wales	443.7	1,200
Victoria	349.3	930
Queensland	227.9	580
South Australia	108.0	250
Western Australia	131.7	300
Tasmania	30.4	70
Northern Territory	15.8	40
Australian Capital Territory	42.6	90
Australia	**1,349.4**	**3,460**

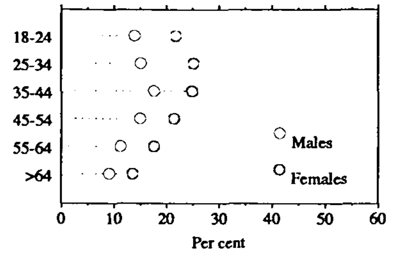
Source: ABS Survey of Attendance at Selected Cultural Venues, June 1991.

12.25 PARTICIPATION RATES, DANCE PERFORMANCES, BY AGE GROUP AND SEX 1990–91



Source: Attendance at Selected Cultural Venues, Australia, June 1991 (4114.0).

12.27 PARTICIPATION RATES, THEATRE, BY AGE GROUP AND SEX, 1990–91



Source: Attendance at Selected Cultural Venues, Australia, June 1991 (4114.0).

Theatre performances include performances before a live audience of a play or drama, a play reading, a poetry reading, a puppet show or children's theatre. While the highest participation rate was for people aged 35 to 44 years (21.2%), the highest attendance level was for those aged 25 to 34 (545,800 persons). The total participation rate for theatre performances was 17.8 per cent. Female participation rates were higher than males, 21.3 per cent and 14.2 per cent, respectively.

12.26 ATTENDANCE AT THEATRE, 1990–91 ('000)

State/Territory	*Attendees*	*Total visits*
New South Wales	710.1	2,040
Victoria	548.9	1,530
Queensland	353.0	880
South Australia	186.6	470
Western Australia	225.3	550
Tasmania	54.4	130
Northern Territory	18.4	50
Australian Capital Territory	54.6	140
Australia	**2,151.3**	**5,790**

Source: ABS Survey of Attendance at Selected Cultural Venues, June 1991.

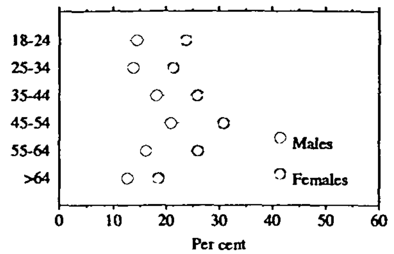
The total participation rate for musical theatre performance was 20.1 per cent. The greatest number of people attending this venue were aged 35 to 44 years (560,400 persons). The highest participation rate was 25.6 per cent for people aged 45 to 54 years, in particular females (30.8%). Age specific participation rates ranged between 5.9 and 10.0 percentage points higher for females than males.

12.28 ATTENDANCE AT MUSICAL THEATRE, 1990–91 ('000)

State/Territory	*Attendees*	*Total visits*
New South Wales	817.4	1,920
Victoria	671.8	1,470
Queensland	417.9	910
South Australia	230.0	460
Western Australia	190.8	340
Tasmania	46.0	80
Northern Territory	11.8	30
Australian Capital Territory	41.7	70
Australia	**2,427.4**	**5,280**

Source: ABS Survey of Attendance at Selected Cultural Venues, June 1991.

12.29 PARTICIPATION RATES, MUSICAL THEATRE, BY AGE GROUP AND SEX, 1990–91



Source: Attendance at Selected Cultural Venues, Australia, June 1991 (4114.0).

The Australian Ballet

The Australian Ballet was established in 1961 as the nation's classical ballet company. The company now performs in Australian capital cities every year and regularly tours overseas. The Australian Ballet has an international reputation as one of the top ballet companies in the world. It is based at The Australian Ballet Centre, South Melbourne, in the Arts City precinct, has an office in Sydney and representatives in London and New York.

12.30 THE AUSTRALIAN BALLET: PERFORMANCE AND EMPLOYMENT

	1987	*1988*	*1989*	*1990*	*1991*	*1992*
PERFORMANCES						
Theatres in Australia						
New South Wales	81	80	87	84	82	80
Victoria	70	58	60	61	64	60
Queensland	—	10	—	10	12	—
South Australia	12	—	12	7	10	10
Western Australia	—	—	7	—	—	9
Australian Capital Territory	—	6	6	—	6	—
Other venues in Australia						
Myer Music Bowl, Melbourne	—	1	1	1	—	—
ABC TV–FM simulcasts	—	1	2	1	—	—
Performances overseas	20	37	14	22	—	27
Total performances	**183**	**192**	**188**	**187**	**175**	**186**
EMPLOYMENT						
Dancers	54	60	60	60	60	64
Staff						
Artistic	6	6	8	7	8	8
Music	4	5	4	5	4	4
Production & theatre	32	30	29	27	29	30
Marketing & publicity	9	10	15	11	11	13
Administration & finance	19	21	20	21	20	21
Total employment	**124**	**132**	**136**	**131**	**132**	**140**

Source: The Australian Ballet.

The Australian Opera

The Australian Opera is the largest performing arts organisation in Australia, employing more than 200 permanent staff including 30 principal artists and a chorus of 50. In addition it employs more than 500 casuals each year, including celebrated international singers. In 1991, it gave 218 performances of 17 operas in Sydney, Melbourne and Perth. Performance numbers were affected by the closure for renovation of the Sydney Opera House for part of the year. In addition to these main stage performances, the Australian Opera gave its annual Opera in the Park and collaborated with the ABC on three television and FM radio simulcasts.

In 1991, the Australian Opera paid $18 million in salaries and wages. Total revenue amounted to $29 million. A large portion of its total revenue (62.4%) came from box office and associated income. Of the remainder, 27.5 per cent was accounted for by government funding and 10.1 per cent by corporate and individual contributions. The following table shows salaries and wages, performance details and funding sources for the past four years.

12.31 THE AUSTRALIAN OPERA: PERFORMANCES, ATTENDANCES AND SOURCES OF INCOME

	1988	*1989*	*1990*	*1991*
Salaries and wages ($ million)	12	12	14	18
Performances	232	233	236	218
Attendances	274,782	296,477	307,656	292,486
Box office, donations and other income ($ million)	9	18	20	21
Government grants ($ million)	7	6	8	8

Source: The Australian Opera.

ARTS AND CRAFTS — PARTICIPATION AND PURCHASING

A survey of participation in arts and crafts and the purchasing of arts and crafts products was conducted throughout Western Australia in October 1990 by the Australian Bureau of Statistics. The results of the survey, summarised below, provide an indication of participation in these activities by the Australian population as a whole.

Participation

In the period April to October 1990, over 38 per cent of adults 15 years and over in Western Australia participated in art/craft as a leisure activity. A further 15 per cent of adults had not participated during the eligible period but were interested in participating. The most popular type of art/craft was handicrafts (52%). Next most popular were photography (20%), music making (19%), and drawing/painting and sculpting (16%) (table 12.32).

Purchasing

As at October 1990, over 57 per cent of households in Western Australia had purchased a finished art/craft product within the previous six month period. The proportion of households that had made purchases of art/craft products was similar within the metropolitan areas of the State.

Table 12.33 indicates that the majority of households had purchased record/tape/compact discs (69%) or books (67%) during the period April to October 1990. The remaining categories of art/craft were purchased by only a minority of households (11% to 18%). The pattern of types of art/craft purchases was very similar for all categories of gross annual household income except that handmade pottery was purchased more frequently by households with an income of more than $50,000.

With the exception of paintings/prints the most common amount expended on art/craft purchases by a household was less than $50.

12.32 PERSONS PARTICIPATING IN ART/CRAFT ACTIVITY, WESTERN AUSTRALIA OCTOBER 1990

Type of activity	*Males*	*Females*	*Total*	*Per cent of total*
	no.	no.	no.	
Handicrafts	28,287	220,194	248,481	52.4
Drawing/painting/sculpting	30,140	44,725	74,865	15.8
Music making	45,321	42,829	88,149	18.6
Writing	16,248	25,154	41,401	8.7
Photography	52,349	41,110	93,459	19.7
Other art or craft	17,465	31,044	48,509	10.2
Total	**160,768**	**313,299**	**474,068**	**100.0**

Note: The totals may not equal the sum of their respective component items as a person may have participated in more than one art activity.

Source: Arts and Crafts: Purchasing and Participation, Western Australia (4111.5).

12.33 ART/CRAFT PURCHASES BY HOUSEHOLDS, WESTERN AUSTRALIA OCTOBER 1990

Types of art purchases	*Number*	*Per cent*
Record/tape/compact disc	229,390	68.7
Books (excluding text books)	223,890	67.1
Handmade pottery	61,675	18.5
Painting/print	45,613	13.7
Handmade jewellery	37,803	11.3
Other art/craft product	38,557	11.5
Total	**333,859**	**100.0**

Note: The totals do not equal the sum of their respective component items as a household may have purchased an item from more than one category.

Source: Arts and Crafts: Purchasing and Participation, Western Australia (4111.5).

FILM AND TELEVISION

The total value of audio-visual production increased from $1.245 billion in 1988–89 to $1.385 billion in 1989–90 but declined to $1.294 billion in 1990–91.

12.34 VALUE OF AUDIO-VISUAL PRODUCTION BY CATEGORY 1988–89 TO 1990–91 ($ million)

Category	*1988–89*	*1989–90*	*1990–91*
Feature films	85	211	133
TV drama(a)	186	169	167
TV stations	610	614	620
Commercials	280	280	280
Corporate video	70	80	65
Documentaries	11	26	24
Music video	4	5	4

(a) Produced by independent production companies.

Source: Australian Film Commission.

Commercial and national television stations produce a large volume of programming, including news and current affairs, information and 'talk' programs, sports coverage and some arts, light entertainment and children's programming. The value of television station production grew marginally in the survey period — from $610 million in 1988–89 to $620 million in 1990–91 — although this represents a decline in real terms and reflects the commercial television stations' efforts to reduce operating costs.

Commonwealth funding

The Commonwealth Government provides indirect and direct support to the Australian film and television production industry.

Taxation incentives for films scheme.

The scheme, which is embodied in Division 10 of the *Income Tax Assessment Act 1936,* was established in October 1980 to encourage private investment in Australian films. The scheme allows taxation concessions for private investors in qualifying Australian films which have been issued with a certificate to that effect by the Commonwealth Minister for the Arts, Sport, the Environment and Territories.

Qualifying Australian films are feature films (including animated) and films of a like nature for television (telemovies); documentaries; and mini-series of television drama. They must be produced principally for public exhibition in cinemas or on television, be substantially made in Australia and have a significant Australian content.

The following films are not eligible:

- an advertising program or commercial;
- a discussion, quiz, panel or variety program or a program of a similar nature;
- a film of a public event;
- a film forming part of a drama program series that is, or is intended to be of a continuing nature; or
- a training film.

Direct Commonwealth funding. The following funds were allocated to film-related organisations in 1991–92:

- Australian Film Finance Corporation — $62 million;
- Australian Film Commission — $16,073,000. In addition, $3,175,000 was expected from self-generated funds, giving a level of activity of $19,248,000;
- Australian Film, Television and Radio School — $10,695,000. In addition, $1,406,000 in self-generated income, together with sponsorship funds, provided a total activity level of $12,101,000; and
- Australian Children's Television Foundation — $1,201,000.

Australian Film Finance Corporation Pty Ltd

The Government established the Australian Film Finance Corporation (FFC) as an incorporated company in 1988. The Corporation invests in feature films, documentaries and television dramas, including mini-series and telemovies. Special attention is given to children's television.

From the commencement of its operations until 30 June 1992, the FFC received 415 applications for funding of which 222 were approved by its Board and 197 were ultimately contracted. These productions consisted of 47 feature films, 44 television dramas and children's series, 90 documentaries and 16 co-productions.

At 30 June 1992, the FFC had invested in 197 projects and committed $275.8 million to productions triggering an Australian film production slate worth $545.32 million (including investment from the private sector and other government funding bodies). The FFC's commitment to production in 1991–92 was $75.65 million for 55 projects, which will generate almost $130.54 million worth of production. In addition, the FFC has committed $46.75 million in print, advertising and production loans and distribution advances.

Australian Film Commission

The Australian Film Commission is a statutory authority established in 1975. It is the primary development agency for film and television in Australia. Its stated objectives are to foster a stable and diverse Australian film and television production industry of quality, encourage the production and distribution of Australian programs and promote the commercial potential, cultural diversity and benefits of Australian programs both domestically and internationally. Over half the organisation's budget is invested in the production of innovative film and television projects.

12.35 AUSTRALIAN FILM INDUSTRY: NUMBER AND VALUE OF AUSTRALIAN TITLES

	1988–89		*1989–90*		*1990–91*	
Type of film	*Number*	*$ million*	*Number*	*$ million*	*Number*	*$ million*
Features	21	47.1	33	136.8	26	113.2
Telemovies	9	5.8	16	2.7	2	1.0
Mini-series	17	68.8	16	64.7	14	62.4
Total	**47**	**121.7**	**65**	**204.2**	**42**	**176.5**

Source: Australian Film Commission.

12.36 CINEMA SCREENS, ADMISSIONS, AND BOX OFFICE RECEIPTS(a)

	1988	1989	1990	1991
Number of cinema screens (incl. drive-ins)	712	772	851	885
Admissions ('000)	37,366	36,631	40,912	45,240
Gross box office receipts(b)($m)	223.8	241.7	270.2	314.4

(a) Statistics cover all feature films exhibited irrespective of the country of origin. (b) Estimated gross box office for feature films exhibited in Australia.
Source: Motion Picture Distributors Association of Australia.

Film Australia Pty Ltd

Film Australia is a fully government owned film and television production house which was incorporated in 1988. It is a proprietary limited company, fully government owned but autonomous in its business and creative decisions. Its board of directors is drawn from the world of arts and business. Film Australia is the largest non-broadcast production house in the country with a 7,000 square metre studio complex in Sydney. It is a company committed to meeting the changing needs of markets both internationally and at home without losing its courage to experiment with ideas and formats that may not yet be commercially viable.

Film Australia has built an enviable reputation both nationally and internationally for its documentaries, drama, children's programs and feature films taking the Australian 'message' to television screens and cinemas in over 100 countries.

The mainstay of Film Australia's work is the National Interest Program in which 20 programs are made each year that deal with matters of national interest to Australia. This renewable three-year contract with the Federal Government is presently worth $18 million. Film Australia's catalogue of 2,000 titles has won it more than 500 awards worldwide. Every year Film Australia is invited to screen in major film festivals throughout the world. In 1991 44 of its programs screened in 60 international film festivals.

Australian Children's Television Foundation

The Australian Children's Television Foundation was incorporated in Victoria in March 1982. Its aim is to improve the quality and quantity of children's programs on Australian television. It has actively pursued this objective by investing in script development and program production and by undertaking related educational and informational activities. The Foundation receives assistance from the Commonwealth Government, and all State and Territory Governments. In 1991–92, $1,201 million was provided by the Commonwealth with $733,455 from the other participating governments on a pro rata basis.

Film and videotape censorship

The Film Censorship Board is a full-time statutory body located in Sydney as part of the Office of Film and Literature Classification. A regional censorship office is located in Melbourne.

Under the Customs (Cinematograph Films) Regulations, the Board examines imported films and videotapes to determine whether or not to register them for public exhibition. It also examines film advertising. The Regulations direct the Board not to pass films or advertising matter which in its opinion are:

- blasphemous, indecent or obscene;
- likely to be injurious to morality, or to encourage or incite crime; and/or
- undesirable in the public interest.

The Board's State functions in relation to cinema films, including classification, are performed by virtue of formal agreements with the various States. Decisions on matters arising under the Regulations and on classification under State or Territory legislation may be appealed to the Film and Literature Board of Review. The Censorship Board also classifies sale–hire videotapes pursuant to State or Territory legislation. These decisions may likewise be appealed to the Film and Literature Board of Review.

In 1991–92, 998 feature films were examined. Of the 998 features, 76 were classified For General Exhibition ('G'), 163 Parental Guidance ('PG'), 293 For Mature Audiences ('M') and

53 For Restricted Exhibition ('R'). Another 403 films were registered subject to special conditions. 10 feature films were refused registration. There were six appeals, of which four were dismissed. Permission to import for use at approved events including film festivals, was granted to 525 films.

12.37 FEATURE FILMS CLASSIFIED BY THE FILM CENSORSHIP BOARD, 1989–90 TO 1991–92

Classification	*1989–90*	*1990–91*	*1991–92*
G	33	107	76
PG	128	142	163
M	282	304	293
R	47	63	53
Special conditions	109	220	403
Refused	4	2	10
Total	**603**	**838**	**998**

Source: Film Censorship Board.

The principal countries of origin were the United States of America (267 films), Hong Kong (105 films), Australia (34 films), the United Kingdom (29 films), France (14 films), the USSR (11 films), India (11 films), and Japan (10 films).

The Board also examines videotapes for sale or hire. In the videotape area there is an 'X' classification which applies to videotapes containing non-violent explicit sexual material. However the 'X' classification only applies in the Australian Capital Territory and Northern Territory. 'X' rated films are not permitted to be sold or rented elsewhere in Australia. Details of the videotapes classified by the Board over the last three years are set out in the table below.

12.38 VIDEOTAPES FOR SALE/HIRE CLASSIFIED BY THE FILM CENSORSHIP BOARD, 1989–90 TO 1991–92

Classification	*1989–90*	*1990–91*	*1991–92*
G	1,109	1,410	1,472
PG	519	561	490
M	689	715	632
R	204	234	282
X	657	616	678
Refused	43	68	118
Total	**3,221**	**3,604**	**3,672**

Source: Film Censorship Board.

PROFESSIONAL TRAINING IN THE ARTS

Professional training in the arts in Australia covers a broad range of resources. Training is available through formal courses in TAFEs, universities and private institutions. There are also a number of on-the-job training programs available in the arts and many organisations offer in-house training programs for their staff. The last decade has seen the development of multi-disciplinary tertiary arts training institutions in some States.

Arts Training Australia

This national organisation was established in 1986 to address vocational training needs in the arts, media and entertainment industries. It is not a training organisation in itself, but aims to ensure that current training programs are meeting present and future needs of those involved in the arts, media and entertainment industries.

Arts Training Australia represents a wide range of national employer organisations, unions and professional associations active in the industries. It undertakes research projects which examine the specific training needs of the differing industry sectors, ranging from architecture and design, performing and visual arts to writing and publishing, film, television, radio, museums and libraries. It also assesses the relevance of non-accredited privately-run courses to the needs of the industry and coordinates national curriculum development programs.

Through its branch network the organisation liaises with the Commonwealth Government and State Governments, educational institutions and others in policy making for arts training. It provides advice to Government on the industries' training requirements, as well as participating in wide-ranging debates on industry training matters.

Australian Film, Television and Radio School

The Australian Film, Television and Radio School is the national training centre for the film and broadcasting industries. The School was established in 1973 as an Australian Government statutory authority as part of the

Federal Government's strategy to expand training in the arts.

The School offers full-time training in film and video directing, producing, screenwriting, cinematography, editing, sound and production design, and in commercial radio production. It provides advanced education and training for industry professionals across the country through short and part-time courses. Postgraduate media courses and a selection of overseas training in the Asian-Pacific region are also carried out. The School maintains an extensive library of print and non-print material related to film, television and radio. It also has an extensive publishing program and supplies educational video resource material.

National Institute of Dramatic Art

NIDA is Australia's national training school for young people who wish to enter the profession of theatre, film or television as actors, directors, designers, stage managers, theatre crafts technicians, production managers or teachers of voice and movement. The Institute's courses are designed to meet the needs of the arts entertainment industry by assisting students to develop the craft skills, cultural background and personal discipline required for successful careers in their chosen field. The Institute employs a staff of 30 full- and part-time teachers and in 1991 had 137 students.

12.39 NATIONAL INSTITUTE OF DRAMATIC ART, COURSES AND STUDENTS 1991

Course	*Males*	*Females*	*Persons*
Acting	37	28	65
Technical production	11	22	33
Design	8	11	19
Directors	4	2	6
Theatre crafts	1	5	6
Production management	—	1	1
Voice studies	1	3	4
Movement studies	1	2	3
Total	**63**	**74**	**137**

Source: National Institute of Dramatic Art, Annual Report, 1991.

The NIDA Open Program was established in 1990 to provide access to the expertise and facilities at NIDA through short courses for those interested in developing skills in the performing arts. Courses are offered for young people, school groups, teachers, overseas students, corporate professionals, and members of the community throughout Australia. Approximately 4,000 people will participate in Open Program courses in 1992.

The Australian Ballet School

Created in 1964, the aim of the Australian Ballet School is to provide full-time training to the highest standard for young Australian dancers seeking a career in the classical dance profession. Approximately 90 per cent of the Australian Ballet are graduates of the school which employs the Vaganova Syllabus of Classical Ballet as the backbone of its training and teaching. Through its three year course, the Australian Ballet School is essentially a 'finishing school' for highly trained students. Graduate year students of the school gain professional experience through the Dancers Company which was formed in 1980.

SOCIO-CULTURAL ACTIVITIES

Often people engage in activities for reasons other than prestige or economic reward which reveal something of themselves and their beliefs. These activities make up the cultural dimension of social practice which is best described as those activities which people undertake in their own time, unconstrained by immediate material need, social obligation or gain. Typically, these are self-motivated activities which contribute to personal or social identity, and which give meaning and focus to the values people hold. They anchor institutional forms of culture within society, and provide a bridge to mutual understanding across culturally diverse groups.

Language, religious practice, and traditions, are all examples of cultural activity embedded in community life. They can be seen as mechanisms for cultural maintenance, or as adaptations by individuals and by groups to social change.

Aboriginal and Torres Strait Islander cultural activity

The Australia Council's annual support budget for the Aboriginal and Torres Strait Islander arts was about $3.7 million in 1990-91.

Support in this area is administered by the Council's Aboriginal Arts Committee and specialist Aboriginal and Torres Strait Islander artform advisory committees. Complementary support is provided to Aboriginal and Torres Strait Islander arts and cultural activities under the Aboriginal and Torres Strait Islander Commission's (ATSIC) Arts and Culture sub-program.

In 1990–91, Aboriginal and Torres Strait Islander people participated in a number of overseas projects. These included the participation of Aboriginal artists in a major presentation for the Cultural Capital of Europe celebrations in Glasgow, performances by a Mornington Island dance group at the Los Angeles Festival, and a tour by Bangarra Dance Theatre to Indonesia. A musical ensemble from the Centre for Aboriginal Studies in Music, Adelaide, conducted a performance tour of Japan and popular Aboriginal band Yothu Yindi performed at the New Music Seminar in New York.

Aboriginal and Torres Strait Islander community broadcasting

The Broadcasting for Remote Aboriginal Communities Scheme (BRACS), provides the basis for Aboriginal and Torres Strait Islander people in remote locations to have access to and control of local television and radio services in their own communities. BRACS provides the facilities for communities to participate in the production and delivery of a broad range of essential information in forms and languages which are culturally appropriate. In doing so, it enables the use of radio and television for promotion and preservation of local languages, culture and lifestyle.

Over 30 indigenous groups are producing programming for public radio. During 1990–91, over 14,000 hours of indigenous radio programming was broadcast throughout Australia. The number of hours of Aboriginal and Torres Strait Islander programming on public radio has increased from 59 hours per week in 1984 to over 200 hours in 1990–91. Radio 8KIN in Alice Springs, at present the only licensed Aboriginal public broadcasting service in Australia, broadcast for approximately 110 hours a week in 1990–91. The 8KIN network operates via satellite translators to 14 Aboriginal communities and smaller urban centres. The service is also received by 40 BRACS communities within the Remote Commercial Television and Radio Services Central Zone footprint and has a potential listening audience of over 100,000 people, both Aboriginal and non-Aboriginal.

In addition, the ABC, through its Remote Area Broadcasting Office, has been involved in the provision of resources and training for Aboriginal and Torres Strait Islander community broadcasters and subsequent purchase of programs produced by them for broadcast on the ABC.

Multiculturalism

Today, Australia's population enjoys a greater diversity of origin than ever before. The 1986 Census revealed that 21 per cent of Australians had been born overseas, a higher proportion than that recorded by any census since the turn of the century. Not only were migrants more prevalent, but the range of countries from which they came was considerably greater, and many of Australia's more traditional migrant groups (that is, Europeans) became less predominant. Migrants born in the UK or Ireland, although comprising one-third of all overseas born people, formed only seven per cent of the total population, the lowest proportion recorded by a census for 25 years. Migrants born in mainland Europe also comprised seven per cent of the total population, the smallest proportion recorded since the 1954 Census.

Australia's non-discriminatory immigration policy has resulted in a diverse society in which people of different ethnic and racial origins live together sharing a commitment to the language, laws, institutions and interests of Australia.

The Government's policies on multiculturalism are founded on three principles:

- cultural identity — the right of all Australians, within carefully defined limits such as the rule of law and parliamentary democracy, to express and share their individual cultural heritage, including their language and religion;
- social justice — the right of all Australians to equality of treatment and opportunity, and the removal of barriers of race, ethnicity, culture, religion, language, gender or place of birth; and
- economic efficiency — the need to maintain, develop and utilise effectively the skills and

talents of all Australians, regardless of background. The Government's policies on multiculturalism are set out in the National Agenda for a Multicultural Australia, launched by the Prime Minister on 26 July 1989.

For a description of the Office of Multicultural Affairs *see Year Book Australia 1991.*

Languages

Details of the languages spoken in Australia, obtained from the 1986 Population Census, are contained in *Year Book Australia 1990*, pages 365–366.

National policy on languages. English is the national language. At the same time, Australia's cultural vitality is also a product of other languages spoken in the community. These include the indigenous languages of the Aboriginal and Torres Strait Islander citizens, as well as European and Asian languages.

The goals of the national policy on languages encompass proficiency in spoken and written English for all Australians, the learning of languages other than English, and the maintenance, and, where appropriate, recording of Aboriginal and Torres Strait Islander languages as well as addressing the needs of children and adults, of those in work, of those unemployed or not in the labour force, and of Australians from different ethnic backgrounds.

The Federal Government proposes to spend more than $360 million in 1992–93 alone to implement the policies and strategies designed to achieve the goals of the policy.

English as a Second Language in schools (ESL). The ESL program aims to improve the educational participation and outcomes for English as a Second Language (ESL) students by:

- developing their English language competence; and
- facilitating their participation in mainstream education activities.

The school ESL Program comprises two elements: New Arrivals and General Support. In 1992, the New Arrivals element provided $2,504 per student ($2,446 in 1991) for up to 12 months of intensive English tuition for eligible students newly arrived in Australia. In 1992 the General Support element provided $49.4 million ($48.3 million in 1991) to assist schools to provide additional English tuition to, and adapt existing teaching practices for, ESL students (including those born in Australia) who have reached a sufficient level of English competence to participate in mainstream classes.

The provisions of the New Arrivals element were extended in 1990 to cover students enrolling in the first formal year of primary school who had arrived in Australia up to eighteen months previously (as compared with the six months which applied in earlier years). This change was introduced to take account of the limited exposure to English of many preschool-age children arriving in Australia.

Community Languages Program (formerly Ethnic Schools Program). The Community Languages Program replaced the Ethnic Schools Program in 1992. It is intended to assist students of non-English speaking background (including Aboriginal and Torres Strait Islander students) to maintain their respective languages and cultures and to increase awareness among all students of the different community languages and cultures within Australian society. In 1992, $9.4 million was provided for this purpose.

Adult education

There are many adult education courses which fulfil the cultural, recreational and social needs of the community — *see* the chapter on Education. *See* also the Workplace Literacy Program in the chapter on Labour.

Religious affiliation

In every national census taken in Australia, a voluntary question on religious affiliation has been asked. Until the 1933 Census the voluntary nature of the question was not referred to on the Census form however instructions for writing 'object to state' were given. Since 1933, the voluntary nature of the religion question has been specifically stated. In 1971, the instruction 'if no religion, write none' was introduced.

The following table provides a summary of the major religious affiliations at each Census since 1911. At the 1986 Census, 73 per cent of the population stated a Christian religion compared with 95.9 per cent in 1911.

In 1947, 39.0 per cent of the population stated an Anglican religion. This proportion has since steadily declined to reach its lowest recorded figure at the 1986 Census (23.9%).

12.40 MAJOR RELIGIOUS AFFILIATIONS, CENSUS YEARS

Census year	*Anglican*	*Catholic*	*Other Christian*	*Total Christian*	*Non-Christian*	*No religion*	*Religion not stated*	*Other(a)*	*Total*
								%	*'000*
1911	38.4	22.4	35.1	95.9	0.8	0.4	(b)2.7	0.2	4,455.0
1921	43.7	21.7	31.6	96.9	0.7	0.5	(b)1.7	0.2	5,435.7
1933	38.7	19.6	28.1	86.4	0.4	0.2	12.8	0.1	6,629.8
1947	39.0	20.9	28.1	88.0	0.5	0.3	10.9	0.2	7,579.4
1954	37.9	22.9	28.5	89.4	0.6	0.3	9.5	0.2	8,986.5
1961	34.9	24.9	28.4	88.3	0.7	0.4	10.5	0.2	10,508.2
1966	33.5	26.2	28.5	88.2	0.7	0.8	10.0	0.3	11,599.5
1971	31.0	27.0	28.2	86.2	0.8	6.7	6.0	0.2	12,755.6
1976	27.7	25.7	25.2	78.6	1.0	8.3	11.0	0.4	13,548.4
1981	26.1	26.0	24.3	76.4	1.4	10.8	10.9	0.5	14,576.3
1986	23.9	26.0	23.0	73.0	2.0	12.7	11.9	0.4	15,602.2

(a) Comprises non-theistic affiliation and religion inadequately described. (b) Includes 'object to state'.
Source: Census 86 — Religion in Australia (2510.0).

The following table shows the breakdown of religious groupings by the number and percentage of affiliates within each at the 1976 and 1986 Censuses. The number of Catholics increased by 581,600 in the 10 year period overtaking the number of Anglicans (who decreased by 28,800) to become the most dominant religious group in Australia for the first time.

12.41 RELIGIOUS AFFILIATION, 1976 AND 1986

Religion	*1976 '000*	*1976 %*	*1986 '000*	*1986 %*
Christian				
Catholic(a)	3,482.8	25.7	4,064.4	26.1
Anglican	3,752.2	27.7	3,723.4	23.9
Uniting(b)	—	—	1,182.3	7.6
Methodist-including Wesleyan(c)	983.2	7.3	n.a.	n.a.
Presbyterian and Reformed	900.0	6.6	560.0	3.6
Orthodox	372.2	2.7	427.4	2.7
Lutheran	191.5	1.4	208.3	1.3
Baptist	174.2	1.3	196.8	1.3
Pentecostal	38.4	0.3	107.0	0.7
Churches of Christ	86.9	0.6	88.5	0.6
Salvation Army	63.3	0.5	77.8	0.5
Jehovah's Witness	41.4	0.3	66.5	0.4
Seventh Day Adventist	41.5	0.3	48.0	0.3
Latter Day Saints/Mormons	n.a.	n.a.	35.5	0.2
Brethren	20.7	0.2	23.2	0.1
Congregational	53.4	0.4	16.6	0.1
Oriental Christian(d)	n.a.	n.a.	10.4	0.1
Other Protestant n.e.i.	206.2	1.5	199.4	1.3
Christian n.e.i.	236.9	1.7	346.4	2.2
Total	*10,644.9*	*78.6*	*11,381.9*	*73.0*

For footnotes *see* end of table.

12.41 RELIGIOUS AFFILIATION, 1976 AND 1986 — *continued*

Religion	1976 '000	1976 %	1986 '000	1986 %
Non-Christian				
Muslim	45.2	0.3	109.5	0.7
Buddhist	n.a.	n.a.	80.4	0.5
Jewish	53.4	0.4	69.1	0.4
Hindu	n.a.	n.a.	21.5	0.1
Other non-Christian n.e.i.	30.4	0.2	35.7	0.2
Total	*129.1*	*1.0*	*316.2*	*2.0*
Other				
Non-theistic	n.a.	n.a.	4.9	—
Inadequately described	51.3	0.4	58.0	0.4
No religion (so described)	1,130.3	8.3	1,977.5	12.7
Not stated	1,593.0	11.8	1,863.6	11.9
Total	**13,548.4**	**100.0**	**15,602.2**	**100.0**

(a) Roman Catholic and Catholic (non-Roman). (b) The Uniting Church was formed in 1977 from the Methodist, Congregational and part of the Presbyterian churches. (c) People who responded Methodist in 1986 were coded to Uniting. (d) Includes Armenian, Assyrian, Coptic and Syrian denominations.

Source: Census 86 — Religion in Australia (2510.0).

RECREATION, FITNESS AND SPORT

Government support

The Commonwealth Department of the Arts, Sport, the Environment and Territories (DASET) has a general responsibility in the national sphere for recreation, fitness and advice on sport policy.

All State Governments have also established agencies with special responsibilities for recreation and sport. Many local government authorities employ recreation workers who are responsible for planning the use of recreation facilities, and for devising recreation programs. Local government also complement the Commonwealth Government and State Governments in the provision of recreation facilities to the community.

The total outlays of the three levels of government for 1990–91 are included in table 12.42. A total of $1,822 million in capital and current outlays was provided to the recreation industry. Table 12.43 shows total government outlays over the last five years.

12.42 TOTAL OUTLAYS(a) ON RECREATION BY GOVERNMENTS, 1990–91
($ million)

Purpose	Commonwealth	State	Local	Total
Public halls and civic centres	—	4	74	78
Swimming pools and beaches	—	3	66	69
National parks and wildlife	7	298	—	305
Recreation facilities/services n.e.c.(b)	77	642	651	1,370
Total	**84**	**947**	**791**	**1,822**

(a) Outlays are expenditure net of offsetting receipts. (b) Includes estimates of outlays that can not be assigned to one of the preceding classes.

Source: Unpublished ABS data.

12.43 TOTAL GOVERNMENT OUTLAYS(a) ON RECREATION, BY PURPOSE
($ million)

	1986–87	1987–88	1988–89	1989–90	1990–91
Public halls and civic centres	93	77	107	118	78
Swimming pools and beaches	72	78	80	91	69
National parks and wildlife	199	207	250	271	305
Recreation facilities/services n.e.c.(b)	1,305	1,490	1,073	1,428	1,370
Total	**1,669**	**1,852**	**1,510**	**1,908**	**1,822**

(a) Outlays are expenditure net of offsetting receipts. (b) Includes estimates of outlays that can not be assigned to one of the preceding classes.
Source: Unpublished ABS data.

The activity of governments in encouraging and supporting recreation and sporting activities is complemented by non-government sponsors, organisers and entrepreneurs.

Household expenditure

Table 12.44 shows the average household expenditure on selected items of recreation in 1988–89.

12.44 AVERAGE HOUSEHOLD EXPENDITURE ON RECREATION, SELECTED ITEMS, 1988–89
($)

Expenditure item	*Weekly*	*Annual*
Camping equipment(a)	0.36	18.72
Sports equipment n.e.c.	1.98	102.96
Recreational equipment n.e.c.	1.54	80.08
Gambling	3.55	184.60
Health & fitness studio charges(b)	0.55	28.60
Sporting club subscriptions(b)	0.75	39.00
Sports lessons(b)	0.51	26.52
Sports services charges n.e.c.	1.05	54.60
Spectator admission fees to sport	0.49	25.48
Total	**10.78**	**560.56**

(a) Relative standard error is greater than 25 per cent. (b) At least one component has a relative standard error greater than 25 per cent.
Source: 1988–89 Household Expenditure Survey, Australia: Detailed Expenditure Items (6535.0).

Aboriginal recreation

In 1990–91 the Aboriginal and Torres Strait Islander Commission (ATSIC) placed special emphasis on the development of recreation initiatives which continued through 1991–92.

The task of ATSIC's Recreation and Sport program is threefold:

- to promote social and physical well-being and the development of a positive self-image through increased access to and participation in sporting and recreational activities;
- to ensure that women have equitable access to sporting and recreational activities; and
- to provide diversionary activities to address the socio-economic problems Aboriginals face, particularly, youth, women and the disabled.

The creation of community sporting and recreation facilities is an integral part of ATSIC's strategy for recreation and sport. They include the construction of multi-purpose sports facilities, grounds and courts in communities throughout Australia and the provision of support programs, including the employment of community recreation officers, coaching clinic and equipment purchases.

Sport and Recreation Ministers Council

The Sport and Recreation Ministers Council (SRMC) provides the major mechanism for liaison between the Commonwealth Government, and State and Territory Governments on matters concerned with sport and recreation in Australia. The Council is a forum for consultation and cooperation between the respective Governments, and its membership comprises the ministers with prime responsibility for sport and recreation. Both New Zealand and Papua New Guinea have observer status on the Council.

The SRMC is assisted by the Standing Committee on Recreation and Sport (SCORS), which comprises representatives from the Commonwealth, State and Territory departments or agencies responsible for sport and recreation. A number of subcommittees and working groups have been established by SRMC and SCORS to consider particular sport and recreation issues. This includes the subcommittee on Fitness, the Consultancy Fund Subcommittee, the Subcommittee on Women in Sport and Recreation and the Tobacco Working Group.

Community Cultural, Recreation and Sporting Facilities Program

The Community Cultural, Recreation and Sporting Facilities Program was introduced in the 1991–92 Commonwealth Budget. The Program aims to provide financial assistance to State/Territory and local government authorities and other community groups to supplement that available from other sources for the development of high priority community recreation and sporting facilities.

Recreation and Fitness Assistance Program

The Recreation and Fitness Assistance Program (RFAP) provides for the development of programs, resources and the collection and dissemination of information that will assist the provision of safe and satisfying recreation and fitness opportunities. In 1990–91, $2.627 million was allocated to the Government's recreation, fitness and water safety programs to enhance the opportunities for all Australians to participate in healthy, safe and satisfying leisure activities. Of this amount, $1.575 million was provided for a range of projects which aim to increase participation in safe recreation and fitness activities.

Assistance for water safety organisations

In 1990–91 DASET provided financial assistance totalling $1.525 million to the Surf Life Saving Association of Australia, The Royal Life Saving Society–Australia, and Austswim. In addition, funds totalling $30,000 were also provided to the Australian Underwater Federation and the Australian Recreation and Sport Fishing Confederation. These grants aid and encourage the development of safe water-based activity programs for many Australians.

Australian Sports Commission

The Australian Sports Commission, established under the *Australian Sports Commission Act, 1989*, is the sole authority for planning and coordinating Federal Government sports funding. Incorporating the Australian Institute of Sport (AIS), the Commission conducts elite sports programs and also provides leadership and long-term direction for community sports. In support of these efforts, the Commonwealth Government provided $54.2 million in 1990–91 for the Australian Sports Commission's programs and administration. The Commission allocated funds in this year across the following programs: elite athletes, sports development, sports participation, sports science, sports medicine and research facilities, the National Sport Information Centre, the Australian Sports Drug Agency and corporate services.

Elite sports programs. The scholarship sports program involves 18 sports — basketball, canoeing, cricket, cycling, diving, golf, gymnastics, hockey, netball, rowing, rugby union, soccer, squash, swimming, tennis, track and field, volleyball and water-polo. While many programs are at the AIS headquarters in Canberra, units have been established in Perth (hockey), Brisbane (squash, diving), Adelaide (cycling, cricket), Gold Coast (canoeing), Sydney (volleyball) and Melbourne (golf).

In June 1992 there were 482 scholarship holders under the scholarship sports program. Athletes at the AIS are encouraged to undertake employment or to pursue secondary or tertiary education. In addition to the scholarship sports program, the AIS also administers the National Sports Program which offers athletes the use of AIS facilities, resources and expertise. These are utilised for national selection trials, team training, talent development programs, coaches' seminars, and workshops for sports officials. In the Olympic year, 1992, most of Australia's Olympic sports used the program in the selection and/or training process. In 1991–92, 225 camps were conducted by 57 national sporting organisations involving more than 5,000 athletes and officials.

The Sports Talent Encouragement Plan (STEP) provides direct financial assistance to world-ranked Australian individuals and teams, and to athletes demonstrating a capacity to achieve open world rankings. Assistance is also provided to junior athletes who achieve world ranking in Olympic and AIS sports. The assistance contributes towards training and competition expenses of athletes. In 1992, grants were approved to 157 individuals and 43 teams through the elite, potential and junior categories of the STEP program.

A program to assist elite athletes to gain employment and to pursue educational opportunities has been established by the Commission. This, the 'Lifestyles for Elite Athletes' Program, had by September 1992 already involved dozens of Australian companies and established a register of over 1,000 athletes available to fill positions.

Assistance to national sporting organisations. The Australian Sports Commission provides financial assistance to national sporting organisations through its Sports Development Program. Funding goes towards the employment of national executive directors, coaching directors and development officers, administrative support, international meetings, coaching, officiating and development seminars and projects, costs associated with bidding for and hosting international events in Australia, costs associated with attending major competitions overseas, and high performance athlete development programs (talent identification programs, National Leagues, and elite programs).

Applied Sports Research Program. The Commission provides funds under the Applied Sports Research Program to enable national organisations to employ tertiary institutions to conduct research related to their sport.

Sport for all. The Commission has established the AUSSIE SPORT programs, including Sport for Kids, Sportstart, Sportsfun, and the Challenge, Achievement and Pathways in Sport Program — a sports leadership development program for young people. The Women and Sport Unit, established in 1987, encourages women's participation and achievement in sport, through television and print campaigns, award schemes, seminars, conferences and workshops. Aussie Able is the Sports Commission's program to encourage people with disabilities to participate in sport and to ensure that they have opportunities to play.

Sports Information Centre. The Sports Commission's National Information Centre is Australia's premier information resource centre for sport and its related disciplines. Its services include manual and computerised reference services, current awareness publications, print and video loans, translations, information packages, and access to research dissertations on sport. These services are available to athletes, coaches, officials, students, libraries and outside enquirers.

Coaching support. Salary support is provided through the Australian Sports Commission for national coaches, their assistants and satellite program coaches, as well as for directors of coaching, to ensure that top coaches are not lost to sport through the lack of a well-developed career structure. In addition, coaching scholarships are awarded each year and overseas coaches are brought to Australia annually to share their expertise and methodology with local coaches. High performance coach awards have been developed to further upgrade coaching at the elite level.

Australian Coaching Council

The Australian Coaching Council is responsible for the development of sports coaches in all sports throughout Australia. The Council's activities include the education and accreditation of coaches through the National Coaching Accreditation Scheme. As at September 1992, over 101,350 coaches had received accreditation nationally under the scheme.

Drugs in sport

The Australian Sports Drug Agency was established in 1989 with funding provided through the Australian Sports Commission and is now a separate statutory authority. The Agency is responsible for educating the sporting and general community on the dangers of performance-enhancing drugs and conducting independent sampling and testing of sports participants at all levels.

12.45 DRUG TESTING OF SPORTS PARTICIPANTS, JULY 1990–JUNE 1991

Sport Tested	*Total tested*	*Defaults(a)*	*Class(b)*
Athletics	274	1	Refusal
Australian football	226	1	Stimulant
		1	Narcotic analgesic
Basketball	37	1	Diuretic
BMX	23	1	Stimulant
Body building	24	6	Anabolic steroid
		1	Stimulant
		1	Diuretic
Boxing	33	1	Stimulant
		1	Diuretic
Cycling	260	2	Anabolic steroid
		1	Narcotic analgesic
		2	Stimulant
Hockey	36	1	Narcotic analgesic
Judo	45	1	Diuretic
Power lifting	174	14	Anabolic steroid
		3	Stimulant
		3	Diuretic
		12	Refusals
Rugby league	470	8	Cannabis
		12	Stimulant
		3	Narcotic analgesic
Surf life saving	25	1	Stimulant

(a) Default refers to a positive test result or a refusal to take the test. (b) Class refers to class of drug involved in the default or a refusal to take a test.
Source: The Australian Sports Drug Agency, Annual Report, 1990–91.

Participation in sports and exercise

An indication of the extent of Australians' participation in sports and exercise is provided by the results of the following two surveys.

A Sports Participation Survey was conducted by the Australian Bureau of Statistics throughout Victoria in October, 1989. The survey covered not only participation in sporting activities and attendance at sporting events but also asked for reasons for non-participation. The survey collected a range of information from persons in Victoria aged 15 years and over and covered the 12 month period ending October, 1989.

During this 12 month period a total of 1.378 million persons (41.7%) participated in sport. The ratio of male/female participation was considerably higher for males (824,100 or 50.7%) than for females (554,200 or 33.0%).

The ten main sports participated in were golf (11.0%), tennis (10.2%), squash (5.7%), netball (4.8%), basketball (4.2%), ten pin bowling (4.2%), Australian Rules football (4.0%), billiards/snooker/pool (3.8%), indoor cricket (3.3%) and cricket (3.3%).

Australian Rules football dominated sport attendance where an admission fee was charged (974,000 persons). Cricket (251,000), basketball (246,100) and tennis (147,700) were the next highest. For sports where no admission was charged, netball displaced tennis from the top four. Attendance figures were 274,400 for Australian Rules football, 183,400 for cricket, 177,200 for netball and 149,700 for basketball.

12.46 MAIN SPORTS PARTICIPATED IN VICTORIA, OCTOBER 1989

Sport	*Number*
Golf	364,400
Tennis	338,400
Squash	189,600
Netball	159,000
Basketball	139,800
Ten pin bowling	139,400
Australian Rules football	130,900
Billiards/snooker/pool	125,400
Indoor cricket	110,600
Cricket	107,500

Source: Participation in Sports, Victoria (4118.2).

During 1990 and 1991, a pilot survey of the Fitness of Australians was conducted in Adelaide, South Australia. The survey was commissioned by the Department of the Arts, Sport, the Environment and Territories and undertaken by the Health Development Foundation, the Department of Community Medicine University of Adelaide, and the Department of Public Health Sydney University, with assistance given by the Australian Bureau of Statistics.

Averaged across sex and all age groups, 33 per cent of respondents said that they had engaged in vigorous exercise in the preceding two weeks. The proportion of people reporting vigorous physical exercise decreased from 56 per cent of the 18–29 age group to 9 per cent of the 70–78 age group. This trend was apparent for both males and females.

Approximately 38 per cent of males and 34 per cent of females reported participating in less vigorous exercise for recreation, sport or health-fitness purposes. Except for the 70–78 age group, males reported more of this type of activity than females. The percentage of males reporting exercise at the less vigorous level was greatest for the 18–29 age group (47%). Participation of females varied with age; from 44 per cent of 18–29 years olds, to a low of 26 per cent of 40–49 year olds, to 39 per cent of 70–78 year olds.

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FOR MORE INFORMATION

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Unity and Diversity: The History and Culture of Aboriginal Australia

(This special article has been contributed by Dr D. R. Horton, General Editor, Encyclopaedia of Aboriginal Australia, Australian Institute of Aboriginal and Torres Strait Islander Studies.)

Aboriginal culture and history have both been characterised as on the one hand showing great continuities through time and space, and on the other as showing great change through time and great diversity across space. Both characterisations are true, both have been the subject of caricatures of Aboriginal society by whites, and both have influenced the politics of Aboriginal Australia. Aboriginal people take great pride in their personal and group identity. Differentiation of almost every aspect of culture and society has been used at some time, somewhere, to form a mark of identity. In spite of the diversity however, no matter where Aboriginal people come from in Australia they are recognised, and recognise each other, as being one people.

Aboriginal people have been in Australia for more than 50,000 years. Because they were still living by hunting and gathering, and using stone tools, 200 years ago, they were seen as being like the Palaeolithic (Stone Age) people of Europe. Whereas the Palaeolithic people had eventually developed agriculture, pottery, metals and the wheel, on their way to civilisation, Aboriginal people, it was said, were like fossils, remaining unchanged for thousands of years.

The apparently simple lifestyle of Aboriginal people also resulted in two other misconceptions — that Aboriginal people were culturally uniform, and that they had so little attachment to the land, and made so little use of it, that James Cook could practise the sleight of hand of describing the continent as *terra nullius* (empty land), even though his landings were opposed with spears and fire.

Archaeological work in Australia has led to the gradual discovery that Aboriginal people had indeed, as they said, been here a very long time. Just a century ago the best estimate of the time of occupation of Australia was 400 years; the best estimate now is over 100 times as long.

The other gradual discovery was that during this enormously long time there had been great changes in the geography of Australia. Some 30,000 years ago the country had been mainly a green and pleasant land in which giant animals roamed, lakes were full, and mountains were snow covered. Conversely 15,000 years ago the land was even more heartbreaking than it is now, with the desert core hugely enlarged, and sand dunes blowing in Victoria and even part of Tasmania. Around 10,000 years ago the climate and vegetation patterns reached approximately their present condition. Through all this time sea levels were also fluctuating. At their lowest point Australia formed one giant land mass from the bottom of Tasmania through to New Guinea. Over such a long period, and with such major changes it is impossible to imagine any group of people remaining culturally and technologically static.

A major thrust of archaeological research has been the examination of the kinds of adaptive responses which Aboriginal people made to these changes. Stone tools show little change through the Pleistocene period (from about two million to 10,000 years ago), but since these are choppers and scrapers, used mainly only to create other tools of wood and therefore simple in form, this might be expected. These wooden tools rarely survive in the earth, but we know from one unique archaeological find that the boomerang (and the barbed spear) was invented more than 10,000 years ago.

Rock art also shows changes in wooden tools and such other perishable items as headdresses. Around 5,000 years ago there was even a radical change in the stone tools themselves, with small, delicately worked points and blades beginning to be produced. This change may have been associated with the use of composite tools, that is, with points used on a spear in place of a sharpened wooden end.

Throughout the ancient history of the Aboriginal people there were many changes more important than technological ones. Many different styles of rock art appeared in different regions, and there are changes over time, from the stylised, symbolic ancient engravings to the colourful X-ray art of the north and the vivid hunting scenes of east and west. Together with changes in burial practices, such differences undoubtedly reflect changing religious beliefs and rituals.

Economic change was also a feature of Aboriginal life in the past. Several thousand years ago the Tasmanians stopped eating fish. In the north by contrast, large and complex stone fish traps were built to more efficiently harvest the sea's resources. At some time in the last 25,000 years the giant animals become extinct; at another time people begun using grindstones to make efficient use of cereals and other seeds. Mountains and desert lands were used from very early times, though the use seems always to have been cautious.

Over an unimaginably long period of time and the immense distances of the Australian continent, regional differences in language, religion, social organisation, art, economy and material culture arose. Some of these differences in resources and material culture could be balanced by trade, and over time great trade routes developed. Goods could travel all the way from the north to the south of the continent. Other routes went from east to west, or from the centre to the edge.

Not only goods travelled these routes, but ideas for technological innovation, and songs, ceremonies and news all travelled with the lines of people carrying baskets of pituri or ochre on their heads, or bundles of spears on their shoulders.

Rising seas affected weather patterns and ecological conditions on shores and in estuaries. Most importantly, however, they affected some aspects of communication. In the north there was no longer a trade route by land, but the many islands of Torres Strait continued to provide for sea trade between Cape York and New Guinea. In the south, however, the distances were too great and, around the time the boomerang was being invented, the Tasmanians lost touch with the mainland.

Diversity has always been a feature of Aboriginal society and has been manifested in many different ways. There were several hundred distinct languages (two-thirds of which are now extinct), each on average having several dialects. Songs, stories, dances, ceremonies, Dreamings and paintings were all owned in different ways depending on complex laws. People took pride in differences in initiation practices. The houses they lived in, the spears that were carried, and the animals that were hunted all differed in subtle ways between neighbours and differed greatly over great distances.

In spite of the diversity, at another level, Aboriginal culture shows many consistent features across the continent. The fact that there were no invasions before 1788 contributed to this unity — all Aboriginal people are related to each other. Trade also helped, but it thrived on the fact of difference. The greatest contributors to maintaining unity were probably the great ceremonial meetings which took place in all parts of Australia when seasonal conditions were suitable and abundant food sources were available. People travelled hundreds of kilometres to such gatherings, and hundreds, perhaps thousands of people could gather for some weeks on each occasion.

These gatherings were a chance to catch up on news from distant places, arrange marriages, sit down with kinfolk who had not been seen for a year or more, hear new stories and take part in new dances. These were times when the elders could find out what environmental conditions were like in surrounding areas, settle disputes, and learn such things as new techniques for making fine stone points. To do all those things meant learning a number of other languages — all Aboriginal people were multilingual — and this in turn meant that words and concepts could spread from one language to another. Because they spent most of the year in small groups spread over a very varied continent, Aboriginal people were very diverse — meeting regularly maintained their Aboriginality.

When the seas rose at the end of the Pleistocene period they did not seperate Australia from the rest of the world, but simply provided an alternative pathway to the continent. Torres Strait and Bass Strait became areas that people would sail through, and while the islands of Bass Strait were too far apart, the seas too dangerous and the climate too poor to support a population, the archipelago of islands in the Torres Strait became the home of a seafaring people. The rising seas, and the visitors they brought, would provide a new source of diversity over the last few hundred years of Aboriginal history.

In the north, beginning hundreds, perhaps thousands of years ago, there were two groups who regularly visited Australia. From the north–east, using Torres Strait as a north–south highway for canoes, came the Melanesians. They travelled considerable distances down both sides of Cape York, bringing and trading such items as improved fishing equipment, drums and the songs that went with them, new Dreaming stories, and the canoes themselves. A similar range of cultural and technological items returned north with them. From the north–west came the first of the ocean-going sailing ships which would continue to reach Australia in their hundreds in the years to come. The first fleets were Macassan, manned by Indonesian fishermen who came to Australia to exploit the harvest of trepang, which they cured on the spot and took back for their own trading purposes. They traded such items as tobacco, iron and glass, and some technological know-how, for the privilege of fishing in Aboriginal territorial waters, and their visits were commemorated in song, ceremony and art.

Like the Melanesians and Macassans, the European ships which began sailing into southern Australian waters in the eighteenth century, also became a source of diversity, though in this case because they would leave human cargoes behind. They were also, incidentally, recorded in art and ceremony. The geographic position of people in relation to the different invasion zones, the different characteristics of the invasions and the responses of Aboriginal people to them, and the subsequent history of each area affected people in diverse ways.

People who were close to the site of an invasion were sometimes killed and always suffered immediate interference with their economy and lifestyle (because the colonists wanted good sources of water, sheltered positions and access to fish, all of which were also important to Aboriginal people). As the colonists made it plain they were staying, and began altering landscapes (clearing trees, building fences), resistance grew and more Aboriginal people were killed. As land was occupied, numbers reduced and way of life destroyed, the survivors began living within or on the fringe of the new European community.

For those living at some distance from a colony, some of the effects tended to be more indirect but no less devastating. Diseases, some not life-threatening to Europeans, devastated Aboriginal people, who lacked immunity. This factor alone may have had such an effect that it is possible that the Aboriginal population was originally several times higher than the estimated figure of 300,000 in 1788, even though that estimate was based on figures collected early in the nineteenth century. Also impossible to resist were the spreading effects of feral animals such as rabbit, cat and fox, and of domestic animals such as sheep and cattle. These animals muddied waterholes, making them unusable and unproductive, and changed vegetation patterns.

While disease and ecological change were impossible to resist, there was resistance to those who tended the flocks and herds. In most parts of Australia guerrilla wars were fought all along the expanding front-line of white invasion. In some parts of Australia, farmers took matters into their own hands and formed vigilante groups, often responding to the killing of sheep and cattle (by people whose economic livelihood had been taken) by killing groups of women and children. In other areas the feared Native Police rode out to the fringes of settlement and killed Aboriginal people.

In some areas Aboriginal people came willingly into settlements, because their kin were already there and because of tales of free food and tobacco and exotic clothes and other goods. In some areas the police rounded up people and brought them forcibly into the mission or government settlement. In parts of Australia people did not come into settlements but became attached to cattle or sheep stations, the men and women working for rations and accommodation.

The subsequent history of settlements was strongly influenced by factors such as which religious group ran the mission, what policy the government settlement was operating under, or what the attitude of individual pastoralists was towards Aboriginal people. Some missions had an active policy of destroying Aboriginal culture — Aboriginal languages could not be spoken, ceremonies could not be performed, kin from outside could not be visited. People were dressed in European clothing and given manual labour to do; usually the children were totally isolated from their parents in dormitories. Other missions worked within traditional culture, adapting teachings and practices to suit local conditions. Much the same dichotomy applied in government reserves. In some States children could be removed from their parents and sent off to institutions or for adoption by white families. On all but the most enlightened pastoral stations, big ceremonial gatherings, and movement of kin from one station to another were forbidden. In all States, in fact, the movement of Aboriginal people was controlled, in some cases very harshly.

Another factor which historically contributed to differences between Aboriginal communities was whether non-Aboriginal groups other than pastoralists were present in an area. Gold rushes had major impacts where they occurred. The activities of sealers (who stole women and killed men and children) in the south and pearlers (who stole young boys) in the north were equally devastating.

Aboriginal people responded in a variety of different ways to the presence of Europeans in their country. While some people threw spears at strangers, others treated them well (in at least some cases because they thought whites were spirits of dead Aboriginal people). Some explorers were ambushed while being guided by Aboriginal people. While many groups readily accepted Christianity, many others did not. In some regions groups have adapted to life on cattle stations whereas others have managed to maintain a hunter-gatherer economy.

While the large groups in settlements and missions were similar in size to those which formed for ceremonial occasions, there were two important differences. The groupings were permanent and their composition had been imposed as a result of non-Aboriginal considerations. Groups no longer spread out, and movement controls and restriction of ceremonies meant that Aboriginal people were much more isolated from each other than they had ever been before.

The factors that resulted in groups having different histories also tended to result in cultural variety. In some areas gospel songs with a uniquely Aboriginal (or Torres Strait Islander) flavour were written and performed, in others country and western music or blues styles were developed. In the visual arts, new materials began to be used and new styles were developed. Aboriginal people developed different lifestyles based on different economic factors, and this, together with a sense of shared histories and kinship links within communities, was reflected in language styles.

In the 1930s a protest movement began which continues today. While recognising the cultural differences between Aboriginal people, and the differences in their needs based on different circumstances, it is a movement that has seen the similarities as being more important. All Aboriginal people suffered prejudice and had a history of mistreatment by white society, and all measures of their social well-being — housing, health, wages, employment, education, imprisonment etc. — show their disadvantage.

The protest movements at first tended to contribute to diversity by focusing on particular grievances. Gradually, however, restrictions on Aboriginal people began to be lifted and communications improved. People began to develop a sense of regional (for example, Koori, Murri, Nyungar) identity, and organisations began to develop which were also either regional or State based. All of the restrictive legislation, and the bodies formed to administer it, were State based, and this tended to give people a shared history, and a common target.

The 1967 referendum for the first time gave the Commonwealth Government power to legislate for Aboriginal people. While in some ways this was of more symbolic than practical value, the result and after effects did signal the beginning of action and organisation at a national level. There is still considerable diversity in both culture and political life in Aboriginal Australia. While all Aboriginal people share a desire to retain their identity, a belief in land rights, a desire to control their own affairs, and a desire to remove the economic and social disadvantages of Aboriginal people generally, there is considerable diversity in strategies to achieve those aims. While a sense of Aboriginality, a belief in particular styles and approaches, is held by all Aboriginal artists, musicians, sportspeople and writers, every Aboriginal person develops that Aboriginality in their own unique way. Every region of Australia has its own land council, and most have their own cultural centres, festivals and so on. Torres Strait Islanders have particularly expressed a wish to have the uniqueness of their own history and culture recognised, and some other regions have expressed similar views.

As in the past, however, meetings of groups and a sense of shared history and culture and common needs, will see the diverse indigenous peoples of Australia unified.

Members of the ATSIC Board of Commissioners, 1992.

Aboriginals and the Government

(This special article has been contributed by the Office of Public Affairs, Aboriginal and Torres Strait Islander Commission.)

The administration of indigenous affairs stands apart from the administration of other national government responsibilities. It is one of the most difficult areas of government administration because it is concerned with such a wide spectrum of issues. Not only is it politically sensitive, but it is also culturally sensitive.

Since the early part of this century successive governments have sought to establish a mechanism to administer Aboriginal affairs. It has been a long and painful process to reach the present stage where the Government has come to terms with the need to establish a mechanism which recognises indigenous aspirations and enables a process of negotiation between Aboriginal people and the Government. It has taken indigenous Australians more than 80 years to move from a position of paternalism and 'protection' to a position of negotiation and self-determination.

The origins of Commonwealth Government responsibility go back to 1911 and result from Commonwealth acquisition of responsibility for the administration of the Northern Territory from the South Australian Government. One of the first administrative moves of the Commonwealth was to establish a small 'Aboriginal Department' with a staff of 'protectors' to enforce the provisions of an Aboriginal Ordinance. This move was not without its problems.

The shortcomings in the Commonwealth's administration of Aboriginal affairs in the Northern Territory during the 1920s and 1930s are well documented. They resulted in increased pressure being brought to bear on the Commonwealth Government — by Aboriginal people and others — for more appropriate and positive policies to be developed and for there to be a strengthening of legislative controls to stop the mistreatment of Aboriginal people.

An indication of this pressure was reflected in a resolution put to a conference of Aboriginal affairs administrators in Canberra in April 1937 which proposed for consideration that 'the prime necessity for the proper co-ordination of Aboriginal welfare [under] a Federal Department of Native Affairs [and administered by] an administrator experienced in the handling of native races'.

The Commonwealth enhanced its role in policy-making for Aboriginal people with the establishment in 1939 of a Native Affairs Branch with the administrator appointed to the Commonwealth Public Service with the title Commonwealth Advisor on Native Affairs.

At the end of World War II Dr H. C. Coombs proposed that a Commonwealth Bureau of Aboriginal Affairs be set up similar to the United States Bureau of Indian Affairs. The proposal was rejected along 'constitutional restraints' lines.

In 1948, following a meeting of Commonwealth and State officials, it was agreed that Commonwealth responsibility for Aboriginal people was 'not yet practicable'.

The first positive moves towards the Commonwealth taking responsibility for Aboriginal people came in 1951 with the appointment of Paul Hasluck as Minister for Territories. During Hasluck's administration Commonwealth expenditure on programs for Aboriginal people in the Northern Territory increased markedly. These funds were allocated through the newly established Welfare Branch.

It was during this period that the Government was pursuing its policy of assimilation for Aboriginal people. Not only was there a realisation at this time by the Commonwealth that more needed to be done, there was also mounting pressure for change coming from within the Aboriginal community. Aboriginal people and their supporters formed a number of new organisations to take the battle for equality and a 'fair go' to the Government. The community was agitating for change in the administration of Aboriginal affairs.

The most notable was the Federal Council for Aboriginal Advancement which was later named the Federal Council for the Advancement of Aborigines and Torres Strait Islander (FCAATSI). Soon after its formation FCAATSI called for the Constitution to be amended to give the Commonwealth power to legislate for Aboriginals 'as with all other citizens' and the repeal of all discriminatory legislation.

On May 27 1967 a referendum was held which approved two changes to the Constitution, one of which gave the Commonwealth power to legislate in favour of Aboriginals. The changes were approved with a record 90.8 per cent in favour.

The first move for a Commonwealth mechanism to administer Aboriginal Affairs was a proposal for the establishment of an Office of Aboriginal Affairs within the Department of Prime Minister Cabinent. At the same time the Government announced the establishment of a Council for Aboriginal Affairs under the chairmanship of Dr H. C. Coombs. One of the Council's major functions was to advise the Government on the formulation of national policies for Aboriginal advancement.

In 1971 a Department of the Environment, Aborigines and the Arts was created. At the same time the Prime Minister, William McMahon, announced that he proposed to establish a special Ministerial Committee which would be advised by the Council and Office and presided over by the Minister responsible for Aboriginal Affairs.

History has shown the 1970s as a decade in which Commonwealth approaches to Aboriginals underwent radical change. This was no more evidenced than the changes that came about in Aboriginal policy-making with the election of the Whitlam Government in 1972. Under the Whitlam Government the theme became 'self-determination for indigenous Australians' and this became the central theme for government policy on Aboriginal affairs. For the first time there was a commitment from government to restore the power of indigenous people to determine their own future and their own way of life. The election of the Whitlam Government brought about the first major structural change in the administration of Aboriginal affairs. The Office of Aboriginal Affairs and the Aboriginal Welfare Branch of the Northern Territory administration were combined to form the Department of Aboriginal Affairs.

It was during this period that the National Aboriginal Consultative Committee (NACC) — the forerunner to the present Aboriginal and Torres Strait Islander Commission — was established. The NACC was comprised of elected Aboriginals from all over Australia and was charged with the responsibility of advising the Government on issues of concern to Aboriginal people. The NACC was a directly elected committee of advisers. It did not, however, have a legislative basis.

The election of the Fraser Government in December 1975 brought further changes in the administrative structure of indigenous affairs. One of the first moves of the Fraser Government was to change the central policy theme from 'self-determination' to 'self-management'.

Then followed the abolition of the NACC and its reconstruction as the National Aboriginal Conference (NAC) which, together with a Council for Aboriginal Development (CAD), became the major advisory body to government.

The role of the CAD was to provide formal advice to the Government while the NAC was to provide a forum for the expression of Aboriginal opinion. In addition the Aboriginal Development Commission was established which effectively split the former Department of Aboriginal Affairs in two. The NAC was wound up in 1985 and in April that year the Government appointed Miss Lois O'Donoghue CBE, AM, to consult nationally with Aboriginal organisations and communities and then to advise it on a consultative mechanism. The result of this process was extremely important for Aboriginal people in the context of government involvement in Aboriginal affairs.

The consultative process confirmed the view many had known for quite some time — that indigenous people wanted a mechanism whereby grassroots priorities were reflected both in government funding and government policy-making. Proposals for change were put for comment by Aboriginal people in a discussion paper titled *A National Aboriginal and Islander Consultative Organisation*. The final report presented to the Government proposed the staged development of an organisation based upon regional assemblies which in turn would be made up of representatives from communities and service organisations.

In July 1987 Prime Minister Hawke gave notice that the existing structure would be changed and that the department and statutory authorities would be amalgamated into a single authority. In that same month he announced the appointment of Mr Gerry Hand as Minister for Aboriginal Affairs.

In December 1987 Minister Hand presented to Parliament what he described as 'proposals of great historic importance for all Australians'. Thus commenced the struggle for the establishment of the Aboriginal and Torres Strait Islander Commission (ATSIC). Included in Minister Hand's speech to Parliament was a recognition, finally, that 'it is the right of Aboriginal and Torres Strait Islander people as citizens of this country to be properly involved at all levels of the decision–making process in order that the right decisions are taken about their lives'. It is upon this principle that the Aboriginal and Torres Strait Islander Commission was established.

The establishment of ATSIC was extremely difficult. All indications were that not everyone in the Parliament was of the view that grassroots decision-making and involvement of indigenous Australians in the decision-making processes of government was the best way to go. It would be fair to say that no other government agency has had such a birth, running the gauntlet of Parliamentary inquiries, audit examinations, administrative review and intense political debate over a sustained period during which time the enabling legislation was shaped to accommodate a variety of opinions, ideals and outcomes.

In the time between Minister Hand's announcement and the passing of the legislation establishing ATSIC the Australian public witnessed one of the most intense and protracted debates in the history of the Senate which resulted in no fewer than 90 amendments being made to the original ATSIC Bill. The length and comprehensive nature of the debate confirmed the prevailing view that ATSIC is pioneering in its concept and has required all associated with its establishment and implementation to accommodate significant change in an environment of continued intense scrutiny.

What indigenous Australians have with the establishment of ATSIC is a unique and challenging model of public administration. It has no precedent.

It has been established under the *Aboriginal and Torres Strait Islander Act 1990*. It consists of an elected arm made up of 60 Regional Councils and a Board of Commissioners, and an administrative arm made up of public servants. The Board of Commissioners is headed by an appointed Chairperson. The administrative arm is headed by a Chief Executive Officer and a Deputy. The elected arm is also the advisory and decision-making part of the organisation.

The Minister for Aboriginal and Torres Strait Islander Affairs is responsible for the Commission in Parliament. The fact that a separate ministerial portfolio has been retained indicates the significance the Government places on Aboriginal and Torres Strait Islander issues. It is also further evidence of the Government's commitment to advance the economic, social and cultural position of Aboriginal and Torres Strait Islanders.

The changed administrative arrangements brought about as a result of the establishment of ATSIC has meant a very changed relationship between the organisation responsible for administering indigenous affairs and the Minister for Aboriginal Affairs. The Minister has considerably less power under the new arrangements. This has meant that the new relationship between the Commission and the Minister has had to be very carefully worked out. There has developed between the Commission and the Minister a partnership arrangement which is based on trust one for the other. The partnership between the elected arm and the administrative arm of the organisation is also harmonious.

The partnership arrangements between all of the players are pioneering and important. What makes ATSIC unique, is the fact that the decision-making bodies that make up the Commission consist of elected representatives. The 60 Regional Councils which are made up of more than 800 Councillors have all been elected by their constituents. Seventeen members of the Board of Commissioners have also been elected by the 800 Regional Councillors. Three Commissioners, including the Chairperson, are appointed by the Minister.

The Government is considering making a number of changes to the structure of ATSIC. It is being proposed that the number of Regional Councils be reduced from 60 to 36 and the number of Commissioners be reduced from 20 to 17. It is also proposed that the Chairperson be elected from among the 17 elected Commissioners rather than appointed by the Minister. The 17 existing zones will remain.

The main objective of ATSIC still remains the efficient and effective delivery of services to its clients — the Aboriginal and Torres Strait population of Australia and its establishment has brought about a change in the way that decisions which affect indigenous people are made and the way in which priorities are set.

There are special provisions in the ATSIC Act for a Torres Strait Islander Commissioner and the establishment of a Torres Strait Islander Advisory Board which is made up of the Commissioner elected by the Torres Strait Regional Council and six Torres Strait Islanders living on the mainland. A separate Office of Torres Strait Islander Affairs has also been established within ATSIC.

Aboriginal and Torres Strait Islander people are, for the first time since European settlement, now able to exert the greatest amount of influence on the programs and policies that affect their lives through the Regional Council structure. Regional Councils provide a forum for grassroots decision-making. They are required, in line with the legislation, to set out, and revise, Regional Plans for the economic, social and cultural status of Aboriginal residents in their area. They are required to assist, advise and cooperate with other bodies in the implementation of Regional Plans and to prepare budgets on how the Commission should spend money in their regions.

The Regional Council structure represents a significant reform in the administration of Aboriginal affairs because it recognises the fundamental fact that Aboriginal society's needs are not uniform throughout Australia and that needs are best identified and priorities determined in local areas.

In recognition of the need to advance the commercial and economic needs of indigenous people an Aboriginal and Torres Strait Islander Commercial Development Corporation has been established. The Corporation is engaged in commercial activities designed to accumulate and use a substantial capital asset for the advantage of indigenous Australians. It is headed by a Board of nine Directors, three of whom are ATSIC Commissioners.

ATSIC is a complex organisation. It combines administrative, representative and advisory functions into one statutory body. Its continued success will depend upon the relationship between the Commission and the Minister and the three arms of the Commission. There is now a consensus of purpose that must be retained.

The establishment of ATSIC has empowered indigenous people to make decisions about policies which affect them. It is setting a world standard in the administration of indigenous affairs and the level of interest in ATSIC's development is not restricted to Australia. There is considerable international interest in the direction indigenous affairs is taking as a result of the establishment of ATSIC.

This new direction in indigenous affairs and the Government's commitment to support that direction is embodied in a report by the House of Representatives Standing Committee on Aboriginal Affairs titled *Our Country Our Selves*. The report was the result of an extensive inquiry by a Parliamentary Committee — made up of representatives of both of the major political parties — into the effectiveness of support services within Aboriginal and Torres Strait Islander communities. One of the major recommendations of the report called for a process of dialogue between indigenous people and government based on negotiation which will result in a major change in the relationship between the Government and Aboriginal and Torres Strait Islander people. In the past the process of dialogue between indigenous people and government has been based on consultation.

At a more fundamental level is the support by government for a Process of Reconciliation which will involve a coordinated campaign to build better bridges of understanding between Aboriginal and non-Aboriginal Australians. The Government has given support to a framework for advancing reconciliation between the wider community and indigenous people which will not only involve a coordinated public awareness campaign but will also encourage and facilitate discourse on a range of important issues. The process of reconciliation has won cross party support within the Parliament which confirms the view that there is wide agreement in Australia among not only political parties but also among church and community groups for the need to raise the level of awareness and the consciousness of non–Aboriginal Australians. The Aboriginal and Torres Strait Islander Commission will have a central role in the reconciliation strategy.

The administration of Aboriginal affairs presents a paradox. On the one hand there are constant reminders of Aboriginal achievement, of how indigenous people are freeing themselves from their welfare dependency and misery through initiative and innovation. Many have achieved great success in a wide range of fields. Aboriginal people would wish this to continue. On the other hand there is the reality of indigenous poverty and despair, of alcoholism and violence that defies description. There is the hopelessness of people who have no employment prospects in a society imbued with the protestant work ethic. Clearly there are those among the indigenous population who have lost direction. Indigenous Australians are still almost entirely dependent on the patronage and goodwill of government and on legislation that can be diluted or changed at any time. Almost 75 per cent of the economy of Aboriginal society consists of government transfer payments.

In terms of media attention, and therefore public attitudes, there exists what might be described as a polarisation of stereotypes. The debate concentrates on the extremes — it does not take into account the diversity between the two extremes.

This is the dilemma in which indigenous people find themselves. On the one hand they must keep before government the extent of the plight of indigenous people and the need for continued and increasing support of specific programs for Aboriginals and Torres Strait Islanders. They must keep this message before the wider community so that they understand not only the extent of the disadvantage suffered by indigenous people but also the need to continue and enhance specific programs for indigenous people. At the same time they must promote the achievements of indigenous Australians both to government and the wider community while trying to avoid the stereotype tag. Furthermore, indigenous Australians need to convince both the wider community and the indigenous community that they are in a process of change. The change that Aboriginal and Torres Strait Islander people want cannot and will not happen overnight.

ATSIC is the result of an evolutionary process in indigenous affairs. It will not be free of problems because the administration of indigenous affairs is complex and complicated. But there can be no doubt that the mix of elected, advisory and administrative elements that make up the Commission are right. It is important that it be given a chance to deliver the promise it holds for Aboriginal people and the wider community.

The Report of the Royal Commission into Aboriginal Deaths in Custody is one of the most important documents relating to indigenous Australians in contemporary Australia. The Report was the result of four years of inquiry into the direct and underlying causes of death between January 1980 and May 1989 of 99 Aboriginal people while in police custody.

The Report, which contains 339 recommendations, deals with the disadvantage which indigenous Australians face in their dealings with the law and justice system. It also addresses the underlying causes of high rates of imprisonment and incarceration, the lack of employment opportunities, the low level of economic development, inadequate education, welfare dependency, poor health and cultural deprivations.

In March and June 1992 the Commonwealth announced significant initiatives, involving additional expenditure of $400 million over five years, to address the underlying causes of Aboriginal disadvantage which the Royal Commission identified as the real source of the unacceptably high rate of Aboriginal arrest and imprisonment. These initiatives are in the key areas of economic development, employment and training; education; youth; legal services and law enforcement; alcohol and substance abuse; human rights; and data collection. ATSIC will be the focal point for these programs.

Coupled with this is a Process of Reconciliation which imposes special obligations on the Commonwealth Government to address the social and economic disadvantage of Australia's indigenous population and to assist Aboriginals and Torres Strait Islanders to maintain their distinctive cultures and heritage and to enable them to achieve full recognition and status within Australian society. The process of reconciliation will also help bring about a meaningful discourse with the wider community.

The following tables provide an overview of the Commonwealth's outlays on Aboriginal and Torres Strait Islander Programs in 1991–92.

COMMONWEALTH OUTLAYS, BY FUNCTION, ON ABORIGINAL AND TORRES STRAIT ISLANDER PROGRAMS, 1991-92

Function	*$ million*
Labour & employment	324
Housing & community amenities	291
Education	277
Culture & recreation	86
Social security & welfare	61
Health	53
Industry assistance & development	26
Law, order & public safety	22
Transport & communications	3
General & other	10
Assistance to other Governments	7
Total	**1,161**

Source: Budget Related Paper No. 7, 'Social Justice for Indigenous Australians, 1992–93'.

COMMONWEALTH OUTLAYS, BY AGENCY, ON ABORIGINAL AND TORRES STRAIT ISLANDER PROGRAMS, 1991-92

Agency/Program	*$ million*
Aboriginal & Torres Strait Islander Commission — comprising:	*513.0*
Community Development Employment Projects (CDEP)	204.5
Community Housing & Infrastructure (CHIP)	149.0
Health	48.2
Social Security & Welfare	8.2
Housing & Community Amenities (excl. CHIP)	25.4
Culture & Recreation	32.1
Industry Assistance & Development	15.2
Labour & Employment (other than CDEP)	2.4
Law, Order & Public Safety	21.8
General & Other	6.3
Department of Employment, Education & Training	390.0
Department of Health, Housing & Community Services	143.0
Other specific Aboriginal & Torres Strait Islander Agencies — comprising:	*77.0*
Aboriginal Hostels Ltd (programs)	23.6
Aboriginal & Torres Strait Islander Commerical & Development Corporation	10.0
Australian Institute of Aboriginal & Torres Strait Islander Studies	5.8
Aboriginal Benefit Trust Account	37.3
Ranger Agreement	0.2
Other Portfolios — comprising:	*38.0*
Administrative Services (including Australian Electoral Commission)	1.2
Arts, Sport, the Environment & Territories	10.5
Attorney-General's (including Human Rights & Equal Opportunity Commissions)	0.6
Defence	0.8
Foreign Affairs & Trade	0.2
Immigration, Local Government & Ethnic Affairs	7.2
Industrial Relations	0.2
Primary Industries & Energy	2.6
Prime Minister & Cabinet	2.4
Social Security	7.3
Transport & Communications	4.7
Treasury (Australian Bureau of Statistics)	0.1
Total	**1,161.0**

Source: Budget Related Paper No. 7, 'Social Justice for Indigenous Australians, 1992–93'.

Credit: Patrick Riviere, Sydney Freelance.

Mandawuy Yunupingu, 1992 Australian of the Year, is widely regarded as an outstanding ambassador for Aboriginal people and their achievements, and for Australia as a whole. As a teacher and lead singer of the internationally acclaimed group, Yotha Yindi, Mandawuy is making an outstanding contribution by increasing Australian and international awareness of indigenous Australian culture. He was the first Arnhem Land Aboriginal to graduate with a Bachelor of Education degree and became the first Aboriginal headmaster in Australia.

Credit: Stephen Ellison, Outline.

Professor Fred Hollows examining the eyes of an Aboriginal. Fred Hollows, who died in February 1993, pioneered the treatment of eye diseases in Aboriginal Australians. He also devoted his expertise and energy to the treatment of eye diseases in Eritrea, Nepal and Vietnam and to the establishment of the resources for eye treatment in those countries. His work is being continued by the Fred Hollows Foundation. Among the many honours bestowed on him, he was Australian of the Year for 1990.

Statistics on the Indigenous Peoples of Australia

(This special article has been contributed by the Aboriginal and Torres Strait Islander Commission.)

The Aboriginal and Torres Strait Islander peoples are a comparatively small, but highly important, proportion of the total Australian population.

In the 1991 Census, some 265,000 people identified themselves as being of Aboriginal or Torres Strait Islander origin. This represents just over 1.5 per cent of the total Australian population. It is a growing component; over the five years from the previous Census in 1986, the numbers of Aboriginal and Torres Strait Islander people increased by 17 per cent, compared with a growth of 8 per cent for the total Australian population.

The Aboriginal and Torres Strait Islander populations, however, have significance much beyond their numbers. As Australia's indigenous peoples, the possessors of the oldest continuous cultures in the world, and as the most disadvantaged group of Australians, they have a unique place in Australian society. The Commonwealth Government accepts a special responsibility for Aboriginal and Torres Strait Islander peoples, manifested in a range of programs and activities specifically directed at overcoming Aboriginal and Torres Strait Islander disadvantage. At the same time, other spheres of government retain their responsibilities for the provision of services to their Aboriginal and Torres Strait Islander residents.

Increasingly, Aboriginal and Torres Strait Islander people are gaining a greater role in decisions affecting them, notably through the establishment in 1990 by the Commonwealth of the Aboriginal and Torres Strait Islander Commission (ATSIC) and the structure of 60 Regional Councils throughout Australia.

Internationally, there is a sharpening focus on the rights of indigenous peoples. Australia's relations with its indigenous peoples have become one of the key elements in the assessments made by the United Nations and other international organisations of our human rights performance. In 1993, this international focus has been considerably sharpened by its designation as the International Year of the World's Indigenous Peoples.

There is accordingly a substantial demand by governments for statistical data about the Aboriginal and Torres Strait Islander populations. This demand is augmented by the requirements of the Aboriginal and Torres Strait Islander community and of researchers in the field of Aboriginal and Torres Strait Islander studies.

The characteristics which distinguish Aboriginal and Torres Strait Islander people are reflected across the range of demographic, social and economic indicators — age distribution and family composition, fertility and mortality, health, geographic distribution, housing, employment, education, incomes, and the like.

This special article presents some brief historical data, a statistical profile on various characteristics of the Aboriginal and Torres Strait Islander populations, and outlines some important statistical issues and directions for the future.

Earlier estimates of the indigenous population

Various estimates, ranging from around 300,000 to over one million, have been made of the size of the Aboriginal and Torres Strait Islander population of Australia at the time of European settlement.

In the years following colonisation the Aboriginal and Torres Strait Islander population declined dramatically under the impact of new diseases, repressive and often brutal treatment, dispossession, and social and cultural disruption and disintegration. Such data as is available suggests that the Aboriginal and Torres Strait Islander population had declined to around 60,000 by the 1920s.

Counts and estimates of the Aboriginal and Torres Strait Islander populations have been attempted at every national census since Federation. The figures were not included, however, in the official count of the Australian population until the 1971 Census, following the repeal in 1967 of section 127 of the Commonwealth Constitution which required Aboriginal natives to be excluded from population counts. Until 1966, Aboriginal people who lived beyond settled areas were not counted but estimates of their numbers were provided by authorities responsible for Aboriginal welfare.

ESTIMATES OF THE ABORIGINAL AND TORRES STRAIT ISLANDER POPULATION PRIOR TO THE 1971 CENSUS

Census year	*Number*
1901	93,000
1921	72,000
1933	81,000
1947	76,000
1954	75,000
1961	84,000
1966	102,000

Source: The Aboriginal Population of Australia', L. R. Smith, Australian National University Press, Canberra.

Differences and deficiencies in coverage and data collection methods limit the usefulness of this data as a guide to trends.

Indigenous population since 1971

In the 1971 Census, a total of 115,953 persons identified themselves as of Aboriginal or Torres Strait Islander origin. At subsequent censuses the figures have been:

1976	160,915
1981	159,897
1986	227,645
1991	265,492

Considerable caution is required in making any inter-censal comparisons. In particular, it is believed that a substantial proportion of the increases reflect a growing willingness of people to identify themselves as Aboriginals or Torres Strait Islanders. There have also been some changes over the period in the form of the question asked in the Census, and improvements in collection procedures.

It is not possible to estimate the significance of these special factors and thereby to identify underlying trends more accurately. Nor is it possible to utilise data on registrations of births and deaths of Aboriginal and Torres Strait Islander people to provide some check on inter-censal trends, as not all States and Territories identify Aboriginals and Torres Strait Islanders separately in their records. There is, in any event, some concern about the accuracy of the data that is available.

These limitations notwithstanding it is clear that, over the last two decades, the Aboriginal and Torres Strait Islander population has been growing much more rapidly than the overall Australian population.

The basis for census data on Aboriginal and Torres Strait Islander populations is self-identification. This reflects established practice in the administration of Aboriginal and Torres Strait Islander programs, where the definition used has three elements: that the person is of Aboriginal or Torres Stait Islander decent, that he or she identifies as an Aboriginal or Torres Strait Islander, and that he or she is recognised as an Aboriginal or Torres Strait Islander within the community in which they live.

Data from the 1991 Census shows that, of the Aboriginal and Torres Strait Islander population of 265,492:

- 238,590 were Aboriginals and 26,902 were Torres Strait Islanders;
- females (134,030) slightly outnumbered males (131,462); and
- the numbers and proportions of the total Aboriginal and Torres Strait Islander population in each State and Territory were:

New South Wales	70,020	26.4
Victoria	16,736	6.3
Queensland	70,130	26.4
South Australia	16,238	6.1
Western Australia	41,792	15.7
Tasmania	8,886	3.4
Northern Territory	39,918	15.0
Australian Capital Territory	1,772	0.7

Statistical profile from the Census

In addition to providing figures on the indigenous population, the five-yearly Population Census provides data on a range of characteristics for the Aboriginal and Torres Strait Islander population. The following statistical profile is based mainly on the results of the 1986 Census as comparable details were not yet available from the 1991 Census at the time of preparation of this article.

Age. As the accompanying chart illustrates, the Aboriginal and Torres Strait Islander population in 1991 was much younger than the general Australian population. Over half were under 20 years of age, compared with less than a third of all Australians. The proportion under five (14%) was almost double that of the total population, while only six per cent were aged over 54 compared with 20 per cent of the total population.

Fertility and child survival. Fertility of Aboriginal and Torres Strait Islander women is considerably higher than the national average, but so too is child mortality. At the time of the 1986 Census, Aboriginal and Torres Strait Islander women had had, on average, 2.6 children. The national average was 1.9. Those reaching the end of their child-bearing years (45 and over) had had, on average, 4.9 children, compared with a national average of 2.6 children.

Child loss rates were considerably higher than the national average. By 1986, Aboriginal and Torres Strait Islander mothers aged between 15 and 29 had lost 26 per thousand children born, compared with 15 for non–Aboriginal and Torres Strait Islander mothers.

Location and mobility. The Aboriginal and Torres Strait Islander populations show a markedly different pattern of geographic distribution than for the population as a whole. Overall, in 1986 33 per cent lived in rural areas, compared with 15 per cent of the total population; 24 per cent were in major urban areas with populations of 100,000 or more (63%); and 42 per cent were in other urban centres (22%).

Mobility rates were somewhat higher than for the total population. On Census night 1986, 24 per cent of Aboriginal and Torres Strait Islander people had had a different address one year earlier, and 46 per cent had had a different address five years earlier. National figures were 18 and 43 per cent respectively. Of those who had moved, however, only about one in ten had changed their State or Territory of residence.

Households and housing. Compared with national averages, Aboriginal and Torres Strait Islander people lived in larger households. The average number of persons per houseshold was 4.5 (compared with a national average of 2.7); in rural areas, the figure was 6.0. A greater number of households had dependent children or were multi–family.

Seven out of every 10 Aboriginal and Torres Strait Islander households were renting their dwellings. Just over a quarter lived in homes either owned or being purchased by a household member, compared with two–thirds for all Australian households.

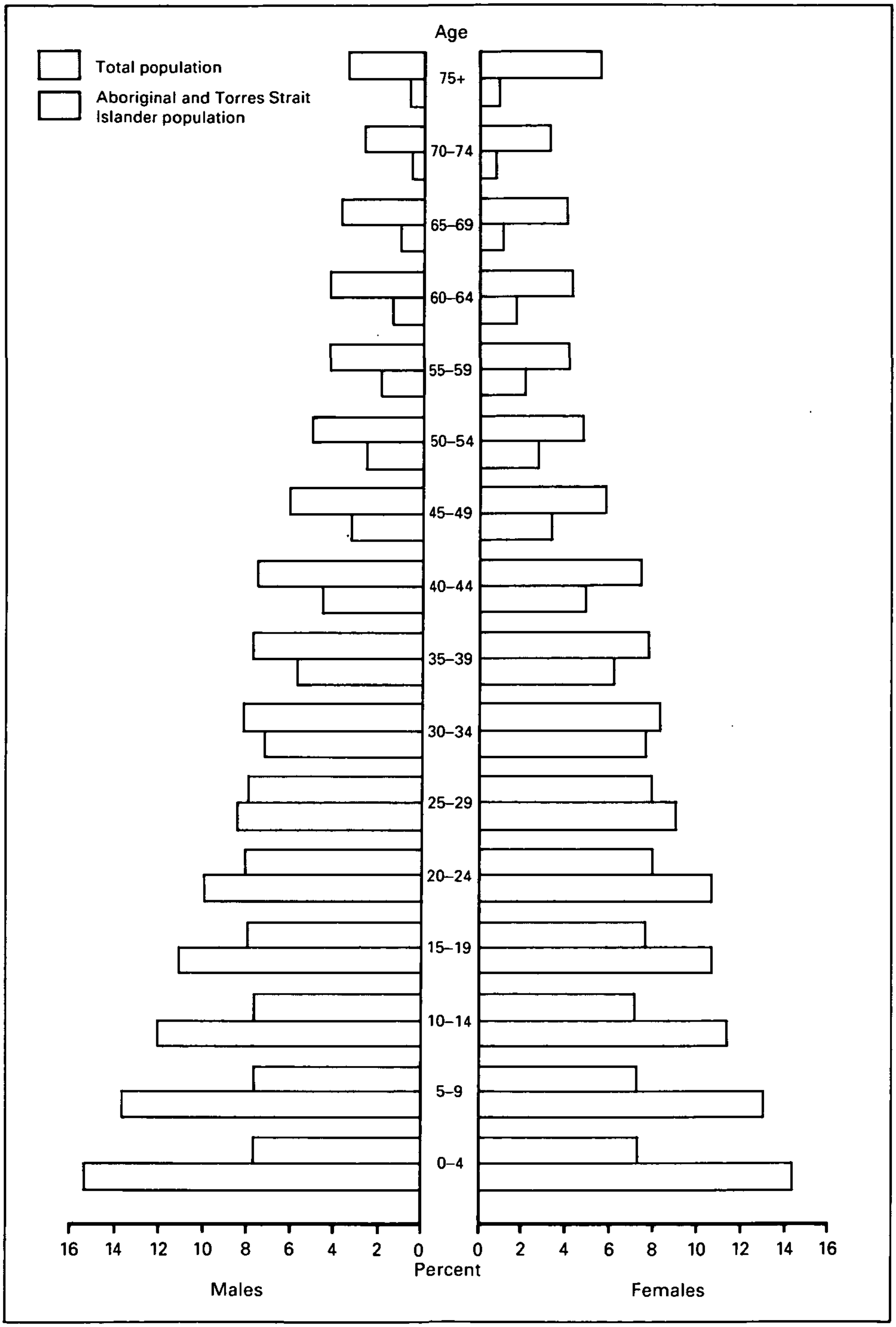
Employment. Aboriginal and Torres Strait Islander participation in the labour force was significantly lower in 1986 than for the total population. The figures were 66 per cent for men and 36 per cent for women, compared with national figures of 75 per cent and 48 per cent respectively. Participation was significantly lower in rural areas.

Unemployment among Aboriginal and Torres Strait Islander people in the labour force was much higher (35%) than for the labour force as a whole (9%).

Of those employed, larger than average proportions were in unskilled or semi–skilled occupations; 43 per cent were employed in the public sector (compared with the national proportion of just over a quarter); and 96 per cent worked for wages or salaries (83%).

Income. In 1986, median incomes of Aboriginal and Torres Strait Islander individuals and families were only two–thirds of the national figures.

1991 CENSUS: COMPARISON OF AGE STRUCTURE, ABORIGINAL AND TORRES STRAIT ISLANDER AND TOTAL POPULATION



Source: ABS, 1991 Census of Population and Housing.

Education. Overall, 95 per cent of Aboriginal and Torres Strait Islander children aged between 6 and 14 were stated as attending school. The figure fell to 92 and 91 per cent for rural localities and other rural areas respectively.

In the age group 15–24, the proportion of Aboriginals and Torres Strait Islanders still attending an educational institution was much lower than the national average — 23 per cent as against 39 per cent. Only 7 per cent of these were attending universities or colleges of advanced education, as against 18 per cent nationally. Nine per cent of Aboriginal and Torres Strait Islander persons age 15 and over stated that they had post-school qualifications compared with 26 per cent for the overall population in these age groups.

Language. In rural areas, 42 per cent of Aboriginal and Torres Strait Islander people aged five years or over spoke an Aboriginal language at home in 1986. In urban areas, the figure was only six per cent. About 2,000 were reported as not able to speak English at all.

Statistics from other than the Census

A certain amount of statistical data on the Aboriginal and Torres Strait Islander population is available from sources other than the five-yearly population censuses. However, the capacity to utilise other sources of data such as regular ABS sample surveys has been limited by survey design problems such as the relatively small size of, and difficulties in identifying, the indigenous population. Administrative records are another source of statistics although, as mentioned previously, these have their limitations.

The following further measures of Aboriginal and Torres Strait Islander disadvantage are taken from a variety of present non-census data sources.

Health. For Aboriginal and Torres Strait Islander people:

- mortality rates are at least two and a half times those of the total population;
- life expectancy is some 15 to 17 years less than for the whole population;
- infant and perinatal mortality rates are approximately three times the national rates;
- death rates associated with diseases of the circulatory system are two and a half times higher than for the total Australian population;
- admissions to hospitals are up to three times more frequent than for other Australians, and the incidence of chronic disability is much greater;
- at least 10 per cent suffer from diabetes; and
- the incidence of eye disease, especially in hot, dry areas, is much higher than for other Australians.

Law and Justice. In 1991, the rate of Aboriginal and Torres Strait Islander imprisonment was 18 times that of non-Aboriginals. Research undertaken by the Royal Commission into Aboriginal Deaths in Custody found that, in August 1988, 20 per cent of those detained in police custody were Aboriginal and Torres Strait Islander people.

Need for further statistics

The Aboriginal and Torres Strait Islander populations exhibit markedly different demographic, economic, social and cultural characteristics from the overall Australian population. Their special status as the indigenous peoples of this country, combined with the fact (as indicated by the statistics summarised in this article) that they are, as a group, the most disadvantaged of Australians, create special demands for accurate, timely and comprehensive data on which national, regional and community plans can be developed, public policies based, and progress in addressing problem areas evaluated.

The demographic characteristics of the Aboriginal and Torres Strait Islander populations are of particular importance and have major implications for policy development and program priorities, notably in such areas as employment and education, and in housing and infrastructure needs.

At the time of the 1991 Census, 40 per cent of the Aboriginal and Torres Strait Islander population was aged under 15, and a further 30 per cent were aged between 15 and 29. The rapid growth in the Aboriginal and Torres Strait Islander working age population is of considerable economic and social significance. On the basis of projections made from 1986 Census data by Gray and Tesfaghiorgis (*Social Indicators of the Aboriginal Population of Australia*, Centre for Aboriginal Economic Research, Australian National University, 1991), this would grow by 47 per cent between 1986 and 2001.

Another trend is the growth — projected to average over three per cent a year — in the numbers of households with an Aboriginal and Torres Strait Islander head. Location factors are also highly relevant. Proportionately higher numbers of Aboriginal and Torres Strait Islander people live in areas where employment opportunities are at best limited, experiencing long–term decline or virtually non–existent.

Data needs and deficiencies were highlighted by the National Report of the Royal Commission into Aboriginal Deaths in Custody, which represented the most comprehensive analysis ever undertaken of the nature, extent and causes of Aboriginal disadvantage.

The Royal Commission's recommendation 49 reads:

> 'That proposals for a special national survey covering a range of social, demographic, health and economic characteristics of the Aboriginal population with full Aboriginal participation at all levels be supported. The proposed census should take as its boundaries the Aboriginal and Torres Strait Islander Commission boundaries. The Aboriginal respondents to the census should be encouraged to nominate their traditional/contemporary language affiliation. I further recommend that the ATSIC Regional Councils be encouraged to use the special census to obtain an inventory of community infrastructure, assets and outstanding needs which can be used as data for the development of their regional plans'.

In March 1992 the Commonwealth responded by announcing a special national survey of Aboriginal and Torres Strait Islander people to be conducted by the Australian Bureau of Statistics. An amount of $4.4 million has been allocated to this sample survey, which will be undertaken in mid–1994 following a comprehensive program of consultation with the indigenous community, and survey testing and development. It is intended that the survey will give priority to the provision of complementary information to that which is becoming available from the 1991 Census and from other sources.

Of these other sources, the most substantial is the Survey of Housing and Community Infrastructure Needs being undertaken by ATSIC. The purpose of this survey is to ascertain the condition of existing housing and infrastructure, the level of unmet requirements, and the estimated costs of providing adequate housing and infrastructure to match comparative standards in the wider community. Data collection for the survey commenced in the first half of 1992 in rural and remote Aboriginal and Torres Strait Islander communities.

It might be noted that the Royal Commission into Aboriginal Deaths in Custody made a number of other recommendations relating to data collections and research on a number of more specific matters such as persons in custody, alcohol use, recidivism, and effectiveness of non–custodial sentencing orders and parole.

The availability of statistical data will be a critical factor for the Aboriginal and Torres Strait Islander community and for governments in the years ahead. The full results of the 1991 Census, and the outcome of the Special Survey, will do much to update and expand the existing databases.

Data from such sources needs to be augmented, however, by a better flow of data from regular collections, notably in such areas as health, education, and law and justice. Addressing these needs is one of the important challenges for those charged with responsibility for data collections.

Chapter Thirteen

Tourism

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Chapter 13 Tourism

Tourism encompasses all short-term travel away from the normal place of work and residence, including that undertaken for business and pleasure. It includes both domestic and international travel and involves the consumption of a wide range of goods and services provided by, for example, transport and tour operators, accommodation establishments, theme parks and attractions, entertainment and arts venues, museums and historical sites, restaurants, travel agents and souvenir retailers.

It also draws on services provided by the Commonwealth Government, the State and Territory Governments and local governments without direct charge to tourists, such as the construction and maintenance of roads, airports, harbours, railways and national parks, tourism promotion, immigration and customs services, information services and the provision of a large number of recreational facilities.

Economic importance

Just as tourism is a dominant force in the global economy, it is one of Australia's largest and most dynamic sectors of commerce too. In recent years, tourism has experienced unprecedented growth and made a substantial contribution to national economic development. It has matured into a prominent, sophisticated activity with the potential to play a significant role in securing Australia's future prosperity.

It is estimated that tourism directly and indirectly contributed 5.4 per cent to Gross Domestic Product in 1990–91 and accounted for some 500,000 jobs (nearly 6% of the work force). During the 1980s tourism created over 100,000 new jobs.

In 1990–91 total expenditure derived from tourism was around $25 billion, of which $17.9 billion was attributed to domestic tourism. Foreign exchange earnings from international tourism to Australia were estimated to be about $7.2 billion. This represents an increase of 14.3 per cent over the previous year, and amounted to 10 per cent of Australia's total current account credits. This increase resulted from growth in both the volume of visitors and expenditure per head.

While growth in tourism flows to Australia over the last five years has been almost twice the international rate, Australia's share of world tourism is still small, accounting for only 0.51 per cent of total international visitor arrivals in all countries. Because Australia is a long haul destination for most international travellers this share is never likely to be large; however, there is still considerable potential for growth in the future.

The domestic travel market was relatively stagnant from 1984–85 to 1988–89, but 1989–90 saw a nine per cent increase in the number of domestic trips undertaken compared with the previous years. In contrast, a two per cent decrease in domestic travel was experienced in 1990–91 compared with 1989–90. The number of international visitors to Australia increased at a rate of 25 per cent per annum from 1984 to 1988. However, 1989 saw a slight decrease in arrivals to 2.1 million partly because of the 'rain shadow' effect of Expo 88 and the Bicentennial and the adverse impact of the disruption to domestic airline services in late 1989. Arrivals recovered to 2.2 million in 1990 and increased to 2.4 million in 1991 despite the adverse short-term effects of the Gulf War.

International 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 as reported on passenger cards collected from incoming and outgoing passengers under the *Migration Act 1958*; this classification distinguishes between long-term and short-term movement.

Statistics of permanent and long-term movement are shown in the chapter, Demography. 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 visitor arrivals and Australian resident departures where the intended stay in Australia or abroad is for a period of less than 12 months, together with departures of visitors and returns of Australian residents who have stayed in Australia or abroad for less than 12 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.

13.1 SUMMARY OF SHORT-TERM TRAVELLERS

	Overseas visitors		*Australian residents*	
	Arriving in Australia	*Departing from Australia*	*Departing from Australia*	*Returning to Australia*
Census years				
1981	936,700	900,400	1,217,300	1,181,400
1986	1,429,400	1,363,800	1,539,600	1,513,200
1991	2,370,400	2,350,800	2,099,400	2,009,700
Year				
1987	1,784,900	1,701,200	1,622,300	1,586,300
1988	2,249,300	2,174,100	1,697,600	1,637,900
1989	2,080,300	2,020,400	1,989,800	1,912,700
1990	2,214,900	2,162,700	2,169,900	2,109,300
1991	2,370,400	2,350,800	2,099,400	2,009,700
1992	2,603,300	2,533,500	2,276,300	2,166,300

Source: Overseas Arrivals and Departures, Australia (3404.0).

In addition to the basic classification of travellers shown above, certain other characteristics are collected. These are: sex, age, marital status, country of citizenship, country of birth, intended or actual length of stay, purpose of journey, mode of transport, country of residence or country where most time was or will be spent, country of embarkation or disembarkation, State of residence or State where most time was or will be spent, and State or country of embarkation or disembarkation.

The categories shown in the previous table are cross-classified by various characteristics listed above and the resulting statistics are shown in considerable detail in ABS monthly, quarterly and annual publications. Certain unpublished information is available on request. Selected traveller statistics are shown in the following tables.

13.2 SHORT-TERM TRAVELLERS: ARRIVALS AND DEPARTURES OF OVERSEAS VISITORS AND AUSTRALIAN RESIDENTS BY MONTH OF ARRIVAL OR DEPARTURE, 1992

	Overseas visitors		*Australian residents*	
Month	*Arriving*	*Departing*	*Departing*	*Returning*
January	196,100	250,000	141,400	256,900
February	238,200	216,300	140,600	146,600
March	217,800	224,300	172,200	141,900
April	203,800	211,700	192,900	158,900
May	175,200	197,000	178,700	152,300
June	176,900	168,500	204,600	150,000
July	219,300	185,400	222,900	222,400
August	199,100	214,100	179,900	188,100
September	190,000	187,500	229,900	202,800
October	229,300	200,400	173,100	246,500
November	255,000	242,900	174,600	169,700
December	302,400	235,200	265,400	130,300
Total(a)	**2,603,300**	**2,533,500**	**2,276,300**	**2,166,300**

(a) Differences between the sums of components and totals are due to rounding.
Source: Overseas Arrivals and Departures, Australia (3401.0).

Short-term travel is subject to marked seasonal variation, December being the peak month for the arrival of overseas visitors and the departure of Australian residents.

13.3 SHORT-TERM TRAVELLERS: DEPARTURES OF AUSTRALIAN RESIDENTS, BY STATED PURPOSE OF JOURNEY AND INTENDED LENGTH OF STAY, 1992

	Main purpose of journey						
Intended length of stay	*Visiting relatives*	*Holiday, accompanying business traveller(a)*	*Convention*	*Business*	*Employment*	*Other and not stated*	*Total(b)*
Under 1 week	25,400	79,000	9,200	93,000	3,500	17,400	227,600
1 week and under 2 weeks	51,600	362,900	22,300	90,800	3,300	27,800	558,500
2 weeks and under 3 weeks	64,700	242,600	9,300	57,600	4,900	24,200	403,300
3 weeks and under 1 month	57,900	112,000	5,000	23,900	3,200	14,400	216,400
1 month and under 2 months	141,600	192,800	5,300	36,100	5,400	28,900	410,100
2 months and under 3 months	65,800	79,500	1,100	15,300	3,400	19,000	184,100
3 months and under 6 months	52,700	59,200	500	11,800	7,200	17,000	148,400
6 months and under 12 months	31,300	43,700	100	10,500	19,200	23,200	127,900
Total(b)	**491,000**	**1,171,800**	**52,600**	**338,800**	**50,200**	**171,900**	**2,276,300**

(a) Includes student vacation. (b) Differences between the sums of components and totals are due to rounding.
Source: Overseas Arrivals and Departures, Australia (3404.0).

In 1992, the majority of Australian residents departing for short-term visits abroad intended to stay for under one month, with 52 per cent intending to stay for under three weeks, as indicated in the above table. The majority of short-term visitors to Australia intended to stay under three weeks, with 58 per cent (*see* following table) intending to stay under two weeks.

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 their visit was 'holiday', followed by 'visiting relatives' and 'business' as the second and third most common reasons.

13.4 SHORT-TERM TRAVELLERS: ARRIVALS OF OVERSEAS VISITORS, BY STATED PURPOSE OF JOURNEY AND INTENDED LENGTH OF STAY, 1992

	Main purpose of journey							
Intended length of stay	*In transit*	*Visiting relatives*	*Holiday, accompanying business traveller*	*Convention*	*Business*	*Employment*	*Other and not stated*	*Total(a)*
Under 1 week	78,400	40,400	500,800	9,600	103,900	3,800	23,000	759,900
1 week and under 2 weeks	—	73,700	568,000	14,000	70,000	2,400	20,500	748,600
2 weeks and under 3 weeks	—	80,900	200,000	5,800	29,500	800	12,200	329,300
3 weeks and under 1 month	—	65,800	100,500	1,100	7,500	500	6,000	181,300
1 month and under 2 months	—	122,500	136,100	1,300	12,200	1,800	11,000	284,900
2 months and under 3 months	—	41,300	39,900	200	4,200	1,300	6,800	93,800
3 months and under 6 months	—	40,500	38,200	100	4,600	3,000	11,900	98,500
6 months and under 12 months	—	24,400	31,900	100	4,400	10,100	36,300	107,200
Total(a)	**78,400**	**489,500**	**1,615,400**	**32,300**	**236,300**	**23,700**	**127,600**	**2,603,300**

(a) Differences between the sums of components and totals are due to rounding.
Source: Overseas Arrivals and Departures, Australia (3404.0).

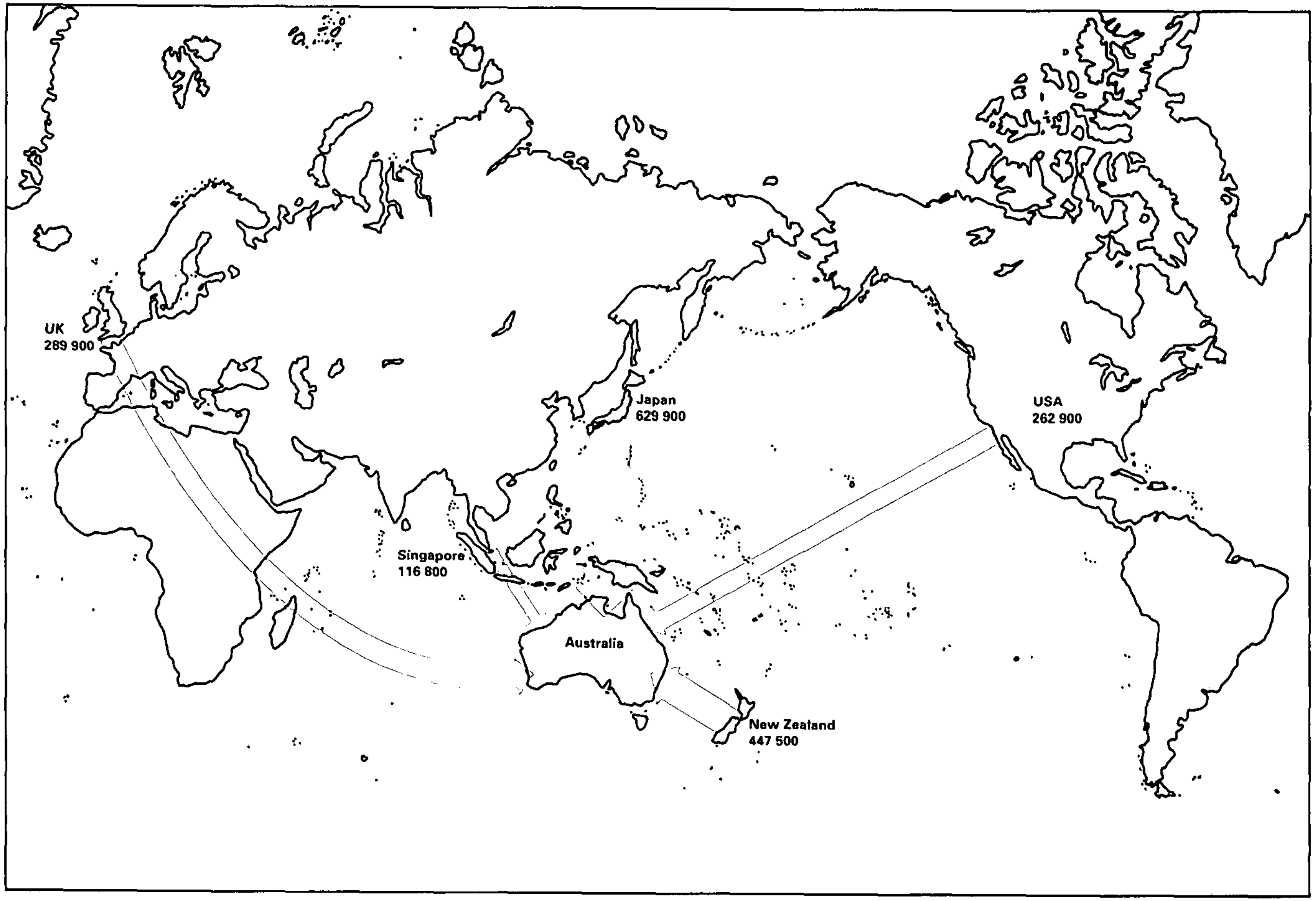
13.5 SHORT-TERM TRAVELLERS: ARRIVALS OF OVERSEAS VISITORS AND DEPARTURES OF AUSTRALIAN RESIDENTS, BY COUNTRY OF RESIDENCE/INTENDED STAY AND INTENDED LENGTH OF STAY, 1992

	Arrivals of overseas visitors intended length of stay					*Departures of Australian residents intended length of stay*			
Country of residence (visitors) and country of intended stay (residents)	*Under 1 week*	*1 week and under 1 month*	*1 month and under 3 months*	*3 months and under 12 months*	*Total(a)*	*Under 1 month*	*1 month and under 3 months*	*3 months and under 12 months*	*Total(a)*
Oceania and Antarctica									
Fiji	5,200	5,300	3,500	2,300	16,300	78,700	5,400	2,700	86,700
New Caledonia	6,600	9,500	1,500	500	18,000	14,900	300	400	15,500
New Zealand	138,200	261,300	32,400	15,700	447,500	301,300	30,600	8,800	340,700
Papua New Guinea	15,000	14,100	4,900	3,000	37,000	25,700	7,600	4,400	37,600
Other	6,100	6,600	3,900	2,500	19,100	59,400	4,500	2,200	66,100
Total	*171,100*	*296,800*	*46,100*	*23,900*	*537,900*	*480,000*	*48,300*	*18,300*	*546,600*
Europe & the former USSR									
Croatia, Slovenia, Yugoslavia	200	400	900	1,600	3,200	400	2,800	2,600	5,800
France	6,600	9,600	6,600	2,600	25,400	8,900	12,200	4,300	25,400
Germany	11,800	30,300	38,300	9,600	89,900	9,800	15,600	6,700	32,000
Greece	900	1,100	2,200	2,000	6,100	3,200	12,200	14,600	30,100
Ireland	500	2,300	3,800	2,100	8,800	2,600	7,900	2,700	13,200
Italy	3,700	10,600	9,200	3,900	27,400	8,900	22,400	13,600	44,900
Netherlands	2,300	7,400	10,100	3,800	23,500	3,500	9,000	4,100	16,500
Switzerland	3,400	8,000	11,200	6,500	29,000	3,700	4,700	1,600	10,100
United Kingdom	29,000	112,500	105,500	42,900	289,900	58,600	125,900	55,900	240,400
Other	10,200	28,200	21,100	14,300	73,800	16,000	34,500	22,200	72,600
Total	*68,500*	*210,500*	*208,800*	*89,100*	*577,000*	*115,600*	*247,100*	*128,400*	*491,000*
South-East Asia									
Indonesia	12,600	21,900	6,000	5,400	45,900	159,500	18,400	7,300	185,200
Malaysia	15,900	28,500	8,500	7,500	60,400	50,200	20,700	7,600	78,400
Philippines	4,400	5,400	2,800	3,500	16,100	25,300	12,100	3,600	41,100
Singapore	34,900	68,900	8,100	5,000	116,800	82,800	12,200	6,000	101,000
Thailand	15,800	12,200	2,600	2,900	33,600	56,500	9,900	3,900	70,300
Other	1,000	2,400	1,100	4,500	9,000	7,200	14,000	4,700	25,900
Total	*84,500*	*139,300*	*29,000*	*28,900*	*281,800*	*381,500*	*87,300*	*33,100*	*502,000*
North-east Asia									
Hong Kong	14,000	43,800	10,000	6,900	74,700	91,700	29,700	18,700	140,100
Japan	309,300	298,300	8,900	13,400	629,900	33,100	6,800	7,600	47,600
Other	42,500	56,700	7,500	9,900	116,600	30,900	18,700	6,300	55,800
Total	*365,800*	*398,800*	*26,500*	*30,200*	*821,300*	*155,700*	*55,200*	*32,600*	*243,500*
Southern Asia									
India	1,800	3,600	2,100	2,100	9,600	4,700	9,200	4,200	18,000
Other	900	2,400	1,400	1,700	6,400	7,900	8,400	2,700	19,100
Total	*2,600*	*6,000*	*3,500*	*3,800*	*16,000*	*12,600*	*17,600*	*6,900*	*37,100*
The Americas									
Canada	4,700	23,700	14,300	6,300	48,900	12,000	15,100	5,300	32,300
USA(b)	51,600	162,800	34,800	13,600	262,900	224,400	85,400	24,800	334,600
Other	2,400	4,800	2,500	2,100	11,800	4,600	6,900	4,800	16,300
Total	*58,700*	*191,300*	*51,600*	*22,000*	*323,600*	*241,100*	*107,400*	*34,800*	*383,200*
Africa (excl. North Africa)									
South Africa	1,700	6,600	5,300	1,600	15,300	1,700	3,500	1,000	6,300
Other	1,400	2,900	2,300	1,200	7,900	7,700	8,100	2,800	18,600
Total	*3,100*	*9,500*	*7,700*	*2,800*	*23,100*	*9,400*	*11,600*	*3,800*	*24,800*
Total	**759,900**	**1,259,100**	**378,600**	**205,600**	**2,603,300**	**1,405,800**	**594,200**	**276,300**	**2,276,300**

(a) Includes other and not stated. (b) Includes America undefined.

Source: Overseas Arrivals and Departures (3404.0) and unpublished ABS series.

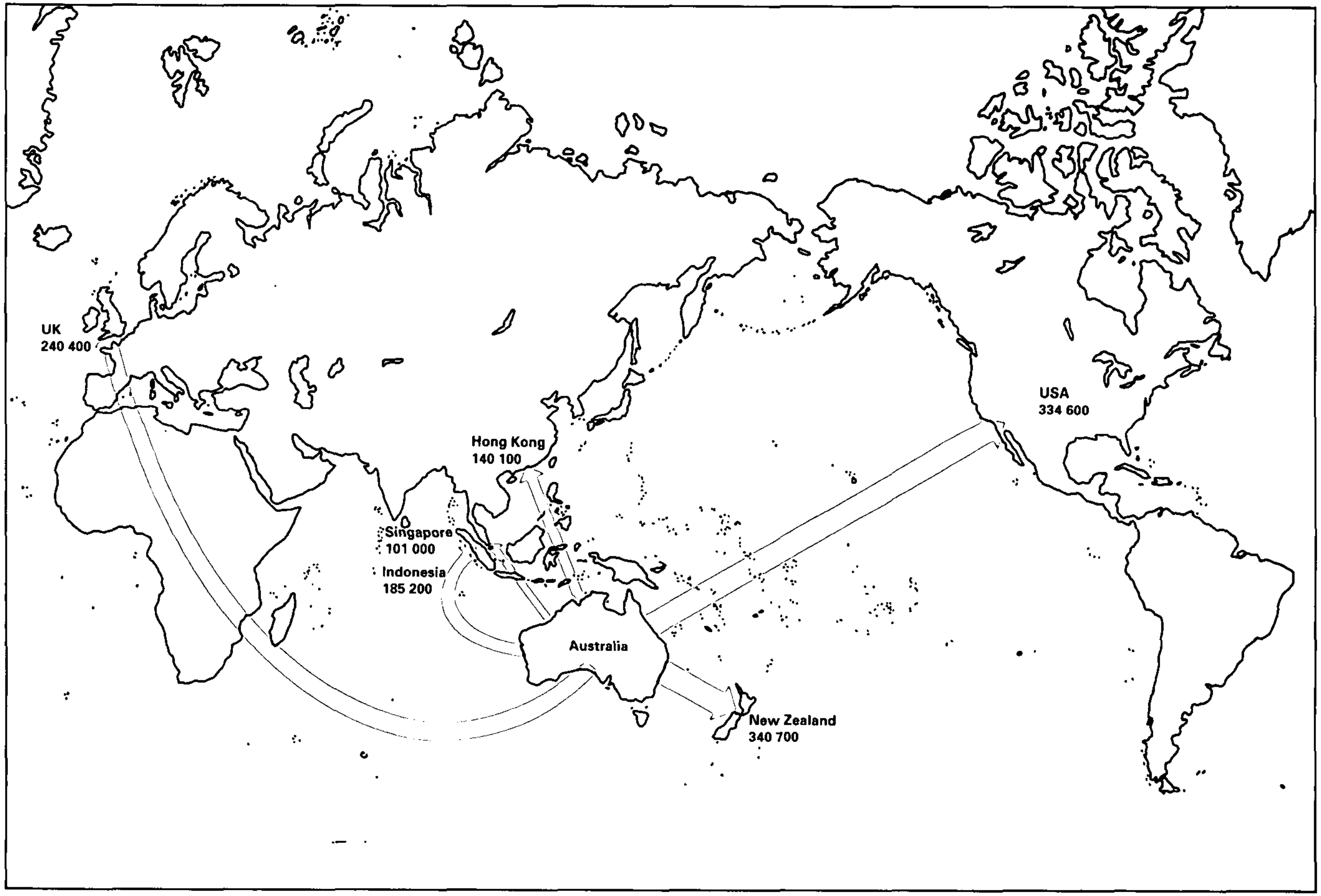
13.6 OVERSEAS VISITORS TO AUSTRALIA(a), 1992



(a) Length of stay in Australia — under 1 week to less than 12 months.

Source: Overseas Arrivals and Departures, Australia (3404.0) and unpublished ABS series.

13.7 AUSTRALIAN TRAVELLERS OVERSEAS (a), 1992



(a) Length of stay overseas — under 1 week to less than 12 months.
Source: Overseas Arrivals and Departures, Australia (3404.0) and unpublished ABS series.

13.8 INTERNATIONAL VISITORS: NIGHTS SPENT IN EACH STATE, 1991
(per cent)

	Country of residence							
State/Territory	*USA*	*Japan*	*Other Asia*	*Canada*	*New Zealand*	*UK and Ireland*	*Other Europe*	*Total*
New South Wales	38	32	44	32	35	34	31	36
Victoria	13	8	23	14	17	17	20	18
Queensland	26	46	13	29	31	21	22	24
South Australia	5	4	3	7	3	7	8	5
Western Australia	8	5	14	11	10	14	9	11
Tasmania	1	2	1	1	2	2	2	2
Northern Territory	6	2	1	3	1	3	6	3
Australian Capital Territory	3	1	2	2	1	2	3	2
Australia	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: Bureau of Tourism Research, International Visitor Survey, 1991.

International visitor shopping

Estimates of the amount spent on shopping by overseas tourists in Australia during the period October–December 1989 are shown in the following table.

13.9 NUMBER OF VISITORS BY AMOUNT SPENT ON TAKE HOME SHOPPING WHILE IN AUSTRALIA, OCTOBER–DECEMBER 1989

Amount spent	*New Zealand*	*Japan*	*Other Asia*	*USA*	*Canada*	*UK and Ireland*	*Conti-nental Europe*	*Other*	*Total*
					— number of visitors —				
Less than $50	6,127	1,671	3,257	6,028	1,157	7,327	8,394	1,947	35,908
$50 — $99	3,676	3,342	6,921	7,234	3,472	7,327	11,017	3,894	46,883
$100 — $199	22,058	6,684	16,285	10,248	3,858	13,025	16,787	1,947	90,892
$200 — $299	15,931	10,862	11,399	12,056	1,543	18,724	11,017	5,841	87,373
$300 — $399	14,705	3,342	8,957	6,028	386	4,885	5,771	974	45,047
$400 — $499	12,254	5,849	4,885	7,234	386	7,327	4,721	1,947	44,603
$500 — $599	9,803	9,191	9,364	4,220	772	12,211	6,820	4,868	57,248
$600 — $799	8,578	5,849	4,478	4,220	386	4,885	2,098	—	30,494
$800 — $999	2,451	7,520	1,628	603	386	2,442	1,049	1,947	18,026
$1,000 or more	17,156	30,080	15,063	3,617	2,315	8,955	4,197	3,894	85,277
Total	**112,739**	**84,391**	**82,238**	**61,487**	**14,660**	**87,108**	**71,870**	**27,258**	**541,751**
					— dollars —				
Average expenditure per visitor	502.92	877.22	537.21	348.04	574.66	409.53	323.46	570.46	515.37

Source: Bureau of Tourism Research, International Visitor Survey (Supplement), 1989.

Domestic travel

In 1991–92 the main purposes of domestic trips were pleasure or holiday (47%), visiting friends or relatives (26%), and business (13%). The main mode of transport used was private vehicle (77%). The mean length of a trip by domestic tourists was 4.5 nights in 1991–92.

13.10 SUMMARY OF PERSON TRIPS AND NIGHTS AWAY(a), 1991–92

State/Territory of origin	*Estimated population(a) as at 30 June 1992*	*Person trips*	*Average trips per person*	*Total nights away*	*Nights away per person trip*
	'000	'000		'000	
New South Wales	4,688.3	14,452	3.1	64,739	4.5
Victoria	3,510.1	10,940	3.1	48,196	4.4
Queensland	2,353.4	10,656	4.5	46,438	4.4
South Australia	1,158.1	4,290	3.7	19,370	4.5
Western Australia	1,278.5	5,054	4.0	24,546	4.9
Tasmania	363.0	1,263	3.5	5,900	4.7
Northern Territory	121.8	322	2.6	2,399	7.5
Australian Capital Territory	228.3	1,257	5.5	4,672	3.7
Total(b)	**13,701.6**	**48,235**	**3.5**	**216,259**	**4.5**

(a) For persons aged 15 years and over. (b) Total includes 'not stated'.
Source: Bureau of Tourism Research, Domestic Tourism Monitor, Summary 1991–92.

13.11 NUMBER OF NIGHTS SPENT IN STATE OF MAIN DESTINATION BY MAIN PURPOSE OF TRIP, 1991–92 ('000 nights)

	Main purpose of trip				
State/Territory of main destination	*All business*	*Pleasure/ holiday*	*Visiting friends/ relatives*	*Other*	*Total(a)*
New South Wales	7,866	29,504	18,362	8,561	64,292
Victoria	3,488	17,057	10,969	4,780	36,293
Queensland	6,982	29,612	14,712	7,526	58,832
South Australia	2,139	8,368	4,561	2,533	17,600
Western Australia	4,654	10,991	5,299	3,682	24,627
Tasmania	650	3,530	1,513	865	6,558
Northern Territory	779	2,341	672	625	4,416
Australian Capital Territory	829	1,081	1,163	567	3,641
Total(a)	**27,386**	**102,483**	**57,251**	**29,139**	**216,259**

(a) Differences between the sums of components and totals are due to rounding.
Source: Bureau of Tourism Research, Domestic Tourism Monitor, Summary 1991–92.

In 1991–92 the most frequently used accommodation by domestic travellers was the home of friends or relatives (46% of visitor nights), followed by hotels or motels with facilities (18%) and caravan parks or camping grounds (13%). The following table classifies the types of accommodation used for all visitor nights by the main purpose of the trip.

13.12 NUMBER OF VISITOR NIGHTS, BY ACCOMMODATION USED BY MAIN PURPOSE OF TRIP, 1991–92
('000 visitor nights)

	Main purpose of trip				
All accommodation used	*All business*	*Pleasure/ holiday*	*Visiting friends/ relatives*	*Other*	*Total(a)*
Hotel/motel with facilities	10,674	20,789	2,607	4,392	38,461
Hotel/motel without facilities	1,460	1,797	474	508	4,240
Friends'/relatives' house	5,506	30,946	49,874	12,650	98,977
Caravan/tent/cabin/camping	1,720	22,181	1,577	3,090	28,567
Rented house/flat	1,445	11,517	823	1,453	15,238
Own holiday home/flat	619	7,162	268	1,027	9,076
Guest house/private hotel	397	1,909	391	406	3,103
Farm	537	941	780	492	2,750
Boat/cabin cruiser	119	551	—	78	747
Hostel	527	583	16	1,243	2,369
Other/not stated	4,381	4,107	442	3,801	12,732
Total(a)	**27,386**	**102,483**	**57,251**	**29,139**	**216,259**

(a) Differences between the sums of components and totals are due to rounding.
Source: Bureau of Tourism Research, Domestic Tourism Monitor, 1991–92.

Tourist accommodation

The preceding section contains statistics on accommodation of all types used by domestic travellers. This section relates to commercial tourist accommodation used by domestic and international travellers.

New South Wales is the State with the most commercial tourist accommodation available. At September 1992, 35 per cent (57,046 guest rooms) of Australia's tourist accommodation was in New South Wales, with 45 per cent (25,457 guest rooms) of the State's capacity concentrated in the Sydney Statistical Division. Queensland had 24 per cent (39,380 guest rooms), and Victoria had 18 per cent (29,595 guest rooms) of Australia's accommodation.

In the three months to September 1992, nearly 31 per cent of room nights sold in Australia were taken in four and five star graded accommodation. This figure demonstrates the continuation of an increasing market share for higher rated accommodation, evident since 1986 (then 23%).

During 1992 the supply of tourist accommodation in Australia continued to grow faster than demand. Guest rooms available grew by 3.0 per cent for the year ending September 30, while room nights sold grew by 2.9 per cent in the same period. The comparative rates for 1991 were 4.7 per cent for rooms available, and 3.1 per cent for room nights sold.

Table 13.13 provides further details of tourist accommodation.

13.13 TOURIST ACCOMMODATION(a)

		September quarter 1991	*December quarter 1991*	*March quarter 1992*	*June quarter 1992*	*September quarter 1992*
LICENSED HOTELS WITH FACILITIES(b)						
Establishments	number	1,187	1,187	1,184	1,202	1,185
Guest rooms	number	61,281	62,103	62,419	63,968	64,419
Bed spaces	number	161,303	163,792	164,518	168,621	169,575
Room occupancy rates	per cent	51.8	52.9	50.6	49.2	52.4
Bed occupancy rates	per cent	32.4	33.4	31.8	30.0	33.4
Gross takings from accommodation	$'000	294,268	321,596	300,453	286,104	307,807
MOTELS, etc.(b)						
Establishments	number	3,656	3,687	3,677	3,705	3,694
Guest rooms	number	99,015	99,810	99,922	100,771	100,709
Bed spaces	number	298,106	300,784	300,767	303,316	303,636
Room occupancy rates	per cent	52.3	49.9	49.0	48.0	51.2
Bed occupancy rates	per cent	32.0	30.5	30.3	28.6	31.2
Gross takings from accommodation	$'000	314,187	299,784	290,507	284,800	313,091
TOTAL HOTELS AND MOTELS etc.(b)						
Establishments	number	4,843	4,874	4,861	4,907	4,879
Guest rooms	number	160,296	161,913	162,341	164,739	165,128
Bed spaces	number	459,409	464,576	465,285	471,937	473,211
Room occupancy rates	per cent	52.1	51.0	49.6	48.5	51.7
Bed occupancy rates	per cent	32.2	31.5	30.8	29.1	32.0
Gross takings from accommodation	$'000	608,454	621,380	590,960	570,904	620,898
CARAVAN PARKS(c)(d)						
Establishments	number	2,696	2,698	2,690	2,688	2,684
Powered sites	number	202,037	202,537	202,480	202,512	202,465
Unpowered sites	number	71,569	71,831	71,421	71,084	71,011
Cabins, flats etc.	number	12,594	12,823	13,153	13,417	13,706
Total capacity	*number*	*286,200*	*287,191*	*287,054*	*287,013*	*287,182*
Site occupancy rates	per cent	33.9	33.9	36.8	33.5	42.5
Gross takings from accommodation	$'000	92,674	98,204	105,189	90,182	98,793
HOLIDAY FLATS, UNITS AND HOUSES(b)						
Flats, units etc.						
One bedroom	number	7,683	7,670	7,707	7,583	7,696
Multiple bedroom	number	25,226	26,564	26,158	25,564	25,536
Total flats, units etc.	*number*	*32,909*	*34,234*	*33,865*	*33,147*	*33,232*
Bed spaces	number	140,944	147,344	146,466	143,359	143,128
Unit occupancy rates	per cent	54.4	51.2	53.1	42.0	53.7
Gross takings from accommodation	$'000	91,340	94,977	101,287	70,142	92,588
VISITOR HOSTELS(e)						
Establishments	number	382	402	391	397	392
Bed spaces	number	23,892	24,748	24,440	24,493	24,411
Bed occupancy rates	per cent	42.4	42.9	45.7	42.4	43.7
Gross takings from accommodation	$'000	10,321	10,955	11,397	10,742	11,226

(a) A tourist accommodation establishment is defined as an establishment which predominantly provides short-term accommodation (that is, for periods of less than two months) available to the general public. (b) For definitions *see Tourist Accommodation, Australia* (8635.0). (c) Includes long-term caravan parks. For definitions *see Tourist Accommodation, Australia* (8635.0). (d) From September quarter 1992, caravan park sites etc. permanently reserved but only casually occupied by their tenants have been recorded continuously as site nights occupied irrespective of whether the tenants of individual sites were in residence on any particular night. Occupancy measures from September quarter 1992 are not therefore comparable with those from previous quarters. (e) 'Backpacker' accommodation.

Source: Tourist Accommodation, Australia (8635.0).

Tourist attractions

A 1986–87 survey of selected tourist attractions in each State and Territory (for example, museums and art galleries, amusements and theme parks, zoos, wineries, mines and factories, natural attractions, historic attractions) revealed the following information.

13.14 TOURIST ATTRACTIONS, 1986–87

State/Territory	Number of attractions: Admission charged	Number of attractions: Admission not charged	Number of visitors(a)	Persons employed	Income from admission charged	Expenses	Net capital expenditure
	no.	no.	'000	no.	$'000	$'000	$'000
New South Wales	233	224	20,372	5,541	47,401	192,805	37,510
Victoria	214	131	15,893	3,265	29,854	106,287	22,429
Queensland	220	91	15,930	3,194	80,779	128,960	29,935
South Australia	135	220	9,618	1,342	6,974	44,595	3,352
Western Australia	144	118	(b)4,371	1,259	13,265	42,441	11,061
Tasmania	78	33	2,191	507	6,279	14,441	1,738
Northern Territory	16	15	1,471	330	5,143	14,070	6,914
Australian Capital Territory	12	15	3,961	724	1,694	26,054	4,920

(a) Excludes visitors to national parks. Persons visiting more than one attraction counted for each. (b) Excludes visitors to natural attractions.

Source: Tourist Attractions (8661.0).

Australian Tourist Commission

The Commission (ATC) is a statutory authority under the *Australian Tourist Commission Act 1987*. Its role is to increase the number of visitors to Australia, to maximise for Australia the benefits from overseas visitors and to ensure that Australia is protected from adverse environmental and social impacts of international tourism.

The Commission engages in a wide variety of marketing activities including consumer and trade advertising, in both print and television media, direct mail, market research, industry seminars and familiarisation visits for journalists and photographers. These activities are carried out in cooperation with State and Territory tourism authorities as well as the Australian and overseas travel industries.

Advertising designed to promote Australia as a friendly, exciting and safe tourist destination provides a marketing umbrella for the States, Territories and industry, and is placed in various tourist markets at times selected to achieve maximum awareness of Australia as a tourist destination.

Current marketing initiatives include the introduction of a special 'theme years' campaign beginning in 1993 with 'Discover the Year of Sport' and ending in 1997 with 'Discover the Year of Good Living' (food and wine).

Overseas offices of the ATC are located in London, Frankfurt, Los Angeles, New York, Singapore, Tokyo, Osaka, Hong Kong and Auckland.

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FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Fourteen

Environment

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BIODIVERSITY

Australia has been geographically isolated from other continents since its final severance from Antarctica 35 million years ago and a unique animal and plant life has evolved. Australia's biodiversity, that is the number and diversity of all life forms, is significant in the world context. It is not a fixed entity, but a constantly changing pool that is augmented by new genetic variation and diminished by extinctions.

Seven families of mammals, including the platypus and the koala, four of birds and twelve of flowering plants are endemic to Australia — far more endemic families than any other country. It is estimated that 88 per cent of Australia's reptiles, 70 per cent of birds and 94 per cent of frogs occur nowhere else in the world.

Australia has the planet's second highest number of reptile species (686), is fifth in flowering plants (23,000) and tenth in amphibians (197).

Over the past 200 years since white settlement, activities such as agriculture, urbanisation, clearing, draining of wetlands, the introduction of exotic species and pollution have had profound changes on Australian ecosystems. It is estimated that about half of Australia's forests have been cleared, and almost all other parts of Australia have been grazed to some extent by domestic stock or introduced feral animals. This has resulted in structural changes in vegetation communities and the loss of native species. It is estimated that 2.9 per cent of Australia's vascular plants which include trees, shrubs, grasses and ferns and 7 per cent of marsupials have been lost.

With a coastline of some 37,000 kilometres, Australia has a diverse marine environment ranging from the tropical mangrove and coral reef habitats of the far north, and Coral, Arafura and Timor Seas, to the subantarctic and antarctic habitats of the southern external territories. The fauna of the coastal water surrounding the Australian continent has a high diversity of species.

Although Australia covers a land area cf 768 million hectares, nearly 75 per cent of the population lives within 50 kilometres of Australia's coastal cities. About 35 per cent of the total population lives in Sydney and Melbourne.

14.1 AUSTRALIA'S BIODIVERSITY

Flora	*Number of species*
Vascular plants	22,000 species, more than 90% occur naturally in Australia 83 species are presumed extinct and further 840 species are threatened with extinction within 10–15 years
Non-vascular plants	About 28,000 species of algae About 3,500 species of mosses, liverworts and lichens About 10,000–20,000 species of large fungi About 250,000 species of microfungi
Fauna	*Number of species*
Birds	850 species of which 70% occur naturally only in Australia 16 species are extinct, 15 species endangered or vulnerable
Reptiles	700 species, 88% occur only in Australia
Insects	54,000 known insects with at least as many to be identified
Mammals	276 native land mammals. 20 species extinct. 38 species endangered or vulnerable
Amphibians	About 180 species, all of which are frogs. 94% of frog species occur nowhere else
Fish/Molluscs	3,600 species of fish and tens of thousands of species of molluscs

Source: Australian National Report to UNCED, December 1991.

Introduced species

One impact which is recognised as having a great influence on native flora and fauna is the increasing number of introduced species present in native bushlands. These include plants such as mission grass and animals such as foxes and rabbits.

At least 10 per cent of Australia's flora now consists of introduced species. The following table gives details of the number and percentage of introduced plant species which have become naturalised in various places. It can be noted that of all the States, Tasmania has the highest proportion of naturalised introduced species, comprising almost one-third of its total flora.

14.2 NUMBER AND PER CENT OF INTRODUCED PLANT SPECIES

Place	*Number*	*Percentage*
Australia	1,500–2,000	10–15
New South Wales	980	16
Victoria	825	24
Queensland	950	13
South Australia	904	25
Western Australia	838	11
Tasmania	700	31
Northern Territory	201	5
Australian Capital Territory	289	28
Bents Basin, New South Wales	36	40
Kakadu National Park, Northern Territory	87	6
Uluru National Park, Northern Territory	34	6
Kosciusko Alpine Region	27	7
Kimberley Region, Western Australia	90	5
Norfolk Island	266	60
Lord Howe Island	173	48

Source: 'Plant Invasions of Australian Ecosystems', Humphries, Groves and Mitchell, 1992.

Not all introduced species invade and threaten native plant communities. For example, an introduced plant may become established on land which is devoid of native vegetation. Of the 825 introduced species in Victoria, 412 are established amongst native vegetation. Out of these, 69 (8%) are considered a very serious threat, 15 per cent a serious threat, 8 per cent a potential threat and the remainder are considered as non-threatening.

The impact of introduced animals is quite large and includes competition with native species for shelter, food and water; changes to habitats; increases in soil erosion; unnatural predation on smaller native species; and the spread of disease.

Regardless of why mammals were introduced, where they have become established and are thriving they pose a threat to the flora and fauna which originally inhabited the environment. Introduced animals now comprise about 10 per cent of Australia's land mammal species.

14.3 IMPACTS CAUSED BY SOME OF AUSTRALIA'S INTRODUCED MAMMALS

Feral animal	*Impact*
Horse/brumby	Extended area of impact of introduced herbivores; damage to farm property; grazing on native wildlife food supplies
Donkey	Extended area of impact of introduced herbivores; prevention of other animals from using waterholes; grazing on a wide variety of native wildlife food supplies
Camel	Eating selectively on fresh growth desert trees; damage to farm property
Goat	Compete for shelter with native fauna; compete with domestic stock for pasture; carry the footrot disease
Cat	Prey on a wide range of native species for food
Dog	Prey on native species for food; attack stock
Fox	Prey on native ground-dwelling wildlife
Cattle	Carry diseases such as brucellosis and tuberculosis; feed on native vegetation to the point of overfeeding
Pig	Eat and damage crops and pastures; prey on lambs and native animals; damage to farm property; potential to carry exotic diseases; destroy native mangrove and swamp vegetation; destruction of native animal food and nesting sites; destroy vegetation which prevents erosion
Water buffalo	Overgraze areas near waterholes; near elimination of the water couch plant from swamps (provides food and areas for nesting); erosion increased; creation of unnatural canals through walking paths which causes entry of salt water into fresh water area; carry major cattle diseases

Source: Bureau of Rural Resources and Australian National Parks and Wildlife Service, 1990.

ENVIRONMENTAL INDICATORS

Environmental indicators are increasingly seen as a necessary tool for helping to set the course towards a sustainable future. The OECD has been undertaking work on indicators as part of its program on environmental economics that would integrate environment and economic decision-making. Indicators need to be viewed in a dynamic context, so the set of indicators can change to reflect the changing nature of policy and the seriousness of different environmental problems.

The following data are indicators reflecting economic and population changes of environmental significance. The indicators have been prepared by the OECD and show a comparison of Australia with some selected countries. Developments are proceeding in Australia on further environmental statistics and indicators for Australia, States or specified regions.

14.4 OECD ENVIRONMENTAL INDICATORS, 1991

Indicator		*Australia*	*Canada*	*USA*	*Nether-lands*	*Sweden*	*UK*	*Total OECD*	*Total world*
Carbon dioxide (CO_2) emissions from energy use (million tonnes of carbon)									
	1971	48	94	1,209	44	27	187	2,427	4,380
	1975	56	109	1,240	46	26	170	2,522	4,811
	1980	63	124	1,369	50	24	167	2,756	5,528
	1985	66	115	1,339	48	22	159	2,648	5,802
	1988	71	124	1,433	51	21	163	2,793	6,256
Per unit of GDP (kg/$US '000)	1988	404	316	324	380	194	317	286	635
Per capita (tonnes)	1988	4.3	4.8	5.8	3.4	2.5	2.9	3.4	1.2
Greenhouse gas emissions (million tonnes of carbon)	Late 1980s								
CO_2		72	126	1,443	51	21	166	2,840	6,400
Methane		90	79	692	26	5	75	1,290	5,100
CFC		20	34	332	17	6	67	901	1,300
Total		182	239	2,468	94	32	307	5,030	12,800
Per unit of GDP (kg/$US '000)		1,035	608	558	705	295	599	516	662
Per capita (tonnes)		11.0	9.2	10.0	6.4	3.8	5.4	6.1	2.5
Protected areas ('000 sq. km)	1970	108.6	148.2	234.5	0.9	5.0	13.0	586.3	1,597.1
	1980	250.7	214.6	473.9	1.1	10.6	13.2	1,107.7	3,566.2
	1985	354.1	229.5	649.5	1.6	15.9	15.5	1,437.4	4,237.7
	1989	364.8	718.6	790.4	1.5	17.1	25.7	2,180.5	5,290.8
Per cent of land area	1989	4.8	7.8	8.6	4.4	4.2	10.6	7.1	4.0
Use of nitrogen fertilisers applied to arable land (tonnes/sq. km)	1970	0.4	0.7	3.9	46.1	7.4	12.4	3.9	2.2
	1975	0.4	1.3	5.0	53.3	8.6	15.0	4.8	3.1
	1980	0.6	2.1	5.7	56.2	8.2	17.7	5.6	4.2
	1985	0.7	2.8	5.0	55.6	8.2	22.2	5.6	4.8
	1988	0.8	2.6	5.1	46.7	7.6	20.9	5.7	5.4
Threatened species (per cent of species known)	Late 1980s								
Mammals		13.4	7.3	10.5	48.3	15.4	31.2	n.a.	n.a.
Birds		3.3	3.8	7.2	33.1	6.8	15.0	n.a.	n.a.
Fish		. .	1.2	2.4	22.4	4.6	3.4	n.a.	n.a.
Reptiles		1.6	2.4	7.1	85.7	0.0	45.5	n.a.	n.a.
Amphibian		4.0	2.4	3.6	66.7	38.5	33.3	n.a.	n.a.
Vascular plants		12.3	0.8	0.5	. .	8.2	9.6	n.a.	n.a.
Waste generation	Late 1980s								
Municipal waste									
Total ('000 tonnes)		10,000	16,400	208,800	6,900	2,650	17,700	420,000	n.a.
Per capita (kg)		681	632	864	467	317	353	513	n.a.
Industrial waste	Late 1980s								
Total ('000 tonnes)		20,000	61,000	760,000	6,690	4,000	50,000	1,430,000	n.a.
Per unit GDP (tonnes/$US mill.)		146	155	186	50	37	97	146	n.a.
Hazardous ('000 tonnes)		300	3,300	275,000	1,500	500	4,500	303,000	n.a.
Growth of economic activity GDP @ 1985 prices and exchange rates (Index 1970 = 100)	1975	121	129	112	117	114	110	115	n.a.
	1980	139	156	131	133	121	121	136	n.a.
	1985	162	180	151	140	133	133	155	n.a.
	1989	187	208	173	154	146	155	177	n.a.
GDP ($US billion)	1989	184	401	4,544	138	111	530	10,070	n.a.
Per capita ($US '000)	1989	11.1	15.5	18.4	9.4	13.1	9.3	12.2	n.a.

... continued

14.4 OECD ENVIRONMENTAL INDICATORS, 1991 — *continued*

Indicator		*Australia*	*Canada*	*USA*	*Nether-lands*	*Sweden*	*UK*	*Total OECD*	*Total world*
Private final consumption expenditure @ 1985 prices and exchange rates									
(Index 1970 = 100)	1975	124	136	116	119	113	113	120	n.a.
	1980	142	162	135	141	117	125	140	n.a.
	1985	166	184	160	141	120	139	159	n.a.
	1989	187	217	180	157	136	173	182	n.a.
Total ($US billion)	1989	107	235	2,944	83	59	346	6,254	n.a.
Per capita ($US '000)	1989	6.5	9.0	12.0	5.6	7.0	6.1	7.6	n.a.
Energy intensity									
Total primary energy requirements/unit GDP (tonnes of oil equivalent (TOE) per $US '000)									
	1970	0.54	0.80	0.60	0.55	0.58	0.61	0.54	n.a.
	1975	0.53	0.76	0.57	0.57	0.55	0.53	0.52	n.a.
	1980	0.53	0.74	0.53	0.55	0.52	0.49	0.48	n.a.
	1985	0.48	0.66	0.45	0.49	0.55	0.44	0.43	n.a.
	1988	0.47	0.64	0.44	0.48	0.52	0.41	0.41	n.a.
Energy requirements (TOE) per capita	1988	5.0	9.6	7.8	4.4	6.7	3.7	4.8	n.a.
Total TOE (mill. tonnes)	1988	82.7	249.5	1,928.4	64.5	56.2	208.5	4,002.9	n.a.
Transport trends									
Road traffic									
10^9 veh. km	1970	79	126	1,787	48	35	179	3,288	n.a.
	1989	153	225	3,307	89	61	357	6,343	n.a.
Change (%)		94	79	85	85	73	99	93	n.a.
Motorways (km)	1970	1,030	2,760	53,700	980	400	1,060	72,800	n.a.
	1989	1,100	7,450	83,960	2,070	1,000	2,990	133,300	n.a.
Change (%)		7	170	56	113	148	183	83	n.a.
Passenger vehicles in use ('000 vehicles)	1970	3,800	6,600	89,200	2,500	2,300	11,800	173,200	n.a.
	1989	7,600	12,100	143,700	5,400	3,600	21,600	339,800	n.a.
Change (%)		98	84	61	118	56	83	96	n.a.
Population ('000 inhabitants)	1970	12,800	21,300	205,100	13,000	8,000	55,600	715,100	3,694,300
	1975	13,900	22,700	216,000	13,700	8,200	56,200	750,300	4,076,900
	1980	14,700	24,000	227,800	14,200	8,300	56,300	779,900	4,449,500
	1985	15,800	25,400	239,300	14,500	8,400	56,600	807,500	4,837,300
	1990	16,700	26,500	249,200	14,800	8,300	56,900	831,100	5,292,000
Change from 1970 (%)		30.3	24.4	21.5	13.5	3.2	2.3	16.2	43.3
Population density (inhabitants/sq. km)	1990	2.2	2.7	26.6	362.7	18.4	232.4	25.9	39.0

Source: OECD, Environmental Indicators, 1991.

ENVIRONMENTAL LAW

The Australian Constitution does not include a reference to environment or conservation. Commonwealth powers in environmental protection, nature conservation and related fields arise from, or are incidental to, other specified powers. These specific Commonwealth powers include the power to legislate with respect to Territories of the Commonwealth, overseas and interstate trade and commerce, external affairs, corporations, taxation, defence, quarantine and granting financial assistance to States. A common example of Commonwealth legislation relying on the foreign affairs power (International Treaty Obligations) is the *World Heritage Properties Conservation Act 1983*. This implements the International Convention for the Protection of the World Cultural and Natural Heritage Areas into Australian domestic law. Effectively the powers relating to environment and conservation are divided among the Commonwealth Government and the State and local governments. In practical terms, however, most decisions on environmental protection, nature conservation, land use and land management in the States are the responsibility of the State Governments.

The *Environment Protection (Impact of Proposals) Act 1974* was the first piece of Commonwealth legislation to specifically address environmental issues. The Act defined environment as comprising 'all aspects of the surroundings of human beings, whether affecting them as individuals or in social groupings', and set up procedures to review the environmental impact of development proposals which involved Commonwealth Government decisions.

Other legislation currently administered by the Commonwealth portfolio relevant to environment protection includes:

- *Environment Protection (Alligator Rivers) Act 1978*;
- *Environment Protection (Nuclear Codes) Act 1978*;
- *Environment Protection (Sea Dumping) Act 1981*;
- *Hazardous Waste (Regulation of Exports and Imports) Act 1989;* and
- *Ozone Protection Act 1989.*

In New South Wales, a number of State agencies have responsibility for environmental matters. These include the Department of Planning, the National Parks and Wildlife Service, and the Environment Protection Authority. Some of the relevant legislation includes:

- *Environmental Planning and Assessment Act 1979*;
- *Heritage Act 1977;*
- *Coastal Protection Act 1979;*
- *Clean Air Act 1961*;
- *Clean Waters Act 1970*;
- *Environmentally Hazardous Chemicals Act 1985*;
- *Ozone Protection Act 1989;* and
- *Environmental Offences and Penalties Act 1989.*

In Victoria, the Department of Conservation and Natural Resources is responsible for wildlife, fisheries, national parks, land protection, water resources, flora and fauna. The Environment Protection Authority is responsible for protecting and improving the air, land and water environments through management of wastes, control of noise and control of pollution. Some of the legislation includes:

- *Environment Protection Act 1970;*
- *National Parks Act 1975;*
- *Water Act 1989;*
- *Wildlife Act 1975;*
- *Groundwater Act 1969;* and
- *Flora and Fauna Guarantee Act 1988.*

The Queensland Department of Environment and Heritage is responsible for environment protection, nature conservation and the management of national parks. Responsibilities for planning and development are divided between a number of other departments. A proposal to form an Environmental Protection Agency is being investigated. Relevant Queensland legislation includes:

- *Beach Protection Act 1968–1990*;
- *Clean Air Act 1963–1988*;
- *Clean Waters Act 1971–1988*;
- *Heritage Buildings Protection Act 1990*; and
- *Noise Abatement Act 1978–1988.*

In South Australia, the Department of Environment and Planning is responsible for conservation and land management, national parks, planning and environment management. Several statutory bodies such as the Coast Protection Board, Environmental Protection Council, Native Vegetation Authority and the South Australian Planning Commission report to the Minister for Environment and Planning. Relevant legislation includes:

- *Clean Air Act 1984;*
- *Noise Control Act 1976–77;*
- *Marine Environment Protection Act 1990*; and
- *Water Resources Act 1976.*

The Environment Protection Authority in Western Australia is an independent body with the dual role of providing independent advice to the Government and the public on environmental protection, and for the implementation of government powers on pollution control. Other government departments have responsibility for environmental management, but these must be exercised within the policies and advice of the EPA. Some of the relevant legislation includes:

- *Environment Protection Act 1986;*

- *Conservation and Land Management Act 1984;*
- *Country Areas Water Supply Act 1947–1982;* and
- *Land Drainage Act 1925–1983.*

Environmental management in Tasmania is the responsibility of the Department of Environment and Planning. An independent body, the Environmental Protection Advisory Council, which has a majority of members from outside government, also advises the Minister. Some of the legislation includes:

- *Environment Protection Act 1973;*
- *Pollution of Waters by Oil and Noxious Substances Act 1987;* and
- *Environmental Protection (Sea Dumping) Act 1987.*

NATIONAL ACTIVITIES

Intergovernmental Agreement on the Environment

In February 1992 the Commonwealth Government, and State, Territory and local governments signed the Intergovernmental Agreement on the Environment (IGAE) which provides for interaction on environmental issues and sets out cooperative arrangements on a wide range of specific issues. The Agreement provides for:

- the endorsement of a common set of principles for the conduct of environmental impact assessment; and
- the establishment of a mechanism for developing nationally enforceable environmental measures for the protection and management of the Australian environment.

To achieve its objectives, the IGAE has set up a ministerial council with representatives from each of the States and Territories, and the Commonwealth to direct the National Environment Protection Authority (NEPA) on the implementation of national environment protection measures.

NEPA will have responsibility for:

- establishing nationally applied measures for environment protection matters;
- agreeing national environmental quality standards, such as standards for air quality;
- providing a reviewed environmental impact assessment process, which will better recognise industry and government needs and simplify the application of legislation;
- providing a vital link between businesses in Australia and overseas and establish a clearing house for the dissemination of general information, research and industry contacts and information on technology; and
- coordinating information about the state of the environment and ensure that this information is easily accessible to the general community.

Other issues covered in the schedules of the IGAE are:

- data collection and handling is to be coordinated by the Australia and New Zealand Land Information Council;
- resource assessment, land use details and approval processes;
- environmental impact assessment;
- climate change;
- biological diversity;
- National Estate — Australian Heritage Commission;
- World Heritage; and
- nature conservation.

Australian and New Zealand Environment and Conservation Council (ANZECC)

ANZECC was formed, in 1991, by combining the Australian and New Zealand Environment Council (ANZEC) and the Council of Nature Conservation Ministers (CONCOM).

The Council provides a forum for consultation, cooperation and liaison on matters concerning environmental management and pollution control, and conservation and management of Australia's flora and fauna. These matters have included the control of emissions and noise from motor vehicles, the use and disposal of hazardous chemicals, noise control, water quality, air pollution, solid-waste management, the economics of pollution abatement policies and environmental impact assessment, coastal management, land use policy, biotechnology and climate changes induced by human activities.

Ecologically sustainable development (ESD)

The Commonwealth Government's ESD strategy reflects growing community recognition that, in pursuing material welfare, insufficient value has often been placed on the environmental factors that also contribute to quality of life. It also reflects a recognition that economic growth and a well-managed environment are fundamentally linked. ESD provides a conceptual framework for integrating economic and environmental objectives, so that products, production processes and services can be developed that are both internationally competitive and more environmentally compatible.

The Commonwealth Government established ESD working groups for each of the main industry sectors of the economy that use natural resources — agriculture, forestry, fisheries, mining — or have a significant impact on those resources — manufacturing, energy production, energy use, transport and tourism. Membership of the working groups was drawn from the Federal Government, State Governments, industry, unions, conservation, consumer and social welfare organisations. Some of these groups included the Australian Consumers Association (ACA), the Australian Council of Social Service (ACOSS), the Australian Conservation Foundation (ACF), and the World Wide Fund for Nature (WWF).

There are five general principles for ESD:

- integrating economic and environmental goals in policies and activities;
- ensuring that environmental assets are appropriately valued;
- providing for equity within and between generations;
- dealing cautiously with risk and irreversibility; and
- recognising the global dimension.

Final reports were released in December 1991. Two additional reports from the chairs of the working groups, *Intersectoral Issues* and *Greenhouse*, were published early in 1992.

In December 1992, the heads of government agreed to a strategy set out in the document *Strategic Directions for ESD in Australia*. This document sets out the broad strategic and policy framework under which governments will cooperatively make decisions. It will be used to guide policy and decision making, particularly in those key industry sectors which rely on the utilisation of natural resources.

Details of actions, priorities and responsible agencies are contained in a companion document *Compendium of ESD-related Actions*. It addresses the Government's response to the over 500 recommendations from the ESD Working Group process.

Australian Biological Resources Study (ABRS)

The ABRS was established in 1973 to stimulate taxonomic and ecological studies of Australian flora and fauna through the provision of grants for research and publication. Its responsibilities include provision of advice on national taxonomic collections and establishment and maintenance of a national taxonomic database. Much of the work of the study is done in State museums, botanic gardens and herbaria which were established during the last century. CSIRO also carries out important research relating to flora and fauna.

Current major projects of ABRS include preparation of a 60 volume *Flora of Australia*, a 10 volume *Fauna of Australia*, compilation of a 70 volume *Zoological Catalogue of Australia* and establishment of database exchange systems for museums and herbaria for biogeographic and taxonomic information. The ABRS is managed by a small unit of professional scientists within the Australian National Parks and Wildlife Service.

The ABRS Participatory Program is a goal-directed grants program supporting the documentation of Australia's biodiversity. In summary, only 100,000 of the estimated 300,000 species of Australian animals have been collected and described. In the plants, 18,000 species of higher plants have been described out of an estimated 24,000. The number of lower plant species (fungi, mosses, algae, etc.) is unknown. To-date more than 750 books and scientific papers have been published with ABRS support. The grant funds for 1991–92 are about $2 million.

Prime Ministerial statement on the environment

On 21 December 1992, the Prime Minister announced additional expenditure on the environment, amounting to a proposed $156 million over four years. A particular focus of the statement, *Australia's Environment: A National Asset*, is Australia's water quality and management. Some of the initiatives are included below.

A cleaner Australia

- improve catchment management and improve water quality through abatement of nutrient pollution;
- increase funding through the Save the Bush program to protect remnant vegetation;
- establish a National Corridor of Green along the Murray River;
- a national Waterwatch program to encourage community involvement in monitoring waterways;
- establish a legislated National Pollutant Inventory;
- assist selected companies identify opportunities for cleaner production;
- examine emission performance of the nation's current motor vehicle fleet; and
- develop a National Environment Industry database.

Protecting the natural environment

- ratify the International Convention on Biological Diversity;
- maintain and expand protected areas;
- boost funding of Ocean Resource 2000 marine conservation program;
- expand research into the effect of nutrients and fishing on the Great Barrier Reef;
- additional funding for the control of weeds and feral animals;
- conservation of sites of national tourism significance; and
- nomination of Riversleigh fossil site in Queensland and the Naracoorte Caves in South Australia for World Heritage Listing.

The atmosphere

- ratification of the Framework Convention on Climate Change;
- development of a greenhouse gas inventory;
- funding for studies on ethanol technology;
- establishment of a Halon Bank storage and recycling facility; and
- introduction of a policy for energy efficiency labelling of appliances.

STATUTORY AUTHORITIES

Australian National Parks and Wildlife Service (ANPWS)

The ANPWS was established under the *National Parks and Wildlife Conservation Act 1975*. The ANPWS is the principal nature conservation agency of the Commonwealth Government. It works in close cooperation with other Commonwealth authorities and with relevant State and Territory agencies.

The ANPWS is responsible for management of parks and reserves declared under the Act. Most significant of these are Kakadu National Park and Uluru (Ayers Rock–Mount Olga) National Park in the Northern Territory. National parks are also declared on Norfolk Island and Christmas Island and four national nature reserves have been declared in Australian waters. Ningaloo Marine Park is declared jointly under the National Parks and Wildlife Conservation Act and Western Australian legislation.

Wildlife conservation and management programs include the regulation and control of trade in wildlife and wildlife products through the administration of the *Wildlife Protection (Regulation of Exports and Imports) Act 1982*; administration of the *Whale Protection Act 1980*; administration of certain international agreements; and cooperative programs with the States with an emphasis on rare and endangered species. The Endangered Species Program and the Save the Bush Program are now managed by the ANPWS.

The ANPWS is also charged with the delivery of programs to enhance Aboriginal employment and development opportunities in nature conservation and land management related fields.

In addition the ANPWS carries out and supports research relevant to its charter and delivers public information and education programs on nature conservation issues.

The Australian National Botanic Gardens, the Australian Biological Resources Study and the

Environmental Resources Information Network were integrated into the ANPWS in 1990.

Great Barrier Reef Marine Park Authority

This Authority was established by the *Great Barrier Reef Marine Park Act 1975*. The Authority's goal is to provide for the protection, wise use, understanding and enjoyment of the Great Barrier Reef in perpetuity through the development and care of the Great Barrier Reef Marine Park.

The Marine Park covers an area of 344,000 square kilometres representing 98.5 per cent of the region inscribed on the World Heritage List. The value of economic activity in the Marine Park has been estimated at $1,000 million per annum.

Management of the Marine Park is a cooperative venture with Queensland Government agencies. The main strategy used in management of the Park is 'zoning'. Zoning provides for separate, potentially conflicting activities while allowing all reasonable uses and ensuring the long-term conservation of the Reef's ecosystem.

The Authority ensures that it achieves competence and fairness in the care and development of the Marine Park by obtaining and interpreting information relevant to the understanding of the Great Barrier Reef. Most of this research is contracted to agencies such as universities although Authority staff may also undertake some research.

A major objective of the Authority is to enhance community understanding, appreciation, experience of and support for the Great Barrier Reef and the Marine Park.

The Authority also operates the Great Barrier Reef Aquarium which features a living coral reef system. The Aquarium aims to enhance community understanding of the Great Barrier Reef and support for management of the Marine Park by providing a readily accessible coral reef and environment onshore.

WORLD HERITAGE AREAS

The World Heritage Convention was adopted by the UNESCO General Conference at its 17th session in Paris on 16 November 1972 and came into force in 1975. Australia was one of the first countries to ratify the Convention in August 1974. As at 1 January 1993 there were 10 Australian properties on the World Heritage List. The Australian Government has recently been involved in a process to identify geological, including fossil, sites of potential World Heritage value. Twenty-eight sites in Australia and its territories have been identified.

Australia's 10 listed World Heritage sites are described below. The World Heritage Committee has, so far, listed 358 sites around the world.

Willandra Lakes Region of New South Wales

The site was inscribed on the World Heritage List in 1981. The approximate area of the site is 600,000 hectares. The semi-arid environment holds outstanding evidence of the antiquity of the human race, of the life and culture of early Aboriginal societies, and an unrivalled record of past environments and landscapes. The region is one of the earliest known sites for Homo sapiens in the world and contains the earliest known cremation site.

Great Barrier Reef

This site is situated on the north-east coast of Queensland and covers 34.8 million hectares. It became part of the World Heritage List in 1981. The Great Barrier Reef is the world's most extensive coral reef and one of the richest in terms of faunal diversity. The area is also of cultural importance, containing many middens (that is, refuse from a prehistoric dwelling place or cooking area), and other archaeological sites of Aboriginal or Torres Strait Islander origin.

Lord Howe Island Group

This site is situated off the east coast of New South Wales and was entered into the heritage list in 1982. The island group of approximately 145,000 hectares, was inscribed on the List for its unique landforms and biota, its diverse and largely intact ecosystems, natural beauty and habitats for rare and endangered species. The waters surrounding Lord Howe Island provide an unusual mixture of temperate and tropical organisms. The area includes the most southerly coral reef in the world, which provides a rare example of the transition between coral and algal reefs.

Australian East Coast Temperate and Subtropical Rainforest Parks

This site in New South Wales covers an area of approximately 204,000 hectares and was entered on the World Heritage List in 1986. The area includes the largest stand of littoral rainforest (a type of rainforest found next to and influenced by the sea) in New South Wales, one of the largest erosion calderas in the world (Mt Warning), and a range of primitive plant species.

Kakadu National Park (Stages 1, 2 and 3)

The Park was placed on the List in 1981 and added to in 1987. It is situated in the Northern Territory and is approximately 1.31 million hectares in size. The area consists of tidal flats, flood plains, lagoons, major river systems, and the sandstone escarpments of the Arnhem Land plateau. Great cultural significance lies in the ancient Aboriginal sites and the large galleries, with some art sites dating back to the Ice Age.

In 1992 Kakadu Stage 3 was added to the List in recognition of its geological, biological and conservation value. The new listing adds 670,000 hectares to the size of the site.

Uluru National Park

Also in the Northern Territory, this Park of about 133,000 hectares was placed on the List in 1987. Uluru, which contains Ayers Rock and the Olgas, has been the focus for religious, cultural, territorial and economic interrelations amongst Aboriginal peoples of the western desert for many thousands of years.

Wet Tropics of Queensland

Entered on the World List in 1988, this area of approximately 900,000 hectares includes very old and also relatively recent geological elements. It is a region of spectacular scenery and includes one of the largest rainforest wilderness areas in Australia. The association of fringing coral reefs and rainforest coastline in the Cape Tribulation region is found nowhere else in Australia and is a rare combination anywhere. The area also contains primitive flowering plants.

Tasmanian Wilderness

This area became a World Heritage site in 1982, and was added to in 1989. The approximate size is 1.38 million hectares. The Tasmanian Wilderness includes a range of ecosystems, some of the last wild rivers in the world and is Australia's most glacified area. Archaeological sites, including painted caves, provide evidence of human occupation during the last Ice Age.

Shark Bay

This area was entered on the List in December 1991. It includes 1,500 kilometres of the Western Australian coast, about 700 kilometres north of Perth, and includes a series of peninsulas and islands. The listed area covers 22,000 square kilometres of which about two-thirds are marine. The marine areas include the world's largest area of sea grass. Shark Bay was only the eleventh place in the world to satisfy all criteria for World Heritage listing, namely, being an example of earth's evolutionary history and biological evolution, superlative in its natural phenomena, and having natural habitats where threatened species live. Shark Bay is home to marine fauna such as dolphins, dugongs, manta rays, whales and sharks.

Fraser Island

Fraser Island, located off the south-east coast of Queensland, is the world's largest sand island and contains the only rainforest growing on coastal sand dunes. It was added to the World Heritage List in December 1992 for its natural value and geological characteristics. The island is about 166,000 hectares, and comprises sand dunes up to 400,000 years old, representing the oldest known continuous sedimentary record in Australia. Rainforests, mangroves, more than 40 freshwater lakes, rare species of flora and fauna, and 300 archeological sites are further features of the site.

Table 14.5, showing how many persons visited a number of well known World Heritage Areas, gives some indication of the numbers of people who experience Australia's flora and fauna.

14.5 PERSONS VISITING A WORLD HERITAGE AREA(a) IN THE TWELVE MONTHS ENDED APRIL 1986, STATES AND TERRITORIES
('000)

State/Territory of residence	*The Great Barrier Reef (Qld)*	*Kakadu National Park (NT)*	*The Wilandra Lakes Region (NSW)*	*Western Tasmania Wilderness National Parks*	*Total(b)*
New South Wales	134.2	31.0	12.9	53.7	215.6
Victoria	74.5	20.9	12.5	52.6	150.9
Queensland	216.4	12.3	4.4	22.7	246.2
South Australia	22.8	13.1	1.8	13.7	48.5
Western Australia	16.8	7.8	—	7.5	30.9
Tasmania	7.2	1.1	—	47.2	53.7
Northern Territory	5.8	22.8	—	—	28.4
Australian Capital Territory	8.6	2.7	—	4.9	16.0
Australia	**486.2**	**111.8**	**34.7**	**203.5**	**790.0**

(a) For the purposes of these statistics, World Heritage Areas are those places which have been assessed by the World Heritage Commission as being of outstanding universal value and are inscribed on the UNESCO World Heritage List. Five Australian places had been nominated and accepted by 1986 as World Heritage Areas; the above mentioned areas and The Lord Howe Island Group. For the purposes of this survey data were not collected in respect of The Lord Howe Island Group. (b) Totals may not equal the sum of components as respondents may have visited more than one World Heritage Area.

Source: Environmental Issues and Usage of National Parks, Australia (4115.0).

14.6 NATURE CONSERVATION RESERVES IN AUSTRALIA, 1988

				Parks			*Other Land*		
State/Territory	*No.*	*Total reserves area ('000 ha)*	*Total reserves area as per cent of State*	*No.*	*Area ('000 ha)*	*Per cent of total reserve area*	*No.*	*Area ('000 ha)*	*Per cent of total reserve area*
New South Wales	438	3,812	4.8	68	3,104	81.4	370	708	18.6
Victoria	362	1,823	8.0	33	1,202	65.7	329	628	34.3
Queensland	574	3,664	2.1	317	3,522	96.1	257	142	3.9
South Australia	279	11,117	11.3	12	2,648	23.8	267	8,469	76.1
Western Australia	1,247	15,252	6.0	60	4,757	30.2	1,187	10,495	68.8
Tasmania	227	967	14.2	13	851	88.0	214	116	12.0
Northern Territory	90	4,000	3.0	4	141	3.5	86	3,882	96.5
Australian Capital Territory	6	112	46.8	1	94	83.7	5	18	16.3
External territories/ Commonwealth waters	2	3	n.a.	2	3	100.0	n.a.	n.a.	n.a.

Source: 'Nature Conservation Reserves in Australia', C. J. Mobbs, 1988.

Conservation areas (table 14.6) have an important role to play in the continuing survival of wildlife. This role includes the provision of areas for: natural predator/prey relationships, scavenging, habitat, and safe migration. These areas also provide the facilities for conducting recreational and educational activities.

Examples of World Heritage sites outside Australia

For a site to qualify for the World Heritage List, it must meet specific criteria. Of the 358 sites on the List, 260 are cultural, 84 natural and 14 have both natural amd cultural components.

From the cultural heritage viewpoint, they include:

- unique artistic achievement;
- great influence on developments in architecture;
- evidence of a civilisation which has disappeared; and
- be associated with ideas or beliefs of universal significance.

Examples in this category include: Quebec City, Canada; The Great Wall, China;

Pyramids, Egypt; Kremlin and Red Square, Russia; Palace and Park of Versailles, France.

From the natural heritage viewpoint, the criteria include:

- represent ongoing geological or biological processes;
- constitute remarkable natural formation; and
- contain important natural habitats of endangered species.

Examples in this category include Galapagos Islands, Ecuador; Mt Cook National Park, New Zealand; Serengeti National Park, Tanzania; Grand Canyon, Yellowstone, Yosemite national parks, USA; and Victoria Falls, Zambia/Zimbabwe.

URBAN ENVIRONMENT

Australia is a highly urbanised country, with 85 per cent of its population living in urban areas of more than 1,000 people. By world standards, however, the size of Australian cities is small and population densities low. For example, Australia's total population is smaller than that of the world's largest city (Mexico City) and the population densities of Australia's cities tend to be about half of those of Europe's older established cities.

14.7 URBAN SETTLEMENTS DISTRIBUTION OF AUSTRALIAN POPULATION (per cent)

	1971	*1986*
Six State capitals	58.9	55.2
Other centres ≥ 100,000 population	5.4	7.4
All urban centres	85.7	85.5
Rural	14.3	14.5

Source: Economic Planning Advisory Council, Urban and Regional Trends and Issues.

The key factors adversely affecting the urban environment are air pollution; water pollution; domestic, commercial and industrial waste; and noise pollution. The major elements causing these problems are high levels of traffic (for example, vehicle emissions); industry emissions (for example, particulates, use of chemicals); and the carrying capacity of the infrastructure (such as sewerage systems, roads and railways, etc).

These key factors, individually and combined, can be closely correlated to health risks. Through the National Health and Medical Research Council, health based guidelines and national standards have been developed. A Healthy Cities project is underway which aims to improve the health of the community by collaboration between government and the community in order to address various environmental health and development problems. A national network of Healthy Cities has been established, coordinated by a national office based in Sydney. The Healthy Cities project is jointly administered by the Australian Community Health Association, the Australian Local Government Association and the Commisssion for the Future.

The key issues associated with the urban environment are as follows.

Australia's high urbanisation level is accompanied by continued demand for land in and bordering on urban centres. One of the impacts of urban sprawl (that is, expansion in the area covered by urban centres) is that land with significant agricultural or environmental values may become subsumed in urban centres. Another impact of urban sprawl is the cost of additional infrastructure as the population of an urban centre begins to live or work further from existing infrastructure.

Access to open spaces in urban centres for recreational, environmental, aesthetic and other purposes is a key issue. From an environmental and quality of life point of view, it is important to ensure that access to open space, mainly utilised as parkland, is taken into account in urban development, redevelopment, and planning processes.

Transport, on which Australia is highly dependent because of extensive urban sprawl, is the major source of photochemical smog. Emissions from motor vehicles include carbon monoxide, nitrous oxides and water vapour. A key issue is developing an efficient and cost effective transport system with a minimum of environmental impact.

The management of sewage and waste in urban centres is a significant issue, in terms of the volume to be managed, and the toxicity of the material involved. Wastes may originate from both domestic and industrial sources.

Air, noise and water pollution are important urban environmental issues. Sources of air pollution include vehicle and industrial emissions; sources of noise pollution include vehicle use; and sources of water pollution include inappropriate sewage and waste disposal which have the potential to severely impact on marine and freshwater resources.

The burgeoning population in Australia's capital cities has also impacted on the quality of life for residents. In a South Australian survey, significantly more people were concerned about and affected by noise than any other neighbourhood problems (table 14.8).

The primary sources of noise identified in the survey, in terms of the number of people affected, were road traffic followed by barking dogs, general neighbourhood and aircraft noise.

Concern about environmental quality is another measure of the perception of the quality of life. Table 14.9 shows the concerns of Australians in 1986. The types of environmental problems that are particularly pertinent to the urban environment include pollution, development/planning issues and preserving buildings. A survey conducted in May 1992 will provide an update about these concerns.

The number of persons registering complaints about environmental problems, a further indicator of the degree of concern, is shown in table 14.10.

14.8 NEIGHBOURHOOD PROBLEMS IN SOUTH AUSTRALIA, 1988 (per cent)

Problem	*Concerned about problem*	*Affected by problem*
Noise disturbance	31	17
Unpleasant odours, smoke and dust	26	14
Lack of cycling tracks	24	15
Poor tasting water	40	32
Spilled garbage or litter	17	8
Lack of trees	21	7
Lack of footpaths	12	8
Lack of parks	15	4
Poor visual appearance	11	3
Other	4	2

Source: South Australian Environment Council, 1988.

Graph 14.11 shows the environmental concerns of Victorians in October 1990. The top four concerns are of particular importance to the urban environment.

14.9 PERSONS CONCERNED ABOUT THE ENVIRONMENT: TYPE OF ENVIRONMENTAL PROBLEM, 1986

Environmental problem	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
					— '000 —				
Pollution	1,286.7	1,029.5	488.4	292.9	248.0	85.8	37.3	69.6	3,538.1
Nature conservation of flora/fauna	754.8	569.2	509.4	228.8	176.6	74.7	33.3	59.6	2,406.4
Tree deforestation	665.1	546.7	388.6	202.4	202.2	84.2	33.5	60.7	2,183.5
Nuclear issues/uranium	536.4	474.6	291.0	177.0	127.9	72.9	26.9	45.7	1,752.3
Development/planning issues	372.6	257.9	214.7	99.2	77.0	43.6	19.4	33.9	1,118.4
Soil erosion	315.0	256.0	228.3	113.7	67.5	37.9	21.2	34.6	1,074.2
Preserving buildings	268.2	214.1	185.4	90.7	62.8	45.0	16.1	26.2	908.4
Water salinity	225.8	256.9	111.0	135.4	70.0	27.7	13.3	25.8	865.9
Other	189.8	125.9	70.7	56.9	54.7	9.7	4.1	6.9	518.7
					— per cent(a) —				
Pollution	31.4	32.9	26.1	28.6	23.9	26.3	38.1	38.3	30.1
Nature conservation of flora/fauna	18.4	18.2	27.2	22.3	17.0	22.9	34.0	32.8	20.5
Tree deforestation	16.2	17.5	20.7	19.7	19.5	25.8	34.2	33.4	18.6
Nuclear issues/ uranium	13.1	15.2	15.5	17.3	12.3	22.4	27.5	25.2	14.9
Development/planning issues	9.1	8.2	11.5	9.7	7.4	13.4	19.8	18.7	9.5
Soil erosion	7.7	8.2	12.2	11.1	6.5	11.6	21.6	19.1	9.1
Preserving buildings	6.5	6.8	9.9	8.8	6.1	13.8	16.4	14.4	7.7
Water salinity	5.5	8.2	5.9	13.2	6.8	8.5	13.6	14.2	7.4
Other	4.6	4.0	3.8	5.5	5.3	3.0	4.2	3.8	4.4

(a) Percentages are expressed as proportions of civilian population 15 years and over, excluding those for whom no answer was obtained.

Source: Environmental Issues and Usage of National Parks, Australia (4115.0).

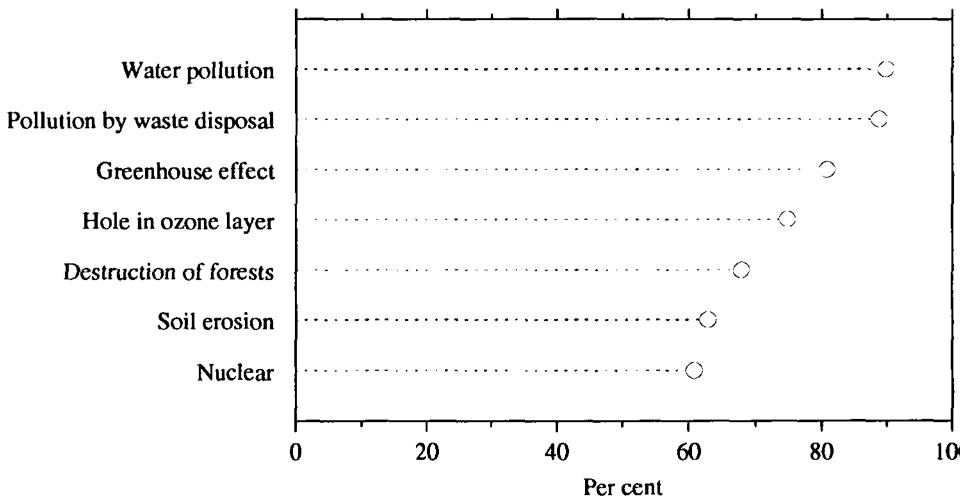
14.10 PERSONS REGISTERING COMPLAINTS ABOUT POLLUTION AND OTHER ENVIRONMENTAL PROBELMS, TWELVE MONTHS ENDED APRIL 1986

	Pollution		Other environmental problems	
State/Territory	*'000*	*%(a)*	*'000*	*%(a)*
New South Wales	158.8	3.8	179.3	4.3
Victoria	134.3	4.3	131.9	4.2
Queensland	64.6	3.4	122.7	6.5
South Australia	35.4	3.4	41.7	4.0
Western Australia	28.9	2.8	49.7	4.7
Tasmania	10.0	3.0	15.1	4.6
Northern Territory	4.1	4.1	6.1	6.1
Australian Capital Territory	6.2	3.4	11.3	6.2
Australia	**442.3**	**3.7**	**557.8**	**4.7**

(a) Percentages are expressed as proportions of civilian population 15 years and over, excluding those for whom no answer was obtained.

Source: Environmental Issues and Usage of National Parks, Australia (4115.0).

14.11 ENVIRONMENTAL CONCERNS OF HOUSEHOLDS, VICTORIA, 1990



Source: Community Participation in Energy Conservation, Victoria (4120.2).

MANAGEMENT OF WASTES

The treatment and disposal of the rapidly growing volumes of domestic and industrial waste poses major problems for the urban and surrounding natural environment. For most industries, the production of waste is a part of the manufacturing cycle. The major question facing countries like Australia is how best to minimise waste and how best to store, recycle or dispose of waste in a manner that has the least possible impact on the environment and on the health of the community.

Modern industrial society produces millions of tonnes of waste in the form of plastic and paper litter, bottles, cans and other rubbish. Much of this can be usefully recycled, which would not only reduce the waste disposal problem but would help overcome environmental problems that could arise from the breakdown of these products. Wastepaper recycling has received attention as a means of reducing the pressure on native forests.

According to the Commonwealth Government paper, *A National Waste Minimisation and Recycling Strategy* released in June 1991, about 14 million tonnes of solid, domestic, commercial and industrial waste are disposed of annually through landfills. In addition, some 200,000 tonnes of liquid and solid industrial waste are taken to special landfills and treatment facilities.

An Industry Commission enquiry produced the following information about waste disposal by councils in regions of Australia, remaining landfill capacity and expected life (tables 14.12 and 14.13). The replacement cost of landfill sites was estimated by the Commission in 1989 to be $586 million.

14.12 METHOD OF WASTE DISPOSAL BY COUNCILS, 1989

	Waste disposal through								
	Landfill		*Incineration*		*Recycling*		*Total waste disposal*	*Total disposal of land per person*	*Total disposal per person*
Region	*('000 tonnes)*	*(%)*	*('000 tonnes)*	*(%)*	*('000 tonnes)*	*(%)*	*('000 tonnes)*	*(kg)*	*(kg)*
Sydney region	2,796	93	113	4	100	3	3,009	778	837
Inner New South Wales	811	98			17	2	828	702	717
Outer New South Wales	813	98			20	2	833	857	878
Melbourne region	1,842	95	12	1	92	5	1,946	614	649
Inner Victoria	482	97	9	2	5	1	496	550	566
Outer Victoria	353	96	5	1	8	2	366	917	951
Brisbane region	1,262	95			71	5	1,333	1,009	1,066
Other Queensland	1,368	98	4	..	31	2	1,403	916	940
Adelaide region	430	100			2	..	432	420	422
Other South Australia	261	99			2	1	263	699	705
Perth region	727	99			8	1	735	650	657
Other Western Australia	395	100					395	927	927
Hobart region	126	100					126	671	671
Other Tasmania	189	99			2	1	191	725	733
Australian Capital Territory	314	94			21	6	335	1,152	1,229
Northern Territory	105	100					105	909	909
State capitals and Australian Capital Territory	7,497	95	125	2	294	4	7,916	717	758
Other regions	4,777	98	18	..	85	2	4,880	792	809
Australia	**12,274**	**96**	**143**	**1**	**379**	**3**	**12,796**	**745**	**776**

Source: Industry Commission, Waste Management and Recycling: Survey of Local Government Practices, 1990.

Waste minimisation

Waste minimisation is seen as being a key element in achieving the Commonwealth Government's commitment to ecologically sustainable development. It is expected to lead to improved efficiency in the use of material and energy resources, as well as less pollution.

The National Waste Minimisation and Recycling Strategy covers:

- pollution prevention;
- increased research and development;
- improvements to design and manufacturing processes;
- the development of an environmental management industry and efficient waste management;
- economic and regulatory measures; and
- information and educational activities.

Concurrent with the development of this strategy and as a result of growing public concern for the environmental impact of packaging, the National Packaging Task Force was established. It has developed guidelines to encourage the most efficient packaging practices that recognise the need to balance the essential role of packaging with minimisation of resource use, litter and pollution. Resource conservation and waste minimisation are the overriding concerns in the development of the guidelines.

Hazardous wastes are controlled under State legislation through either specific hazardous waste legislation or more general pollution control, health or local government laws. Major types of hazardous wastes include: waste acids, waste alkalis and oily wastes, with smaller volumes of more toxic materials. The joint Federal/New South Wales/Victoria Taskforce on Intractable Waste identified intractable wastes in the order of 100,000 tonnes. There is specific regulation of hazardous wastes covering matters such as storage, transport, treatment and disposal, in the major cities, and covering the entire areas of some States. Where there is no specific regulation, prevention of pollution is covered by more general pollution control laws.

14.13 LANDFILL SITES: AREA, REMAINING CAPACITY AND EXPECTED LIFE, 1989

Region	*Area(a)*	*Remaining capacity(b)*	*Expected remaining life(c)*
	ha	'000 tonnes	years
Sydney region	850	28,289	10
Inner New South Wales	1,395	19,569	13
Outer New South Wales	1,717	26,071	22
Melbourne region	628	8,747	5
Inner Victoria	2,185	12,712	12
Outer Victoria	754	5,547	14
Brisbane region	627	10,448	8
Other Queensland	4,219	40,340	19
Adelaide region	(d)261	6,421	13
Other South Australia	982	2,627	11
Perth region	305	7,940	11
Other West Australia	1,731	12,481	33
Hobart region	124	8,014	32
Other Tasmania	395	3,727	13
Australian Capital Territory	196	2,500	8
Northern Territory	793	1,387	17
State capitals and Australian Capital Territory	2,730	65,938	12
Other regions	14,172	124,461	13
Australia	**16,902**	**190,399**	**12**

(a) Refers to total area of sites in use, not to area remaining to be filled. (b) At 31 December 1989. (c) From 31 December 1989. Years are a weighted average based on shares of waste disposal by each Council in the region. (d) Excludes Peddler Creek site: area not available.

Source: Industry Commission, Waste Management and Recycling: Survey of Local Government Practices, 1990.

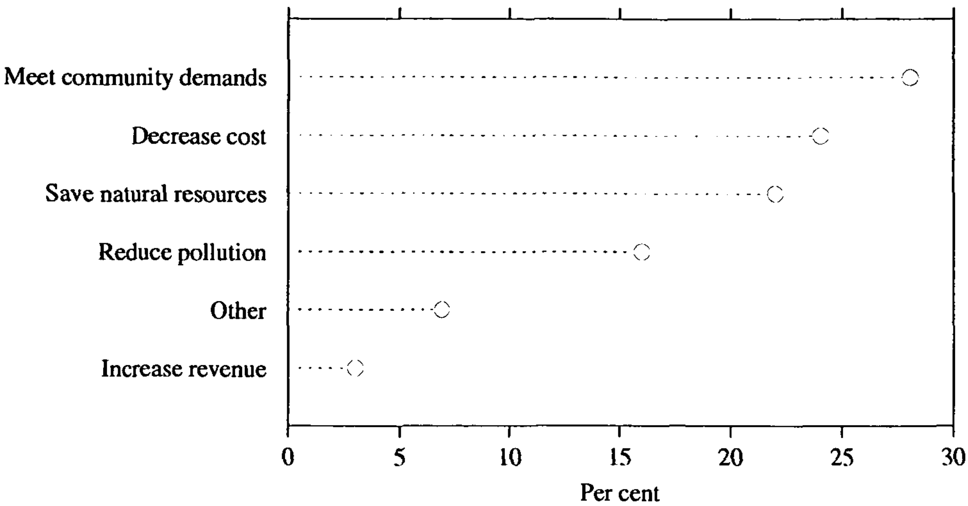
Recycling

Recycling of solid waste is one of the main ways of reducing the adverse effects of the disposal of solid waste. In 1989, 61 per cent of councils were involved in recycling schemes. This is achieved through kerb–side collection schemes, and drop–off facilities.

The main reasons identified for Council involvement in recycling in 1989 are shown in graph 14.14.

The results of recycling are seen in the recovery rates shown in table 14.15. Recovery rate is the proportion of consumption which is recovered and recycled or reused. Recovery rates of different materials partly reflect the value of the material concerned and the ease of collection for recycling. Hence lead has a recovery rate of 60 per cent. Industrial plastic has a much higher recovery rate than domestic plastic which is diversely distributed.

14.14 MAIN REASONS FOR COUNCIL INVOLVEMENT IN RECYCLING, 1989



Source: Industry Commission, Recycling, 1990.

14.15 RECOVERY OF PRODUCTS, 1988–89
(per cent)

Material	*Recovery rate*
Lead	60
Plastics — industrial	50
Tin	37
Aluminium	31
Paper	31
Steel	26
Glass	25
Tyres — retreaded	24
Copper	19
Lubricating oil	18
Household organic waste	9
Plastics — from domestic waste	1

Source: Industry Commission, Recycling, 1990.

COSTS OF ENVIRONMENT PROTECTION

Businesses, governments and households spend some of their resources on protection of the environment. For the 1990–91 financial year the ABS collected, for the first time, some information about expenditure by businesses in the mining and manufacturing sectors on pollution abatement and control. The expenditures included are for activities aimed at the prevention, reduction and elimination of pollution arising from production processes. Table 14.16 provides a summary of some of the information obtained.

14.16 EXPENDITURE BY SOME MINING AND MANUFACTURING INDUSTRIES ON ENVIRONMENT PROTECTION, 1990–91

Item	*Unit*	*Metallic minerals, coal, oil and gas*	*Selected manufacturing industries*
Capital expenditure			
Change-in-production processes	$m	168.7	n.a.
End-of-line-techniques	$m	351.1	n.a.
Total	*$m*	*519.8*	*248.0*
Current expenditure			
Waste management	$m	68.9	n.a.
Other operational and maintenance costs	$m	23.0	n.a.
Total	*$m*	*91.8*	*232.5*
Total expenditure	**$m**	**611.6**	**480.5**
Expenditure on environment protection compared to total expenditure			
Capital expenditure on environment	$m	519.8	248.0
Total capital expenditure	$m	4,014.3	n.a.
Percentage spent on environment	%	12.9	n.a.
Current expenditure on environment	$m	91.8	232.5
Total current expenditure	$m	8,523.3	n.a.
Percentage spent on environment	%	1.1	n.a.
Cost of environmental licences	$m	5.2	n.a.
Number of establishments operating under licences	no.	106	623
Research expenses	$m	5.2	n.a.

Source: Manufacturing Industry, Australia (8221.0) and Mining Industry, Australia (8402.0).

INTERNATIONAL COOPERATION

UN Conference on Environment and Development, Rio de Janeiro, 1992

The largest conference to date on environment and development was held in Rio de Janeiro, Brazil from 1–12 June 1992. The United Nations Conference on Environment and Development (UNCED) brought together 178 governments, thousands of delegates and members of non–government organisations and journalists.

Four documents were agreed by many governments at the sessions in Brazil. These were the Rio Declaration (which was originally to be called the Earth Charter), Agenda 21 and two conventions, one on climate change and one on biodiversity. A Declaration of Forest Principles was also agreed upon. Although not strictly binding under international law, Agenda 21 is an action plan to implement the principles found in the Rio Declaration. It is a substantial document containing about 40 chapters on a wide range of issues. Some of the issues include:

- protection of the atmosphere by combating climate change, depletion of the ozone layer and transboundary air pollution;
- protection of the quality and supply of freshwater resources;
- protection of the oceans and coastal areas;
- protection and management of land resources by combating deforestation, desertification and drought;
- conservation of biological diversity;
- environmentally sound management of biotechnology;
- environmentally sound management of wastes, particularly hazardous wastes and toxic chemicals, as well as prevention of illegal international traffic in toxic and dangerous products and wastes;
- improvement of the living and working environment of the poor in urban slums and rural areas; and
- protection of human health conditions and improvement of the quality of life.

The Australian National Report to the Conference contained principles for decisions and actions regarding the environment and development, as endorsed by the Federal Government in March 1991.

International treaties and conventions

Some of the international treaties and conventions relating to the environment to which Australia is a party are:

General Environmental

- Antarctic Treaty (signed by Australia 23 June 1961);
- Convention for the Protection of the World Cultural and Natural Heritage (17 December 1975); and
- Convention on the Conservation of Nature in the South Pacific (28 March 1990).

Coastal/Marine Resources

- International Convention for the Regulation of Whaling (10 November 1948);
- UN Convention on the Law of the Sea (10 December 1982); and
- Convention for the Prohibition of Fishing with Long Driftnets in the South Pacific (24 November 1989).

Toxic and Hazardous Wastes

- South Pacific Nuclear Free Zone Treaty (11 December 1986);
- Convention on Early Notification of a Nuclear Accident (23 October 1987);
- Treaty Banning Nuclear Weapons Testing in the Atmosphere, in Outer Space and Under Water (12 November 1963);
- International Convention for the Prevention of Pollution from Ships (14 January 1988); and
- International Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Dumping Convention) (20 September 1985).

Biological Diversity

- Convention on Wetlands of International Importance (12 December 1975);
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (27 October 1976); and
- International Plant Protection Convention (27 August 1952).

Air Quality

- Vienna Convention for the Protection of the Ozone Layer (17 August 1989); and
- Montreal Protocol on Substances that Deplete the Ozone Layer (22 September 1990).

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FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Fifteen

Agriculture

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The major source of the statistics in this chapter is the Agricultural Census conducted by the ABS at 31 March each year.

The ABS excludes from the Census those establishments which make only a small contribution to overall agricultural activity. From 1986–87 to 1990–91, the Census included establishments with agricultural activity which had an estimated value of agricultural operations of $20,000 or more. Prior to this (1982–83 to 1985–86) the cut-off value was $2,500. The cut-off was raised to $22,500 for the 1991–92 Census.

While this alteration has resulted in some changes in the counts of numbers of establishments engaged in agricultural activities, the effect on the statistics of production of major commodities is small. Statistics of minor commodities normally associated with small-scale operations may be affected to a greater extent.

Unless indicated otherwise, Australian totals include data for all States and both Territories.

Details of the method used in the calculation of the estimated value of agricultural operations (EVAO) are contained in the publication *Characteristics of Australian Farms* (7102.0).

Financial statistics are collected in the Agricultural Finance Survey, conducted annually since 1986–87.

CHARACTERISTICS OF AUSTRALIAN FARMS

Tables 15.1 and 15.2 provide information on the number, size and type of agricultural establishments at 31 March 1991.

15.1 ESTIMATED VALUE OF AGRICULTURAL OPERATIONS OF ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY YEAR ENDING 31 MARCH 1991

ASIC code	*Industry of establishment (a)*	*Estimated value of agricultural operations ($'000)(b)*											*Total establish-ments*
		<20	*20–29*	*30–39*	*40–49*	*50–59*	*60–74*	*75–99*	*100–149*	*150–199*	*200–499*	*>499*	
0124	Poultry for meat	12	6	11	15	16	26	83	151	115	167	77	679
0125	Poultry for eggs	17	12	13	5	8	20	29	58	47	222	186	617
0134	Grapes	82	208	289	270	305	498	616	642	294	251	59	3,514
0135	Plantation fruit	118	145	138	140	123	126	156	205	121	175	74	1,521
0136	Orchard and other fruit	406	371	389	385	315	433	534	679	424	750	275	4,961
0143	Potatoes	9	20	37	38	46	71	126	190	155	446	181	1,319
0144	Vegetables (except potatoes)	163	195	198	188	185	227	287	418	267	741	445	3,314
0181	Cereal grains (incl. oilseeds n.e.c.)	190	234	285	296	292	408	664	1,109	768	1,843	776	6,865
0182	Sheep — cereal grains	68	233	388	523	616	1,013	1,982	3,912	3,012	6,477	1,336	19,560
0183	Meat cattle — cereal grains	85	139	176	165	168	212	282	439	261	564	169	2,660
0184	Sheep — meat cattle	255	481	616	551	590	770	1,087	1,583	980	1,855	476	9,244
0185	Sheep	716	1,142	1,345	1,382	1,327	1,802	2,800	4,255	2,863	5,553	1,113	24,298
0186	Meat cattle	2,561	2,727	2,668	1,919	1,393	1,576	1,707	1,776	949	1,665	568	19,509
0187	Milk cattle	84	179	298	408	561	1,126	2,435	4,302	2,225	2,099	137	13,854
0188	Pigs	41	57	71	70	82	94	153	275	205	442	208	1,698
0191	Sugar cane	27	65	114	176	233	446	879	1,269	720	958	109	4,996
0192	Peanuts	—	6	5	14	14	29	24	39	29	27	9	196
0193	Tobacco	—	2	2	5	9	21	31	127	116	156	6	475
0194	Cotton	2	—	3	3	2	—	8	15	20	200	416	669
0195	Nurseries	328	162	153	131	126	123	461	227	177	265	136	2,289
0196	Agriculture n.e.c.	272	439	376	265	231	229	244	199	129	195	62	2,641
	Total (ASIC code 01)	*5,436*	*6,823*	*7,575*	*6,949*	*6,642*	*9,250*	*14,588*	*21,870*	*13,877*	*25,051*	*6,818*	*124,879*
02	Services to agriculture	10	8	8	4	5	8	11	5	2	5	1	67
03	Forestry and logging	4	1	2	4	—	1	2	3	—	1	1	19
04	Fishing and hunting	1	1	2	—	—	1	3	1	1	—	—	10
	Total (ASIC division A)	*5,451*	*6,833*	*7,587*	*6,957*	*6,647*	*9,260*	*14,604*	*21,879*	*13,880*	*25,057*	*6,820*	*124,975*
B	Mining	1	—	1	—	—	—	3	2	—	—	—	7
C	Manufacturing	7	9	15	10	6	12	10	20	2	22	19	132
D	Electricity, gas and water	—	—	—	—	—	1	—	—	—	1	—	2
E	Construction	8	15	14	11	5	7	5	6	4	8	1	84
F	Wholesale and retail trade	13	16	15	7	12	7	10	8	4	6	4	102
G	Transport and storage	16	27	23	14	15	10	8	10	6	5	1	135
H	Communication	—	—	—	—	—	—	—	—	—	—	—	—
I	Finance, property and business services	6	6	6	—	2	—	—	1	—	1	1	23
J	Public administration and defence	—	—	1	—	—	1	—	1	—	—	—	3
K	Community services	4	3	7	10	1	9	11	13	15	39	14	126
L	Recreation, personal and other services	8	2	2	2	2	1	—	2	3	3	1	26
	Total	**5,514**	**6,911**	**7,671**	**7,011**	**6,690**	**9,308**	**14,651**	**21,942**	**13,914**	**25,142**	**6,861**	**125,615**

(a) As set out in the *Australian Standard Industrial Classification (ASIC)* (1201.0 and 1202.0). (b) Determined by valuing the principal crop and livestock information collected in the Agricultural Census.

Source: Characteristics of Australian Farms (7102.0).

15.2 ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY, 31 MARCH 1991

ASIC code	*Industry of establishment(a)* — *Description*	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
0124	Poultry for meat	345	120	91	63	51	9	—	—	679
0125	Poultry for eggs	174	130	133	55	100	16	7	2	617
0134	Grapes	562	1,521	50	1,240	123	15	3	—	3,514
0135	Plantation fruit	699	—	710	—	107	—	5	—	1,521
0136	Orchard and other fruit	1,493	935	865	1,076	391	189	11	1	4,961
0143	Potatoes	140	468	208	133	149	221	—	—	1,319
0144	Vegetables (except potatoes)	537	582	1,124	416	391	243	19	2	3,314
0181	Cereal grains (incl. oilseeds n.e.c)	1,441	1,045	1,840	1,582	939	13	5	—	6,865
0182	Sheep — cereal grains	6,174	3,624	351	4,470	4,895	46	—	—	19,560
0183	Meat cattle — cereal grains	876	117	1,564	78	15	2	8	—	2,660
0184	Sheep — meat cattle	4,404	2,150	720	891	646	413	—	20	9,244
0185	Sheep	8,596	8,113	1,429	2,212	3,088	825	—	35	24,298
0186	Meat cattle	5,945	4,350	6,927	471	1,078	538	186	14	19,509
0187	Milk cattle	2,064	7,769	1,901	863	493	761	2	1	13,854
0188	Pigs	485	232	538	268	132	42	1	—	1,698
0191	Sugar cane	392	—	4,604	—	—	—	—	—	4,996
0192	Peanuts	1	—	194	—	1	—	—	—	196
0193	Tobacco	17	174	284	—	—	—	—	—	475
0194	Cotton	362	—	307	—	—	—	—	—	669
0195	Nurseries	960	313	571	195	183	54	11	2	2,289
0196	Agriculture n.e.c	856	616	593	264	206	99	7	—	2,641
	Total (ASIC code 01)	*36,523*	*32,259*	*25,004*	*14,277*	*12,988*	*3,486*	*265*	*77*	*124,879*
02	Services to agriculture	4	12	16	12	20	3	—	—	67
03	Forestry and logging	1	1	7	—	2	8	—	—	19
04	Fishing and hunting	—	—	1	2	3	4	—	—	10
	Total (ASIC Division A)	*36,528*	*32,272*	*25,028*	*14,291*	*13,013*	*3,501*	*265*	*77*	*124,975*
B	Mining	1	2	1	1	2	—	—	—	7
C	Manufacturing	16	29	6	36	37	6	1	1	132
D	Electricity, gas and water	—	2	—	—	—	—	—	—	2
E	Construction	13	33	14	10	9	5	—	—	84
F	Wholesale and retail trade	17	27	14	13	10	20	1	—	102
G	Transport and storage	30	38	13	21	15	18	—	—	135
H	Communication	—	—	—	—	—	—	—	—	—
I	Finance, property and business services	8	1	4	6	3	—	1	—	23
J	Public administration and defence	2	—	—	1	—	—	—	—	3
K	Community services	27	3	46	11	28	10	—	1	126
L	Recreation, personal and other services	9	8	3	2	4	—	—	—	26
	Total all industries	**36,651**	**32,415**	**25,129**	**14,392**	**13,121**	**3,560**	**268**	**79**	**125,615**

(a) As set out in the *Australian Standard Industrial Classification (ASIC)* (1201.0 and 1202.0).
Source: Characteristics of Australian Farms (7102.0).

EMPLOYMENT IN AGRICULTURE

15.3 EMPLOYED PERSONS(a) IN AGRICULTURE AND SERVICES TO AGRICULTURE ('000)

August	*Males*	*Married females*	*All females*	*Persons*
1987	271.6	90.1	103.1	374.7
1988	284.0	97.5	118.7	402.7
1989	269.0	93.3	111.1	380.1
1990	282.9	99.4	116.8	399.7
1991	267.0	94.3	115.2	382.2
1992	260.5	91.9	113.6	374.1

(a) The estimates of employed persons include persons who worked without pay for at least 1 hour per week in a family business or on a farm (that is, unpaid family helpers).
Source: The Labour Force, Australia (6203.0).

GROSS VALUE OF AGRICULTURAL COMMODITIES PRODUCED

The gross value of agricultural commodities produced is the value placed on recorded production at the wholesale prices realised in the market place.

15.4 GROSS VALUE OF AGRICULTURAL COMMODITIES PRODUCED ($ million)

Commodity	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*	*1991–92p*
Crops						
Barley for grain	423.0	454.9	558.1	708.8	568.3	641.2
Oats for grain	160.5	191.0	232.6	178.0	147.3	177.9
Wheat for grain	2,379.4	2,002.8	2,950.3	2,775.1	1,988.1	1,948.5
Other cereal grains	316.4	392.5	411.0	360.7	304.8	430.9
Sugar cane cut for crushing	580.2	608.9	744.2	874.0	748.0	602.0
Fruit and nuts	785.9	832.1	951.6	1,022.1	1,059.6	1,258.0
Grapes	251.5	345.6	427.3	392.2	362.0	410.4
Vegetables	868.2	928.4	1,165.3	1,328.2	1,284.2	1,300.0
All other crops(a)	1,614.3	1,882.4	2,202.9	2,237.2	2,611.6	2,845.7
Total crops	*7,379.4*	*7,638.6*	*9,643.3*	*9,876.3*	*9,073.9*	*9,614.6*
Livestock slaughterings and other disposals(b)						
Cattle and calves(c)	2,824.7	3,047.9	3,189.6	3,860.5	3,869.4	3,658.8
Sheep and lambs	721.2	803.9	738.3	585.4	373.3	462.0
Pigs	(d)468.5	(d)536.1	629.3	656.0	691.0	638.5
Poultry	(d)601.7	(d)671.2	730.3	777.9	788.3	787.0
Total livestock slaughterings and other disposals(e)	*(d)4,624.6*	*(d)(e)5,074.3*	*5,302.3*	*5,893.3*	*(e)5,730.0*	*(e)5,586.0*

For footnotes *see* end of table.

15.4 GROSS VALUE OF AGRICULTURAL COMMODITIES PRODUCED — *continued*
($ million)

Commodity	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*	*1991–92p*
Livestock products						
Wool	3,333.6	5,517.3	5,906.0	5,718.1	4,180.9	2,979.4
Milk	1,257.4	1,390.9	1,635.1	1,749.0	1,824.8	1,971.3
Eggs	291.6	304.4	321.4	311.8	322.5	278.6
Total livestock products(f)	*(g)4,915.6*	*(h)7,247.0*	*(i)7,910.8*	*(i)7,806.7*	*(i)6,355.7*	*(i)5,260.1*
Total value of agricultural commodities produced	**(j)16,927.8**	**(j)19,962.5**	**(k)22,862.5**	**(k)23,585.1**	**(k)21,168.2**	**(k)20,474.9**

(a) Includes pastures and grasses. Excludes crops for green feed or silage. (b) Includes net exports of livestock. (c) Includes dairy cattle slaughtered. (d) Excludes Northern Territory pigs and poultry. (e) Includes goat slaughterings, exports and buffalo slaughterings. (f) Includes honey and beeswax. (g) Excludes Northern Territory and Australian Capital Territory milk and eggs. (h) Includes cashmere, cashgora, mohair, liquid goat milk, honey and beeswax. Excludes Northern Territory and Australian Capital Territory milk and eggs. (i) Excludes Northern Territory milk and eggs. (j) Includes Northern Territory pigs, poultry, milk and eggs. (k) Includes Northern Territory pigs, poultry, milk and eggs and Australian Capital Territory milk and eggs.
Source: Value of Agricultural Commodities Produced, Australia (7503.0).

The following table shows the index of the gross value of commodities produced at constant prices, that is, it is a measure of change in value after the direct effects of price changes have been eliminated.

15.5 INDEX OF VALUES AT CONSTANT PRICES OF AGRICULTURAL COMMODITIES PRODUCED(a)
(Reference base year 1984–85 = 1,000)

Commodity	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*
Crops					
Barley for grain	645	625	596	728	740
Oats for grain	1,171	1,276	1,325	1,164	1,086
Wheat for grain	880	652	750	759	802
Other cereal grains	924	1,066	899	815	698
Sugar cane(b)	967	978	1,036	1,049	987
Fruit and nuts	1,099	1,148	1,121	1,122	1,074
Grapes	936	921	1,002	912	951
Vegetables	1,046	1,171	1,197	1,132	1,117
All other crops(c)	1,053	1,134	1,133	1,107	1,168
Total crops	*932*	*873*	*910*	*908*	*926*
Livestock slaughterings and other disposals					
Cattle and calves(d)	1,138	1,202	1,139	1,280	1,343
Sheep and lambs	1,106	1,073	1,007	1,004	971
Pigs	1,086	1,141	1,184	1,218	1,198
Poultry	1,100	1,161	1,178	1,231	1,245
Total livestock slaughterings(e)	*1,122*	*1,170*	*1,129*	*1,224*	*1,256*
Livestock products					
Wool	1,070	1,109	1,154	1,328	1,284
Milk	1,019	1,015	1,038	1,033	1,056
Eggs	1,022	1,051	1,010	999	1,022
Total livestock products(f)	*1,052*	*1,078*	*1,110*	*1,219*	*1,198*
Total agricultural commodities produced	**1,008**	**997**	**1,013**	**1,062**	**1,074**

(a) Indexes of values at constant prices (weighted by average unit values of the year 1984–85). (b) Sugar cane cut for crushing and planting. (c) Includes pasture and grasses. Excludes crops for green feed or silage. (d) Includes dairy cattle slaughtered. (e) Component series based on carcass weight. Includes goat slaughterings. (f) Includes honey, beeswax and goat products.
Source: Value of Agricultural Commodities Produced, Australia (7503.0).

FINANCIAL STATISTICS OF FARM BUSINESSES

Estimates of selected financial aggregates of enterprises predominantly engaged in agricultural activity are shown in the following tables. The estimates have been derived from the Agricultural Finance Survey (AFS), which was conducted on an irregular basis until 1986–87 when it became an annual survey. From 1986–87 the population for the AFS consisted of all farm businesses classified to an industry class within Subdivision 01 'Agriculture' of the Australian Standard Industrial Classification and with an estimated value of agricultural operations of $20,000 or more. This was increased to $22,500 in 1991–92.

15.6 ESTIMATES OF SELECTED FINANCIAL AGGREGATES OF AGRICULTURAL ENTERPRISES(a), 1987–88 TO 1991–92
($ million)

	1987–88	*1988–89*	*1989–90*	*1990–91*	*1991–92p*
Sales from crops	6,507.7	6,991.2	7,795.2	7,196.7	7,550.1
Sales from livestock	5,052.1	5,399.3	5,519.1	4,864.5	4,874.1
Sales from livestock products	6,024.1	6,715.7	7,157.9	5,853.6	4,734.3
Turnover	18,708.0	20,272.3	21,823.5	19,190.6	18,371.8
Purchases and selected expenses	9,852.5	10,672.6	11,447.8	10,892.5	10,590.3
Value added(b)	10,239.0	11,690.3	10,237.4	7,347.7	7,881.8
Adjusted value added(b)	9,160.6	10,500.3	8,924.4	6,023.1	6,585.7
Gross operating surplus(b)	7,563.1	8,643.3	6,897.0	4,133.6	4,778.1
Interest paid	1,473.6	1,681.1	2,227.5	2,066.0	1,811.0
Cash operating surplus(c)	4,999.9	5,227.3	5,330.6	3,412.8	3,104.1
Total net capital expenditure	1,566.1	1,849.1	1,906.3	1,216.6	1,445.6
Gross indebtedness	11,425.6	12,948.0	14,518.0	14,140.6	14,965.4

(a) Statistics for 1991–92 are not strictly comparable with previous periods (*see* paragraph above). (b) Includes an estimate for the value of the increase in livestock. (c) Excludes an estimate for the value of the increase in livestock.

Source: Agricultural Industries, Financial Statistics, Australia (7507.0) and Agricultural Industries, Financial Statistics, Australia, 1991–92, Preliminary (7508.0).

15.7 ESTIMATES OF SELECTED FINANCIAL AGGREGATES OF AGRICULTURAL ENTERPRISES, 1991–92p
($ million)

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.(a)*
Sales from crops	1,941.8	1,083.0	1,913.3	1,009.1	1,296.2	149.1	7,550.1
Sales from livestock	1,357.9	778.7	1,458.5	356.1	337.6	111.1	4,874.1
Sales from livestock products	1,437.1	1,364.5	583.0	400.2	723.2	157.9	4,734.3
Turnover	5,034.6	3,457.7	4,328.9	1,885.1	2,479.3	457.3	18,371.8
Purchases and selected expenses	2,921.0	1,875.9	2,534.7	1,057.0	1,554.2	263.0	10,590.3
Value added(b)	2,045.0	1,624.0	1,671.8	894.2	1,138.9	194.1	7,881.8
Adjusted value added(b)	1,653.5	1,377.5	1,395.9	763.6	959.7	163.3	6,585.7
Gross operating surplus(b)	1,108.8	1,034.6	935.5	636.6	779.8	107.9	4,778.1
Interest paid	610.9	305.1	412.8	154.7	220.0	50.7	1,811.0
Cash operating surplus(c)	633.2	713.4	720.6	454.6	367.0	62.3	3,104.1
Total net capital expenditure	431.0	237.3	322.0	176.5	201.0	28.0	1,445.6
Gross indebtedness	4,799.6	2,337.9	3,752.1	1,313.7	1,900.6	442.5	14,965.4

(a) Includes Northern Territory and estimates for multi-State enterprises. (b) Includes an estimate for the value of the increase in livestock. (c) Excludes an estimate for the value of the increase in livestock.

Source: Agricultural Industries, Financial Statistics, Australia, 1991–92, Preliminary (7508.0).

LAND USED FOR AGRICULTURE

The total area of agricultural establishments in 1991–92 constituted 59.7 per cent of the Australian land area, the remainder being urban areas, State forests, mining leases and national parks etc., with an overwhelming proportion of unoccupied land (mainly desert).

The balance data include large areas of arid or rugged land held under grazing licences but not always used for grazing. Balance data also include variable amounts of fallow land.

The area cropped represents up to 3.8 per cent of the area of agricultural establishments.

15.8 AREA OF ESTABLISHMENTS WITH AGRICULTURAL ACTIVITY
(million hectares)

At 31 March	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*Aust. (incl. ACT)*
1987	60.8	13.1	151.7	59.5	112.7	1.9	71.2	471.0
1988	61.5	13.1	152.5	60.0	113.5	1.9	69.6	472.0
1989	61.6	13.1	151.3	58.0	112.6	1.9	68.3	466.9
1990	62.0	13.1	152.3	57.5	110.9	1.9	66.6	464.3
1991	60.7	12.7	150.8	57.0	110.9	1.9	68.8	462.8
1992	60.4	12.4	150.0	56.9	115.7	1.8	68.7	466.0

Source: Summary of Crops, Australia (7330.0).

15.9 LAND UTILISATION
(million hectares)

	Area of			*Total*	
Year	*Crops(a)*	*Sown pastures and grasses*	*Balance(b)*	*Area of establishments*	*Percentage of Australian land area (768,284,000 hectares)*
1986–87	19.8	27.3	423.9	471.0	61.3
1987–88	18.4	28.6	425.0	472.0	61.4
1988–89	17.5	30.2	419.2	466.9	60.8
1989–90	17.0	30.9	416.4	464.3	60.4
1990–91	17.4	28.3	417.1	462.8	60.2
1991–92	16.4	30.8	418.8	466.0	60.7

(a) Excludes pastures and grasses harvested for hay and seed which have been included in 'sown pastures and grasses'. (b) Used for grazing, lying idle, fallow, etc.
Source: Summary of Crops, Australia (7330.0).

CROPS

The following tables show the area of crops in the States and Territories of Australia since 1870–71, and a summary of the area, production and gross value of the principal crops in Australia in recent years.

15.10 AREA OF CROPS(a)
('000 hectares)

Year	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
1870–71	156	280	21	235	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
1969–70	4,999	2,212	2,208	2,290	3,912	98	6	2	15,728
1971–72	4,186	1,925	2,017	2,278	3,751	67	7	1	14,231
1972–73	4,329	1,943	1,963	2,122	3,814	80	12	1	14,265
1973–74	4,628	1,981	1,786	2,451	4,133	74	6	1	15,060
1974–75	4,089	1,772	1,898	2,257	3,754	67	7	1	13,845
1975–76	4,285	1,851	2,010	2,116	4,208	60	8	1	14,539
1976–77	4,520	1,943	2,026	2,036	4,417	65	2	1	15,010
1977–78	4,984	2,163	2,107	2,564	4,910	70	1	1	16,800
1978–79	5,020	2,209	2,307	2,827	4,993	80	2	1	17,438
1979–80	5,243	2,243	2,334	2,771	5,281	79	2	1	17,954
1980–81	5,208	2,180	2,481	2,772	5,547	84	1	1	18,273
1981–82	5,744	2,184	2,765	2,865	5,963	90	2	1	19,613
1982–83	5,200	2,234	2,648	2,856	6,380	98	3	1	19,420
1983–84	6,566	2,655	2,998	3,108	6,526	101	5	1	21,961
1984–85	5,789	2,569	3,047	2,902	6,723	99	6	1	21,136
1985–86	5,990	2,528	3,231	3,039	5,970	88	7	1	20,853
1986–87	5,325	2,317	3,036	3,066	5,930	78	12	—	19,764
1987–88	4,908	2,159	2,870	2,990	5,334	84	13	1	18,359
1988–89	4,560	1,990	2,842	2,961	5,082	82	11	1	17,527
1989–90	4,077	1,989	2,580	3,042	5,174	83	9	1	16,953
1990–91	4,073	2,063	2,872	2,933	5,359	75	6	—	17,382
1991–92	3,846	2,039	2,302	2,920	5,216	76	5	—	16,404

(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 and harvested for seed or green feed are excluded.

NOTE: From 1970–71 to 1980–81 figures related to area 'used for' crops, that is, an area used for more than one purpose during the year was counted only once. From 1981–82, an area double cropped has been counted separately each time used.

Source: Summary of Crops, Australia (7330.0).

15.11 SELECTED CROPS: AREA, PRODUCTION AND GROSS VALUE

	1989–90			*1990–91*			*1991–92*		
	Area ('000 ha)	*Production ('000 tonnes)*	*Gross value ($m)*	*Area ('000 ha)*	*Production ('000 tonnes)*	*Gross value ($m)*	*Area ('000 ha)*	*Production ('000 tonnes)*	*Gross value ($m)*
Cereals for grain									
Barley	2,310	4,044	709	2,556	4,108	568	2,744	4,530	641
Grain sorghum	380	946	136	378	751	99	569	1,447	169
Maize	52	219	39	49	194	32	52	269	37
Oats	1,089	1,640	178	1,044	1,530	147	1,160	1,690	178
Rice	105	846	141	89	740	138	114	957	183
Wheat	9,004	14,214	2,775	9,218	15,066	1,988	7,183	10,557	1,948
Legumes for grain	1,294	1,362	295	1,388	1,363	286	1,762	1,899	424
Crops for hay									
Oats	206	720	79	252	(a)829	89	327	(a)1,155	n.a.
Wheat	57	159	17	19	52	4	30	64	n.a.
Crops for green feed, silage									
Barley	85			n.a.					
Forage sorghum	147			154					
Oats	633	n.a.	n.a	329	n.a.	n.a.	757	n.a.	n.a.
Wheat	32			n.a.					
Sugar cane cut for crushing	322	26,940	874	325	24,370	748	329	20,640	602
Tobacco	5	12	73	5	13	78	5	11	75
Cotton	240	792	640	279	1,129	898	312	1,278	882
Peanuts (in shell)	18	18	18	18	27	30	21	39	27
Soybean	49	77	29	40	62	22	30	63	25
Rapeseed	50	78	24	73	98	n.a.	151	170	n.a.
Sunflower	66	73	25	166	152	42	79	84	29
Fruit (excl. grapes)	117	n.a.	1,022	113	n.a.	1,060	117	n.a.	1,258
Fruit									
Orchard	99	n.a.	754	95	n.a.	733	99	n.a.	n.a.
Oranges	n.a.	487	176	n.a.	(b)453	165	n.a.	(b)470	194
Apples	19	319	212	n.a.	289	183	n.a.	316	251
Pears	n.a.	164	79	n.a.	160	84	n.a.	180	113
Peaches	n.a.	58	51	n.a.	58	44	n.a.	62	45
Bananas	9	180	181	10	165	235	10	177	279
Pineapples	6	142	41	6	126	37	6	133	38
Grapes	59	824	392	60	851	362	61	986	410
Vegetables	126	n.a.	1,328	121	n.a.	1,284	117	n.a.	1,300
Potatoes	41	1,178	393	40	1,372	377	40	1,150	385
Total all crops (excluding pastures and grasses)	**16,953**	**n.a.**	**9,381**	**17,382**	**n.a.**	**8,492**	**16,404**	**n.a.**	**8,995**

(a) Includes all cereals not collected separately. (b) Excludes Queensland.

Source: Summary of Crops, Australia (7330.0); Value of Agricultural Commodities Produced, Australia (7503.0); Value of Selected Agricultural Commodities Produced, Australia (7502.0); and Viticulture, Australia (7310.0).

The characteristics of the main crops are outlined below.

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 grass, subterranean clover, medics or lucerne. In recent years, alternative winter crops such as rapeseed, field peas and lupins have been introduced to cereal rotation in areas where they had not previously been grown. Rice, maize and sorghum are summer cereals with the latter being grown in association with winter cereals in some areas. In northern Queensland and Western Australia there are two rice growing seasons.

Wheat is Australia's most important crop. It is produced in all States but primarily on the mainland in a narrow crescent known as the wheat-belt. Inland of the Great Dividing Range, the wheat-belt stretches in a curve from central Queensland through New South Wales, Victoria and southern South Australia. In Western Australia, the wheat-belt continues around the south-west of the State and some way north up the western side of the continent.

15.12 WHEAT: AREA, PRODUCTION AND RECEIVALS

Season	*Area(a)* For grain ('000 ha)	All purposes ('000 ha)	*Production(a)* Grain ('000 tonnes)	Gross value ($m)	*Australian Wheat Board receivals* ('000 tonnes)
1986–87	11,135	11,274	16,119	2,410.3	15,288
1987–88	9,005	9,141	12,287	2,015.7	10,740
1988–89	8,827	8,932	13,935	2,975.9	12,954
1989–90	9,004	9,093	14,214	2,792.0	13,057
1990–91	9,218	9,237	15,066	1,988.1	13,047
1991–92	7,183	7,213	10,557	p1,942.2	6,769

(a) Area and production data relate to the year ending 31 March.

Source: Summary of Crops, Australia (7330.0); Value of Agricultural Commodities Produced, Australia (7503.0); and Value of Selected Agricultural Commodities Produced, Australia (7502.0).

15.13 WHEAT FOR GRAIN: AREA AND PRODUCTION

Season	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.*
			AREA ('000 hectares)				
1986–87	3,099	1,364	795	1,616	4,260	2	11,135
1987–88	2,464	1,026	646	1,556	3,312	1	9,005
1988–89	2,309	931	768	1,520	3,297	1	8,827
1989–90	2,123	952	894	1,557	3,476	1	9,004
1990–91	2,166	911	1,060	1,448	3,632	1	9,218
1991–92	1,499	664	492	1,297	3,230	1	7,183
			PRODUCTION ('000 tonnes)				
1986–87	4,855	2,795	833	2,255	5,377	5	16,119
1987–88	3,997	1,882	718	1,803	3,882	4	12,287
1988–89	4,105	1,691	1,550	1,361	5,225	2	13,935
1989–90	3,423	1,961	1,420	2,607	4,800	3	14,214
1990–91	4,128	1,493	1,973	2,021	5,449	2	15,066
1991–92	2,183	1,150	344	2,141	4,736	3	10,557

Source: Summary of Crops, Australia (7330.0).

Oats are 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. They have a high feed value and produce a greater bulk of growth than other winter cereals; they need less cultivation and respond well to superphosphate and nitrogen. Oats have two main uses: as a grain crop, or as a fodder crop, (following sowing or fallow or rough sowing into stubble or clover pastures). Fodder crops can either be grazed and then harvested for grain after removal of livestock or else mown and baled or cut for chaff.

15.14 OATS FOR GRAIN: AREA AND PRODUCTION

Season	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.*
			AREA ('000 hectares)				
1986–87	482	215	20	113	302	8	1,140
1987–88	526	216	19	132	373	10	1,275
1988–89	548	189	18	156	389	10	1,309
1989–90	365	189	15	172	340	8	1,089
1990–91	374	177	24	135	324	9	1,044
1991–92	457	183	15	129	367	9	1,160

... continued

15.14 OATS FOR GRAIN: AREA AND PRODUCTION — *continued*

Season	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.*
PRODUCTION ('000 tonnes)							
1986–87	635	356	19	149	414	11	1,584
1987–88	707	325	14	135	502	16	1,698
1988–89	780	276	15	131	618	18	1,838
1989–90	504	330	14	250	529	13	1,640
1990–91	538	301	27	148	497	19	1,530
1991–92	579	300	5	172	614	19	1,690

Source: Summary of Crops, Australia (7330.0).

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 as a grain crop although in some areas it is used as a fodder crop for grazing, with grain being subsequently harvested if conditions are suitable. It is often grown as a rotation crop with wheat, oats and pasture. When sown for fodder, sowing may take place either early or late in the season, as it has a short growing period. It may therefore provide grazing or fodder supplies when other sources are not available. Barley grain may be crushed to meal for stock or sold for malting.

15.15 BARLEY FOR GRAIN: AREA AND PRODUCTION

Season	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.*
AREA ('000 hectares)							
1986–87	408	265	168	955	468	8	2,274
1987–88	465	366	169	876	461	8	2,346
1988–89	413	350	200	837	383	8	2,190
1989–90	413	389	179	900	421	8	2,310
1990–91	463	463	177	945	498	10	2,556
1991–92p	517	534	128	999	554	11	2,744
PRODUCTION ('000 tonnes)							
1986–87	614	444	276	1,592	601	21	3,548
1987–88	744	529	244	1,261	617	22	3,417
1988–89	712	545	374	1,036	552	22	3,242
1989–90	656	696	321	1,724	628	19	4,044
1990–91	822	651	361	1,506	742	26	4,108
1991–92	749	898	70	1,882	900	32	4,530

Source: Summary of Crops, Australia (7330.0).

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. Grain sorghum has been grown extensively only in the last two decades. Rapid increases in production have resulted in a substantial increase in exports over this period. The grain is used primarily as stockfeed and is an important source for supplementing other coarse grains for this purpose.

15.16 GRAIN SORGHUM FOR GRAIN: AREA AND PRODUCTION

Season	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.*
			AREA ('000 hectares)				
1986–87	188	—	625	—	—	—	818
1987–88	175	—	565	—	—	—	745
1988–89	152	—	468	—	—	—	625
1989–90	138	—	238	—	—	—	380
1990–91	84	—	291	(a)	1	(a)	378
1991–92	147	—	420	(a)	—	(a)	569
			PRODUCTION ('000 tonnes)				
1986–87	392	1	1,019	—	1	—	1,419
1987–88	412	1	1,213	—	—	—	1,633
1988–89	301	1	934	—	1	—	1,244
1989–90	359	1	578	—	1	—	946
1990–91	187	1	558	(a)	2	(a)	751
1991–92	398	—	1,045	(a)	—	(a)	1,447

(a) Not collected.
Source: Summary of Crops, Australia (7330.0).

Maize. Like sorghum, maize is a summer cereal demanding specific soil and climatic conditions. Maize for grain is almost entirely confined to the south-east regions and the Atherton Tablelands of Queensland; and the north coast, northern slopes and tablelands and the Murrumbidgee Irrigation Area in New South Wales. Small amounts are grown in all States, except South Australia, for green feed and silage, particularly in association with the dairy industry.

15.17 MAIZE FOR GRAIN: AREA AND PRODUCTION

Season	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.*
			AREA ('000 hectares)				
1986–87	16	1	38	—	1	—	58
1987–88	15	1	37	—	1	—	56
1988–89	14	—	36	—	1	—	52
1989–90	17	—	34	—	1	—	52
1990–91	18	—	29	(a)	1	(a)	49
1991–92	17	—	34	(a)	1	(a)	52
			PRODUCTION ('000 tonnes)				
1986–87	77	3	118	1	6	—	206
1987–88	72	6	124	—	5	—	208
1988–89	78	1	132	—	4	—	217
1989–90	98	1	115	—	5	—	219
1990–91	91	2	95	(a)	5	(a)	194
1991–92	119	3	141	(a)	5	(a)	269

(a) Not collected.
Source: Summary of Crops, Australia (7330.0).

Rice. In Australia, rice was first grown commercially in 1924–25 in the Murrumbidgee Irrigation Area, one of three irrigation areas in southern New South Wales where rice is now produced. About 96 per cent of Australia's rice is grown in New South Wales. The remainder is grown in the Burdekin River basin at Mareeba in northern Queensland and in the Adelaide River District in the Northern Territory.

15.18 RICE FOR GRAIN: AREA AND PRODUCTION

Season	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.*
			AREA ('000 hectares)				
1986–87	92	—	4	—	—	—	96
1987–88	102	—	4	—	—	—	106
1988–89	94	—	3	—	—	—	97
1989–90	100	—	5	—	—	—	105
1990–91	85	(a)	4	(a)	(a)	(a)	89
1991–92	109	(a)	4	(a)	(a)	(a)	114
			PRODUCTION ('000 tonnes)				
1986–87	589	—	19	—	—	—	608
1987–88	721	—	19	—	—	—	740
1988–89	730	—	18	—	—	—	748
1989–90	816	—	30	—	—	—	846
1990–91	719	(a)	21	(a)	(a)	(a)	740
1991–92	929	(a)	28	(a)	(a)	(a)	957

(a) Not collected.
Source: Summary of Crops, Australia (7330.0).

Vegetables

The area sown to vegetables reached a peak of over 200,000 hectares in 1945. It remained static at around 109,000 hectares from the mid-seventies to the mid-eighties but has been increasing steadily since. Yields from most vegetable crops have increased due to variety breeding for increased yields, greater use of irrigation and better control of disease and insect pests.

15.19 SELECTED VEGETABLES FOR HUMAN CONSUMPTION: AREA UNDER PRODUCTION

Year	*French and runner beans*	*Cabbages*	*Carrots*	*Cauliflowers*	*Onions*	*Green peas*	*Potatoes*	*Tomatoes*	*Other*	*Total vegetables*
				AREA ('000 hectares)						
1986–87	5.9	2.9	4.6	3.7	4.3	11.7	36.7	8.6	32.9	111.3
1987–88	6.0	2.8	4.6	3.4	5.0	11.2	39.8	8.9	35.0	116.7
1988–89	6.9	2.2	4.8	3.5	5.3	11.9	37.6	9.1	37.7	119.0
1989–90	7.3	2.3	4.8	3.7	5.1	13.3	40.6	9.6	39.1	125.8
1990–91	6.4	2.3	4.3	3.8	5.7	10.8	39.8	10.1	37.5	120.7
1991–92	6.8	2.3	4.7	3.6	5.4	8.9	39.8	9.0	37.0	117.5

Source: Summary of Crops, Australia (7330.0).

15.20 PRODUCTION OF SELECTED VEGETABLES FOR HUMAN CONSUMPTION

						Green peas			
	French and runner beans	*Cabbages*	*Carrots*	*Cauliflowers*	*Onions*	*Processing (shelled weight)*	*Sold in pod (pod weight)*	*Potatoes*	*Tomatoes*
				PRODUCTION ('000 tonnes)					
1986–87	29.4	82.9	146.0	91.6	164.7	33.4	1.2	1,015.2	266.0
1987–88	32.7	80.1	144.0	112.2	181.7	43.0	1.2	1,081.5	282.6
1988–89	35.5	87.8	148.7	79.6	196.3	46.0	1.1	1,048.0	318.6
1989–90	38.4	77.8	154.9	88.6	192.5	49.8	1.0	1,178.0	322.1
1990–91	29.9	76.8	152.1	90.3	222.3	40.9	1.0	1,136.2	364.1
1991–92	32.5	78.6	158.3	78.3	220.5	37.2	0.5	1,150.1	330.5

Source: Summary of Crops, Australia (7330.0).

Fruit

A wide variety of fruit is grown in Australia ranging from pineapples, mangoes and papaws in the tropics to pome, stone and berry fruits in the temperate regions.

In recent years there has been rapid expansion in the cultivation of many relatively new fruit crops in Australia and there is considerable scope for continued growth in the future.

15.21 SELECTED FRUIT STATISTICS

	Orchard fruit number of trees ('000)				Tropical and other fruits area (ha)			
Year	*Apples*	*Oranges*	*Pears(a)*	*Peaches*	*Bananas*	*Pineapples*	*Other fruit*	*Total area of fruit (ha)*
1986–87	6,350	6,897	1,552	1,797	9,391	3,762	1,245	107,492
1987–88	6,555	6,873	1,779	1,867	9,195	6,269	2,024	166,100
1988–89	6,810	7,122	2,028	2,004	9,319	6,660	1,239	119,756
1989–90	7,023	7,187	2,201	2,035	9,092	6,461	1,427	121,785
1990–91	6,919	7,357	2,205	2,104	9,578	5,927	1,941	113,225
1991–92	7,206	7,536	2,183	2,123	9,913	5,745	2,531	116,702

PRODUCTION ('000 tonnes)

	Apples	*Apricots*	*Bananas*	*Cherries*	*Oranges*	*Peaches*	*Pears(a)*	*Pineapples*	*Plums and prunes*
1986–87	325.0	27.0	157.7	4.0	504.0	61.1	145.0	142.3	22.0
1987–88	300.0	28.0	160.1	5.0	479.0	66.0	162.0	146.5	18.0
1988–89	323.0	27.9	195.8	4.0	399.2	51.9	142.1	154.4	19.9
1989–90	319.4	29.7	180.3	4.7	487.2	58.0	164.2	141.6	19.9
1990–91	288.7	25.2	165.1	5.4	453.3	57.9	159.6	126.0	19.6
1991–92	316.1	31.8	176.9	4.8	469.9	61.7	180.1	133.3	21.6

GROSS VALUE OF PRODUCTION ($ million)

	Apples	*Apricots*	*Bananas*	*Cherries*	*Oranges*	*Peaches*	*Pears(a)*	*Pineapples*	*Plums and prunes*
1986–87	197.3	21.3	125.1	10.5	120.4	35.8	74.9	40.2	22.7
1987–88	183.1	30.4	118.8	14.2	143.9	44.9	77.0	34.0	21.8
1988–89	235.6	27.8	134.8	14.0	177.0	42.4	63.9	43.2	26.7
1989–90	211.6	28.0	181.3	17.4	175.9	50.9	79.3	40.7	24.3
1990–91	182.6	23.6	235.2	19.7	164.6	44.0	83.6	37.3	26.3
1991–92p	201.3	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.

(a) Includes Nashi.

Source: Summary of Crops, Australia (7330.0); Value of Agricultural Commodities Produced, Australia (7503.0); and Value of Selected Agricultural Commodities Produced, Australia (7502.0).

Grapes

Grapes are a temperate crop which require warm to hot summer conditions for ripening and predominantly winter rainfall. Freedom from late spring frosts is essential. They are grown for wine-making, drying and, to a lesser extent, for table use. Some of the better known wine producing areas are the Barossa, Clare, Riverland, Southern Districts and Coonawarra (South Australia); north–eastern Victoria and Great Western (Victoria); Hunter and Riverina (New South Wales); Sunraysia (New South Wales and Victoria); Swan Valley and Margaret River (Western Australia).

15.22 VITICULTURAL STATISTICS: AREA, PRODUCTION AND VALUE

Year	Area: Bearing ('000 ha)	Area: Total ('000 ha)	Production: grapes used for(a): Winemaking ('000 tonnes fresh weight)	Production: grapes used for(a): Drying ('000 tonnes fresh weight)	Total(b): Quantity ('000 tonnes fresh weight)	Total(b): Gross value ($m)
1986–87	54	57	477	262	783	251.5
1987–88	54	57	460	293	799	345.6
1988–89	54	57	563	248	859	427.3
1989–90	54	59	530	249	824	392.2
1990–91	54	60	487	317	851	362.0
1991–92	56	61	565	373	987	410.4

(a) Excludes Northern Territory and Australian Capital Territory. (b) Includes grapes used for table and other purposes.
Source: Summary of Crops, Australia (7330.0); Value of Agricultural Commodities Produced, Australia (7503.0); and Value of Selected Agricultural Commodities Produced, Australia, Preliminary (7502.0).

15.23 VITICULTURE: AREA AND PRODUCTION, BY VARIETY, 1992 SEASON(a)

Variety	Area of vines at harvest: Bearing	Area of vines at harvest: Not yet bearing	Area of vines at harvest: All vines	Production of grapes used for: Wine-making	Production of grapes used for: Drying	Production of grapes used for: Other	Production of grapes used for: Total
	— hectares —			— tonnes (fresh weight) —			
Red grapes							
Cabernet Sauvignon	4,535	930	5,465	44,906	—	—	44,906
Currant (incl. Carina)	1,155	58	1,213	123	20,236	—	20,359
Grenache	1,992	26	2,018	29,834	—	29	29,862
Mataro	610	13	622	10,031	—	—	10,031
Pinot Noir	1,078	178	1,256	10,625	—	—	10,625
Shiraz	5,088	674	5,762	56,476	—	—	56,476
Other red grapes	3,902	728	4,631	23,397	617	15,046	39,060
Total red grapes	*18,360*	*2,607*	*20,967*	*175,392*	*20,853*	*15,075*	*211,319*
White grapes							
Chardonnay	4,459	735	5,194	48,748	—	—	48,748
Doradillo	717	1	718	17,539	—	13	17,552
Muscat Gordo Blanco	3,460	37	3,497	78,295	10,485	422	89,202
Palomino and Pedro Ximenes	927	1	928	14,929	—	—	14,929
Rhine Riesling	3,571	108	3,679	39,125	—	—	39,125
Semillon	2,649	217	2,867	36,947	—	—	36,947
Sultana	15,194	460	15,654	54,788	335,365	25,280	415,433
Waltham Cross	790	2	793	3,143	6,023	2,610	11,776
Other white grapes	6,167	443	6,609	94,751	209	6,306	101,266
Total white grapes	*37,934*	*2,004*	*39,939*	*388,265*	*352,082*	*34,631*	*774,978*
Total grapes	**56,295**	**4,611**	**60,906**	**563,657**	**372,935**	**49,706**	**986,298**

(a) Excludes Northern Territory and the Australian Capital Territory where varietal data is not collected.
Source: Viticulture, Australia (7310.0).

Selected other crops

Oilseeds. The oilseeds industry is a relatively young industry by Australian agricultural standards. The specialist oilseed crops grown in Australia are sunflower, soybeans, rapeseed, safflower and linseed. Sunflower and soybeans are summer grown while the others are winter crops. In Australia, oilseeds are crushed for their oil, which is used for both edible and industrial purposes and protein meals for livestock feeds.

Oilseed crops are grown in all States but the largest producing regions are the grain growing areas of the eastern States.

15.24 OILSEEDS: AREA AND PRODUCTION

Season	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.*
			AREA ('000 hectares)				
1986–87	150	39	145	9	6	—	349
1987–88	109	50	175	10	4	—	348
1988–89	103	46	189	8	3	—	349
1989–90	84	39	69	7	1	—	200
1990–91	134	23	135	7	2	—	302
1991–92	155	47	71	15	17	—	305
			PRODUCTION ('000 tonnes)				
1986–87	157	40	116	12	3	—	329
1987–88	116	48	201	12	4	—	381
1988–89	138	46	195	11	3	—	394
1989–90	119	38	84	7	2	—	251
1990–91	169	21	124	9	2	—	325
1991–92	191	44	78	19	16	—	348

Source: Summary of Crops, Australia (7330.0).

Cotton is grown primarily for its fibre (lint). When the cotton is matured, seed cotton is taken to a gin where it is separated (ginned) into lint, seed and thrash. Lint is used for yarn while seed is further processed at an oil mill. There the short fibres (linters) remaining on the seed after ginning are removed. They are too short to make into cloth but are used for wadding, upholstery and paper. The seeds are then separated into kernels and hulls. Hulls are used for stock feed and as fertiliser, while kernels are crushed to extract oil. The remaining cake is ground into meal which is protein roughage used as stock feed.

15.25 COTTON: AREA, PRODUCTION AND EXPORTS

	Seed cotton(a)					*Raw cotton export*	
Year	*Area ('000 ha)*	*Quantity ('000 tonnes)*	*Gross value ($m)*	*Cotton-seed(b) ('000 tonnes)*	*Lint(b) ('000 tonnes)*	*Quantity ('000 tonnes)*	*Value f.o.b. ($m)*
1986–87	156	612	372.1	418	214	251	344.7
1987–88	245	762	421.6	435	281	176	353.0
1988–89	194	769	536.9	449	286	286	461.0
1989–90	240	792	639.5	493	305	291	539.0
1990–91	279	1,129	898.0	686	433	314	689.0
1991–92	315	1,278	n.y.a.	749	499	398	943.0

(a) Before ginning. (b) Estimated by the Australian Bureau of Agricultural and Resource Economics.
Source: Summary of Crops, Australia (7330.0) and Value of Agricultural Commodities Produced, Australia (7503.0).

Sugar cane is grown commercially in Australia along the east coast over a distance of some 2,100 kilometres in a number of discontinuous areas from Maclean in northern New South Wales to Mossman in Queensland. The geographical spread contributes to the overall reliability of the sugar cane crop and to Australia's record as a reliable sugar supplier.

Approximately 95 per cent of production occurs in Queensland, with some 75 per cent of the crop grown north of the Tropic of Capricorn in areas where rainfall is reliable and the warm, moist and sunny conditions are ideal for the growing of sugar cane. Farm sizes generally range between 20 and 70 hectares.

15.26 SUGAR CANE: AREA, PRODUCTION AND YIELD

	New South Wales					Queensland				
	Sugar cane cut for crushing			Raw sugar(a)		Sugar cane cut for crushing			Raw sugar(a)	
Year	Area harvested ('000 ha)	Production (tonnes)	Yield ('000 t/ha)	Quantity (tonnes)	Yield ('000 t/ha)	Area harvested ('000 ha)	Production (tonnes)	Yield ('000 t/ha)	Quantity (tonnes)	Yield ('000 t/ha)
1986–87	14	1,276	93.2	168	7.0	287	23,466	81.8	3,202	11.2
1987–88	16	1,632	60.4	195	7.2	291	23,200	64.4	3,483	9.7
1988–89	15	1,560	104.0	196	13.1	302	25,586	85.9	3,483	11.5
1989–90	15	1,388	92.5	179	11.9	307	25,552	83.2	3,618	11.8
1990–91	14	1,137	81.2	180	12.9	311	23,232	74.7	2,931	9.4
1991–92	15	1,416	94.4	240	16.0	314	19,225	61.2	4,016	12.8

(a) In terms of 94 net titre.
Source: Summary of Crops, Australia (7330.0).

Fodder crops. Considerable areas of Australia are devoted to fodder crops which are utilised either for grazing (as green feed), or harvested and 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 seasonal and comparatively unreliable nature of rainfall in Australian agricultural areas.

15.27 FODDER CROPS: AREA AND PRODUCTION

	Hay(a)			Green feed or silage(b)	
		Production			
Year	Area ('000 ha)	Quantity ('000 tonnes)	Gross value ($m)	Area ('000 ha)	Silage made ('000 tonnes)
1986–87	306	942	72.9	1,190	679
1987–88	344	1,003	85.8	1,313	878
1988–89	323	1080	106.8	1,152	825
1989–90	297	964	104.0	1,054	723
1990–91	336	1,068	112.3	786	574
1991–92	450	1,489	123.1	756	n.y.a.

(a) Principally oaten and wheaten hay. (b) Principally from oats, barley, wheat and forage sorghum.
Source: Summary of Crops, Australia (7330.0).

15.28 FARM STOCKS OF CEREAL GRAINS, HAY AND SILAGE
('000 tonnes)

	Cereal grains				
At 31 March	*Barley*	*Oats*	*Wheat*	*Hay*	*Silage*
1987	729	1,406	1,045	5,783	817
1988	693	1,366	962	4,972	757
1989	702	1,550	1,028	5,550	975
1990	655	1,610	954	5,687	991
1991	697	1,420	1,213	5,332	1,018
1992	868	1,378	1,035	5,394	1,014

Source: Summary of Crops, Australia (7330.0).

LIVESTOCK

The numbers of each of the principal kinds of livestock in Australia at ten-yearly intervals from 1861 to 1971, and yearly from 1981, are given in the following table.

The years in which the numbers of livestock attained their peaks are as follows: cattle, 1976 (33,434,000); sheep, 1970 (180,080,000); and pigs, 1973 (3,259,000).

15.29 LIVESTOCK
('000)

Year	*Cattle*	*Sheep*	*Pigs*	*Year*	*Cattle*	*Sheep*	*Pigs*
1861	3,958	20,135	351	1981	25,168	134,407	2,430
1871	4,276	41,594	543	1982	24,553	137,976	2,373
1881	7,527	62,184	816	1983	22,478	133,237	2,490
1891	10,300	97,881	891	1984	22,161	139,242	2,527
1901	8,640	70,603	950	1985	22,784	149,747	2,512
1911	11,745	98,066	1,026	1986	21,820	146,776	2,512
1921	13,500	81,796	674	1987	21,915	149,157	2,611
1931	11,721	110,568	1,072	1988	21,851	152,443	2,706
1941	13,256	122,694	1,797	1989	22,434	161,603	2,671
1951	15,229	115,596	1,134	1990	23,191	170,297	2,648
1961	17,332	152,579	1,615	1991	23,662	163,238	2,531
1971	24,373	177,792	2,590	1992	23,880	148,203	2,792

Source: Livestock and Livestock Products, Australia (7221.0).

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 dairy herds. While dairy cattle are restricted mainly to southern and to coastal districts, beef cattle are more concentrated in Queensland and New South Wales. Cattle numbers in Australia increased slowly during the 1960s and 1970s, despite seasonal changes and heavy slaughterings, to a peak of 33.4 million in 1976. Beef cattle production is often combined with cropping, dairying and sheep. In the northern half of Australia, cattle properties and herd sizes are very large, pastures are generally unimproved, fodder crops are rare and beef is usually the only product. The industry is more intensive in the south because of the more favourable environment including more improved pasture.

15.30 CATTLE BY AGE, SEX AND PURPOSE
('000)

Classification	1987	1988	1989	1990	1991	1992
						31 March
Milk cattle						
Bulls used or intended for service	37	36	36	33	31	31
Cows, heifers and heifer calves	2,561	2,506	2,476	2,461	2,399	2,379
House cows and heifers	41	38	34	28	(a)	(a)
Total	*2,639*	*2,581*	*2,546*	*2,523*	*2,430*	*2,432*
Meat cattle						
Bulls used or intended for service	513	528	551	582	538	521
Cows and heifers (1 year and over)	9,795	9,818	10,120	10,577	10,687	10,748
Calves under 1 year	4,738	4,716	4,816	5,107	5,208	5,128
Other cattle (1 year and over)	4,230	4,207	4,402	4,401	4,799	5,050
Total	*19,276*	*19,270*	*19,888*	*20,668*	*21,232*	*21,447*
Total all cattle	**21,915**	**21,851**	**22,434**	**23,191**	**23,662**	**23,880**

(a) Not collected.
Source: Livestock and Livestock Products, Australia (7221.0).

15.31 CATTLE
('000)

31 March	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*Aust.*
1987	4,868	3,478	9,011	912	1,660	535	1,439	21,915
1988	4,962	3,474	8,825	947	1,705	542	1,385	21,851
1989	5,329	3,509	8,994	943	1,702	560	1,388	22,434
1990	5,506	3,646	9,489	969	1,673	569	1,327	23,191
1991	5,653	3,631	9,856	990	1,584	584	1,353	23,662
1992	5,697	3,574	10,005	1,016	1,649	593	1,334	23,880

Source: Livestock and Livestock Products, Australia (7221.0) and Selected Agricultural Commodities, Australia, Preliminary (7112.0).

Sheep

With the exception of a short period in the early 1860s, 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 presently the second largest sheep raising State, with Victoria ranking third in numbers of sheep.

Sheep numbers reached a peak of 180 million in Australia in 1970. Following subsequent falls, by March 1990, flock numbers had risen to 170 million. However, poor market prospects for both wool and live sheep exports since 1990 have had a marked impact on flock reduction and numbers declined to 147 million in 1992.

15.32 SHEEP AND LAMBS
(millions)

31 March	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.*
1987	52.2	26.6	14.6	17.2	33.5	5.0	149.2
1988	54.9	27.0	14.4	17.4	34.0	4.7	152.4
1989	59.1	28.1	14.9	17.4	37.1	4.9	161.6
1990	62.1	29.3	16.7	18.4	38.4	5.3	170.3
1991	59.8	27.5	17.4	17.2	36.5	4.8	163.2
1992	53.6	24.8	15.3	16.1	34.1	4.3	148.2

Source: Livestock and Livestock Products, Australia (7221.0) and Selected Agricultural Commodities, Australia, Preliminary (7112.0).

15.33 SHEEP AND LAMBS
(millions)

	Sheep (1 year and over)				Lambs and hoggets (under 1 year)	Total sheep and lambs
31 March	Rams	Breeding ewes	Other ewes	Wethers		
1987	1.7	72.1	4.2	37.5	33.6	149.2
1988	1.7	71.6	4.3	39.1	35.7	152.4
1989	1.8	74.8	4.7	43.7	36.6	161.6
1990	1.8	74.8	6.0	47.7	40.1	170.3
1991	1.7	67.0	9.7	48.7	36.1	163.2
1992	1.6	65.5	7.9	45.5	27.8	148.2

Source: Livestock and Livestock Products, Australia (7221.0).

Pigs

15.34 PIGS
('000)

31 March	NSW	Vic.	Qld	SA	WA	Tas.	Aust.
1987	830	432	579	422	295	46	2,611
1988	853	437	617	441	307	48	2,706
1989	855	423	611	450	285	45	2,671
1990	865	428	600	437	272	42	2,648
1991	821	403	596	400	271	38	2,531
1992	1,022	431	560	420	318	40	2,792

Source: Livestock and Livestock Products, Australia (7221.0).

Poultry

15.35 POULTRY
('000)

	Chickens			Other poultry			
31 March	Hens and pullets for egg production	Meat strain chickens (broilers)	Total chickens(a)	Ducks	Turkeys	Other poultry	Total all poultry
1987	13,506	39,187	55,579	350	1,249	430	57,608
1988	13,463	47,988	64,201	663	1,585	365	66,813
1989	13,193	39,709	56,149	263	1,125	420	57,957
1990	13,084	43,906	59,956	276	1,240	449	61,920
1991	12,590	39,883	55,116	364	1,446	455	57,382
1992	10,994	44,750	60,071	n.p.	n.p.	(b)2,354	62,364

(a) Includes breeding stock. (b) Includes ducks and turkeys.
Source: Livestock and Livestock Products, Australia (7221.0).

MEAT PRODUCTION AND SLAUGHTERINGS

Tables 15.36 and 15.37 contain details of slaughterings and meat production from abattoirs, commercial poultry and other slaughtering establishments and include estimates of animals slaughtered on farms and by country butchers. The data relate only to slaughterings for human consumption and do not include animals condemned or those killed for boiling down.

15.36 PRODUCTION OF MEAT(a) ('000 tonnes)

					Carcass weight		Dressed weight(b)(c)	
Year	*Beef*	*Veal*	*Mutton*	*Lamb*	*Pig meat*	*Total meat*	*Total all chickens*	*Poultry(d)*
1986–87	1,481	40	288	296	283	2,388	344	380
1987–88	1,549	39	293	293	297	2,471	(e)362	401
1988–89	1,459	32	254	290	308	2,343	(e)368	407
1989–90	1,642	35	333	295	317	2,622	(e)380	425
1990–91	1,723	36	381	287	312	2,741	(e)388	430
1991–92	1,753	38	392	275	336	2,793	416	457

(a) Excludes offal. (b) Excludes the Northern Territory and the Australian Capital Territory. (c) Dressed weight of whole birds, pieces and giblets. (d) Includes other fowls, turkeys, ducks and drakes. (e) Excludes Tasmania.
Source: Livestock Products, Australia (7215.0).

15.37 NUMBERS OF LIVESTOCK AND POULTRY SLAUGHTERED FOR HUMAN CONSUMPTION (million head)

Year	*Cattle*	*Calves*	*Sheep*	*Lambs*	*Pigs*	*Chickens (a)*	*Other fowls(b) and turkeys*	*Ducks and drakes*
1986–87	6.8	1.2	14.7	17.7	4.7	269.3	11.2	2.1
1987–88	6.9	1.2	14.9	17.2	4.9	(c)273.6	11.1	2.3
1988–89	6.3	1.0	12.4	16.5	5.0	(c)274.1	10.6	2.2
1989–90	6.9	1.0	16.1	16.8	4.9	(c)285.5	10.8	2.2
1990–91	7.3	1.0	18.2	16.4	4.9	(c)283.7	9.9	2.3
1991–92	7.6	1.1	18.8	15.8	5.1	(c)293.5	8.7	2.2

(a) Comprises broilers, fryers and roasters. (b) Comprises hens, roosters, etc. (c) Excludes Tasmania.
Source: Livestock Products, Australia (7215.0) and Agricultural Statistics, Australian Bureau of Statistics.

15.38 GROSS VALUE OF LIVESTOCK SLAUGHTERINGS AND OTHER DISPOSALS(a) ($ million)

Year	*Cattle and calves*	*Sheep and lambs*	*Pigs*	*Poultry*	*Total*
1986–87	2,824.7	721.2	468.5	601.7	4,624.6
1987–88	3,047.9	803.9	536.1	671.2	(b)5,074.3
1988–89	3,189.6	738.3	629.3	730.3	(b)5,300.8
1989–90	3,860.5	585.4	656.0	777.9	(b)5,893.3
1990–91	3,869.4	373.3	691.0	788.3	(b)5,730.0
1991–92	3,738.2	430.4	657.1	768.0	(b)5,635.7

(a) Includes adjustment for net exports of live animals. (b) Includes goats and buffalo.
Source: Value of Agricultural Commodities Produced, Australia (7503.0) and Value of Selected Agricultural Commodities Produced, Australia, Preliminary (7502.0).

15.39 EXPORTS OF FRESH, CHILLED OR FROZEN MEAT(a)
('000 tonnes)

	Beef(b)(c)		*Veal(b)*		*Mutton(b)*		*Lamb*		
	Bone-in	*Bone-out*	*Bone-in*	*Bone-out*	*Bone-in*	*Bone-out*	*Bone-in*	*Bone-out*	*Pork*
1986–87	4.6	555.3	2.1	3.5	49.9	57.9	53.7	1.5	3.9
1987–88	7.6	310.2	0.4	2.7	31.5	34.0	26.3	1.3	3.0
1988–89	47.4	493.7	1.0	5.3	32.6	53.7	34.9	2.7	6.6
1989–90	83.1	579.8	1.1	4.6	63.3	55.0	36.4	3.6	6.2
1990–91	83.8	661.9	1.0	5.1	91.0	64.9	41.4	3.4	5.4
1991–92	99.8	691.2	1.5	5.7	103.7	75.0	39.4	4.6	5.0

(a) Excludes offal. (b) Factors can be applied to beef, veal, mutton and lamb bone-out figures to derive bone-in carcass weight which, when added to bone-in figures, shows total exports in carcass weight. The factor for beef and veal is 1.5 and that for mutton and lamb 2.0 (Source: Australian Meat and Livestock Corporation). (c) Includes buffalo meat.

Source: Agricultural Statistics, Australian Bureau of Statistics.

Production of sheep meats in Australia is closely associated with the wool industry. Sheep grazing often occurs on mixed farms in conjunction with beef and/or grain enterprises and in some areas producers specialise in lamb production. The supply of sheep meat depends greatly on seasonal conditions, decisions to build up or reduce flock numbers, expectations of wool prices, live sheep exports and the pattern of domestic consumption of meat. Production in 1991–92 has decreased by 2.5 per cent to 367,000 tonnes.

The opening of the Japanese and Korean beef markets in 1988 has provided substantial opportunities to increase beef exports. Exports to Korea reached 98,000 tonnes in 1991–92, 21 per cent higher than the previous season. Liberalisation of the Japanese market occurred in 1991. This involved removal of import quotas in exchange for a percentage of customs value. To cater for the type of beef required by the Japanese market, the number of feedlots is expected to increase.

Significant changes have taken place in the pig producing industry in recent years. Capital investment and corporate takeovers have seen the emergence of a few large companies producing 30 per cent of all pigs sold in Australia. These moves, on top of the trend to more intensive and efficient production techniques, have seen pigmeat production rise steadily since 1982 to reach 326,150 tonnes in 1991–92. In addition, there has been an increase in the slaughter weights of pigs reflecting the demands of the fresh pork trade.

WOOL

Wool production

Wool as shorn from the sheep ('greasy wool') contains an appreciable amount of grease, dirt, vegetable matter and other extraneous material. The exact quantities of these impurities in the fleece vary between differing climatic and pastoral conditions, with seasonal fluctuations and with the breed and condition of the sheep. It is, however, the clean wool fibre that is ultimately consumed by the textile industry and the term 'clean yield' is used to express the net wool fibre content present in greasy wool. Clean yields for Australia have gradually trended upwards; in 1990–91 and 1991–92 the clean yield of the Australian clip was 65.6 and 65.1 per cent, respectively.

15.40 SHEARING, WOOL PRODUCTION AND VALUE

			Wool production		Total wool	
Year	*Sheep and lambs shorn (million)*	*Average fleece weight (kg)*	*Shorn wool ('000 tonnes)*	*Other wool(a) ('000 tonnes)*	*Quantity ('000 tonnes)*	*Gross value (b) ($m)*
1986–87	180.8	4.50	813.7	76.6	890.4	3,334
1987–88	186.3	4.53	843.0	73.4	916.4	5,517
1988–89	196.4	4.58	898.9	60.1	959.0	5,906
1989–90	215.1	4.79	1,030.9	71.1	1,102.0	5,718
1990–91	212.9	4.65	989.2	76.9	1,066.1	4,181
1991–92	181.2	4.42	801.2	73.7	875.0	3,019

(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.
Source: Shearing and Wool Production Forecast, Australia (7211.0); Value of Agricultural Commodities Produced, Australia (7503.0); and Value of Selected Agricultural Commodities Produced, Australia, Preliminary (7502.0).

Wool receivals

The total amounts of taxable wool received by selling brokers and dealers in recent years are shown in the following table. It excludes wool received by brokers on which tax had already been paid by other dealers (private buyers) or brokers.

15.41 TAXABLE WOOL RECEIVALS

	Receivals			
Year	*Brokers (NCWSB)*	*Dealers(a)*	*Brokers and dealers*	*Dealers as per cent of total receivals*
	— '000 tonnes —			%
1986–87	625.8	188.2	814.0	23.1
1987–88	707.3	135.1	842.4	16.0
1988–89	755.1	136.5	891.5	15.3
1989–90	911.8	138.0	1,049.8	13.1
1990–91	916.3	96.4	1,012.7	9.5
1991–92	733.8	102.3	836.1	12.2

(a) Includes brokers who are not members of the National Council of Wool Selling Brokers of Australia (NCWSB).
Source: Livestock Products, Australia (7215.0).

Wool marketing arrangements

The auction system reverted to a 'free marketing' system during the 1990–91 season. The Reserve Price Scheme that had operated since 1974 was suspended in February 1991. It had become unworkable due to the massive accumulation of wool in the stockpile and the substantial debt which had been incurred. The stockpile of bales at 19 June 1992 was 4,069,294.

From 1 July 1991 the Australian Wool Corporation (AWC) was split into three separate organisations. The Australian Wool Corporation continues in a reduced form and is responsible for wool promotions programs, market regulations, shear training and encouraging efficiency within the sphere of wool handling and transport and market reporting. The Australian Wool Realisation Commission is responsible for the disposal of the wool stockpile, sale of assets and repayment of loans borrowed by the previous AWC to purchase wool. The Wool Research and Development Corporation is responsible for coordinating, developing and funding the wool research and development program.

DAIRYING

Dairying is a major Australian rural industry, ranking fourth behind the wheat, wool and beef industries in terms of value of production. The gross value of dairy production at farm gate prices in 1990–91 was $1,825 million or approximately nine per cent of the gross value of rural production. The gross value of this industry at an ex-factory level is approximately $4,200 million per annum. The industry is also one of Australia's leading rural industries in terms of the proportion of down stream employment and processing it generates. Employment at manufacturing, processing and farm establishments is estimated to be in the vicinity of 50,000 people.

Production

Australian milk production in 1991–92 was 6,732 million litres, an increase of 5.1 per cent compared with the previous year. This largely reflected productivity gains through a combination of farm and herd management techniques. Average production per dairy cow of 4,125 litres in 1991–92 was around a third higher than the levels of the early 1980s.

Domestic market

Average annual per capita milk consumption has stabilised at around 100 litres since the mid-1980s. However, there have been substantial changes in the types of fresh milk consumed, with fat reduced and modified milks taking an increasing share of overall market milk sales.

After growing strongly throughout the late 1980s, domestic sales of cheese have stabilised in recent years at slightly above 150,000 tonnes. This is approximately nine kilograms per capita on an annual basis. This reflects the fact that recent increases in sales of cheddar varieties (particularly lower fat varieties) have been offset by a decline in sales of round eye cheese (such as Swiss, Gouda and Edam). Imports, mainly of specialty cheese brands, account for around 15 per cent of domestic cheese sales.

Consumer preferences for healthier, more natural foods has boosted demand for short shelf life products in recent years. Yogurt sales in 1991–92 reached 72,055 tonnes which is about two-thirds higher than those recorded in the mid-1980s.

15.42 MILK CATTLE ('000)

		Cows and heifers used or intended for production of milk or cream for sale		
31 March	*Bulls used or intended for service*	*Cows (in milk and dry)*	*Heifers*	*House cows and heifers(a)*
1987	37	1,716	845	41
1988	36	1,676	830	38
1989	36	1,663	813	34
1990	33	1,653	808	28
1991	31	1,637	762	(b)
1992	31	1,652	749	(b)

(a) One year and over, kept for the establishment's own milk supply. (b) Not collected.
Source: Livestock and Livestock Products, Australia (7221.0) and Selected Agricultural Commodities, Australia, Preliminary (7112.0).

15.43 PRODUCTION, UTILISATION AND GROSS VALUE OF WHOLE MILK

Year	Market milk sales by factories	Milk used in the manufacture of dairy products	Whole milk intake by factories: Total intake	Gross value
	— million litres —			$m
1986–87	1,655	4,517	6,172	1,257.4
1987–88	1,667	4,462	6,129	1,390.9
1988–89	1,695	4,594	6,289	1,635.1
1989–90	1,705	4,558	6,263	1,749.0
1990–91	1,736	4,667	6,403	1,824.8
1991–92	1,765	4,965	6,731	1,911.0

Source: Australian Dairy Corporation.

BEEKEEPING

The beekeeping industry consists of approximately 300–400 full-time apiarists, who produce approximately 70 per cent of the Australian honey production, and a large number of part-time apiarists who produce the rest. Some of these apiarists move as far afield as from Victoria to Queensland in an endeavour to obtain a continuous supply of nectar for honey from suitable flora. While honey production remains the predominant sector of the industry, production of breeding stock and provision of pollination services is significant.

15.44 BEEKEEPING

Year	Number of apiarists	Honey produced: Number of beehives: Productive ('000)	Total ('000)	Quantity ('000 tonnes)	Average production per productive hive (kg)	Gross value ($'000)	Beeswax produced: Quantity (tonnes)	Gross value ($'000)(a)
1986–87	760	293	364	19.2	65.6	31,050	334	1,988
1987–88	770	285	366	23.0	80.8	32,523	428	1,940
1988–89	836	307	405	22.6	73.8	29,586	530	1,967
1989–90	819	298	405	21.2	71.2	26,113	412	1,546
1990–91	726	290	384	20.6	71.2	26,078	381	1,389
1991–92	651	264	366	18.9	71.9	29,693	390	1,175

(a) Includes pollen.
Source: Agricultural Census, Australian Bureau of Statistics.

APPARENT CONSUMPTION OF FOODSTUFFS

Estimates of the consumption of foodstuffs in Australia are compiled by deducting exports from the sum of production and imports and allowing for recorded movement in stocks of the respective commodities. The term 'consumption' is used in a specialised sense. The estimates derived are broadly the quantities available for consumption at a particular level of distribution, that is, ex-market, ex-store or ex-factory depending on the method of marketing and/or processing. Because consumption of foodstuffs is measured, in general, at 'producer' level no allowance is made for wastage before they are consumed. The effect of ignoring wastage is ultimately to overstate consumption to some extent.

The estimates of consumption per capita have been obtained by using the mean resident population for the period.

Table 15.45 shows the changes in trends in the consumption of various foodstuffs over the past fifty years.

15.45 APPARENT PER CAPITA CONSUMPTION OF FOODSTUFFS
(kg — unless otherwise indicated)

Commodity	1938–39	1948–49	1958–59	1968–69	Average 3 years ended 1978–79	Average 3 years ended 1988–89	Latest year 1990–91
Meat and meat products							
Meat (carcass equivalent weight)							
Beef	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	39.2
Veal	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	1.5
Beef and Veal	*63.6*	*49.5*	*56.2*	*40.0*	*64.8*	*40.1*	*40.7*
Lamb	6.8	11.4	13.3	20.5	14.4	14.9	14.1
Mutton	27.2	20.5	23.1	18.8	3.6	7.3	7.7
Pigmeat(a)	3.9	3.2	4.6	6.7	13.3	17.5	18.0
Total	*101.5*	*84.6*	*97.2*	*85.9*	*96.1*	*79.8*	*80.5*
Offal and meat, n.e.i.	3.8	4.0	5.2	5.1	5.9	3.1	3.8
Total meat and meat products (carcass equivalent weight)	**118.5**	**103.0**	**112.4**	**98.8**	**102.0**	**83.0**	**84.4**
Canned meat (canned weight)	1.0	1.2	1.9	2.2	1.6	n.a.	n.a.
Bacon and ham (cured carcass weight)	4.6	5.3	3.2	3.6	6.0	6.9	7.1
Poultry							
Poultry (dressed weight)	n.a.	n.a.	n.a.	8.3	17.1	24.3	25.4
Milk and milk products							
Market milk (fluid whole litres)	106.4	138.7	128.7	128.2	100.5	101.8	101.1
Cheese (natural equivalent weight)	2.0	2.5	2.6	3.5	5.3	8.3	8.7
Oils and fats							
Butter	14.9	11.2	12.3	9.8	5.1	3.2	2.8
Margarine							
Table margarine	0.4	0.4	n.a.	1.5	5.4	6.8	6.7
Other margarine	1.8	2.4	2.2	3.4	3.1	2.2	1.9
Total margarine	*2.2*	*2.8*	*n.a.*	*4.9*	*8.5*	*9.0*	*8.6*
Beverages							
Tea	3.1	2.9	2.7	2.3	1.7	1.2	1.0
Coffee(b)	0.3	0.5	0.6	1.2	1.6	2.0	2.1
Aerated and carbonated waters (litres)	n.a.	n.a.	n.a.	47.3	67.4	79.9	96.7
Beer (litres)	53.2	76.8	99.7	113.5	133.2	111.7	108.4
Wine (litres)	2.7	5.9	5.0	8.2	14.7	20.2	17.8
Spirits (litres alcohol)	0.5	0.8	0.7	0.9	1.2	1.2	1.2

(a) Includes pigmeat for bacon and ham. (b) Coffee and coffee products in terms of roasted coffee.
Source: Apparent Consumption of Foodstuffs and Nutrients, Australia (4306.0).

AGRICULTURAL IMPROVEMENTS

Irrigation

Irrigation is one of the factors by which agriculture is 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 used in areas where the quantity is adequate and the quality is suitable. The area of land irrigated (approximately 2.0 million hectares in 1990–91) forms 10.8 per cent of the total area under crops.

15.46 AREA IRRIGATED, YEAR ENDED 31 MARCH 1991(a)
(hectares)

Source of water used	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*Aust.(b)*
Surface water							
From State irrigation schemes	419,017	453,648	144,299	21,658	14,817	4,202	1,057,710
From other schemes (including private group schemes)							
Direct from rivers, creeks, lakes, etc.	395,162	38,884	38,336	17,890	2,130	14,389	507,224
From farm dams	38,209	29,407	44,890	5,030	7,451	24,907	150,094
Total surface water	*852,389*	*521,939*	*227,525*	*44,578*	*24,398*	*43,499*	*1,715,027*
Underground water supply (for example, bore, spear, well)	53,324	28,461	130,214	64,967	6,989	2,565	287,641
Town or country reticulated water supply	1,085	2,899	196	640	101	133	5,133
Total all water sources	**906,798**	**553,299**	**357,935**	**110,185**	**31,488**	**46,197**	**2,007,781 (c)**

(a) Data for irrigation collected every 3 years. (b) Also includes figures for the Australian Capital Territory and Northern Territory. (c) Includes unspecified sources.
Source: Summary of Crops, Australia (7330.0).

Fertilisers

Most Australians soils are deficient in phosphorous. Because of this and the significant but less widespread deficiency of sulphur in many soils, phosphatic fertilisers, particularly single superphosphate, account for the bulk of fertiliser usage. Over half of superphosphate is used on pastures in areas with moderate to good rainfall. Large quantities are also used on cereal crops. Nitrogen deficiency is also general in Australian soils and the use of nitrogenous fertilisers is increasing. Potassium deficiency however is confined mainly to soils in the higher rainfall areas which are intensively cropped or used for irrigated pastures.

15.47 ARTIFICIAL FERTILISERS: AREA AND USAGE

Year	*Area fertilised ('000 ha)*	*Super-phosphate used ('000 tonnes)*	*Nitrogenous fertilisers used ('000 tonnes)*	*Other fertilisers used ('000 tonnes)*
1986–87	24,064	1,981	416	830
1987–88	26,651	2,454	431	953
1988–89	27,871	2,523	438	971
1989–90	27,360	2,378	483	1,010
1990–91	23,627	(a)	(a)	(b)3,239
1991–92	19,517	(a)	(a)	(b)2,678

(a) Not collected. (b) Includes all fertiliser categories.
Source: Summary of Crops, Australia (7330.0).

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Chapter Sixteen

Forestry and Fishing

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FORESTRY

Forests are an important sustainable national resource providing a wide range of indispensable products and benefits to the community.

The cover of forest vegetation protects the soil from water and wind erosion, reduces flooding and siltation of water storages and maintains the quality of water. Forests provide habitat for a variety of native animals and plants.

Native and plantation forests contribute substantially to Australia's economic performance especially to employment in rural areas. Forests also represent valuable ecosystems providing a gene pool of great diversity for scientific investigation; a source of honey, oils, gums, resins and medicines; and a resource base for education, tourism and recreation and other purposes. Not all forests are necessarily suitable for all types of uses at the same time, yet careful management will ensure that the forests provide multiple benefits in the long term for the Australian community.

Existing forest estate

Native forest is defined as land dominated by trees with an existing or potential mature height of twenty metres or more, including native stands of cypress pine in commercial use regardless of height. The total area of native forest was estimated at 41 million hectares as at 30 June 1991.

Of the 41 million hectares, 6.2 million hectares (15%) are in national parks or on the World Heritage List, 10.9 million hectares (27%) of native forest are on private land, and 30 million hectares (73%) are publicly owned, of which 11.9 million hectares are managed by State forest authorities for various uses, including wood production (table 16.1). A small but increasing area is covered by plantations — 940,000 hectares of mostly radiata pine and 106,000 hectares of hardwood plantations (table 16.2).

16.1 NATIVE FOREST AREAS, BY FOREST TYPE AND OWNERSHIP, AT 30 JUNE 1991
('000 hectares)

Item	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Total*
CLASSIFIED BY FOREST TYPE GROUP									
Rainforest	265	16	1,237	—	—	605	38	—	2,161
Eucalypt productivity(a)									
Class I	1,163	521	205	—	181	459	—	—	2,529
Class II	3,661	4,427	1,290	—	2,502	1,868	—	—	13,748
Class III	7,937	397	3,300	—	—	—	—	51	11,685
Tropical eucalypt and paperbark	—	—	4,078	—	—	—	2,450	—	6,528
Cypress pine	1,696	7	1,686	—	—	—	778	—	4,167
Total	**14,722**	**5,368**	**11,796**	—	**2,683**	**2,932**	**3,266**	**51**	**40,818**
CLASSIFIED BY OWNERSHIP									
Public ownership	9,530	4,763	10,304	—	2,188	2,073	839	51	29,748
Category 1(b)	3,253	3,132	3,071	—	1,792	1,042	—	—	12,290
Category 2(c)	3,781	—	6,412	—	51	461	524	—	11,229
Category 3(d)	2,496	1,631	(e)821	—	345	570	315	51	6,229
Private ownership	5,192	605	1,492	—	495	859	2,427	—	11,070
Total	**14,722**	**5,368**	**11,796**	—	**2,683**	**2,932**	**3,266**	**51**	**40,818**

(a) Eucalypt forests are grouped into productivity classes in descending order of productivity. No specific indexes of productivity have been developed for these classes and there can be some overlap, especially between States, in the relative productivity levels used to assign particular forest types to productivity classes. (b) Forest land managed for multiple use including wood production. (c) Crown land either vacant or occupied under lease on which wood harvesting is carried out under government control but is not reserved and managed for that purpose. (d) Land on which wood production is excluded (National Parks etc.). (e) Includes 101,500 hectares in World Heritage Area previously included in Category 1.

Source: State and Territory forest services.

Plantations. Commonwealth Government programs have supported the expansion of Australia's plantation resource base for many years.

The National Afforestation Program (NAP) was established in 1987–88 as a three year grants program to stimulate an expansion in the commercial hardwood timber resource and to assist in land rehabilitation through assistance for broadacre commercial plantations (including farm forestry). Priority was given to strategically placed plantations, major land rehabilitation schemes, and related research and demonstration projects. NAP provided $14.7 million in assistance for projects and attracted more than double this contribution ($35 million) from the States and private sector. Of the total 30,000 hectares of hardwood plantations established in Australia during the period that NAP existed approximately 16,000 hectares were established under the NAP program. Under the land rehabilitation component approximately 1,400 hectares were established to tree cover and 3,000 hectares through natural regeneration.

The National Plantations Advisory Committee was established in December 1990 to provide advice to the Commonwealth Government on a national strategy to foster private sector plantation development on cleared agricultural land, particularly hardwood trees. The Committee's report was released in November 1991 and its findings are being considered in the context of a National Forest Policy Statement.

An increased interest in the establishment of eucalypt plantations is evident, particularly in Tasmania. Table 16.2 shows total plantation areas in Australia classified by species.

16.2 PLANTATION AREAS CLASSIFIED BY SPECIES, 31 MARCH 1991
(hectares)

Species group	*NSW(a)*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT(b)*	*ACT*	*Aust.*
PUBLIC AND PRIVATE OWNERSHIP									
Coniferous									
Pinus radiata	241,929	208,232	3,360	57,221	97,688	73,149	—	13,786	695,365
Pinus elliottii	5,020	8	(c)78,864	(d)288	—	—	—	—	84,180
Pinus pinaster	25	721	—	28,172	3,036	—	—	—	31,954
Pinus caribaea	104	3	52,935	—	—	—	2,486	—	55,528
Araucaria species	1,631	—	45,543	—	—	—	—	—	47,174
Other	(e)10,673	2,003	8,944	673	364	334	1,801	514	25,306
Total	*259,382*	*210,967*	*189,646*	*86,354*	*101,088*	*73,483*	*4,287*	*14,300*	*939,507*
Broadleaved									
Eucalyptus species	26,429	18,655	1,557	21,360	1,082	32,580	—	—	101,663
Populus species	1,555	196	—	—	—	—	—	—	1,751
Other	1	41	219	—	—	2,700	—	—	2,961
Total	*27,985*	*18,892*	*1,776*	*21,360*	*1,082*	*35,280*	—	—	*106,375*
Total	**287,367**	**229,859**	**191,422**	**107,714**	**102,170**	**108,763**	**4,287**	**14,300**	**1,045,882**

(a) Eucalypt plantation areas previously classified as native forest in table 16.1 are now recorded separately in table 16.2. (b) Since 31 March 1986, plantations on Aboriginal land have been transferred to private ownership and publicly owned plantations are no longer managed for wood production. (c) Includes APM resource which is being liquidated. (d) Includes *Pinus caribaea*. (e) Other coniferous includes *Pinus pinaster* and *Pinus caribaea*.

Source: State and Territory forest services.

Timber and timber products

The woodchip export industry uses timber which is unsuitable for sawmilling and not required by the Australian pulp, paper and reconstituted board industries. Before the advent of the woodchip export industry much of this material was left standing in the forest after logging. Considerable quantities of sawmill waste material, which would otherwise be burnt, are also chipped for local pulpwood-using industries and for export. Until recently, at least 95 per cent of woodchips exported from Australia have been eucalypt but increasing quantities of softwood woodchips are now becoming available from pine plantations.

16.3 TIMBER PROCESSING ESTABLISHMENTS(a): SUMMARY OF OPERATIONS, 1990–91

1983 ASIC(b) code	*Industry description*	*Establish-ments at 30 June*	*Employment at 30 June(c)*	*Wages and salaries(d)*	*Turnover*
		no.	'000	$m	$m
2531	Log sawmilling	485	9.6	224.7	934.3
2533	Veneers and manufactured boards of wood	76	4.7	146.2	808.7
2537	Hardwood wood chips	12	0.7	28.6	339.2

(a) Data in this table exclude the operations of single establishment businesses with less than four persons employed. (b) Australian Standard Industrial Classification. (c) Includes working proprietors. (d) Excludes the drawings of working proprietors.
Source: Manufacturing Industry, Australia (8221.0).

16.4 PRODUCTION OF TIMBER AND SELECTED TIMBER PRODUCTS(a)

Item	*Quantity*	*1988–89*	*1989–90*	*1990–91*	*1991–92*
Sawn Australian grown timber(b)	'000 cu m	3,225	3,172	2,685	2,846
Woodchips (green weight)					
Hardwood (broad leaved)	'000 tonnes	n.a.	r5,169	r5,019	4,839
Softwood	'000 tonnes	n.a.	718	r960	1,307
Particle board(c)	'000 cu m	n.a.	768	625	644
Wood pulp					
Mechanical	'000 cu m	438,775	430,665	428,464	427,962
Other	'000 cu m	597,160	599,711	593,374	591,202
Paper and paperboard					
Newsprint	tonne	401,269	383,657	394,990	403,728
Tissue and sanitary papers	tonne	n.p.	163,072	r133,800	n.p.
Graphic	tonne	n.a.	n.p.	n.p.	331,541
Other paper and paperboard	tonne	n.a.	r766,690	777,407	806,770

(a) Excludes production of small single establishment enterprises with fewer than four persons employed and establishments engaged in non-manufacturing activities but which may carry on, in a minor way, some manufacturing. (b) Source: Australian Bureau of Agricultural and Resource Economics. (c) Particle boards and similar boards of wood or other ligneous material. Excludes laminated.
Source: Manufacturing Production, Australia: Building Materials and Fittings (8361.0) and Manufacturing Production, Australia: Wood and Wood Products (8369.0).

Government administration

Land management is primarily the responsibility of State and Territory Governments. Each State has a forest authority responsible for the management and control of publicly-owned forests, in accordance with the Forestry Acts and Regulations of the State or Territory concerned.

The Department of Primary Industries and Energy (DPIE) and the Department of the Arts, Sport, the Environment and Territories (DASET) are the two key agencies responsible for forest management at the national level. Close liaison is maintained between the two agencies on relevant issues. DPIE's main responsibilities are the development of a national approach to forest management; providing advice to the Commonwealth Minister responsible for forest matters; administration of export licensing responsibilities in relation to unprocessed timber; liaison with State, national and international organisations concerned with forestry; provision of a Secretariat for the Australian Forestry Council; and management of policy and program initiatives.

DASET also has significant direct responsibilities for forest matters. DASET advises its Minister and the Government on policy for the conservation and ecologically sustainable development of Australia's forests.

DASET's Environment Program manages and develops forest policy through a range of sub-programs including national forest strategies, biological diversity, climate change, international forest and environmental economics. The Australian Heritage Commission, the Australian National Parks and

Wildlife Service and the Commonwealth Environmental Protection Agency (government administrative bodies within DASET) undertake assessment, management and monitoring roles in respect to Australia's forests.

DPIE and DASET, in close cooperation with the State, Territories and Ministerial Councils, have been extensively involved in the development of the ecologically sustainable development working group on forest use report, the National Forest Policy Statement and the National Forest Inventory.

The Australian Forestry Council (AFC) consists of State, Territory, Commonwealth and New Zealand Ministers responsible for forests. The Commonwealth Minister for Resources is the chairman of the Council. Since its formation in 1964, the Council has worked to provide leadership and facilitated cooperation at the national level.

Initiatives fostered by the AFC are aimed at promoting the enhanced management of the nation's forest resource in the general interest of the community. Most recently it has been involved in the development of a National Forest Policy Statement in cooperation with the Australian and New Zealand Environment and Conservation Council.

Commonwealth government initiatives

The National Forest Policy Statement has been developed under the joint auspices of the Australian Forestry Council and the Australian and New Zealand Environment and Conservation Council, with ongoing consultation with industry and the conservation and trade union movements. The Statement is a response to three major reports on forest issues: the Resource Assessment Commission Forest and Timber Inquiry (released in March 1992); the Ecologically Sustainable Development Working Group on Forest Use; and the National Plantations Advisory Committee. A draft Statement was released in July 1992 for public comment.

The Statement outlines a shared vision for Australia to be a world leader in the ecologically sustainable management and use of its forest estate. Important aspects of this vision are for Australia to have an extensive forest estate, to protect forest conservation values, to increase the size and the productivity of the plantation base, and to develop an internationally competitive and ecologically sustainable forest products industry.

To achieve this vision and ensure the community obtains a balanced and equitable return from all forest uses, a number of national goals are proposed, specifically:

- maintenance of a permanent native forest estate and conservation of a range of non-commercial forest values including biological diversity, heritage, Aboriginal and other cultural values;
- development of a dynamic, internationally competitive, and ecologically sustainable wood production and forest products industry that can maximise efficient use of wood resources, develop value adding industries and generally improve industry productivity and create sustained employment and economic matters;
- improving the land use decision making processes by reducing fragmentation and duplication between the States and the Commonwealth;
- ensuring private native forests are maintained and managed in an ecologically sustainable manner as part of the permanent native forest estate, as a resource in their own right, and to complement the commercial and nature conservation values of public native forests;
- increasing the extent of plantings of softwood and native hardwoods to provide an additional, reliable, high quality wood resource and in some cases to rehabilitate degraded farmland and improve water quality;
- ensuring availability of high quality supplies from forest land and protection of catchment values;
- fostering community understanding of and support for ecologically sustainable forest management and providing opportunities for effective public participation in decision making;
- managing forests in an ecologically sustainable manner for a range of uses including tourism and recreation and for the creation of employment opportunities;
- increasing the national forest research and development effort and ensuring that it is well coordinated, efficiently undertaken and effectively applied; and

- promoting nature conservation and sustainable utilisation of forest outside Australia and ensuring that Australia fulfils its obligations under relevant international agreements.

The One billion trees (OBT) Program is designed to encourage community participation and involvement in vegetation establishment and retention projects.

The program was initiated by the Commonwealth Government in 1989 as part of the Landcare initiative. It is the Commonwealth Government's principal vegetation management program. The OBT Program was designed with the primary aim of having a billion more trees established around Australia by the year 2000.

The Commonwealth, through the Australian National Parks and Wildlife Service, has provided $4,300,000 for 1992–93 to Greening Australia, a non-profit community-based organisation to implement most of the OBT Program. State and Territory Greening Australia staff provide technical information, advice and practical support to help individuals and groups to develop community-based landcare and conservation activities.

Greening Australia conducts school based and community education projects to develop a knowledge and understanding of the processes of vegetation decline, land degradation and remedial vegetation management.

The Australia-wide network of Greening Australia staff and volunteers conduct trials and demonstrations on how to establish and sustain vegetation, how to develop seed banks and collect seed from local species, conduct species trials, and coordinate major revegetation projects.

To provide a further incentive for community groups to become involved in the OBT Program, the Commonwealth has provided $900,000 for 1992–93 for cooperative projects involving revegetation for land and nature conservation. Projects that may attract assistance include wildlife habitats and corridors, shelterbelts and livestock havens, species trials, seed collection, preservation of remnant vegetation, beautification and amenity planting, and land degradation control and prevention. Emphasis is placed on community involvement and self-help, and on maximising the extent of community benefit. The program is closely linked to the Save the Bush program with a number of projects attracting funding from both programs.

National forests inventory. In many of the debates over forest management, the information base on forest attributes, such as timber, fauna and flora, has been found to be incomplete. Accordingly in late 1988, the Government initiated a National Forest Inventory (NFI).

Achievements to-date in the NFI include: the development of a strong relationship with the State partners in the program, the progressive development of uniform data standards, a continental overview of forests and the development of regional scale inventories in priority areas. In addition, NFI data is being used to assist in the preparation of national forest reports, environmental impact statements and local management plans.

In mid-1992, representatives of governments developed a new Strategic Plan identifying the focus, priorities and expected results of the NFI cooperative effort over the next three years. The further development of regional datasets are key elements of the Plan. They will compliment the NFI's continental scale inventory by providing detailed information on a range of forest attributes, including forest types, ownership, topography, geology, fauna and flora.

A comprehensive information base will lead to more informed discussion and decision making about the future of our forests by identifying and describing forest communities and their current conservation status, and information to enable the planning of efficient sustainable forest utilisation.

Tropical forests. Over half of the world's known plant and animal species are found in rainforests. Rainforests are the traditional home of many tribal peoples and also play an important role in contributing to global climatic stability. However, destruction of tropical forests in developing countries is occurring because of activities largely associated with population pressures and poverty. The clearing of land for agricultural purposes and inadequate or inappropriate forestry management practices are major concerns.

As a developed country which has already taken measures to conserve its own remaining tropical forests, Australia can make a positive contribution to the improvement of forest management practices in developing countries, by providing education, training and technical expertise.

In June 1992 the Commonwealth Government announced its policy on international trade in tropical timber. A key aspect of the policy is a commitment to the Year 2000 target set by the International Tropical Timber Organisation by which trade in tropical timber products should be derived from sustainably managed forests. Other aspects of the policy include support for the protection of biodiversity, reforestation through agroforestry and plantations, and the provision of technical and scientific assistance to other countries — largely in the Asia–Pacific region — to promote better forest management practices.

The policy measures will complement initiatives arising from the Rio Earth Summit including the Conventions on Climate Change and Biodiversity, Agenda 21 and The Statement of Principles on Forests.

Pulp mill guidelines. In December 1989 the Commonwealth established environmental guidelines for the development of new bleached eucalypt kraft pulp mills. To ensure the effective implementation of the Commonwealth guidelines and to streamline approval processes, the Commonwealth has concluded agreements with Tasmania, Western Australia and Victoria. These agreements make provision for the review of the guidelines to be brought forward if a major new mill was about to be considered and there have been commercially proven major new advances in pulping and bleaching technology.

To ensure that the Commonwealth guidelines remain current with global developments in pulping and bleaching technologies, the Government also announced in December 1989 the establishment of a National Pulp Mills Research Program (NPMRP). The NPMRP is a cooperative venture involving the Commonwealth Government and State Governments, community interest groups, industry and the CSIRO. The Program has as its principal objectives: expansion of basic knowledge in pulping of eucalypt woods and bleaching of the pulps, improving the currently available technology and developing more relevant and superior biological monitoring systems for the receiving waters.

The NPMRP has already commenced preparatory work towards reviewing the Commonwealth guidelines which will effectively begin in 1993. It is envisaged that the review will be completed in December 1994. This review will consider the issue of the appropriateness of the kraft technology for the Australian industry in the light of recent global developments, as well as the expansion of the scope of the guidelines to include emergent technologies. The review process will draw heavily on the results from research projects commissioned by the NPMRP, as well as continuing advances in global research and development in pulping and bleaching technology.

Research

The National Forest Policy Statement provides for the establishment of a Forest and Wood Products Research and Development Corporation by the Commonwealth Government in partnership with the forest industries. Its charter will be to identify priorities and to commission, administer and subsequently evaluate research into a broad range of issues relating to wood production, extraction, processing, economics and marketing.

Commonwealth Scientific and Industrial Research Organisation (CSIRO) forestry research is conducted primarily within the Division of Forestry and the Division of Forest Products. The emphasis is on strategic research concerned with the commercial production and processing of wood from both native eucalypt forests and plantations of eucalypts and softwoods.

The Division of Forestry is centred in Canberra with stations in Hobart, Mount Gambier and Perth. The Cooperative Research Centre for Temperate Hardwood Forestry is co-located with the Division in Hobart. The Division of Forest Products is based at Clayton, Melbourne.

Research is conducted in programs which are closely aligned to major forest resources and industry sectors: Softwood Plantations, Hardwood Plantations, Regrowth Forest Management, Australian Tree Resources, Paper and Paper Products, Composites and Chemical Products, Biodeterioration and Preservation and Wood Science and Technology. Prominent academic disciplines are tree physiology, nutrition, genetics, chemistry and engineering. CSIRO scientists have contributed to the formulation of guidelines for new bleached kraft eucalypt pulp mills.

Australia's trade deficit in forest products is $1.4 billion per year, reducing this deficit is a major target of governments, industry and research organisations. Sustained high production has long been a major goal of forestry research and plantations and regrowth of better native eucalypt forests are a focus of attention. Both types of forest will be important to meet national needs for pulp and paper.

FISHING

Fisheries resources

Australia's fisheries stocks are extremely diverse but, by world standards, its marine ecosystem is relatively unproductive. The Australian Fishing Zone covers an area 16 per cent larger than the Australian land mass and is the third largest fishing zone in the world. However, Australia's fish production is insignificant by world standards. This reflects low productivity of the oceans rather than under-exploitation of the resource.

Over 3,000 species of marine and freshwater fish occur in and around Australia and at least an equal number of crustacean and mollusc species. Despite this, less than 100 of these are commercially exploited. Australia's major commercially exploited species are prawns, rock lobster, abalone, tuna, other fin fish, scallops, oysters and pearls. Australian fishing operators concentrate their efforts on estuarine, coastal, pelagic (surface) species and demersal (bottom living) species that occur on the continental shelf.

The level of fishing effort exerted by the fishing fleet has increased rapidly over the last decade to the point where almost all the major known fish, crustacean and mollusc resources are fully exploited. Some major fisheries such as southern bluefin tuna, gemfish and shark have suffered serious biological depletion.

Australia has enjoyed a relatively long history of success in the farming of the Sydney rock oyster. Pearl culture operations and ornamental fish farming are well established. The production of juveniles of several species of fin fish, molluscs and crustaceans has been undertaken for some years, initially for restocking wild populations and subsequently for grow-out operations. As in many other developed countries, there has been a surge of interest and investment in many types of aquatic farms over the last decade. Notable successes are the salmonid industry in Tasmania and commercial cultivation of the Pacific oyster, blue mussel and rainbow trout.

Developmental work is active in a number of areas such as barramundi, freshwater crayfish (yabbies and marron), prawns, mussels and algae and research is continuing into the hatchery rearing of species such as abalone, scallops, giant clams, flat and pearl oysters. Over half of the established aquaculture output by value goes to markets other than for direct consumption. However, the newer emerging industries are producing mainly food. Although the responsibility for aquaculture is invested with the fisheries authorities in each State or Territory, the Federal Government is developing a national strategy to provide for the orderly development of Australian aquaculture.

Production, processing and exports and imports of fisheries products

Value of fisheries production. Table 16.5 shows the gross value of the Australian commercial fishing industry. As the value of materials used in the course of production is not available, it is not possible to show 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.

The gross value of fisheries production in 1991–92 is estimated to have been $1,289 million, a seven per cent rise on the production of the previous year. The types of seafood which have increased substantially in value include rock lobster, tuna and scallops. The main factor behind the increase in the value of tuna was the increase in the proportion of tuna caught by long-lining for the high value Japanese sashimi market.

16.5 GROSS VALUE OF FISHERIES PRODUCTION
($ million)

Period	*Value*	*Period*	*Value*
1974–75	108	1983–84(a)	449
1975–76	146	1984–85(a)	522
1976–77	206	1985–86(a)	635
1977–78	233	1986–87(a)	702
1978–79	279	1987–88(a)	828
1979–80	326	1988–89(a)	1,022
1980–81	330	1989–90(a)	1,092
1981–82(a)	344	1990–91(a)	1,202
1982–83(a)	423	1991–92(a)	1,289

(a) Estimates provided by the Australian Bureau of Agricultural and Resource Economics and the Australian Fisheries Service.

16.6 GROSS VALUE OF SELECTED MAJOR FISHERIES CATEGORIES
($ million)

	1988–89	*1989–90*	*1990–91*	*1991–92*
Prawns	274	226	263	226
Rock lobster	280	245	277	340
Tuna	19	66	57	114
Other fin fish(a)	215	278	270	264
Abalone	86	91	91	91
Scallops	21	26	42	48
Oysters	41	35	43	43
Pearls	65	96	129	133
Other(b)	22	30	31	30
Total	**1,022**	**1,092**	**1,202**	**1,289**

(a) For human consumption (excludes aquaculture). (b) Other aquaculture not elsewhere included.
Source: Australian Bureau of Agricultural and Resource Economics.

16.7 AUSTRALIAN FISHERIES PRODUCTION(a)
(tonnes)

	1989–90	*1990–91*	*1991–92p*
Fish			
Tuna	8,206	11,353	12,573
Other	120,930	145,199	127,359
Total	*129,136*	*156,552*	*139,932*
Crustaceans			
Prawns	23,316	28,986	24,530
Rock lobster	15,734	14,369	17,500
Other	3,228	3,773	3,775
Total	*42,278*	*47,128*	*45,805*
Molluscs			
Abalone	5,132	5,152	5,025
Scallops	6,304	14,453	17,290
Oysters	6,620	9,267	9,293
Other	4,002	3,607	3,410
Total	*22,058*	*32,479*	*35,018*
Total quantity	**193,472**	**236,159**	**220,755**

(a) Includes estimated value of aquaculture production but excludes inland commercial fisheries.
Source: Australian Bureau of Agricultural and Resource Economics.

16.8 COMMONWEALTH FISHERIES PRODUCTION
(tonnes)

	1989–90	*1990–91*	*1991–92p*
Northern prawn			
Prawn			
Tiger	3,333	3,364	3,874
Banana	2,541	6,987	2,331
Endeavour	978	727	915
King	106	109	81
Total	*6,957*	*11,187*	*7,202*
Torres Strait			
Prawn			
Tiger	374	674	513
Endeavour	415	933	698
King	21	57	42
Other	5	9	7
Total	*816*	*1,673*	*1,260*
Tropical rock lobster	211	171	161
Spanish mackerel	114	106	102
Total	*1,141*	*1,950*	*1,523*
Other fisheries(a)	310	355	420
South east			
Orange roughy	37,901	33,111	18,478
Jackass morwong	1,038	1,053	809
Tiger flathead	2,275	2,120	2,127
Gemfish	1,594	1,120	325
Blue grenadier	1,372	3,347	2,700
Ocean perch	1,890	156	168
School whiting	1,563	1,840	990
Ling	581	720	506
Redfish	763	1,007	1,216
Mirror dory	460	297	198
Tasmanian trevalley	503	1,043	1,254
Other	4,690	6,522	5,823
Total	*54,630*	*52,337*	*34,594*
Great Australian Bight			
Orange roughy	1,712	959	423
King flathead	356	365	503
Gemfish	12	27	31
Bight redfish	143	172	262
Jackass morwong	38	32	32
King dory	9	1	1
Blue grenadier	16	1	1
Spiky oreo	8	1	1
Ling	8	1	2
Squid	11	14	32
Other	216	571	883
Total	*2,529*	*2,144*	*2,173*
Southern shark			
School and gummy	3,300	3,000	2,600
Other	400	300	300
Total	*3,700*	*3,300*	*2,900*
East coast tuna			
Yellowfin	532	569	570
Southern bluefin	4	8	8
Albacore	62	86	90
Bigeye	57	14	20
Billfish	26	36	30
Skipjack	1	—	—
Other fish	n.a.	283	280
Total	*682*	*997*	*998*

For footnotes *see* end of table.

16.8 COMMONWEALTH FISHERIES PRODUCTION — *continued*
(tonnes)

	1989–90	1990–91	1991–92p
East coast purse seine			
Yellowfin	10	40	40
Skipjack	2,138	6,000	6,000
Total	*2,148*	*6,040*	*6,040*
Southern bluefin tuna			
Domestic	4,200	3,059	2,395
Joint venture	793	941	2,070
Other	n.a.	44	800
Total	*4,993*	*4,043*	*5,265*
Total production	**77,090**	**82,353**	**61,115**

(a) Includes North West Slope and Kimberley Coast prawn fisheries.
Source: Australian Bureau of Agricultural and Resource Economics.

Processing of fish, crustaceans and molluscs. There is very little value added processing of fish products in Australia. Processing establishments vary in size, scope of operations and sophistication of technologies employed. The majority of establishments undertake only the most basic cleaning, filleting, packing and freezing processes, but others have the capacity for significant product transformation.

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-chilled to markets.

Exports and imports. Exports of fisheries products comes under Commonwealth jurisdiction, while domestic market activity comes under that of the corresponding State or Territory.

A significant proportion of Australian fisheries production is exported. In 1991–92 the value of exports was $830 million and this amounted to approximately 64 per cent of the total value of Australian production. The Australian fisheries export industry depends on a limited range of products sold on a few major markets and in 1991–92 exports to Japan and the United States accounted for about 60 per cent of the value of all exports. In 1991–92 the most valuable exports included rock lobster ($378 million), prawns ($143 million) and abalone ($129 million).

16.9 DESTINATION OF AUSTRALIAN FISHERIES EXPORTS

	1989–90		1990–91		1991–92	
Country	*$m*	*%*	*$m*	*%*	*$m*	*%*
Japan	296	44.0	356	49.4	347	41.9
USA	168	24.9	129	18.0	161	19.4
Taiwan	62	9.3	73	10.1	141	16.9
Hong Kong	61	9.0	71	9.9	91	10.9
Spain	32	4.8	35	4.9	21	2.5
Singapore	23	3.4	18	2.4	21	2.5
France	3	0.4	3	0.5	9	1.1
Thailand	4	0.5	8	1.2	6	0.7
Saudi Arabia	—	0.1	1	0.1	6	0.7
Malaysia	1	0.1	1	0.2	5	0.6
Other	23	3.5	24	3.4	22	2.7
Total	**674**	**100.0**	**720**	**100.0**	**830**	**100.0**

Source: ABS Foreign Trade statistics.

In the same period, Australia imported $475 million of seafood, 37 per cent of which came from Thailand and New Zealand. The most valuable categories of seafood imported included prawns from Thailand ($40 million), canned fish from Canada ($32 million) and frozen fish fillets from New Zealand ($24 million).

16.10 SOURCE OF AUSTRALIAN FISHERIES IMPORTS

	1989–90		1990–91		1991–92	
Country	*$m*	*%*	*$m*	*%*	*$m*	*%*
Thailand	74	17.4	83	18.6	92	19.4
New Zealand	63	14.8	70	15.6	82	17.3
Canada	41	9.7	35	7.8	36	7.6
Malaysia	29	6.8	39	8.8	32	6.8
USA	28	6.6	22	4.8	25	5.3
Japan	27	6.4	25	5.6	22	4.6
Chile	16	3.7	16	3.5	16	3.3
Vietnam	11	2.7	13	2.8	15	3.2
Korea, Republic of	16	3.8	12	2.7	14	2.9
Indonesia	8	1.9	15	3.4	13	2.8
Other	112	26.3	118	26.4	127	26.7
Total	**425**	**100.0**	**447**	**100.0**	**475**	**100.0**

Source: ABS Foreign Trade statistics classified to SITC Rev3. Division 03.

Fisheries legislation and territorial arrangements

The Commonwealth Parliament has enacted a number of laws dealing with fisheries in Australian waters beyond territorial limits, and has fishing agreements and arrangements with a number of other countries.

The fisheries laws of the States and the Northern Territory apply to all kinds of fishing within the territorial sea and inland waters. These laws require the licensing of persons and boats in the commercial fisheries and provide a range of other regulatory powers.

In July 1992 Australia ratified the Convention on Prevention of Fishing with Long Driftnets in the South Pacific Region.

The Australian Fishing Zone and foreign fishing. Establishment of a 200 nautical mile Australian Fishing Zone (AFZ) in 1979 covering a total of 8.9 million square kilometres, brought portions of oceanic tuna stocks, and demersal and pelagic fish stocks previously exploited by foreign fishing vessels, under Australian control.

Australia has an international obligation under the Law of the Sea Convention, to allow foreign nations access to resources within the AFZ that are surplus to domestic fisheries requirements and where such access does not conflict with Australian management and development objectives.

Licensed vessels are currently permitted to operate in Australian waters either under bilateral agreements or joint venture arrangements with foreign governments or fishing companies/organisations.

Following the introduction of controls on the length of gillnets which can be used, foreign pelagic gillnet operations have ceased. Japan is permitted, under agreement, to long-line, principally for tuna, off certain areas of Australia. Negotiations between Australia, New Zealand and Japan have resulted in an agreed total quota for southern bluefin tuna for 1991–92. These negotiations are a continuing attempt to arrest the depletion of the resource.

In February 1990 the Governments of Australia and the Soviet Union signed a fisheries cooperation agreement which provides a framework for fishing to take place under subsidiary agreements. The agreement also establishes principles under which port access by Soviet trawlers for repairs, revictualling, refuelling and landing of catch might be authorised. Two joint venture operations were established in December 1991 involving one

Russian and one Ukrainian vessel to operate outside the AFZ and land fish in Australia.

Whales are a protected species in the Australian Fishing Zone.

Fisheries Act 1952. This Act applies to commercial fishing for swimming species by Australians in waters extending from 3 to 200 nautical miles seaward of the territorial sea baseline of Australia and external territories excluding the territorial sea of another country, and by foreign boats in the 200 nautical mile AFZ. The AFZ extends 200 nautical miles seaward of the territorial sea baseline of Australia and the external Territories but does not include waters adjacent to Australia's Antarctic Territory or waters exempted from the AFZ by proclamation under section 7A of the Act.

Australia has made maritime delimitation agreements with Indonesia, Papua New Guinea, the Solomon Islands and France. Australia has yet to make a marine delimitation with New Zealand. There are proclamations in force under section 7A of the Act for all overlappings of the AFZ with neighbours' exclusive fishing zones, whether or not Australia has made a delimitation agreement with the country concerned.

This Act requires the holding of licences and empowers the Minister to prohibit fishing activities as necessary for the conservation of resources and the management of the fisheries. The Fisheries Act authorises the publication of management plans having the force of law in relation to particular fisheries.

In recent years, most domestic fisheries have been subject to biological and economic pressure due to increased effort. In 1985 the Commonwealth Fisheries Act was amended to allow formal management of Commonwealth fisheries. Since then major elements in management policy have included:

- quotas;
- catch restrictions;
- limited entry arrangements;
- boat replacement policy;
- seasonal and periodic closures and gear restrictions;
- voluntary unit buy-back schemes;
- permanent closure of nursery grounds;
- long-term freeze on licence transfers;
- research into sustaining long-term biologically viable fisheries; and
- international management agreements.

Legislation was passed by the Australian Government in 1991 to establish the Australian Fisheries Management Authority (AFMA) to manage federal fisheries.

Refer to *Year Book Australia 1990* for a detailed account of the following Acts: *Continental Shelf (Living Natural Resources) Act 1968; Torres Strait Fisheries Act 1984; Foreign Fishing Boats Levy Act 1981; Fisheries Agreements (Payments) Act 1981;* and *Fisheries Levy Act 1984.*

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 sustainable 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, including feasibility fishing projects involving foreign fishing vessels, is also carried out and 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.

The Fisheries Development Trust Account (established under the *Fishing Industry Act 1956*) and the Fishing Industry Research and Development Trust Fund (established under the *Fishing Industry Research and Development Act 1987*) 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 is funded by annual Commonwealth appropriation. The latter is a matching fund into which is paid each year an appropriation from Commonwealth government revenue. Total Commonwealth funds are linked to amounts collected from the fishing industry by the State Fisheries Authorities and paid into appropriate State research accounts for the same purpose. Priority areas for research and development include resource assessments, fish diseases and toxins, post-harvest activities, economics and marketing and management of the environment.

Organisations in Australia at present engaged in research into fisheries matters are:

- CSIRO Division of Fisheries Research, which has its headquarters and main laboratory at Hobart, Tasmania, and regional laboratories in Western Australia and Queensland (fisheries science);
- CSIRO Division of Oceanography, which has its headquarters and laboratory at Hobart, Tasmania;
- CSIRO Division of Food Research, conducts research into handling, storage, processing and transportation of fish at its laboratory in Hobart, Tasmania;
- The Australian Fisheries Service, Department of Primary Industries and Energy, Canberra;
- Bureau of Rural Resources, Department of Primary Industries and Energy, Canberra;
- Australian Bureau of Agricultural and Resource Economics, Department of Primary Industries and Energy, Canberra;
- State fisheries departments (research vessels are operated by all States);
- Great Barrier Reef Marine Park Authority (GBRMPA) located in Townsville and Canberra universities; and
- Private fishing companies (surveys of fisheries resources, research into handling, processing and marketing).

BIBLIOGRAPHY

ABS Publications

There are no ABS publications devoted to forestry and fishery statistics for Australia as a whole, although there are some State based publications. Forestry and fishery statistics are available in publications on broader subjects or in unpublished ABS data, which can be obtained on request.

Manufacturing Industry: Summary of Operations, Australia (8202.0)

Manufacturing Production, Australia: Building Materials and Fittings (8361.0)

Manufacturing Production, Australia: Wood and Wood Products (8369.0)

Other Publications

AUSTRALIAN BUREAU OF AGRICULTURAL AND RESOURCE ECONOMICS. Agriculture and Resources Quarterly (various issues)

AUSTRALIAN BUREAU OF AGRICULTURAL AND RESOURCE ECONOMICS. Australian Fisheries Statistics 1992

DEPARTMENT OF PRIMARY INDUSTRIES AND ENERGY. AUSTRALIAN FISHERIES SERVICE, Australian Fisheries

FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Seventeen

Mining and Minerals

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THE MINING INDUSTRY

Mining, as defined in the *Australian Standard Industrial Classification, Volume 1 — The Classification, 1983* (1201.0), broadly relates to the extraction of minerals occurring naturally as solids such as coal and ores; liquids such as crude petroleum; or gases such as natural gas.

The mining sector contributed $18,679 million or 5.0 per cent of Australia's Gross Domestic Product (GDP) of $377,114 million in 1990–91 up from $17,243 million or 4.6 per cent of GDP in 1989–90.

Main features of 1990–91

Table 17.1 provides a summary of the operations of the mining industry in 1990–91. Turnover increased in the mining industry by 19 per cent to $28,886.4 million whilst employment in the industry dropped by 5 per cent to 65,778 people.

The industries most responsible for the rise in turnover were oil and gas, up $3,004.1 million to $8,606.9 million; coal, up $737.8 million to $8,294.1 million; and iron ore (including pelletising), up $504.4 million to $3,043.8 million. Other industries to increase turnover were gold, up $358.5 million to $4,338.2 million and bauxite, up $191.6 million to $664.9 million.

Industries that declined in turnover were: mineral sands, down $138.2 million to $580.3 million; silver, lead, zinc ores down $241.8 million to $1,254.3 million.

New South Wales. Mining in New South Wales in 1990–91 generated a turnover of $4,473.3 million, an increase of eight per cent over the 1989–90 total of $4,135.5 million, and employed 19,367 people, down from 20,006 the year before. Total wages and salaries amounted to $1,146.2 million.

The black coal industry dominated mining in New South Wales with turnover in 1990–91 of $3,821.5 million (85% of total turnover). Coal employed 16,258 people and generated $994.8 million in wages and salaries. Coal mining occurs in the Hunter Valley and South Coast regions.

New South Wales accounts for 15.5 per cent of national mining turnover and 46.1 per cent of national turnover from black coal.

Lead, silver and zinc are mined at Broken Hill in the west of the State.

Victoria. Victorian mining turnover in 1990–91 was $4,037.9 million or 14 per cent of the national total. Mining activity in Victoria consisted almost exclusively of brown coal, oil and gas production, with Bass Strait oil and gas production completely dominant in the State and also dominating oil and gas production nationally.

In 1990–91, the Gippsland Basin produced 50.6 per cent of Australia's crude oil and 40.7 per cent of its natural gas.

Production of crude oil and condensate was 14,782 megalitres and natural gas production was 6,352 gigalitres in 1990–91.

Brown coal production, almost all in the Latrobe Valley south-east of Melbourne, totalled 48,884,000 tonnes valued at $367.1 million.

Gold bullion production continued to rise reaching 4,862 kilograms and valued at $70.9 million.

Queensland. Mining turnover in Queensland in 1990–91 was valued at $6,428.4 million, an increase of 0.3 per cent over the previous year's total of $6,410.0 million and 22.3 per cent of national turnover. The State's mining industry employed 16,583 people at 30 June 1991, a drop of 738 or 4.3 per cent from the 1989–90 total of 17,321.

The coal industry contributed $4,097.5 million (64%) of the total turnover and 63 per cent of employment in mining. Wages and salaries from mining generated $895.3 million with $585.3 million coming from coal, $292.7 million from metallic minerals and $17.3 million from oil and gas.

Gold was dominant amongst the metallic minerals with a turnover of $548.0 million.

Coal mining is concentrated in the Bowen Basin; copper, lead, silver and zinc mining at Mt Isa; bauxite mining at Weipa and gold in central and northern Queensland.

17.1 MINING ESTABLISHMENTS: SUMMARY OF OPERATIONS BY INDUSTRY CLASS, 1990–91

ASIC code	*Description*	*Establish-ments at 30 June*	*Employ-ment at end of June(a)*	*Wages and salaries (b)*	*Turnover*	*Stocks — Opening*	*Stocks — Closing*	*Total purchases, transfers in and selected expenses*	*Value added*	*Fixed capital expend-iture less disposals (c)*
		no.	no.	$m	$m	$m	$m	$m	$m	$m
	Metallic minerals									
	Ferrous metal ores									
1111	Iron ores	} 19	9,123	449.4	3,043.8	264.2	308.8	925.2	2,163.1	279.8
1112	Iron ore pelletising									
	Non-ferrous metal ores									
1121	Bauxite	11	2,109	90.7	664.9	43.2	48.5	146.2	523.9	170.0
1122	Copper ores	12	2,409	123.1	855.9	150.7	143.3	251.6	597.0	99.7
1123	Gold ores	165	7,878	391.9	4,338.2	553.7	544.7	1,946.8	2,382.5	416.4
1124	Mineral sands	18	2,106	81.5	580.3	118.4	161.8	248.7	375.1	381.1
1125	Nickel ores	10	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1126	Silver–lead–zinc ores	19	4,742	274.7	1,254.3	162.3	198.2	583.8	706.3	278.5
1127	Tin ores	6	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1128	Uranium ores	2	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
1129	Non-ferrous metal ores n.e.c.	7	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.	n.p.
11	*Total metallic minerals*	*269*	*31,667*	*1,571.8*	*11,985.4*	*1,559.6*	*1,626.4*	*4,597.9*	*7,454.3*	*1,770.9*
	Coal, oil and gas									
1200	Coal	148	28,846	1,680.8	8,294.1	644.3	762.0	3,621.0	4,790.7	834.6
1300	Oil and gas	109	5,265	297.6	8,606.9	236.6	223.2	549.2	8,044.3	1,156.1
12–13	*Total coal, oil and gas*	*257*	*34,111*	*1,978.5*	*16,901.0*	*880.9*	*985.1*	*4,170.2*	*12,835.1*	*1,990.7*
	Total metallic minerals, coal oil and gas	**526**	**65,778**	**3,550.3**	**28,886.4**	**2,440.5**	**2,611.5**	**8,768.1**	**20,289.3**	**3,761.7**
	New South Wales	104	19,367	1,146.2	4,473.3	428.7	448.7	2,026.6	2,466.7	642.2
	Victoria	9	1,517	100.4	4,037.9	35.2	33.2	130.6	3,905.3	194.4
	Queensland	139	16,583	895.3	6,428.4	577.7	732.8	2,572.2	4,011.4	566.3
	South Australia	17	2,040	99.9	1,179.0	171.5	154.6	235.3	926.9	132.5
	Western Australia	202	22,442	1,093.9	10,316.4	881.6	965.6	3,200.4	7,200.0	2,038.9
	Tasmania	13	1,867	120.1	458.7	65.8	54.3	256.1	191.2	32.1
	Northern Territory	42	1,962	94.5	1,992.7	279.9	222.2	347.0	1,587.9	155.2

(a) Includes working proprietors. (b) Excludes the drawings of working proprietors. (c) Excludes own account capital works.
Source: Mining Industry, Australia (8402.0).

South Australia. The State's largest operations are the Cooper Basin oil and gas project and the Olympic Dam project at Roxby Downs.

The $1.5 billion Cooper Basin Liquids Project, completed in September 1984, is the largest onshore petroleum development in Australia. Crude oil production in 1990–91 was 1,939 megalitres while natural gas production amounted to 4,364 gigalitres.

Metallic mineral production included iron ore from the Iron Triangle as well as gold, copper, silver and uranium from Olympic Dam.

The mining industry in South Australia employs around 2,040 people in the metallic minerals, coal, oil and gas sectors and generates $99.9 million in wages and salaries.

Turnover in 1990–91 was $1,179.0 million, 4.1 per cent of the national mining total.

Western Australia. Turnover in the Western Australian mining sector in 1990–91 was $10,316.4 million, up from $7,660.7 million in 1989–90. This represented 35.7 per cent of national turnover. The largest contributors were: the gold industry with production of 186,408 kilograms of gold bullion and turnover of $3,325.4 million, iron ore with production of 107.6 million tonnes and turnover of $2,870.7 million, and oil and gas with a turnover of $2,429.7 million.

Total employment (at 30 June 1991) in the metallic minerals, coal, oil and gas industries in Western Australia was 22,442 persons with wages and salaries totalling $1,093.9 million.

Gold mining was the mainstay of the State's mining industry from the 1890s through to the 1960s, when iron ore, nickel, bauxite and oil assumed prominence.

In 1987–88 gold again became the single most valuable mineral produced. Major gold mine developments and expansions have occurred, not only in the traditional areas around Kalgoorlie and other Eastern Goldfields centres, but also in the Pilbara and at Boddington in the south-west.

Other significant mineral projects in Western Australia are the large iron ore mines in the Pilbara, nickel in the Eastern Goldfields, bauxite on the Darling Scarp, mineral sands principally at Capel and Eneabba, and diamonds in the Kimberley.

The North West Shelf Project, which supplies liquefied natural gas (LNG) for export, gas for industrial and domestic purposes and condensate, is the most important project in the State's oil and gas sector.

Tasmania. Coal was the first mineral mined in Tasmania in 1834, gold was discovered in 1849, tin oxide in 1871, silver-lead ore in 1882 and copper in 1883. Iron ore mining at Savage River began in 1967. Most of the mining activity is concentrated in the north-west of the island.

Metallic minerals account for almost all mining production in the State. In 1990–91, turnover for the State was $458.7 million or 1.6 per cent of national mining turnover.

In 1990–91 concentrates of copper, lead, zinc, molybdenum, scheelite, tin and iron were produced as well as gold bullion and iron ore pellets.

Most production is destined for mainland Australia and overseas refineries. Total employment for metallic minerals and coal at 30 June 1991 stood at 1,867 persons earning $120.1 million in wages and salaries.

Northern Territory. Mining is the dominant sector of the Northern Territory economy contributing about a quarter of its GDP. By contrast it accounted for only about three per cent of Northern Territory employment at 30 June 1991, (1,962 persons) earning $94.5 million in wages and salaries.

A variety of minerals is produced including bauxite, copper, gold, silver and uranium as well as oil and gas. In 1990–91 turnover from metallic minerals, oil and gas reached $1,992.7 million (seven per cent of the national mining total) with much of the increase in recent years coming from increased oil production.

Bauxite is mined on the Gove Peninsula, uranium at the Ranger mine and gold at a number of locations across the Territory.

Mineral production

Australian production in the metallic minerals, coal, oil and gas sectors for 1990–91 was valued at $26,293 million an increase of 12.9 per cent over the previous year. Metallic mineral production dominated with $10,909.9 million or 41.5 per cent of the total, while coal was 25.7 per cent of the total and oil and gas 32.8 per cent.

By value the largest two components of metallic mineral production were gold and iron ore which accounted for $3,567.7 million and $2,944.6 million respectively or a combined share of 59.7 per cent.

Western Australia accounted for both the largest share of metallic mineral production with $6,887.2 million or 63.1 per cent and the largest share of total mineral production with $9,760.8 million, 37.1 per cent of the total.

The overall growth in the value of mineral production in 1990–91 was spread unevenly across the sectors. The major contributor to growth was the oil and gas industry with an increase of 44.2 per cent to $8,629.4 million from the 1989–90 figure of $5,983.3 million.

The increase was a result of increased production particularly of liquefied natural gas from the North West Shelf Project in Western Australia and higher prices during the second half of 1990 in the lead up to the Gulf War.

The value of metallic minerals increased only marginally, rising 0.7 per cent while the value of coal production rose 4.3 per cent primarily due to increases in production. The total value of the coal industry (excluding Tasmania) was $6,753.7 million in 1990–91. New South Wales and Queensland are still the major coal producing States with 48.1 per cent and 47.1 per cent of the market respectively.

In 1990 Australia remained the world's largest producer of bauxite (37% of total world production); diamonds (35.6%); lead (16.7%); and the mineral sands concentrates of ilmenite (43.4%); rutile (45.2%); and zircon (42.4%).

Exports

Exports of mining products rose in value by 2.6 per cent in 1991-92 to $14,639 million or 26.6 per cent of total merchandise exports. This followed a rise of 20.0 per cent in 1990-91.

The percentage contributions of the major mineral products to total exports have remained fairly stable over the period 1989-90 to 1991-92. Black coal remains the largest single export item and the main mineral exported, with a value of $6,848 million in 1991-92, 12.4 per cent of total exports. Gold was the next most valuable mineral exported with a value of $4,023 million in 1991-92. Other major exports were iron ore ($2,850 million, 5.2% of total exports), crude oil ($1,590 million, 2.9%), zinc ores ($627 million, 1.1%) and uranium ($247 million, 0.4%).

Exports of mining products together with basic manufactures of mineral origin grew by one per cent in 1991-92 following growth of 15.3 per cent in 1990-91. However, as a proportion of total exports they declined from 43 per cent in 1990-91 to 41 per cent in 1991-92.

The major contributors to the increase in export value were refined gold, up $346 million (9%) to $4,003 million; steaming coal, up $291 million (12%) to $2,822 million; iron ore, up $287 million (11%) to $2,849 million; and diamonds, up $134 million (37%) to $500 million.

Substantial falls were recorded for alumina, down $541 million (19%) to $2,284 million; aluminium, down $357 million (19%) to $1,571 million; and crude oil, down $169 million (9%) to $1,624 million.

Imports

In 1991-92, mining sector imports were $1,798 million, a rise of 4.5 per cent on the 1990-91 total of $1,720 million.

With the inclusion of basic manufactures of mineral origin, mineral resource imports totalled $4,384 million in 1991-92. The major changes in individual commodity values over this period were for gold, up $416 million (67%) to $1,036 million; petroleum refinery products, down $213 million (32%) to $460 million, and crude oil and other refinery feedstock, down $105 million (4%) to $2,302 million.

Selected commodity review

Gold production in Australia during 1990-91 was 264,993 kilograms valued at $3,567.7 million. Western Australia accounted for most production with 70 per cent, followed by Queensland with 17 per cent, Northern Territory (7%), New South Wales (4%) and Victoria (2%).

Gold is Australia's second biggest export earner having overtaken wool in 1990-91. In 1990-91 it accounted for 7.1 per cent of total exports at a value of $3,700 million. The main markets were Singapore ($1,058 million), Japan ($995 million), Switzerland ($710 million) and Hong Kong ($447 million).

Australia accounts for 12.1 per cent of estimated world gold production with South Africa being the world's biggest gold producer.

Iron ore production in 1990-91 was 111.5 million tonnes of which 93.6 per cent or 104.4 million tonnes was exported. Iron ore mining employs over 9,000 people nationally.

Almost 97 per cent of production takes place in Western Australia's Pilbara region. Iron ore is also mined in South Australia and Tasmania.

Iron ore accounted for $2,564.2 million or 4.9 per cent of total exports in 1990-91. Japan is Australia's largest market, taking over half of its exports (54% in dollar terms). Australia is Japan's major supplier accounting for 47 per cent of their imports. Other important markets are Korea (9.2%), China (8.5%), Taiwan (4.8%) and Germany (4.4%).

Nickel mining operations are located in Western Australia mainly around Kambalda and in Queensland at Greenvale, west of Townsville.

Production is dominated by Western Mining Corporation's Western Australia operations. Export revenues from nickel, nickel alloys and nickel oxide were $543 million in 1990-91.

Over half of nickel oxide exports were to the Netherlands.

Petroleum. Production of crude oil and concentrate in 1990–91 was 29,189 megalitres valued at $6,327.7 million. Liquefied natural gas (LNG) production increased from 2,015,000 tonnes in 1989–90 to 3,577,000 tonnes in 1990–91, an increase in dollar terms of $500 million.

Australian petroleum production is dominated by the ESSO-BHP Bass Strait operation which accounts for around 50.6 per cent of total production.

Oil and gas are produced in all States except New South Wales and Tasmania with 90 per cent of Australian crude oil production occurring offshore.

Exports of LNG commenced in mid-1989 from Western Australia's North West Shelf. Development of the North West Shelf natural gas resource is the largest resource project ever undertaken in Australia, with a capital cost of more than $12,000 million.

Crude oil exports in 1990–91 totalled $1,785.5 million. The major markets were the USA, Singapore, Japan and Indonesia.

Bauxite and alumina. Australia is the world's largest bauxite and alumina producer and the fourth largest aluminium producer.

Bauxite mining employed 2,100 people nationally (June 1991) at mines in Western Australia south of Perth and in the Northern Territory on the Gove Peninsula. Generally the bauxite ore is not sold but processed to alumina for sale or for conversion to aluminium. Alumina production reached 11.4 million tonnes in 1990–91 while refined aluminium production was 1,236,000 tonnes.

In 1990–91 alumina ranked fourth by value among major commodity exports with 5.2 per cent of total exports, 8.7 million tonnes valued at $2,729 million; aluminium ranked seventh with 4.1 per cent, 995,406 tonnes worth $2,154 million.

Japan was the major market for aluminium taking 43.7 per cent while East and South-East Asia together accounted for over 90 per cent of exports.

Coal. Black coal is Australia's biggest export earner accounting for 12.1 per cent of the total value of exports in 1990–91 or $6,336 million, up from $4,639 million (and 10.7% of total exports) in 1989–90. By far the biggest market for Australian coal was Japan which bought 58.5 million tonnes for $3,316 million, 52.3 per cent of total sales. South Korea bought 10.4 million tonnes for $580 million (9.2%) and Taiwan 7.4 million tonnes for $397 million (6.3%).

Two-thirds of black coal production consisting of steaming coal, and hard and soft coking coal is exported.

Black coal production in 1990–91 was 166.5 million tonnes valued at $6,387 million (ex mine value, excluding freight and other charges). Two States dominated black coal production, New South Wales ($3,133.4 million) and Queensland ($2,950.4 million).

More than half of New South Wales coal production is from underground mines whereas over 90 per cent of Queensland coal production is from open cut mines.

Black coal produced in South Australia is used for electricity generation as is most of Western Australia's black coal, and by industry in Tasmania.

The black coal industry was the single largest employer in the mining sector employing almost 29,000 people or 44 per cent of total mining employment in the metallic minerals, coal, oil and gas sectors.

Australia also produces brown coal in Victoria where it is used for electricity generation. In 1990–91 brown coal production was 48.9 million tonnes valued at $367 million.

Diamonds were first extracted in 1982 in Western Australia.

Australia is now the world's largest producer of diamonds with 35.6 per cent of world production. Most of this is from the Argyle Diamond Mine in the Kimberley region of Western Australia, the world's biggest single mine producer.

Argyle's 1991 production was 35 million carats of mainly industrial quality diamonds. The mine commenced operations in December 1985.

Australia's other producing diamond mine at Bow River, also in the Kimberleys produced 960,000 carats in 1990–91.

Uranium. The Australian Government maintained its 'three mines' policy with regard to uranium mining, the mines being the Ranger and Nabarlek mines in the Northern Territory and Olympic Dam in South Australia.

The Ranger deposit was discovered in 1969, 250 kilometres east of Darwin, and mining commenced in 1981.

The Nabarlek deposits were discovered in 1970. The Nabarlek 1 deposit is completely mined out and the mine has been on care and maintenance since 1989 while negotiations proceed over the Nabarlek 2 deposits.

The Olympic Dam deposits were discovered in 1975 and mining commenced in 1988.

Production of uranium for 1990–91 was 4,309 tonnes, 2,467 tonnes from Ranger and 1,842 tonnes from Olympic Dam.

Uranium exports in 1990–91 were valued at $372 million.

All Australian uranium production is exported, principally for use as fuel for nuclear power stations. Minor quantities are used in medical, industrial and scientific applications.

Australia has no nuclear power stations.

In 1989 Australia produced 11 per cent of the world's production (excluding the centrally planned economies). Canada was the largest producer amongst the market economies with 32 per cent of production.

Mineral processing and treatment

As few minerals can be directly used in the form in which they are mined, most minerals must undergo processing and treatment before utilisation. Table 17.2 shows the production of the main manufactured products of mineral origin during recent years.

17.2 PRODUCTION(a) OF PRINCIPAL MANUFACTURED PRODUCTS OF MINERAL ORIGIN

Commodity		*1989–90*	*1990–91*	*1991–92*
		METALS (b)		
Non-ferrous				
Alumina	'000 tonnes	11,041	11,402	11,824
Refined aluminium	'000 tonnes	1,235	1,236	1,234
Refined copper	'000 tonnes	245	237	277
Lead bullion (for export)(c)	'000 tonnes	198	176	202
Refined lead	'000 tonnes	197	220	228
Refined zinc	'000 tonnes	295	320	325
Refined tin	tonnes	381	321	288
Ferrous				
Pig iron	'000 tonnes	6,188	5,600	6,394
Precious				
Refined gold(d)	kg	r234,230	255,318	281,835
Refined silver(e)	tonnes	r404	409	382
		FUELS		
Petroleum products				
Diesel-automotive oil	megalitres	r10,280	10,284	10,279
Industrial fuel and marine fuel	megalitres	r143	172	111
Fuel oil for burning	megalitres	r2,477	2,623	2,572
Automotive petrol	megalitres	16,314	16,454	17,192
		BUILDING MATERIALS		
Clay bricks	millions	r2,077	1,765	1,655
Portland cement	'000 tonnes	7,075	6,110	5,709
		CHEMICALS		
Sulphuric acid	'000 tonnes	1,464	986	816
Superphosphate(f)	'000 tonnes	2,659	1,574	1,337

(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 basic iron. (c) Metallic content. (d) Newly won gold of Australian origin. (e) The unit of quantity for silver has been amended from kilograms to tonnes. (f) Double and triple superphosphate expressed in terms of single phosphate, that is, nine per cent P equivalent.

Source: Australian Bureau of Agricultural and Resource Economics (non-ferrous, precious metals and petroleum products only).

MINERAL GEOLOGY

Minerals of economic significance occur throughout Australia, their geological age ranging from Pre-Cambrian to recent. Many of the large deposits such as the base metal deposits at Broken Hill (New South Wales), Mount Isa and Hilton (Queensland), McArthur Rivers (Northern Territory), the copper-uranium-gold deposit at Olympic Dam (South Australia); gold deposits of the Kalgoorlie region and iron ore deposits of the Pilbara region, both in Western Australia and the uranium deposits of the Alligator Rivers area of the Northern Territory, are Pre-Cambrian in age. In eastern Australia major deposits such as the Elura, Cobar, Woodlawn, Hellyer and Rosebery base metal deposits, the Renison tin deposit, Kidston, Mount Leyshon and most other gold deposits, and most black coal deposits, are Palaeozoic in age. Deposits formed in Tertiary times include the brown coals of Victoria, the oil shales of eastern Queensland, the bauxites of Weipa (Queensland), Gove (Nothern Territory) and the Darling Ranges in Western Australia, nickeliferous laterites at Greenvale (Queensland) and the mineral sands deposits of the Murray Basin.

Petroleum has been identified in the Australian sediments as old as Pre-Cambrian. Australia's major petroleum bearing basins are under Bass Strait (mainly Tertiary) and offshore north-western Australia (mainly Mesozoic). The main onshore basins are the Amadeus, Bowen/Surat, Cooper/Eromanga and Perth Basins.

Australia is self-sufficient in most minerals of economic importance (and much more than self-sufficient in some). Major minerals with known reserves adequate for domestic demand and export include bauxite (aluminium), black coal, clays, copper, diamonds, gold, iron ore, lead, magnesite, manganese, mineral sands (titanium and zirconium), natural gas, nickel, salt, silver, uranium and zinc. Major discoveries of new deposits continue to be made. In recent years discoveries have included the Century and Cannington lead and zinc deposits and the Osborne copper and gold deposit in Queensland.

MINERAL EXPLORATION

Exploration consists of the search for new ore occurrences and undiscovered oil or gas, and/or appraisal intended to delineate or extend the limits of known deposits of minerals and oil or gas reservoirs by geological, geophysical, geochemical and other methods. This includes drilling but excludes activities of a developmental or production nature. Exploration for water is excluded.

Mineral exploration expenditure

Table 17.3 shows expenditure on private mineral exploration other than for petroleum in Australia during the last six years.

Petroleum exploration expenditure

Table 17.4 shows expenditure on private petroleum exploration in Australia during the last six years.

ADMINISTRATION

Mineral rights

Mineral rights in Australia are held by the State and Territory Governments and the granting of exploration and mining titles is administered by them under the respective State or Territory legislation. The Commonwealth Government holds rights to minerals in Federal Territories and to certain prescribed substances in the Northern Territory, within the meaning of the Atomic Energy Act (principally uranium). The Commonwealth Government is also able to influence overall development and production activity in the mineral industry by virtue of its constitutional powers with respect to international trade, customs and excise, taxation and foreign investment and has also established consultative mechanisms, such as the Australian Coal Industry Council.

17.3 PRIVATE MINERAL EXPLORATION EXPENDITURE (OTHER THAN FOR PETROLEUM)
($ million)

	1986–87	*1987–88*	*1988–89*	*1989–90*	*1990–91*	*1991–92*
New South Wales	47.6	64.5	50.6	55.1	60.6	63.3
Victoria	15.5	33.9	21.7	21.0	12.7	12.6
Queensland	120.6	159.3	139.8	128.4	124.1	109.9
South Australia	11.0	18.9	16.6	13.2	15.5	19.7
Western Australia	323.3	466.3	387.2	315.4	324.8	332.8
Tasmania	10.9	10.4	13.1	11.8	9.9	7.9
Northern Territory	27.9	48.9	68.6	62.6	53.9	57.8
Australia	**556.8**	**802.2**	**697.6**	**607.5**	**601.7**	**604.0**

Source: Actual and Expected Private Mineral Exploration, Australia (8412.0).

17.4 PRIVATE PETROLEUM EXPLORATION EXPENDITURE
($ million)

	1986–87	*1987–88*	*1988–89*	*1989–90*	*1990–91*	*1991–92*
Onshore	171.0	271.9	233.6	143.2	217.1	135.3
Offshore	134.1	223.2	405.7	439.4	365.4	338.8
Total	**305.2**	**495.1**	**639.3**	**582.6**	**582.6**	**473.9**

Source: Actual and Expected Private Mineral Exploration, Australia (8412.0).

Mining and exploration for other than petroleum — legislation

Onshore. Each State or Territory has its own Mining Acts and Regulations governing the prospecting for and working of mineral deposits. These Acts and Regulations although similar in principle are different in detail.

Rights to explore for minerals are awarded by granting prospecting licences and (for larger areas) exploration licences or exploration permits. Each tenement sets out conditions such as minimum exploration expenditure each year, methods of prospecting and tenure of agreement. The tenure is usually limited. Most States and Territories make provision for Miner's Right which permits an individual to prospect or fossick for minerals on Crown Land.

Offshore. Following the enactment of the *Seas and Submerged Lands Act 1973*, the High Court confirmed that the Commonwealth has sovereignty over the territorial sea and sovereign rights over the resources of the whole of Australia's continental shelf. However, in the offshore Constitutional Settlement between the Commonwealth and the States reached in June 1979, it was agreed that responsibility for mining of the seabed of coastal waters (that is, the area on the landward side of the outer limit of the three nautical mile territorial sea) should lie with the States, while the Commonwealth should have responsibility for areas beyond. This division of responsibility was embodied in the *Minerals (Submerged Lands) Act 1981.*

Petroleum mining and exploration — legislation

Onshore. In Australia, full control of petroleum mining rights is vested with the relevant State or Territory Government. Any organisation or individual proposing to undertake petroleum exploration or development must first satisfy the relevant government that it has access to the necessary financial and technical resources to undertake the proposed operations.

Offshore. The situation is the same as that detailed above for mining exploration and development, with the Commonwealth having sovereignty but administrative responsibility divided; in the case of petroleum, under the *Petroleum (Submerged Lands) Act 1967.*

The offshore legislation provides for:

- exploration permits, providing exclusive exploration rights over a specific area;

- production licences to authorise development and commercial production from discovered fields; and
- retention leases to allow security of tenure over discoveries not currently regarded as economic to mine.

Offshore projects except the area around the North West Shelf Gas Project are subject to Petroleum Resource Rent Taxation (PRRT). The tax is levied at a rate of 40 per cent on net project revenues. All exploration expenditures incurred by the explorer in PRRT liable areas are allowable deductions. The North West Shelf Project is subject to an excise on crude oil production and a royalty on the net wellhead value of all petroleum production.

The Timor Gap Zone of Cooperation Treaty designates an area of the Continental Shelf between Australia and Indonesia subject to control by a Joint Administration. Revenue collected from petroleum production taxation is shared between the two nations. The Treaty has provisions to prevent double taxation.

In order to encourage offshore petroleum exploration, the Commonwealth conducts a coordinated strategy involving the regular release of exploration acreage, improved collection and dissemination of exploration data to explorers and enhanced company awareness about Australia's title acquisition and taxation agreements. A major feature of the strategy is that explorers are given advance notice of future releases of exploration acreage.

Mineral royalties

Mineral resources are owned by the Crown in Australia, either by the State and Territory Governments, within their borders (and up to three nautical miles offshore), or by the Commonwealth Government in offshore areas outside of the three nautical mile limit. Accordingly royalties are collected by State and Territory Governments for mining onshore and up to three nautical miles offshore and by the Commonwealth outside that limit.

State royalties regulations vary in regard to types of royalties, rates levied and those commodities subject to royalties.

In recent years some State Governments have negotiated special royalty arrangements 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. Examples of this type of royalty agreement are the Argyle Project in Western Australia and the Olympic Dam mine in South Australia. Mineral royalties received by governments in recent years are shown in table 17.5.

Government assistance

The Commonwealth Government and the various State Governments provide assistance to the mineral industry in a variety of ways. These were described in detail in *Year Book Australia 1990*.

17.5 MINERAL ROYALTY RECEIPTS: GOVERNMENTS(a)
($'000)

	1985–86	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*
New South Wales(b)	118,569	135,486	97,166	99,387	128,966	155,006
Victoria(c)	r46,728	r51,805	r55,920	r60,043	r60,146	53,359
Queensland(b)	r196,330	r176,619	196,013	178,301	r207,954	227,566
South Australia	58,352	33,592	36,011	34,914	44,004	80,570
Western Australia(d)	r158,508	r150,156	r158,896	r168,479	r244,330	284,842
Tasmania	r1,811	r1,715	3,048	3,800	6,394	5,350
Northern Territory	r8,190	r7,219	10,642	9,514	24,079	28,350
Commonwealth Government	r393,566	272,501	285,052	182,670	273,077	361,791
Total	**r982,054**	**r829,093**	**r842,748**	**r737,108**	**r988,950**	**1,196,834**

(a) Significant revisions have occurred to some figures due to the reclassification of petroleum royalty payments and payments to the States under arrangements relating to the collection of offshore petroleum royalties. (b) Includes royalties on sand and gravel from Crown lands. (c) Includes royalties on brown coal paid by State Electricity Commission. (d) Includes prepaid royalty of $50 million in respect of diamond royalty agreement.

Source: Federal, State and Territory departments responsible for mining.

RESEARCH

Research investigations into problems of exploration, mining, ore-dressing and metallurgy are conducted by government bodies, universities, private enterprise, or by the combined efforts of all these. A summary of the main organisations and their functions follows.

Australian Geological Survey Organisation (AGSO)

AGSO is the largest geoscience research organisation in Australia. Its role is to develop an integrated scientific understanding of the geology of the Australian continent, its territories and offshore areas, as a basis for the management of Australia's mineral, petroleum and ground water resources. Its activities also contribute to understanding natural changes in the environment and natural hazards such as earthquakes and volcanic activity. AGSO was formerly the Bureau of Mineral Resources, Geology and Geophysics.

Commonwealth Scientific and Industrial Research Organisation (CSIRO)

Minerals research by the CSIRO is primarily undertaken within the Institute of Minerals, Energy and Construction (IMEC).

Research and development activities of the Institute are designed to play a major contributing role in the development of sustainable and competitive minerals, energy and construction industries in Australia and in the creation of a better living and working environment for all Australians through:

- The provision of high quality research, development and service capabilities which support existing and emerging industries as well as providing for the next generation of technology, products and processes.
- Helping to bring about safe and ecologically sustainable development for all Australians through research and advice on environmental issues related to IMEC's client industries.
- Working closely with industry, government and other organisations to help transform research outcomes into new or improved business opportunities including, where appropriate, the championing of individual projects.

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

The Australian Mineral Industries Research Association Limited (AMIRA) is a non-profit organisation which was set up in 1959 by the Australian mineral industry to manage jointly sponsored research and development on behalf of the industry. There are approximately 140 AMIRA members, drawn from all parts of the mineral, coal and petroleum industries. Membership ranges from small exploration companies to large mining houses and includes suppliers of services to the industry. The policy of the Association is determined by a council elected by members.

AMIRA has no research facilities so organisations such as CSIRO, universities, consultants, suppliers or member companies carry out the research as contractors to AMIRA.

INTERNATIONAL ASSOCIATIONS

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 links are:

- Association of Tin Producing Countries (ATPC);
- International Lead and Zinc Study Group (ILZSG);
- UNCTAD Intergovernmental Group of Experts (IGE) on Iron Ore; and
- International Nickel Study Group (INSG).

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FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Eighteen

Water Resources

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GEOGRAPHIC BACKGROUND

Rainfall, or the lack of it, is the most important single factor determining land use and rural production in Australia. The chapter on Geography contains details on geographical and climatic features that determine the Australian water pattern. The scarcity of both surface and ground water resources, together with the low rates of precipitation which restrict agriculture (quite apart from economic factors), has led to extensive programs to regulate supplies by construction of dams, reservoirs, large tanks and other storages.

The major topographical feature affecting the rainfall and drainage patterns in Australia is the absence of high mountain barriers. Australia's topographical 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.

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 but account for the majority of the country's average annual discharge. Surface drainage is totally absent from some arid areas of low relief.

Australia's large area (7.7 million square kilometres) and latitudinal range (3,700 kilometres) have resulted in climatic conditions ranging from alpine to tropical. Two-thirds of the continent is arid or semi-arid, although good rainfalls (over 800 millimetres 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.

The availability of water resources controls, to a large degree, the possibility and density of settlement; this in turn, influences 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. Development, however, has not been without costs. Significant environmental degradation and deterioration in water quality are becoming evident.

18.1 MAJOR GROUND WATER RESOURCES OF STATES/TERRITORIES

		Ground water resource (gigalitres)					
		Major divertible resource					
State/Territory	*Area of aquifers (km^2)*	*Fresh*	*Marginal*	*Brackish*	*Saline*	*Total*	*Abstraction during 1983–84*
New South Wales	595,900	881	564	431	304	2,180	242
Victoria	103,700	469	294	69	30	862	146
Queensland	1,174,800	1,760	683	255	144	2,840	962
South Australia	486,100	102	647	375	86	1,210	504
Western Australia	2,622,000	578	1,240	652	261	2,740	355
Tasmania	7,240	47	69	8	—	124	5
Northern Territory	236,700	994	3,380	43	10	4,420	24
Australia	**5,226,440**	**4,831**	**6,877**	**1,833**	**835**	**14,376**	**2,238**

Source: Australian Water Resources Council, 1987.

Permanent rivers and streams flow in only a small part of the continent. The average annual discharge of Australian rivers has been recently assessed at 397 teralitres of which 100 teralitres is now estimated to be exploitable for use on a sustained yield basis. This is small in comparison with river flows on other continents, as indicated in the following broad comparison of rainfall and run-off of the continents.

18.2 RAINFALL AND RUN-OFF OF THE CONTINENTS

Continent	*Area*	*Average yearly rainfall*	*Run-off*	*Run-off*	*Run-off*
	km^2	mm	mm	km^3	%
Africa	30,300,000	690	260	7,900	38
Asia	45,000,000	600	290	13,000	48
Australia	7,700,000	465	57	440	12
Europe	9,800,000	640	250	2,500	39
North America	20,700,000	660	340	6,900	52
South America	17,800,000	1,630	930	16,700	57

Source: Department of Resources and Energy, 1983.

In addition, there is a pronounced concentration of run-off in the summer months in northern Australia while the southern part of the continent has a distinct, if somewhat less marked, winter maximum.

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.

The portion of run-off able to be diverted for use is very low compared with other continents, and results from the high variability of stream flow, high rates of evaporation and the lack of storage sites on many catchments. On an Australia-wide basis, only 21.5 per cent of the divertible resource has currently been developed for use; much of the remaining resource is available in remote regions where development is impractical and uneconomic. In areas such as the Murray–Darling Division, where water is scarce, there are few resources not yet developed, and management is focusing on greater efficiency in water use.

18.3 SURFACE WATER RESOURCES OF STATES/TERRITORIES

		Surface water resource (gigalitres)							
				Major divertible resource					
State/ Territory	*Area (km^2)*	*Mean annual run-off*	*Mean annual outflow*	*Fresh*	*Marginal*	*Brackish*	*Saline*	*Total*	*Developed resource*
NSW	802,000	42,400	37,200	17,300	—	—	—	16,900	7,970
Vic.	228,000	19,200	18,800	9,050	240	120	—	9,810	5,990
Qld	1,730,000	159,000	158,000	32,700	—	—	—	32,700	3,840
SA	984,000	2,120	1,250	193	109	59	20	384	124
WA	2,520,000	39,900	39,700	10,200	516	856	168	11,700	2,340
Tas.	68,200	52,900	52,900	10,800	—	—	—	10,900	1,020
NT	1,350,000	81,200	79,200	17,700	—	—	—	17,700	59
ACT	2,400	549	549	175	—	—	—	175	106
Total(a)	**7,680,000**	**397,000**	**387,600**	**98,100**	**865**	**1,040**	**190**	**100,000**	**21,500**

(a) Totals rounded.
Source: Australian Water Resources Council, 1987.

The resource is assessed within a framework comprising four levels:

- the **total water resource** is the volume of water present in the environment, measured as mean annual run-off for surface water, and mean annual recharge for ground water;
- the **divertible resource** is the portion of run-off and recharge which can be developed for use;
- the **developed resource** is the portion of the divertible resource which has been developed for use; and
- **resource utilisation** is a measure of the portion of the developed resource which is actually used.

Emphasis is given to the second level of assessment, the divertible resource, as the prime measure of the resource. The divertible resource is defined as 'the average annual volume of water which, using current technology, could be removed from developed or potential surface water or ground water sources on a sustained basis, without causing adverse effects or long-term depletion of storages'.

WATER MANAGEMENT

Australia's water resources are managed by a large number of resource management agencies, 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 coordination or operation of interstate projects through bodies such as the Murray–Darling Basin Commission.

18.4 WATER-RELATED COMMONWEALTH PAYMENTS TO THE STATES AND TERRITORIES, 1987–88 TO 1991–92 ($'000)

Type of payment	*1987–88*	*1988–89*	*1989–90*	*1990–91*	*1991–92*
Federal Water Resources Assistance Program					
Salinity mitigation	1,250	5,446	9,845	972	430
Murray–Darling Basin salinity mitigation	4,689	3,560	4,449	1,429	1,130
Flood plain management	5,607	6,910	8,101	7,161	7,804
Western Sydney flooding	—	—	—	—	970
Country Towns Water Supply Improvement Program	4,919	6,197	4,362	5,052	4,955
Agricultural water supply	20,500	6,150	4,728	3,381	—
Water conservation	125	190	445	1,270	1,272
Water planning	623	486	207	521	864
Urban and industrial water supply	6,164	5,750	5,250	5,250	3,500
Total	*43,877*	*34,689*	*37,387*	*25,036*	*20,925*
Murray–Darling Basin Initiative					
Administration	359	430	672	822	967
Community Advisory Committee	—	—	—	71	77
Salinity investigations	217	263	509	407	286
Investigations and construction	1,345	663	687	1,650	1,026
Salinity construction	—	1,710	2,881	1,325	1,998
MDB Drainage Program	—	—	—	4,278	5,509
National Resources Management Strategy (NRMS) interstate	—	—	886	1,224	1,850
NRMS intrastate	—	—	1,041	4,431	5,150
Total	*1,921*	*3,066*	*6,676*	*14,208*	*16,863*
Payments to Commonwealth authorities	437	398	183	206	260
Water research programs	6,182	7,300	7,017	2,376	—
Land and Water R&D Corporation	—	—	—	8,894	10,785
Sewerage research	—	—	200	—	—
Total water program	**52,417**	**45,453**	**51,463**	**50,720**	**48,833**

Source: Department of Primary Industries and Energy, 1992.

Financial assistance is provided primarily through the Federal Water Resources Assistance Program.

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 consumption, but also in terms of conserving unregulated streams in an unmodified landscape for wildlife 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.

The Prime Minister's Environment Statement in December 1992 allocated $30 million to the management of rural and urban catchments and their rivers, with high priority to the abatement of nutrient pollution, particularly in the Murray–Darling Basin.

$16 million has been allocated to the Country Towns Water Supply Improvement Program (COWSIP) to include waste water treatment in small rural communities.

Water quality monitoring programs will be funded at a cost of $10 million; and $2.3 million has been allocated to the assessment of ground water quality in key areas vulnerable to rising salt and nutrient levels.

In addition, a new Cooperative Research Centres (CRC) program for Freshwater Ecology providing an ecological basis for sustainable management of Australia's temperate surface waters will receive $12.8 million over seven years, with particular emphasis on the Murray–Darling Basin algal bloom problem.

The Australian Water Resources Council (AWRC), consisting of the Commonwealth, State and Territory Ministers with portfolio responsibilities for water resources, is the peak forum for the water industry. AWRC and the Australian and New Zealand Environment and Conservation Council (ANZECC) are working together to develop the National Water Quality Management Strategy. Included as part of the National Strategy will be matters for priority attention such as:

- development of a policy framework for water quality management;
- review of drinking water guidelines;
- management of sewerage systems;
- guidelines for ground water protection;
- water quality management in the rural enivronment; and
- guidelines for water quality including:
  - national criteria
  - effluent guidelines.

The water resource situation and arrangements in each State and Territory are described below.

Water resources research

The Department of Primary Industries and Energy is responsible for Commonwealth interests in water resource matters.

In July 1990, the Land and Water Resources Research and Development Corporation (LWRRDC) was established to provide leadership and national coordination of research and development of land, water and related issues. It is also responsible for determining national research priorities and in doing so consults its five 'representative organisations': the Australian Conservation Foundation; National Farmers' Federation; National Association of Forest Industries; Standing Committee on Soil Conservation; and the Standing Committee of the Australian Water Resources Council. Projects funded include research on salinity, ground water, stream ecology, waste water management, hydrology and water treatment and quality. Activities to effectively disseminate the results of research were also undertaken.

In 1991–92, the Commonwealth Scientific and Industrial Research Organisation (CSIRO) spent approximately $21 million (of direct appropriation funds) on water research. Competitive research grants, consultancies, and collaborative research provided an additional amount of approximately $8.5 million for work of direct relevance to the Australian water industry.

The Division of Water Resources has a total staff of more than 230 with laboratories in Perth, Adelaide, Canberra and Griffith. The Division's task is to develop new and improved practices for the definition, use, and management of Australia's water resources.

The Division of Chemicals and Polymers, based at Clayton, Victoria, has significantly expanded its research on new methods of treating municipal water and waste water, and cleaning up effluents from a wide range of manufacturing industries, resulting in some of the new technologies being marketed in the United Kingdom and China.

The Centre for Environmental Mechanics conducts research on soil-water processes, evapotranspiration and physical limnology with special emphasis on physical/biological interactions in lakes, weirs and streams.

The Division of Coal and Energy Technology carries out research aimed at assessing and controlling the impact on freshwater and marine systems of pollutants arising from the energy, minerals and other industries as well as from urban and rural sources. Research on soil-water processes and erosion is conducted by the CSIRO Division of Soils.

CSIRO is a partner with LWRRDC, the Murray–Darling Basin Commission, and the Albury–Wodonga Development Corporation in the Murray–Darling Freshwater Research Centre.

At the State level, water agencies have extensive laboratory facilities for water quality testing. However, most water related research is undertaken in research centres associated with agriculture, fisheries, forestry and environmental authorities. At the regional level, some of the larger authorities providing water supply and sewerage services undertake applied research on a very limited scale.

A significant proportion of Australian water research is undertaken by researchers in tertiary education institutions with the aid of either internal funding or grants from outside bodies, such as LWRRDC or the Australian Research Grants Committee. Water research is carried out within a range of disciplines, including the biological and social sciences and engineering.

New South Wales

Irrigation takes up the largest volume of consumption water use in New South Wales, on average 75 per cent, with urban water consumption in Newcastle, Sydney and Wollongong taking up the bulk of the remaining 25 per cent.

Major metropolitan urban water supplies are managed by central water boards at Newcastle and Sydney. Water sources for Sydney, Wollongong and the Blue Mountains are good quality rivers and associated storages on the Hawkesbury, and Shoalhaven Rivers and various streams in the Blue Mountains. Newcastle's water supply is taken from the Chichester and Grahamstown Reservoirs and from ground water in coastal sandbeds. Country towns develop their own water supply systems ranging from run-of-river pumping to ground water extractions, to dams built specifically for urban water supply. Metropolitan water authorities are increasingly managing urban water demand to reduce water consumption by a range of mechanisms including pricing and persuasion. Drought management and asset management are more recent areas of concern for metropolitan water utilities which are also increasing their interest in balanced environmental management of water supply catchments.

18.5 URBAN WATER USE IN NEW SOUTH WALES, 1990–91

Area/region	*Water use (ML(a)/year)*	*Population served*
Sydney	655,175	3,679,000
Hunter	84,640	423,400
Gosford/Wyong	36,100	234,000
Other towns	234,000	266,000

(a) Megalitres.
Source: New South Wales Water Resources Council, 1992.

The bulk of irrigation in New South Wales is within the Murray–Darling Basin, the centre of recent Commonwealth/State initiatives in land and water management to reduce salinity problems. Twenty-four storages, including four shared with Victoria and South Australia and one shared with Queensland, regulate water supplies in the Basin.

Two main irrigation arrangements exist State-wide. Licensed irrigation occurs where licensees take water from rivers, usually by pumping at their own cost. Around 1.5 million megalitres per annum is used in this way.

Irrigation Areas and Districts form the second type of irrigation. These are located on the three southern inland rivers — the Murray, Murrumbidgee and Lachlan and include over 6,300 farms and holdings covering nearly 1.4 million hectares. About a third of this area is usually irrigated using 1.4 million megalitres per annum. Extractions from licensed high-yielding bores now approach 300 gigalitres per annum.

The annual gross value of production in the Murray–Darling system is around $800 million, about 20 per cent of the State's total agricultural production. Nevertheless the growing extent of land degradation and salinisation in the Murray–Darling Basin is reducing productivity and increasing costs of production.

Ameliorating waterlogging and salinisation of farming lands is an environmental management priority for the Commonwealth and States, and New South Wales is pursuing this through a State funded SALTACTION initiative and through the Murray–Darling Basin Ministerial Council. For further information on salinisation, *see* the special article *Salinity — An Old Environmental Problem* in *Year Book Australia 1990.*

Water management is coordinated through the NSW Water Resources Council, composed of the heads of government agencies which have a role in water management along with representatives of major interest groups.

18.6 MAJOR WATER STORAGES, NEW SOUTH WALES, 1991–92

Storage name	*River basin*	*Purpose*	*Capacity (ML)*
Eucumbene Dam	Snowy River (NSW)	Hydro-electricity	4,807,000
Hume Dam	Upper Murray River (NSW)	Irrigation, Hydro-electricity	3,038,000
Warragamba Dam	Hawkesbury River	Public water supply, Hydro-electricity	2,091,800
Menindee Lakes Storage	Darling River	Irrigation	1,794,000
Blowering Dam	Murrumbidgee River	Irrigation, Hydro-electricity	1,628,000
Copeton Dam	Gwydir River	Irrigation	1,364,000
Wyangala Dam	Lachlan River	Irrigation	1,220,000
Burrendong Dam	Macquarie-Bogan Rivers	Irrigation, Flood control	1,190,110
Burrinjuck Dam	Murrumbidgee River	Irrigation, Hydro-electricity	1,026,000
Talbingo Dam	Murrumbidgee River	Hydro-electricity	920,550
Glenbawn Dam	Hunter River	Irrigation, Flood control	870,000
Jindabyne Dam	Snowy River (NSW)	Hydro-electricity	688,000
Lake Victoria	Lower Murray River (NSW)	Irrigation	680,200
Keepit Dam	Namoi River	Irrigation, Hydro-electricity	426,000
Split Rock Dam	Namoi River	Irrigation	372,000
Windamere Dam	Macquarie-Bogan Rivers	Irrigation	353,000
Glennies Creek Dam	Hunter River	Irrigation, Public water supply	284,000
Glenlyon Dam (Qld)	Border Rivers (NSW)	Irrigation	261,000
Tantangara Dam	Murrumbidgee River	Hydro-electricity	254,080
Avon Dam	Hawkesbury River	Public water supply	214,360
Mangrove Creek Dam	Hawkesbury River	Public water supply	176,000
Lake Brewster	Lachlan River	Irrigation	154,000
Liddell Dam	Hunter River	Public water supply	148,000
Grahamstown Dam	Hunter River	Public water supply	139,817
Googong Dam	Murrumbidgee River	Public water supply	125,000
Tallowa Dam	Shoalhaven River	Public water supply, Hydro-electricity	110,200

Source: New South Wales Water Resources Council, 1992.

Victoria

Water resources are administered by three major agencies, the Office of Water Resources (in the Department of Conservation and Environment), the Melbourne Metropolitan Board of Works, and the Rural Water Commission.

In an average year water consumption in Victoria is as follows:

- 77 per cent irrigated agriculture;
- 16 per cent urban; and
- 7 per cent rural stock and domestic.

18.7 MAJOR WATER STORAGES IN VICTORIA, 1991–92
(megalitres)

Reservoir	*Storage capacity*
Dartmouth	4,000,000
Eildon	3,390,000
Thomson	1,175,000
Waranga	411,000
Mokoan	365,000
Rocklands	348,000
Eppalock	312,000
Cardinia	289,000
Upper Yarra	207,000
Blue Rock	198,000
Glenmaggie	190,000
Cairn Curran	148,000
Yarrawonga	117,000
Toolondo	107,000
Winneke	100,000

Source: Department of Water Resources Victoria, 1992.

The main rural water supply systems are:

- **Goulburn–Campaspe–Loddon.** The main storage is Lake Eildon with a capacity of 3,390 gigalitres. 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, fruit, vineyards, orchards and market gardens. Downstream from Swan Hill, the First Mildura Irrigation Trust and four Commission Districts are supplied by pumping, and produce mainly dried vine fruits, citrus fruits and table and wine grapes.
- **Southern Systems.** The Macalister 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: Pykes Creek Reservoir, Melton Reservoir and Lake Merrimu.
- **Wimmera–Mallee Domestic and Stock Supply System.** Storages in the Grampian Ranges ensure farm water supplies for dry land, pastoral and cereal farming in the Wimmera and Mallee. There are small areas of irrigation supplied from this system near Horsham and Murtoa.

One of the main problems with water supply in the Wimmera–Mallee Region (as in other regions) is the volume of water lost from the distribution system through evaporation and seepage. In 1990 the average efficiency of the system varied from 70 per cent for irrigation to 35 per cent for domestic and stock deliveries, putting the overall delivery system efficiency at only 41 per cent.

18.8 WATER DISTRIBUTION LOSSES IN THE WIMMERA–MALLEE REGION, 1990
(megalitres per year)

Water use	*Total releases*	*Losses*	*Deliveries*
Farm dams	115,000	79,000	36,000
Rural Water Commission (RWC) urban authorities	30,600	17,500	13,100
Irrigation	27,000	8,000	19,000
Intensive farming	900	550	350
Recreation	2,000	1,250	750
Compensation flows	3,500	—	3,500
Total	**179,000**	**106,300**	**72,700**

Source: Department of Conservation and Environment, 1991.

Nine sub-regional salinity management plans are in various stages of preparation or completion. (Four salinity management plans: Shepparton, Goulburn dryland, Campaspe West and Tragowel Plains, have been accepted by the Government.) The plans are prepared by community based planning groups assisted by a technical committee made up of State government officers. A lead State agency has been nominated for each management plan. Priority has been given to the Northern Victorian irrigation areas because of the size of their salinity problems and the relationship to the interstate River Murray issue.

Queensland

The management of surface and underground water is exercised by the Water Resources Commission.

18.9 MAJOR WATER STORAGES IN QUEENSLAND, 1991–92 (megalitres)

Storage name	*Storage capacity*
Burdekin Falls Dam	1,860,000
Fairbairn Dam	1,440,000
Fred Haigh Dam	586,000
Peter Faust Dam	497,500
Tinaroo Falls Dam	407,000
Glenlyon Dam	254,000
Boondooma Dam	212,000
Wuruma Dam	194,000
Eungella Dam	131,000
Julius Dam	127,000
Callide Dam	127,000
Bjelke-Petersen Dam	125,000
Leslie Dam	107,000
Beardmore Dam	101,000

Source: Queensland Water Resources Commission, 1992.

Approximately half of the area irrigated in Queensland now uses water from storages constructed by the Commission. The balance is irrigated from unsupplemented surface or ground water supplies spread widely throughout the State. Because of the predominance of irrigation by private diversion from streams, as opposed to channel systems delivering water to farms, most of the storages release water to maintain supplies downstream.

Approximately one-third of the area irrigated in Queensland each year is concentrated in eight Irrigation Areas constituted under the *Water Resources Act 1989* where the supply is generally reticulated by channel systems to the farms. Irrigation projects are schemes established under the Act, where water is released from storages to maintain supplies for pumping under licence to land adjacent to the streams. Details of the projects are set out in table 18.10.

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.

Some 45 per cent of the area irrigated in Queensland receives its supplies from underground sources. The predominant areas where water from this source is used for irrigation are the Burdekin Delta, Condamine Valley, Bundaberg, Lockyer Valley, Callide Valley and Pioneer Valley.

18.10 IRRIGATION PROJECTS IN QUEENSLAND, 1991–92

	Announced allocations(a)				*Actual use(a)*		
	Irrigation		*Other uses*				
	Outlets	*Allocation*	*Outlets*	*Allocation*	*Irrigation*	*Other uses*	*Area irrigated*
	no.	megalitres	no.	megalitres	megalitres	megalitres	hectares
Irrigation areas							
Bundaberg(a)	2,477	414,863	8	15,008	158,785	12,259	55,638
Burdekin River(a)	834	160,495	85	343	211,012	281	15,506
Dawson Valley	337	53,517	7	3,273	29,091	2,087	7,497
Emerald	263	195,122	201	20,239	128,884	19,733	17,948
Eton	639	76,443	41	9,041	54,314	9,956	16,930
Lower Mary River	189	17,634	—	—	10,258	—	4,553
Mareeba-Dimbulah	1,238	141,460	783	49,037	67,506	5,506	14,737
St George(b)	304	71,930	19	2,853	103,240	2,516	12,356
Total	**6,281**	**1,131,464**	**1,144**	**99,794**	**763,090**	**52,338**	**145,165**

(a) Includes ground water component. (b) Irrigation includes some water harvesting component.
Source: Queensland Water Resources Commission, 1992.

South Australia

All major water resources and most public water supply schemes are administered by the Engineering and Water Supply Department under various statutes.

Currently water diversions totalling more than 469,795 megalitres (supplying an area of 43,000 hectares) are made for government, cooperative and private irrigation schemes in the South Australian section of the River Murray.

Except for quantities held in various lock pools and natural lakes, no water from the Murray is stored within South Australia for irrigation purposes. In addition to irrigation direct from the River Murray there are considerable areas irrigated from underground sources.

In 1991–92, River Murray pipelines supplied 75,100 megalitres, which represents 42 per cent of the total intake to the Metropolitan Adelaide Water Supply System, compared with 48 per cent for the previous year. The principal sources of supply for the nine storages in the Mount Lofty Ranges are the Rivers Onkaparinga, Torrens, South Para, Myponga and Little Para. Total metropolitan consumption was 177,400 megalitres.

Average consumption per residential property for 1991–92 was down to 268 kilolitres compared to 300 kilolitres in 1990–91. This was partly due to more favourable weather conditions during the 1991–92 summer.

The following table shows the total water supplied (consumed) to the Adelaide metropolitan area over recent years.

18.11 SOUTH AUSTRALIAN METROPOLITAN WATER SUPPLY, 1986–87 TO 1990–91
(megalitres)

Water supply consumption	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*
Metropolitan	162,000	180,000	183,000	183,000	187,000
Highest daily	1,025	1,158	1,226	1,215	1,211
Average daily	444	524	532	532	548

Source: Engineering and Water Supply Department of South Australia, 1991.

Natural inflow from the principal catchments was 134,700 megalitres, up from 126,000 megalitres in 1990–91.

18.12 MAJOR WATER STORAGES IN SOUTH AUSTRALIA, 1991–92
(megalitres)

Reservoir	*Storage capacity*
South Para	51,300
Mount Bold	45,900
Myponga	26,800
Little Para Dam	20,800
Kangaroo Creek	19,000
Millbrook	16,500
Happy Valley	12,700
Todd River	11,300
Bundaleer	6,370
Baroota	6,120
Warren	4,770

Source: Engineering and Water Supply Department of South Australia.

A number of reservoirs in the Barossa Ranges and other local sources are augmented by the Morgan–Whyalla, Swan Reach–Stockwell and Tailem Bend–Keith pipelines which provide River Murray water to extensive country areas. Surface and underground resources have been developed to supply most country centres not covered by the larger schemes. Total country consumption was 73,777 megalitres.

The Murray–Darling Basin Ministerial Council and Commission administer the joint operation of the river system. The Commission is pursuing two main strategies to maintain and improve the quality of River Murray water and improve the management of associated lands. The first is, the Salinity and Drainage Strategy and the second, the Natural Resources Management Strategy (NRMS).

The Salinity and Drainage Strategy involves works to mitigate salinity in the lower reaches of the Murray combined with drainage proposals in the upper States, to rehabilitate waterlogged land. Under this strategy, the

Woolpunda Salt Interception Scheme was commissioned in November 1990. This will intercept up to 170 tonnes of salt per day. Construction of the Waikerie Salt Interception Scheme is proceeding and pumping will commence late in 1992. Investigations are continuing for other projects including Chowilla and Loxton.

The NRMS is the Murray–Darling Basin Ministerial Council's plan of action to improve the management of the natural resources of the basin. The principal objectives of the NRMS are:

- control of land degradation;
- maintaining and where possible, improving water quality; and
- conservation of the natural environment.

South Australia has undertaken a range of research and community projects since the commencement of the NRMS in 1990.

In August 1992, $10.8 million was allocated to a three year program to support rehabilitation of irrigation assets in South Australia's Riverland, the objectives being to make more efficient use of scarce water resources and reduce the impact of irrigation on the region's environment.

Western Australia

The Water Authority of Western Australia manages the majority of water-related services.

Western Australia has a great variation in the size and complexity of water supply schemes, which range from town schemes serving fewer than 50 people to the Perth metropolitan scheme serving a population of 1,200,000.

Considerable use is made of ground water by individual farmers, pastoralists, market gardeners, etc., and it is estimated that over 100,000 bores are in use in the State. Both artesian and non-artesian sources are used to supply or augment the supplies of numerous towns, including such major centres as Perth, Albany, Bunbury, Busselton, Carnarvon, Dampier, Esperance, Exmouth, Geraldton, Karratha and Port Hedland. In a number of mining towns in the north-west, mining companies are responsible for the provision of their own water supplies. Industries also use ground water in substantial quantities, particularly in the processing of titanium, iron and alumbAustralia, 1991.

Perth is supplied from a number of dams and pipeheads in the Darling Range and from ground water schemes located on the Swan Coastal Plain. Water gravitates or is pumped from these sources to service reservoirs and tanks located at high points over the metropolitan area for gravity feed to consumers.

The Water Authority is responsible for all town water supply schemes in the country towns of Western Australia, with the exception of the Bunbury and Busselton schemes which are run by local Water Boards. There are also a small number of town water supply schemes operated by mining companies. Individual water supplies serve railways, timber mill towns, isolated mines, pastoral properties, stock routes and agricultural areas, mainly from dams, tanks, wells and bores.

In country areas total control has been exercised on ground water usage in Broome, Gascoyne, Swan and South West Coastal Ground Water areas. The control of other areas has been tailored to the specific problems known to exist.

- **Goldfields and Agricultural Areas Water Supply.** This scheme provides water from Mundaring Weir to consumers in the Central Agricultural Areas and the Eastern Goldfields.
- **West Pilbara Water Supply Scheme**. The West Pilbara Water Supply serves the towns of Dampier, Karratha, Wickham, Point Samson and Roebourne as well as the industrial complexes at Dampier, the Burrup Peninsula and Cape Lambert. Water is supplied exclusively from the Millstream aquifer and the Harding Dam.
- **Geraldton Regional Water Supply Scheme**. The Geraldton Regional Water Supply serves consumers in the towns of Geraldton, Dongara, Port Denison, Mullewa, Walkaway, Eradu and Narngulu with water being drawn from the Wicherina, Allanooka and Wye Springs borefields.
- **Great Southern Towns Water Supply.** This scheme provides water to the coal mining town of Collie together with towns and farmlands in the Great Southern Area. Water is drawn from Harris Dam, which has a capacity of 71 gigalitres, and supplied to towns from Brookton and Kondinin in the north to Kojonup and Gnowangerup in the south and to Lake Grace in the east as well as 600,000 hectares of farmland.

- **Port Hedland Regional Water Supply Scheme**. The Port Hedland Regional Water Supply provides water for the consumers of Port Hedland and South Hedland from the complementary De Grey and Yule River borefields.
- **Lower Great Southern Towns Water Supply Scheme**. This scheme supplies the towns of Albany, Mt Barker and Kendenup. Water is drawn from three sources: Two Peoples Bay east of Albany (from which the water is treated for colour removal), Limeburner's Creek and bores which are located on the west of Princess Royal Harbour.
- **Mandurah Regional Water Supply Scheme.** This scheme provides water to the town of Mandurah and areas to the south and east. Approximately 90 per cent of the water consumed is supplied by gravity from the South Dandalup Dam with the remainder supplied from bores at Ravenswood.
- ***Supplies to other country towns.*** Nearly 150 towns are supplied with water from stream flow, dams, tanks, wells and bores, the schemes being administered under the provisions of the *Country Areas Water Supply Act 1947*.

The Water Authority is responsible for the provision and maintenance of tanks and wells as a source of cartage water for farmers and a number of small communities in gold mining and agricultural areas.

The Water Authority also undertakes design and construction of water services for Aboriginal communities on behalf of the Aboriginal and Torres Strait Islander Commission. The Authority under contract to the Aboriginal Affairs and Planning Agency assists communities in operating and maintaining schemes and training community operators.

The Water Authority is responsible for the operation and maintenance of seven irrigation and 15 drainage schemes throughout the State from Albany in the south to Kununurra in the north.

Irrigation schemes have been established by the State Government on the coastal plain south of Perth in the Waroona, Harvey, Collie River and Preston Valley Irrigation Districts between Waroona and Donnybrook, the water being channelled from dams in the adjacent Darling Range.

There is a thriving plantation industry situated at Carnarvon near the mouth of the Gascoyne River. This centre is one of the major producers in Western Australia of tomatoes, watermelons, pumpkins, cucumbers, capsicums and runner beans. Carnarvon also supplies capsicums, zucchinis and pumpkins to the eastern States. It produces over half the bananas consumed in Western Australia as well as limited supplies of citrus fruit, mangoes and avocados.

The rainfall at Carnarvon is extremely variable and averages little more than 230 millimetres per annum. Agricultural development has been made possible only by irrigation with ground water. Water is obtained from the growers' own irrigation pumping plants and from the government-controlled Carnarvon Groundwater Supply Scheme which is supplied from bores along the Gascoyne River.

The Ord Irrigation Project provides for the ultimate development of 72,000 hectares of clay soils and additional areas of sandy soils adjoining the clays. Water is currently supplied to 18,000 hectares.

Tasmania

The Hobart Regional Water Board, the Rivers and Water Supply Commission, the North-West Regional Water Authority, the Department of Resources and Energy, and the Hydro-Electric Commission all play responsive roles in the administration of water resources.

Contrary to popular belief, Tasmania is heavily dependent on water conservation in maintaining reliable sources of supply for irrigation, stock and domestic requirements, and urban and industrial water supplies. This is due to an annual summer drought between January and March, when most run-of-the-river flows only support ordinary riparian needs or very limited irrigation and many smaller streams cease to flow.

The total surface water usage for domestic, industrial, and agricultural purposes in Tasmania is only one per cent of the potential exploitable yield, compared with a national figure of about 13 per cent. Despite this, economic, environmental and social constraints are beginning to restrict further development of the total yield for these purposes.

Excluding power generation storages, the total capacity of water conservation dams in the State is about 150 gigalitres, almost half of which is in on-farm dams.

There is widespread use of farm dams for irrigation which is needed to maintain overall production because of the summer drought and the lack of pasture and crop growth in the State's cold winters.

The vast majority of the State's water resources are used for power generation, based on a large, integrated system of water storages. This system also benefits other water users by enabling greatly increased regulation of many streams. Table 18.13 shows the major dams and reservoirs in Tasmania.

The Rivers and Water Supply Commission is in charge of three major irrigation schemes, these being the Cressy–Longford Irrigation Scheme, the South East Irrigation Scheme, Stage I, both of which supply water via open channel, and the Winnaleah Irrigation Scheme which supplies water via pipelines.

18.13 MAJOR WATER STORAGES IN TASMANIA, 1991–92 (megalitres)

Reservoir	*Storage capacity*
Lake Gordon	12,450,000
Great Lake	3,179,000
Lake Pedder	2,960,000
Lake St Clair	2,000,000
Lake Burbury	1,065,000
Lake Mackintosh	914,000
Lake Echo	725,000
Lake Piemont	641,000
Lake King William	539,000
Arthur's Lake	511,000
Lake Barrington	180,000
Lake Rowallan	131,000
Lake Rosebury	124,000
Lake Cethana	109,000

Source: Hydro-Electric Commission, 1992.

Of the three schemes, Cressy–Longford is the largest (serving 88 properties) with 10,000 hectares being fit for irrigation. The Coal River Scheme is capable of serving 107 properties of which 3,800 hectares are fit for irrigation. The Winnaleah Scheme serves 1,500 hectares on 72 properties.

18.14 TOTAL WATER USAGE BY THE CRESSY–LONGFORD, SOUTH EAST DISTRICTS AND WINNALEAH IRRIGATION SCHEMES, 1989–90

Purpose	*Total water used*	*Area irrigated*
	ML	ha
Pasture	5,079	1,899
Processing potatoes	1,038	243
Canning peas	1,059	848
Other crops	1,382	1,090
Dam filling	519	—
Stock and domestic	139	—
Total	**9,216**	**4,080**

Source: Rivers and Water Supply Commission, 1990.

The majority of land irrigated in the State is watered by private schemes either by pumping directly from unregulated streams or from on-farm storages. Pasture still predominates as the major crop irrigated but vegetables and other crops now constitute 33 per cent of the total area irrigated.

Northern Territory

The Power and Water Authority is responsible for water resources.

Northern Territory water resources range from the abundance of northern coastal rivers to the harsh dry interior where surface water is rare and reliable supplies can only be found in ground water reserves. The streams of the northern quarter, or Top End, of the Territory are generally ephemeral, with flow dictated by wet and dry season climate under monsoonal influence. The total annual run-off to the northern coast is some 80 million megalitres. Of this total, 10.5 megalitres is potentially divertible after allowing for topographic and land use constraints, such as national parks. The developed surface water resource totals 0.6 million megalitres per annum. Rural, stock, domestic and private diversions account for 56 per cent (35 thousand megalitres per annum) of this, with the balance of 44 per cent (28 thousand megalitres per annum) used for urban supply.

The only significant surface water storage is the Darwin River Dam (259 gigalitres), approximately 60 kilometres south of Darwin. It forms part of the water supply headworks system for urban Darwin. Ground water from

McMinns Lagoon area is used to augment supply. Water supply to Katherine is from run of river with supplementation from ground water. Most other towns and communities, including Alice Springs, Tennant Creek, Jabiru and Nhulunbuy are supplied from ground water.

There are approximately 23,000 registered bores and wells in the Territory, of which 33 per cent serve urban and domestic supplies, 28 per cent are for pastoral use, 11 per cent are used for mining, 4 per cent for various miscellaneous uses and the remaining 24 per cent are investigation bores.

Estimates of theoretically divertible ground water resources are:

- Top End — 6 million megalitres (fresh and marginal); and
- Arid Zone — 2 million megalitres (fresh and marginal); and 1 million megalitres (brackish and saline).

Of the estimated 9 million megalitres of ground water available in the Territory, approximately 70 thousand megalitres per annum is extracted.

Irrigation in the Territory is expanding but is not extensive, being confined to Top End locations near Darwin, Adelaide River, Daly River and Katherine, and Ti Tree and Alice Springs in the arid zone. Irrigated agriculture includes fruit, vegetables, fodder crops, pastures and some dairying and most is carried out using bore water. There are no publicly owned/operated irrigation systems in the Territory.

12 per cent of total waste water is being used for irrigation purposes in Darwin, Katherine and Alice Springs.

Australian Capital Territory

The Electricity and Water Authority is responsible for the supply of water.

Surface water storages supplying the Australian Capital Territory (ACT) (population about 295,000) and the neighbouring city of Queanbeyan (population about 27,000) are located to the south-west and south-east. The storages to the south-west are in the heavily timbered, mountainous Cotter River catchment within the ACT, the storages being Corin Dam (75,500 megalitres), Bendora Dam (10,700 megalitres) and Cotter Dam (4,700 megalitres). The storage to the south-east in New South Wales in the Queanbeyan River catchment (over which the Commonwealth has permanent water rights) on the western slopes of the Great Dividing Range is the Googong Dam (125,000 megalitres).

The following table shows the total annual water consumption for the ACT and Queanbeyan. Variation in consumption can be accounted for by climatic variables such as temperature and rain days.

18.15 TOTAL WATER CONSUMPTION FOR THE AUSTRALIAN CAPITAL TERRITORY AND QUEANBEYAN, 1986–87 TO 1990–91 (megalitres)

Year	*Water consumption*
1986–87	65,939.7
1987–88	71,786.8
1988–89	62,448.7
1989–90	65,425.2
1990–91	77,260.7

Source: ACT Electricity and Water, 1992.

The existing storages on the Cotter and Queanbeyan Rivers have an ultimate combined capacity to serve 400,000 persons. Other potential storage sites exist on the Cotter, Paddy and Gudgenby Rivers which are likely to meet the needs of a population in excess of one million people.

Ground water has been used in the past by most primary producers to augment surface storage. Ground water production bores in the ACT have yields ranging between about 0.4 and 20 kilolitres per hour; 3 kilolitres 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 ACT, and because of the rapid expansion of urban growth. The Bureau of Mineral Resources has provided a bore-siting, ground water-quality and yield-prediction service in and around the ACT since the early 1950s and has maintained a network of observation bores which have been monitored regularly.

INTERNATIONAL ASPECTS AND NATIONAL AND INTERSTATE AGREEMENTS

For information on international aspects and for national and interstate agreements on the management of water resources see *Year Book Australia 1990*, pages 504–507.

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FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Nineteen

Energy

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Energy is fundamental to Australia's standard of living and economic performance. It has an important role to play in restructuring Australia's economy and improving its competitiveness.

The Commonwealth Government has a significant involvement in the activities of the energy sector. Its responsibilities for export policy and offshore petroleum activities have a major impact on specific development projects.

In 1988 Australia completed an energy policy review published as *Energy 2000 — A National Energy Policy Paper.*

The review highlighted three major energy policy objectives:

- to ensure that Australia's energy supplies are adequate and reliable;
- to achieve the most efficient and competitive domestic energy supply industry; and
- to maximise the export earnings of Australia's energy resources consistent with a need to meet overseas requirements for cost competitive energy resources and with environmental and other social objectives.

Australia is generally well placed to meet these objectives by the year 2000.

Australia has abundant reserves of coal, gas and uranium to meet both export and domestic demands. Given currently known resources, it can continue current production rates in these energy sources for 300 years (black coal only), 45 years, and 145 years respectively. In fact Australia is one of only five Organisation for Economic Cooperation and Development (OECD) countries that are net energy exporters. Australia is:

- the world's largest exporter of coal, accounting for around one-third of the world seaborne coal trade;
- a major uranium producer and exporter, accounting for about 10 per cent of western world production and a greater percentage of its uranium trade; and
- currently an exporter of Liquefied Petroleum Gas (LPG) and petroleum products, and a major exporter of Liquefied Natural Gas (LNG).

Estimates of Australia's demonstrated economically recoverable resources of energy as at December 1990 were:

Black Coal	51.4 Gt
Brown Coal	41.7 Gt
Natural Gas	941 TL
Uranium	469 kt
Crude Oil, Gas Condensate and LPG	491 GL

NOTE: Gt — gigatonnes; TL — teralitres; kt — kilotonnes; GL — gigalitres.
Source: Department of Primary Industries and Energy.

ENERGY RESOURCES

Black coal

Black coal is currently the largest source of primary energy in Australia. By world standards, in relation to present population and consumption, Australia is fortunate in the availability of easily worked deposits of coal. The country's main black coal fields are located in New South Wales and Queensland, not far from the coast and the main centres of population.

Of Australia's identified in situ resources of black coal, currently estimated at 77.8 gigatonnes (Gt), about 51 Gt are considered to be economically recoverable. They are located largely in the Sydney Basin in New South Wales and the Bowen Basin in Queensland. There are other coal-bearing basins in New South Wales and Queensland, while small deposits are being worked in Western Australia, South Australia and Tasmania. Australian saleable black coal production in 1991–92 was 176.1 Mt.

For further details relating to the production of black coal in Australia *see* the chapter, Mining and Minerals. Details about the nature and age of black coal deposits are given in *Year Book Australia 1980.*

Brown coal

Australia's measured and indicated resources of brown coal were estimated to be around 42 Gt at December 1990. The main deposits are located in Victoria's Latrobe Valley (over 39 Gt). Small deposits exist in other areas of south Gippsland, in south-eastern Victoria at Gelliondale and in the south-central region at Anglesea, Bacchus Marsh and Altona. Deposits are also known at many places along the southern margin of the continent, and as far north as central Queensland. Large deposits are being tested in the Kingston area of South

Australia, the Esperance area of Western Australia and at Rosevale in the north-east of Tasmania.

Because brown coal has a relatively low specific-energy value and high water content, its utilisation depends on large-scale, low-cost mining and negligible transportation costs in its raw state. In Victoria, the brown coal industry has reached a high degree of sophistication in mining, on-site development of power generation, briquette and char manufacture.

Petroleum

See the chapter, Mining and Minerals, for information on legislation and expenditure on petroleum exploration.

The prospects of further discoveries of petroleum in Australia are considered to be good, particularly in sedimentary basins off the north-west coast. Consistent with the existing pattern of discoveries, undiscovered oil is likely to be of the light, low sulphur type and more gas fields than oil fields should be found. Assessments by the Australian Geological Survey Organisation (formerly the Bureau of Mineral Resources, Geology and Geophysics) indicate that there is an average probability of finding at least another 380 gigalitres (GL) (2,400 million barrels) of crude oil in Australia. This compares with demonstrated economically recoverable resources of 278 GL (1,749 million barrels) and demonstrated sub-economically recoverable resources of 27 GL (169.8 million barrels) as at December 1990.

19.1 PETROLEUM RESOURCES(a), DECEMBER 1990

Basin	*Crude oil*	*Gas condensate*	*LPG*	*Sales gas*
	GL	GL	GL	TL
Demonstrated economic resources(b)				
Gippsland (Vic.)	123	22	44	161
Carnarvon (WA)	28	58	50	256
Cooper/Eromanga (SA/Qld)	12	7	11	78
Amadeus (NT) and Bonaparte (WA/NT)	30	—	1	12
Perth (WA)	1	—	—	3
Bowen/Surat (Qld)	—	—	—	6
Canning (WA)	—	—	—	—
Otway (Vic.)	—	—	—	1
Total	**194**	**87**	**106**	**517**
Demonstrated sub-economic resources(c)				
Gippsland/Bass (Vic./Tas.)	54	3	—	104
Bonaparte (WA/NT)	8	8	12	166
Carnarvon (WA)	60	34	25	717
Cooper/Eromanga (SA/Qld)	—	2	5	41
Browse (WA)	—	32	55	451
Perth (WA)	—	—	—	—
Amadeus (NT)	—	—	—	7
Bowen/Surat/Adavale (Qld)	—	—	—	2
Bass (Tas./Vic.)	2	6	8	10
Otway (SA/Vic.)	—	—	—	—
Total	**124**	**85**	**105**	**1,498**

(a) Based on the McKelvey classification which subdivides resources in terms of the economic feasibility of extraction and their certainty of occurrence. (b) Demonstrated economic resources are resources judged to be economically extractable and for which the quantity and quality are computed from specific measurements and extrapolations on geological evidence. (c) Demonstrated sub-economic resources are similar to demonstrated economic resources in terms of certainty of occurrence but are judged to be sub-economic at present.

Source: Department of Primary Industries and Energy.

Crude oil and condensate

Indigenous production in 1991–92 at 31,309 megalitres (ML) (538 thousand barrels per day) of crude oil and condensate was slightly lower than production in 1990–91 of 31,955 ML. In 1991–92, the Bonaparte Basin produced 3,796 ML of crude oil, nearly 12 per cent of the total indigenous oil production. Production of crude oil from the Gippsland Basin accounts for 54 per cent of total indigenous crude oil production. The North West Shelf was the major producer of condensate during 1991–92 with 56 per cent of indigenous production sourced in that region.

Export volumes of crude oil and condensate increased by 1.7 per cent in 1991–92 compared with 1990–91, to 8,972 ML. The main markets were Japan, Indonesia and Singapore. Imports of crude oil and condensate increased by 15 per cent to 15,332 ML.

Liquefied petroleum gas

Liquefied petroleum gas (LPG) is a valuable co-product of oil and gas production and petroleum refining. The major constituents of LPG are propane, propylene and iso- and normal-butane, which are gaseous at normal temperatures and pressures and are easily liquefied at moderate pressures or reduced temperature. Operations involving LPG are expensive in relation to other liquid fuels because LPG has to be refrigerated or pressurised when transported and stored. LPG is an alternative transport fuel for high mileage vehicles in urban areas as well as a petrochemical feedstock and a traditional fuel.

Identified economically recoverable resources of LPG at December 1990 of 114,000 ML were concentrated in Bass Strait, the North West Shelf and the Cooper Basin.

Production of naturally occurring LPG in Australia in 1991–92 was 3,589 ML. The major contributors to this total were the Bass Strait fields (2,558 ML or 71% of total production) and the Cooper Basin (930 ML or 26% of total production). About 43 per cent of domestic LPG production is exported (1,568 ML in 1991–92), mainly to Japan. Domestic consumption of 3,318 ML in 1991–92 was met by 1,369 ML of product derived from processing industries, with supply shortfalls being met by naturally occurring product and imports.

19.2 PETROLEUM PRODUCTION

Year	*Crude oil and condensate*	*LPG(a)*	*Natural gas*
	ML	ML	GL
1986–87	31,503	3,927	14,683
1987–88	31,264	3,923	15,249
1988–89	28,255	3,763	15,772
1989–90	31,993	3,785	20,090
1990–91	31,955	3,547	21,109
1991–92	31,309	3,589	22,542

(a) Naturally occurring.
Source: Department of Primary Industries and Energy.

Natural gas

During 1991–92, 22,542 million cubic metres of natural gas was produced for domestic consumption and export representing an increase of 6.8 per cent from the 1990–91 production level. A further 6,070 million cubic metres of natural gas from the export phase of the North West Shelf project was liquefied for shipment to Japan. This export earned $843 million and represented 20 per cent of total Australian natural gas production.

North West Shelf. The initial phase of the North West Shelf Gas Project is due for completion in 1992–93, with the completion of three processing modules and a fleet of seven dedicated LNG carriers in service. In 1992, LNG production on the Burrup Peninsula averaged more than 14,000 tonnes a day.

It is estimated that exports of liquefied natural gas to Japan will continue to expand, rising to a peak of seven million tonnes per year by 1994–95. It is expected that these LNG sales to Japan will generate annual export revenue of $1.4 billion in 1991–92 dollars.

Oil shale

A description of the nature and location of Australian oil shale deposits was given in *Year Book Australia 1983*.

Major investigations into oil shale development have concentrated on the Condor, Rundle and Stuart deposits in Queensland.

Uranium

Australia has about 31 per cent of the Western world's low-cost uranium reserves. Deposits occur in the Northern Territory, Western Australia, South Australia and Queensland.

Australia's reasonably assured uranium resources, at December 1990, totalled 469,000 tonnes of uranium recoverable at less than $US80 per kg U. The Australian Government's uranium policy provides that the mining and export of uranium will continue from only the Ranger and Nabarlek mines in the Northern Territory and the Olympic Dam mine in South Australia.

Production capacity of the mill at the Ranger mine is 3,800 tonnes U_3O_8 per annum and production for 1991–92 totalled 2,979 tonnes U_3O_8. Nabarlek operations ceased in 1990.

Production capacity of the mill at the Olympic Dam mine is 1,900 tonnes U_3O_8 per annum and production for 1991–92 totalled 1,369 tonnes U_3O_8. The mine also produces copper, gold and silver.

All exports of Australian uranium are subject to the most stringent safeguards which provide assurance that none of the material is diverted from peaceful uses. Uranium produced in Australia is exported in the form of yellowcake for use in nuclear reactors for the generation of electricity and research and development pursuant to that purpose.

Production of uranium for 1991–92 was 4,348 tonnes U_3O_8 and exports were 4,730 tonnes U_3O_8 valued at around $245 million. The *Nuclear Non-Proliferation (Safeguards) Act 1987* gives domestic effect to Australia's international nuclear non-proliferation obligations which require domestic legislation. The legislation establishes a system of permits for the possession and transport of nuclear material (defined to cover uranium, thorium and plutonium), and other physical items such as equipment and material used in nuclear reactors. The permit and related provisions also deal with the possession and communication of sensitive information about nuclear technology, in circumstances where that information is not already a matter of public record. The legislation is administered by the Australian Safeguards Office.

Thorium

Thorium is a radioactive mineral that is about three times as abundant as uranium, but occurs in fewer geological environments and in lower grade accumulation. Most of the world's resources of thorium occur in monazite.

In Australia, monazite is produced from titanium-bearing mineral sands on the east and west coasts. Other thorium occurrences are known, but are uneconomic. Australia presently supplies about 65 per cent of the world's traded monazite. Exports from Australia of thorium and thorium-containing ores require the approval of the Minister for Primary Industries and Energy under the Customs (Prohibited Exports) Regulations.

Solar energy

For specific applications such as domestic water and space heating, solar energy is already beginning to play a valuable role in Australia. Some six per cent of Australian residences have a domestic solar water heater with the local industry currently producing around 30,000 units annually. The use of passive solar design principles in housing is also increasing as low-cost passive designs are developed. The best prospects for using many solar energy technologies are in areas of Australia remote from the major electricity grids, where electricity costs can be anywhere from 3 to 20 times those in metropolitan areas.

Wind energy

While the bulk of Australia's inland has relatively low wind speeds, some coastal and island localities have good wind energy resources, notably on the Western Australian, South Australian and Tasmanian coasts, in Bass Strait and on Lord Howe Island.

At present the use of wind energy in Australia is confined principally to mechanical windmills for water pumping and small wind turbine generators for remote areas. It is unlikely that, in the short to medium term, wind energy will be able to compete on a widespread and large-scale basis with coal for electricity generation in Australia. However, wind turbines could find increasing application in remote areas where wind resources are favourable and which currently rely on diesel fuel for electricity production.

Geothermal energy

The most intensive and well-documented study in Australia of sub-surface temperatures has been made using bore holes in the Great Artesian Basin. However, of the total number of indexed bores, only a very small proportion have water temperatures exceeding 100°C.

In general, it appears that cost constraints will largely restrict the use of geothermal resources to the supply of hot water for space heating and light industrial purposes. However, for remote homesteads and communities in areas of the Great Artesian Basin, hot artesian bores may well be used to provide an economically viable alternative source of electricity to that obtained from diesel generators.

Biomass

Only two forms of biomass are used significantly as energy in Australia. These are firewood and bagasse, both converted to energy by direct combustion.

Approximately 6.2 megatonnes of firewood are currently used annually in Australia, equivalent in energy terms to about 100 petajoules, or 2.5 per cent of Australia's total energy consumption.

Bagasse is the fibrous residue remaining after extraction of the juice from sugar cane. It is the major fuel used in the sugar industry, providing about 85 petajoules, or 2.2 per cent of Australia's total energy consumption.

FINANCIAL AND ADMINISTRATIVE ARRANGEMENTS

Crude oil marketing and pricing arrangements

The crude oil market was deregulated on 1 January 1988. Refiners and producers are allowed to negotiate freely the quantities and prices of crude oil they buy and sell. Crude oil producers also have complete freedom to export crude oil as an alternative to selling on the domestic market, subject to government policy in times of emergency. The Government no longer fixes an Import Parity Price nor requires refiners to absorb quantities of Australian oil at that price, as it did prior to deregulation.

Decisions on major refinery investment associated with changes in domestic crude availability have been easier in a deregulated market and a significant program of investment in upgraded plant and equipment has already been undertaken.

The price of crude oil used for the purposes of excise tax assessment for Bass Strait in a free market is the monthly volume weighted average of realised prices of sales of oil from Bass Strait.

Pricing of liquefied petroleum gas (LPG)

As from 1 February 1989, the Government no longer sets the price of LPG on the Australian market. This decision represents an important move towards a free market in LPG and brings LPG into the same pricing arena as other major petroleum products. The Prices Surveillance Authority (PSA) has responsibility for determining the maximum wholesale price of LPG in each capital city.

Secondary tax arrangements in the petroleum industry

In addition to general taxation arrangements applying to companies in Australia, petroleum production projects are subject to secondary taxes. The type and rate of secondary taxation (resource rent tax, resource rent royalty, or excise and royalties) depends on the location of the petroleum resource, the date of discovery of the petroleum reservoir and the date upon which production commenced.

A *Resource Rent Tax* (RRT) applies to petroleum projects in the majority of Australia's offshore areas beyond the States' territorial seas. Excluded are the Bass Strait and North West Shelf production licence areas and associated exploration permits. Where RRT applies, it replaces excise and royalties which would otherwise have been levied.

A *Resource Rent Royalty* (RRR) may be applied to onshore petroleum projects by State Governments. Where RRR is applied the legislation provides for the Commonwealth to waive its crude oil excise whenever the relevant State Government negotiates an acceptable RRR agreement with the project producers and agrees to a satisfactory revenue sharing formula with the Commonwealth.

Excise applies to crude oil production from the Bass Strait and North West Shelf projects offshore and all onshore areas (except Barrow Island where a RRR applies). Excise also applies to certain LPG produced from offshore projects.

Crude oil excise is based on the annual level of crude oil sales from individual production areas and is levied as a percentage of the realised price received by producers.

Different excise scales are applicable to oil production depending upon the date of discovery of the production area and the date when the area was first developed. In the case of new offshore projects to which excise and royalty apply, and all onshore fields, the first 30 million barrels of crude oil production are exempt from excise. Production beyond this level is subject to the appropriate excise rate.

Oil discovered before 18 September 1975 ('old' oil) attracts a higher rate of excise than oil discovered on or after this date ('new' oil). An 'intermediate' scale also applies to oil produced from 'old' oil fields that were not developed as at 23 October 1984. However, in the case of all onshore fields that commenced production after 1 July 1987, production in excess of 30 million barrels is subject to 'new' oil excise.

A *Commonwealth Royalty* is also levied on offshore petroleum production except in the case where RRT applies. Proceeds are shared, generally on a 32:68 basis by the Commonwealth and the appropriate State or Territory. Thus, Victoria receives a share of the royalty from petroleum produced from Bass Strait, and Western Australia receives a share of the royalties from the North West Shelf. Onshore petroleum rights are vested in the State and Northern Territory Governments and the Commonwealth does not in general receive a share of this royalty.

Incentives to encourage petroleum exploration and development

Apart from the deregulation of crude oil marketing from 1 January 1988 and the concessions to the crude oil excise regime, the Government continues its policy of encouraging petroleum exploration and development in Australia.

Australian participation guidelines for foreign investment policy in respect of new oil and gas development proposals involving total investment of over $10 million no longer apply. These projects will be allowed to proceed unless judged contrary to the national interest.

The immediate 100 per cent deductability of exploration expenditure against company tax has been retained, as has the write-off over 10 or 20 years in equal instalments of expenditure on infrastructure such as pipelines.

The Government continues to release offshore petroleum exploration acreage regularly, usually twice a year. The latest release was made on 25 May 1992 and offered 21 areas off the coast of Western Australia, South Australia, Victoria, Tasmania and the Northern Territory.

GOVERNMENT INITIATIVES

Institutional arrangements

The Commonwealth Minister for Primary Industries and Energy has portfolio responsibility for national energy policy matters, including the commercial development of hydrocarbon fuels and minerals. The Department of Primary Industries and Energy provides support for a number of advisory bodies including the National Energy Research Development and Demonstration Council, the Australian Minerals and Energy Council, the National Energy Consultative Council, the National Oil Supplies Advisory Committee, the National Petroleum Advisory Committee, the National Fuels Emergency Consultative Committee, the Australian Coal Marketing and Technology Council, and the Consultative Committee on Safety in the Offshore Petroleum Industry.

The Department is also responsible for the implementation of action required from Australia's membership of the International Energy Agency and for the national system of accounting for control of nuclear materials under Australia's Agreement with the International Atomic Energy Agency.

Research and development

The Energy Research and Development Corporation (ERDC) was established in July 1990 as part of a program to improve the effectiveness of the Government's investment in research and development by increasing the level of industry involvement. It is responsible for developing energy research programs in conjunction with the diverse non-coal energy sectors including gas, petroleum, renewable energy sources and systems, and electricity supply industries.

In the general research category, ERDC invested in 10 projects in 1991–92. The total cost of the projects is $13 million, of which the ERDC contribution is $4 million over an average of three years. This reflects the Corporation's strategy of encouraging the pooling of resources and research skills to undertake larger, focused research which is supported by a number of partners.

ERDC has also placed considerable emphasis on the joint venture category where industry partners invest at least 50 per cent of the funds for the project. This pooling of resources results in more focused R&D, addressing specific industry needs for the short, medium and long term. The Corporation has invested in six joint ventures during 1991–92. The total value of these projects is $29 million, of which ERDC is contributing $4.5 million.

International Energy Agency (IEA)

The IEA (of which Australia is a member) carries out the International Energy Program and the Long Term Co-operation Program. These programs aim to:

- prepare member countries against risk of oil supply disruptions and share remaining supplies in the event of a severe oil shortfall;
- develop alternative energy sources and the more efficient use of energy through cooperative research and development programs; and
- promote cooperative relations with other oil-producing and oil-consuming countries.

ELECTRICITY AND GAS SUPPLY

At 30 June 1991, the total installed public electric generating capacity in Australia was 33.9 million kilowatts.

Of total public electrical energy produced during 1990–91 hydro-electric sources provided approximately 11 per cent, and the balance was supplied by fossil fuels with approximately 81 per cent provided by coal. The development of coal-fired power stations has been facilitated by the presence of large demonstrated economic resources of coal close to the major industrial areas in New South Wales and Victoria.

About 90 per cent of electric power in Australia is produced by power stations owned and operated by State government utilities.

Natural gas consumption in 1991–92 was 676 petajoules, an increase of 3.0 per cent on 1990–91 and contributed 17.4 per cent of Australia's energy requirements.

Natural gas exports in the form of LNG (Liquefied Natural Gas), began in 1989 and for the year 1991–92 were equal to 235 petajoules.

19.3 ELECTRICITY AND GAS ESTABLISHMENTS: SUMMARY OF OPERATIONS, 1990–91(a)

	Establishments at 30 June (no.)	Employment at 30 June: Males (no.)	Females (no.)	Persons (no.)	Wages and salaries ($m)	Turnover ($m)	Stock: Opening ($m)	Closing ($m)	Purchases, transfers in and selected expenses ($m)	Value added ($m)
ELECTRICITY										
New South Wales	29	20,380	2,692	23,072	896.2	7,329.9	437.4	452.6	4,297.3	3,047.8
Victoria	12	15,930	1,295	17,225	654.0	3,291.1	143.7	118.6	958.4	2,307.6
Queensland	11	7,560	1,223	8,783	289.1	3,088.3	156.9	137.4	1,692.7	1,376.1
Other States and Territories(b)	14	12,539	1,487	14,026	467.1	3,238.0	234.2	218.2	1,172.8	2,049.2
Australia										
1990–91	66	56,409	6,697	63,106	2,306.5	16,947.3	972.2	926.7	8,121.1	8,780.7
1989–90	68	59,824	7,231	67,055	2,219.0	15,988.0	936.0	981.6	7,512.1	8,521.5
1986–87	74	70,875	7,719	78,594	2,179.3	12,041.4	777.4	997.0	6,384.8	5,876.3
1984–85	83	75,153	7,458	82,611	2,000.8	10,154.4	714.5	631.2	5,214.8	4,856.3
1983–84	82	75,362	7,275	82,637	1,823.6	9,342.0	696.4	713.5	4,642.5	4,716.5
GAS										
Australia										
1990–91(c)	30	8,481	2,014	10,495	311.9	2,788.4	74.6	81.4	1,526.3	1,268.9
1989–90	34	8,780	2,108	10,888	287.6	2,687.0	78.5	85.8	1,373.0	1,321.3
1986–87	34	9,260	1,847	11,107	274.0	1,985.8	69.9	69.1	943.0	1,042.0
1984–85	34	8,788	1,729	10,517	229.4	1,655.2	71.8	70.0	828.5	825.0
1983–84	34	8,909	1,635	10,544	217.9	1,386.4	72.9	72.0	633.6	752.0

(a) Changes to business units definitions in 1989–90 have caused some discontinuities, particularly in relation to the number of establishments. (b) The number of electricity establishments operating at 30 June 1991 for these States/Territories were: South Australia — 6; Western Australia — 3; Tasmania — 1; Northern Territory — 3; and Australian Capital Territory — 1. (c) The number of gas establishments operating at 30 June 1991 for the States/Territories were: New South Wales — 19; Victoria — 1; Queensland — 5; South Australia — 2; Western Australia — 1; Tasmania — nil; Northern Territory — 1; and Australian Capital Territory — 1.

Source: Electricity and Gas Establishments, Australia (8208.0).

The main features of the production and distribution of electricity and gas in each State and Territory are outlined below.

Snowy Mountains Hydro-Electric Scheme

The Commonwealth Government's major direct role in the electricity supply industry is its responsibility for the Snowy Mountains Scheme. It is a dual purpose complex which supplies water for electricity generation and irrigation. Located in south-eastern Australia, on its completion the Scheme was one of the largest engineering works of its type in the world. It impounds the south-flowing waters of the Snowy River and its tributary, the Eucumbene, at high elevations and diverts them inland to the Murray and Murrumbidgee Rivers through two tunnel systems driven through the Snowy Mountains. The Scheme also involves the regulation and utilisation of the headwaters of the Murrumbidgee, Tumut, Tooma and Geehi Rivers. The diverted waters fall some 800 metres and together with regulated flows in the Geehi and Tumut River catchments generate mainly peak load electricity for the States of New South Wales and Victoria and the Australian Capital Territory as they pass through power stations to the irrigation areas inland from the Snowy Mountains.

A special article on the Scheme appeared in *Year Book Australia 1986*.

New South Wales

Pacific Power (formerly the Electricity Commission) is responsible for the production of electricity and its bulk transmission throughout New South Wales. 25 electricity supply authorities handle the retail distribution of electricity to consumers. It also supplies several large industrial customers.

Electricity for New South Wales is generated mainly in coal-fired thermal power stations, supplemented by a share of the Snowy Mountains Scheme together with smaller hydro and gas turbine power stations.

At June 1991 the six major power stations of Pacific Power and their base load capacities were as follows: Bayswater (Hunter Valley) 2,640 MW; Liddell (Hunter Valley) 2,000 MW; Munmorah (Tuggerah Lakes) 600 MW; Vales Point (Lake Macquarie) 1,320 MW; Eraring (Lake Macquarie) 2,640 MW; and Wallerawang (near Lithgow) 960 MW. Two 660 MW units are being installed at Mount Piper Power Station which is located on the western coalfield near Lithgow. Commissioning of the Mount Piper station is planned to commence in 1993. The total nominal capacity of Pacific Power's system at 30 June 1991 was 10,790 MW. The maximum demand for electricity from the system during 1990–91 occurred on 31 July 1990 and was 9,374 MW. Electricity sent out from these power stations in 1990–91 was 45,849 GWh.

Interconnection of the New South Wales and Victorian power systems with that of South Australia was completed in December 1989 and commercial operations began in March 1990. Studies have begun to explore interconnection of the New South Wales and Queensland power systems.

The greater part of the hydro-electric potential of New South Wales is concentrated in the Snowy Mountains area, which is controlled by the Snowy Mountains Hydro-Electricity Authority. New South Wales' share sent out over its system in 1990–91 was 2,971 GWh. Apart from this area, major hydro-electric stations are in operation at the Warragamba Dam (50 MW) and Hume Dam (50 MW). A pumped-storage hydro-electric system to produce 240 MW has been installed as part of the Shoalhaven Scheme in conjunction with the Water Board. In addition, there are five smaller hydro-electric installations in operation in various parts of the State.

Electricity sent out over Pacific Power's system from these hydro-electric stations in 1990–91 was 335 GWh.

Total electricity generated in New South Wales from all sources in 1990–91 was 48,885 GWh.

Natural gas was made available to Sydney consumers with the completion of an overland supply pipeline from the Moomba field in South Australia in 1976.

With the connection of natural gas pipelines into existing reticulation systems, the use of gas manufactured from coal or petroleum has been superseded in the main population centres of the State. By 1991, all Sydney homes with reticulated gas supply had been converted to direct use of natural gas. At June 1991, Sydney users of natural gas totalled about 420,000 residential accounts and 17,000 other users (mainly commercial/industrial).

The total amount of gas (of all types) available for issue through mains in New South Wales in 1990–91 was 94 petajoules.

Victoria

The State Electricity Commission (SEC) is a body corporate and one of the largest public sector organisations in Australia. It is a self-supporting business and is the principal supplier of electricity throughout Victoria.

At June 1992, it distributed electricity directly to 1,631,100 customers and indirectly to a further 289,200 through 11 metropolitan councils.

Victoria's electricity system is based upon the State's extensive brown coal resource in the Latrobe Valley, 140 to 180 kilometres east of Melbourne in central Gippsland, one of the largest single brown coal deposits in the world — *see* earlier section on brown coal.

The major brown coal-fired generating plants in the system are the 2,000 MW Loy Yang 'A', the 1,600 MW Hazelwood and 1,450 MW Yallourn 'W' power stations, followed by Morwell (170 MW). These stations are all located in the Latrobe Valley and generate 85 per cent of the State's electricity requirement.

Other thermal stations are Jeeralang (465 MW) gas turbine station in the Latrobe Valley and Newport 'D' (500 MW) gas-fired station in Melbourne. There are hydro-electric power stations in north-eastern Victoria: Kiewa (184 MW), Eildon–Rubicon–Cairn Curran (135 MW) and Dartmouth (150 MW). Victoria is also entitled to about 30 per cent of the output of the Snowy Mountains Hydro-Electric Scheme and half of the output of the Hume hydro-electric station near Albury.

The SEC's total installed generating plant capacity at 30 June 1992 was 7,763 MW, including both capacity within the State and that available to it from New South Wales. In 1991–92, electricity generated by the SEC in its thermal and hydro-electric power stations, or purchased, totalled 39,109 GWh.

The Loy Yang 'B' station, the second part of the Loy Yang project, has approved capacity of 1,000 MW in two units of 500 MW each. The first of these units is expected to be in full operation by mid-1993.

The Gas and Fuel Corporation combines the resources of government with those of private enterprise to supply gas.

Gas is reticulated to around 1.24 million domestic, industrial and commercial customers through an underground network of transmission pipelines and mains, some 23,400 kilometres in length.

In addition to the greater Melbourne area, a reticulated supply is provided in 53 cities and towns throughout Victoria and in Albury, New South Wales.

Ninety nine per cent of reticulated supply is Bass Strait natural gas, purchased from Esso and BHP. Six towns in western Victoria receive a reticulated supply of tempered liquefied petroleum gas.

Apart from its main business of supplying natural gas, the Corporation markets liquefied petroleum gas (LPG). Under the 'Heatane Gas' brand, LPG is sold to around 170,000 customers either direct through 113 autogas outlets or through a State-wide network of 800 independent dealers.

The Corporation consists of the parent organisation and three wholly-owned subsidiary companies: Gas and Fuel Exploration NL (with joint venture interests), CD Resources Pty Ltd, and The Albury Gas Company.

Queensland

The main supply of electricity in Queensland is controlled by the Queensland Electricity Commission (QEC). The QEC provides electricity to major users of power and to seven Electricity Boards which in 1990–91 provided power to 1,031,612 domestic and 169,271 commercial and industrial consumers, increases of 3.5 and 2.2 per cent respectively over the previous year.

Electricity generation in Queensland is based primarily on the State's plentiful resources of black coal. 97 per cent of the energy generated in 1990–91 came from this source. The Barron Gorge and Kareeya hydro-stations produced 2.9 per cent with a small amount being produced by the gas turbine stations connected to the main transmission network and by internal combustion stations supplying townships.

Annual total energy sales have been growing at an average 5.8 per cent per annum over the five years from 1986 to 1991. The commercial and industrial sector remains the dominant influence on sales and accounts for two-thirds of total sales. Domestic consumers account for most remaining sales. Commercial and industrial sales rose 4.1 per cent from 1990 to 1991, down from an average 5.7 per cent annual increase over the five years 1986 to 1991. Domestic sales increased 3.5 per cent from 1990 to 1991; also below the sector's average annual growth of 4.7 per cent over the five years to 1991. The growth of total sales was above that of each of the major components because of high growth in sales to the rail sector.

Planning for the future is still based on coal-fired power stations providing the bulk of Queensland's electrical energy needs, augmented as necessary by pumped-storage and conventional hydro-electric stations for peaking capacity. An independent taskforce was established by the Queensland Government to conduct an inquiry in to the State's future electricity needs and the requirements for the Tully-Millstream Hydro-Electric Station. The Queensland Government forwarded the taskforce's report to the Commonwealth Government and to the Wet Tropics Management Authority, and has formed a joint panel with them to consider the scheme.

Natural gas produced for sale in Queensland comes from two main areas, the Surat-Bowen Basin concentrated around Roma, and the Denison Trough. Natural gas from the Surat-Bowen Basin is piped to the Wallumbilla junction of the Roma to Brisbane pipeline for compression and reticulation to domestic, commercial and industrial consumers in Roma, Dalby, Oakey, Toowoomba, Ipswich, Brisbane and the Gold Coast.

Of the natural gas used in Queensland in 1990–91, 31,929 terajoules (88.3%) was sold to consumers, 1,447 terajoules (4.0%) was used as feedstock for reformed town gas production for the north Brisbane franchise area, 2,173 terajoules (6.0%) was used as field and plant fuel and the residual 631 terajoules (1.7%) represented pipeline compressor fuel and unaccounted for losses.

South Australia

The Electricity Trust of South Australia (ETSA) is responsible for unification and coordination of the major portion of the State's electricity supply.

At June 1992, the Electricity Trust's installed capacity was 2,350 MW. Its major power stations are Torrens Island (1,280 MW), Port Augusta Northern Power Station (500 MW), and Port Augusta Playford 'B' (240 MW). The Trust also operates gas turbine stations at Dry Creek (156 MW), Mintaro (90 MW) and Snuggery (75 MW) and a small diesel station at Port Lincoln (9 MW).

The Electricity Trust supplies directly or indirectly more than 99 per cent of all electricity customers connected to the public supply within the State. The remainder are supplied by small diesel generating plants situated in towns in the more remote areas of the State. Total Electricity Trust customers at 30 June 1992 was 680,644.

A 500 MW capacity interconnection with the Victorian–New South Wales systems has been operational since March 1990.

SAGASCO Holdings Ltd has responsibility for oil and gas exploration, development and production, and the distribution within the State of gas and LPG. It has three subsidiaries: South Australian Gas Company Ltd (to supply gas to Adelaide and surrounding areas), SAGASCO Resources Ltd (to undertake oil and gas exploration, development and production) and SAGASCO LPG Pty Ltd.

Natural gas is reticulated throughout most of Adelaide, Angaston, Whyalla, Mount Gambier, Peterborough and Port Pirie. Liquefied petroleum gas is distributed by reticulation at Roxby Downs and Renmark and is available elsewhere as bottled gas.

Western Australia

The State Energy Commission of Western Australia (SECWA) is responsible for providing economical and reliable supplies of electricity and gas.

SECWA owns and operates three major thermal power stations. These are located at Muja (1,040 MW capacity) and Bunbury (120 MW), both using local coal to produce electricity, and at Kwinana (880 MW). Kwinana power station has the capacity to burn coal, oil or natural gas, although natural gas from the North West Shelf is the major fuel used. Gas turbines are located at Pinjar (north of Wanneroo) (360 MW), Mungurra (south-east of Geraldton) (108 MW), Kwinana (20 MW), Geraldton (20 MW) and Kalgoorlie (55 MW) to provide peak and emergency power.

SECWA operates two power grid systems which supply the electricity needs of 98 per cent of the State's population. The two systems are:

- *The South–West interconnected system*. Power from the three major stations provide the bulk of electricity fed into the South–West system. This grid services the metropolitan area and covers the southern portion of the State extending from Kalbarri south to Bremer Bay and from Perth east to Kalgoorlie. Kalgoorlie is fed by a 680 kilometre transmission line from Muja, one of the longest radial feed lines constructed in Australia.
- *The Pilbara interconnected system*. This system interconnects Karratha, Dampier, Cape Lambert, Wickham, Roebourne, Port Hedland and Goldsworthy. Electricity is supplied from a generating plant at Cliffs Robe River Iron Associate's power station at Cape Lambert. The plant is fuelled by North West Shelf natural gas. Back-up power can be drawn from the SECWA's stand-by diesel generating facility at Port Hedland, from Hamersley Iron Pty Ltd's power station at Dampier and from a SECWA gas turbine generating unit also located in Dampier.

In areas too remote to utilise the interconnected grid systems, the SECWA operates 28 diesel power stations and provides support services for the Aboriginal and Torres Strait Islander Commission to help run 48 Aboriginal village power stations.

At June 1992, the SECWA's generating capacity from its interconnected grid system was 2,638 MW, while the capacity of its supply system in country areas was 181 MW. There were 656,927 customer accounts for electricity throughout the State.

The SECWA is the main supplier of gas in Western Australia. In addition to reticulating (principally) North West Shelf natural gas to customers linked to the Dampier to Bunbury pipeline, SECWA also reticulates tempered liquefied petroleum (TLP) gas to customers in Albany on the south coast and Simulated Natural Gas (SNG) to customers in Mandurah, south of Perth.

At June 1992 there were 280,960 customer accounts for natural gas, 2,705 customer accounts for TLP gas and 1,341 customer accounts for SNG.

Development of the use of wind power to generate electricity has intensified in recent years. Wind generators augment the power supplies of Esperance and Rottnest Island. SECWA is building a new two MW wind farm a short distance from the Esperance facility. Other wind generation sites outside the interconnected grid are being studied.

Tasmania

Tasmania's electricity requirements are provided by the Hydro-Electric Commission. The total installed generator capacity at 30 June 1992 was 2,458 MW of which almost 90 per cent was supplied by an integrated hydro-network. An oil-fired thermal station of 240 MW is located at Bell Bay.

The Hydro-Electric Commission also purchased electricity amounting to seven GWh from two privately owned developments.

Hydro-electric power accounts for almost all reticulated energy in Tasmania. A usually reliable distribution of rainfall throughout the year and the establishment of numerous lakes within the State, has created substantial artificial storage.

The total energy generated during the 1991-92 financial year was 8,923 GWh, a small decrease from the previous year. Total sales amounted to 8,267 GWh of which 5,270 GWh was sold to the major industrial sector.

Total water storages at June 1992 were 32.3 per cent, a rise of 8.0 per cent in the 12 month period. The total energy yield from storages during 1991-92 was 103.4 per cent of the long-term average. Bell Bay thermal station was used to contribute five GWh to the State's energy requirements.

Construction of the King River Power Development on Tasmania's west coast was completed during 1991-92 and the John Butters Power Station, with an installed capacity of 143 MW began generating electricity during February 1992. Construction work on the Anthony Power Development continues with completion due in early 1994, and will add 226 MW to the installed capacity of the system.

A 1.5 MW Wave Power Station on King Island is possible. A feasibility study is to be undertaken by a Norwegian company Norwave which has built a similar plant on Norway's west coast.

Gas is only a minor energy source in Tasmania. Town gas is manufactured and reticulated in Launceston only. Bottled LPG is a minor domestic, commercial and motor fuel in the State.

Northern Territory

The Power and Water Authority (PAWA) is responsible for generation, transmission and distribution of electricity, the provision of water and sewerage services and the sale of natural gas in the Northern Territory.

A natural gas pipeline from the Amadeus Basin in Central Australia supplies the Territory's four major centres — Darwin, Katherine, Tennant Creek and Alice Springs — all of which use indigenous natural gas, replacing imported heavy fuel oil and distillate as fuel for electricity generation. A combined cycle block of 100 MW comprises half of the installed capacity at Channel Island Power Station near Darwin.

A privately built, owned and operated transmission line between Darwin and Katherine, allows reserve capacity to be shared and has reduced costs because of the higher operating efficiencies of Channel Island Power Station compared with Katherine Power Station.

PAWA supplies electricity to some 44,500 customers in four major centres, seven minor centres and 75 small remote communities.

Australian Capital Territory

Electricity is distributed within the Territory by the ACT Electricity and Water Authority (ACTEW). During 1991–92 the total bulk electricity purchased was 2,292 GWh, comprised of 1,622 GWh provided by Pacific Power (formerly the Electricity Commission of New South Wales), and a reservation of 670 GWh from the Snowy Mountains Hydro-Electric Authority. The system maximum demand was 562 MW. The authority supplied 113,690 customers at June 1992.

Natural gas from the Moomba fields in South Australia is piped to Canberra via a 70 kilometre spur which branches from the main Moomba–Sydney pipeline at Dalton.

During 1991–92, AGL Canberra Ltd reticulated 3,785 terajoules of natural gas to 1,165 commercial and industrial establishments and about 34,500 homes.

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Other Publications

Other organisations which produce statistics in this field include the Department of Primary Industries and Energy, the Joint Coal Board, the Australian Institute of Petroleum and the Electricity Supply Association of Australia. State government departments and instrumentalities also are important sources of energy data, particularly at the regional level, while a number of private corporations and other entities operating within the energy field also publish or make available a significant amount of energy information.

FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Twenty

Manufacturing, Retail & Service Industries

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MANUFACTURING

Contribution of the Manufacturing Industry to gross product and employment

Manufacturing, as specified in Division C of the Australian Standard Industrial Classification (ASIC), broadly relates to the physical or chemical transformation of materials or components into new products whether the work is performed by power-driven machines or by hand.

Despite a significant increase in the level of manufacturing gross product (at constant prices) over the last 20 years, the manufacturing sector's contribution to the gross product of all industry fell considerably over the period. From a contribution level of 21.6 per cent in 1971–72, the manufacturing industry share of gross product fell consistently between 1980–81 and 1985–86, flattened out between 1985–86 and 1989–90 and recorded successive falls in 1990–91 and 1991–92. In 1991–92, manufacturing industry only accounted for 16.3 per cent of all industry gross product.

Employment in the manufacturing sector has also fallen markedly over the last 20 years. In 1971–72 more than 1.3 million persons were employed in manufacturing. From 1971–72 to 1981–82, manufacturing employment stayed well above 1.1 million persons. However, a large fall occurred in 1982–83 (127,000 persons) and despite increases in most years between 1982–83 and 1988–89, the 1.1 million persons employed level of the 1970s was not regained. After successive falls in 1989–90 and 1990–91 employment in the manufacturing sector fell below 962,000 persons. This is the first time that the number of persons employed in manufacturing industry has fallen below one million persons since the present series commenced for 1968–69. The large drop in manufacturing employment over the last two decades coupled with an increase in all industry employment has resulted in the manufacturing share of employment falling from 24.2 per cent in 1971–72 to 14.5 per cent in 1991–92.

20.1 MANUFACTURING INDUSTRY: CONTRIBUTION TO ALL INDUSTRY AGGREGATES

Year	Gross product at constant (average 1984–85) market prices	Employment at 30 June(a)	Manufacturing industry contribution to all industry aggregates for: Constant price gross product	Employment
	$m	'000	%	%
1971–72	31,670	1,303.5	21.6	24.2
1976–77	34,468	1,195.0	19.9	21.6
1981–82	38,979	1,168.1	19.3	19.4
1982–83	35,773	1,041.1	18.4	18.4
1983–84	36,316	1,046.4	17.8	17.9
1984–85	38,171	1,052.9	17.7	17.5
1985–86	39,091	n.a.	17.3	16.7
1986–87	39,610	1,052.2	17.3	16.2
1987–88	42,108	1,093.4	17.4	16.3
1988–89	44,606	1,096.8	17.6	16.2
1989–90	45,921	1,032.9	17.3	15.6
1990–91	43,556	961.8	16.8	15.0
1991–92	42,212	n.a.	16.3	14.5

(a) Includes working proprietors.
Source: Australian National Accounts: Gross Product, Employment and Hours Worked (5222.0); Manufacturing Industry, Australia (8221.0); The Labour Force, Australia (6204.0).

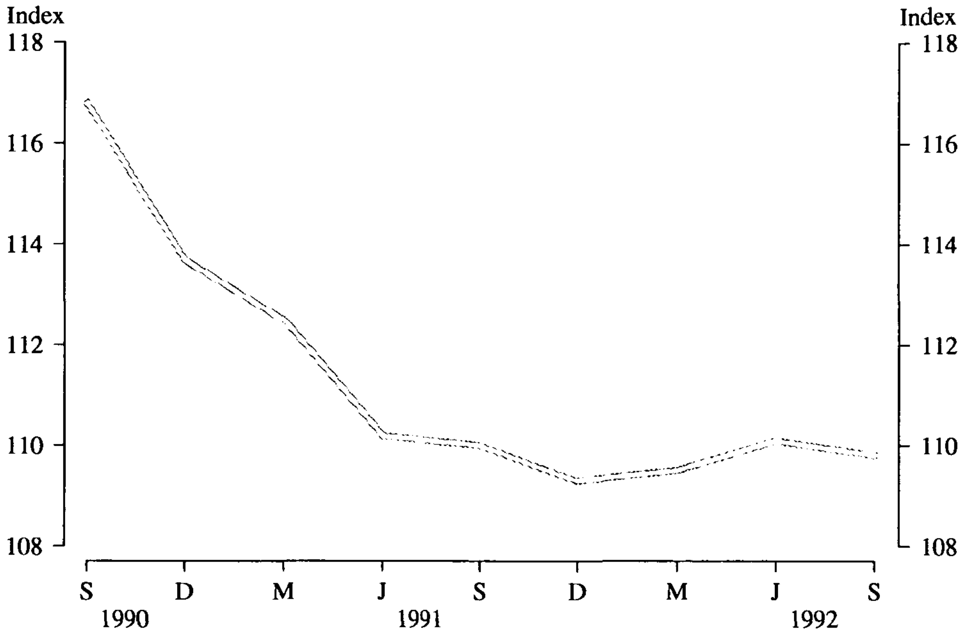
Manufacturing trends

In the September quarter 1992, the seasonally adjusted index of manufacturing production fell slightly, with a fall of 0.3 per cent following slight rises in the two previous quarters (graph 20.2).

Over the period 1982–83 to 1991–92 the index of manufacturing production increased by almost 20 per cent. After consecutive increases between 1982–83 and 1989–90, the index recorded successive falls in 1990–91 and 1991–92 (table 20.3).

The largest increases over the period 1982–83 to 1991–92 occurred in Textiles (up 47%) and Paper, paper products, printing and publishing (up 35%). Transport equipment (down 19%), Clothing and footwear (down 4%) and Non-metallic mineral products (down 1%) were the only industries to record falls over the period.

20.2 INDEX OF TOTAL MANUFACTURING GROSS PRODUCT AT AVERAGE 1984–85 PRICES SEASONALLY ADJUSTED
(Reference base year 1984–85 = 100)



Source: Quarterly Indexes of Industrial Production, Australia (8125.0).

Structure of the Manufacturing Industry

There were 40,653 manufacturing establishments operating in Australia at 30 June 1991. These establishments employed 961,800 persons, paid $27,706 million in wages and salaries and recorded $171,874 million in turnover (table 20.4).

The industries with the most persons employed at 30 June 1991 were Food, beverages and tobacco (169,100), Other machinery and equipment (121,900) and Paper, paper products, printing and publishing (104,300). Textiles (28,400) was the smallest employer, accounting for only three per cent of manufacturing employment. Food, beverages and tobacco was also the largest contributor to total manufacturing turnover, accounting for 20 per cent, followed by Chemical, petroleum and coal products (14%) and Basic metal products (12%).

20.3 INDEXES OF MANUFACTURING INDUSTRY GROSS PRODUCT AT AVERAGE 1984–85 PRICES
(Reference base year 1984–85 = 100.0)

Industry subdivision	*1982 –83*	*1983 –84*	*1984 –85*	*1985 –86*	*1986 –87*	*1987 –88*	*1988 –89*	*1989 –90*	*1990 –91*	*1991 –92*
Food, beverages and tobacco	99.2	98.9	100.0	101.5	104.2	110.4	114.1	120.8	127.1	120.1
Textiles	87.0	90.8	100.0	102.1	108.5	109.8	110.3	116.4	119.1	128.1
Clothing and footwear	89.7	96.6	100.0	112.5	104.1	106.3	110.2	86.0	83.3	86.2
Wood, wood products and furniture	90.8	95.4	100.0	113.8	103.1	115.7	120.0	130.0	114.6	120.5
Paper, paper products, printing and publishing	88.1	91.9	100.0	103.2	108.6	117.6	125.2	133.1	128.0	118.5
Chemical, petroleum and coal products	94.0	97.5	100.0	98.4	103.0	110.5	112.9	117.9	115.1	121.2
Non-metallic mineral products	91.9	92.5	100.0	113.4	103.3	108.9	123.2	120.0	98.3	91.1
Basic metal products	82.6	91.6	100.0	98.5	99.7	101.9	107.0	109.6	102.5	104.5
Fabricated metal products	102.6	99.8	100.0	109.6	108.6	122.6	134.3	156.1	140.2	130.1
Transport equipment	93.2	91.6	100.0	99.0	93.3	95.6	103.9	98.2	80.4	75.4
Other machinery and equipment	100.2	94.9	100.0	98.9	107.9	114.3	125.1	123.7	115.9	105.7
Miscellaneous manufacturing	92.0	94.4	100.0	91.2	105.2	113.0	118.5	122.7	109.3	106.0
Total manufacturing	**93.7**	**95.1**	**100.0**	**102.4**	**103.8**	**110.3**	**116.9**	**120.3**	**114.1**	**110.6**

Source: Quarterly Indexes of Industrial Production, Australia (8125.0).

20.4 SUMMARY OF OPERATIONS OF THE MANUFACTURING INDUSTRY, 1990–91

Industry subdivision	*Establishments operating at 30 June (no.)*	*Employment at 30 June(a) ('000)*	*Wages and salaries (b) ($m)*	*Turnover ($m)*	*Persons employed per establishment (no.)*	*Turnover per person employed ($ '000)*
Food, beverages and tobacco	3,972	169.1	4,500	34,974	43	207
Textiles	960	28.4	744	4,049	30	142
Clothing and footwear	2,557	55.6	1,190	4,969	22	89
Wood, wood products and furniture	6,725	75.9	1,765	7,829	11	103
Paper, paper products, printing and publishing	4,694	104.3	3,244	14,793	22	142
Chemical, petroleum and coal products	1,131	52.0	1,909	23,485	46	451
Non-metallic mineral products	1,687	39.8	1,286	7,516	24	189
Basic metal products	809	66.8	2,440	21,446	83	321
Fabricated metal products	6,628	97.7	2,636	12,341	15	126
Transport equipment	2,018	89.4	2,728	15,597	44	174
Other machinery and equipment	5,717	121.9	3,609	16,334	21	134
Miscellaneous manufacturing	3,755	60.8	1,656	8,541	16	140
Total manufacturing	**40,653**	**961.8**	**27,706**	**171,874**	**24**	**179**

(a) Includes working proprietors. (b) Excludes the drawings of working proprietors.
Source: Manufacturing Industry, Australia (8221.0).

Turnover

Turnover 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 rent, leasing and hiring revenue), plus capital work for own use, or for rental or lease. Receipts from interest, royalties, dividends, and sales of fixed tangible assets are excluded.

New South Wales (34%) and Victoria (33%) combined comprised two-thirds of manufacturing turnover in 1990–91. New South Wales contributed about a third of the turnover in most industries, with Other machinery and equipment (43% of Australian total) and Transport equipment (17% of Australian total) being the most notable exceptions. Victoria dominated in Clothing and footwear (49%), Textiles (48%) and Transport equipment (48%) but contributed only 17 per cent of Australian turnover for Basic metal products. Although Queensland accounted for only 14 per cent of manufacturing turnover, it contributed 21 per cent of Australian turnover in the Food, beverages and tobacco industry. Similarly, South Australia accounted for 27 per cent of Australian turnover for Transport equipment compared with only 9 per cent of total manufacturing turnover for Australia.

20.5 TURNOVER BY MANUFACTURING INDUSTRY, 1990–91
($ million)

Industry subdivision	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
Food, beverages and tobacco	10,519	10,533	7,289	2,813	2,503	1,149	100	70	34,974
Textiles	1,213	1,952	168	402	160	150	n.p.	n.p.	4,049
Clothing and footwear	1,807	2,438	301	317	71	26	n.p.	n.p.	4,969
Wood, wood products and furniture	2,554	1,977	1,313	727	717	462	18	62	7,829
Paper, paper products, printing and publishing	5,744	4,977	1,578	867	709	804	28	87	14,793
Chemical, petroleum and coal products	8,517	8,179	2,833	1,426	2,333	n.p.	n.p.	—	23,485
Non-metallic mineral products	2,670	1,890	1,438	551	710	151	46	61	7,516
Basic metal products	7,835	3,661	3,975	1,516	3,384	n.p.	361	n.p.	21,446
Fabricated metal products	4,389	3,898	1,941	851	965	155		n.p.	12,341
Transport equipment	2,575	7,556	828	4,137	363	118	13	8	15,597
Other machinery and equipment	6,966	5,645	1,137	1,636	820	75	8	48	16,334
Miscellaneous manufacturing	3,037	3,430	756	849	407	50	8	6	8,541
Total manufacturing	**57,824**	**56,135**	**23,556**	**16,092**	**13,141**	**4,097**	**587**	**443**	**171,874**

Source: Manufacturing Industry, Australia (8221.0).

Employment

New South Wales (34%) and Victoria (33%) dominate manufacturing in Australia, comprising two-thirds of employment in 1990–91. However, different industries dominate, in terms of employment, in different States (table 20.6).

New South Wales dominates in Basic metal products (46% of the Australian total) and Chemical, petroleum and coal products (43% of the Australian total); Victoria comprises a significant proportion of industry employment in Textiles (50%), Clothing and footwear (48%), and Transport equipment (48%); Queensland contributes significantly to Food, beverages and tobacco (20%) and Wood, wood products and furniture (19%) while South Australia contributes significantly to the Transport equipment work force (18%).

The quarterly Survey of Employment and Earnings is the ABS' major source of statistics on employed wage and salary earners. For further information refer to the chapter, Labour.

Manufacturing employment/turnover ratios

The average employment size of manufacturing establishments remained relatively constant between 1986–87 and 1990–91, with most industries displaying a similar trend. However, Basic metal products and Transport equipment both recorded significant falls in average employment size over the period (table 20.7).

Average turnover per person employed in the manufacturing sector during 1990–91 was $179,000. This represented an increase of 60 per cent over 1986–87 (in current price terms). Chemical, petroleum and coal products ($451,000) and Basic metal products ($321,000) showed the highest ratios of turnover to employment in 1990–91, while Clothing and footwear ($89,000) showed the lowest.

Chemical, petroleum and coal products showed the greatest increase in turnover per person employed between 1986–87 and 1990–91 (116%). However this movement was significantly affected by a change in accounting practices by a number of businesses involved in the petroleum refinery industry (prior to 1989–90, manufacturing turnover for these businesses only reflected the value of commission earned by the manufacturing establishments involved). Transport equipment (up 76%) recorded the next largest increase in the ratio of turnover to employment.

20.6 EMPLOYMENT IN MANUFACTURING AT 30 JUNE 1991 ('000)

Industry subdivision	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
Food, beverages and tobacco	51.0	48.2	34.1	16.1	12.5	6.0	0.6	0.6	169.1
Textiles	7.0	14.3	1.4	2.5	1.8	1.4	n.p.	n.p.	28.4
Clothing and footwear	19.0	26.8	4.5	3.7	1.1	0.3	n.p.	n.p.	55.6
Wood, wood products and furniture	23.6	19.5	14.5	7.1	7.2	3.2	0.2	0.5	75.9
Paper, paper products, printing and publishing	38.6	33.8	12.5	7.2	6.4	4.6	0.4	0.9	104.3
Chemical, petroleum and coal products	22.3	18.3	4.6	2.8	3.5	n.p.	n.p.	—	52.0
Non-metallic mineral products	13.4	10.6	7.2	3.1	4.3	0.8	0.2	0.2	39.8
Basic metal products	30.5	10.8	7.6	7.5	6.3	n.p.	0.8	n.p.	66.8
Fabricated metal products	34.9	29.3	15.8	7.6	7.9	1.5	0.4	0.4	97.7
Transport equipment	19.9	42.5	6.5	15.9	3.0	1.3	0.2	0.1	89.4
Other machinery and equipment	50.8	38.5	10.6	13.5	7.3	0.9	0.1	0.3	121.9
Miscellaneous manufacturing	20.0	23.4	6.5	7.3	3.0	0.5	0.1	0.1	60.8
Total manufacturing	**330.9**	**316.0**	**125.7**	**94.4**	**64.3**	**24.3**	**2.9**	**3.2**	**961.8**

Source: Manufacturing Industry, Australia (8221.0).

20.7 MANUFACTURING EMPLOYMENT/TURNOVER RATIOS

	Persons employed per establishment (no.)					*Turnover per person employed ($ '000)*				
Industry subdivision	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*
Food, beverages and tobacco	40	38	41	41	43	147	158	173	190	207
Textiles	38	36	35	33	30	98	109	126	133	142
Clothing and footwear	28	26	26	25	22	57	62	70	78	89
Wood, wood products and furniture	11	11	13	12	11	74	82	91	99	103
Paper, paper products, printing and publishing	25	24	25	23	22	96	108	118	128	142
Chemical, petroleum and coal products	49	46	47	46	46	209	234	258	393	451
Non-metallic mineral products	17	17	22	22	24	136	146	169	187	189
Basic metal products	103	105	96	84	83	191	219	273	311	321
Fabricated metal products	16	15	17	16	15	85	95	109	121	126
Transport equipment	54	50	54	50	44	99	115	126	157	174
Other machinery and equipment	24	23	25	23	21	90	96	109	120	134
Miscellaneous manufacturing	16	16	17	16	16	98	107	120	131	140
Total manufacturing	**25**	**24**	**26**	**25**	**24**	**112**	**124**	**140**	**162**	**179**

Source: Manufacturing Industry, Australia (8221.0).

Labour costs

Major labour costs in the manufacturing industry fell marginally between 1989–90 and 1990–91 with labour costs for 1990–91 being only three per cent above those for 1988–89. For each year in the period 1988–89 to 1990–91, earnings comprised around 88 to 89 per cent of total costs. This ratio is consistent with the average for all industries.

20.8 MAJOR LABOUR COSTS OF MANUFACTURING INDUSTRY

				1990–91	
				Percentage distribution of labour costs by type	
Type of labour cost	*1988–89*	*1989–90*	*1990–91*	*Manufacturing*	*All industries*
	$m	$m	$m	%	%
Earnings	27,281	28,032	27,728	87.9	88.2
Other labour costs	3,316	3,596	3,818	12.1	11.8
Payroll tax	1,312	1,342	1,394	4.4	3.5
Superannuation	918	1,086	1,174	3.7	5.5
Workers' compensation	936	1,009	1,054	3.3	2.1
Fringe benefits tax	150	159	196	0.6	0.7
Total major labour costs	**30,597**	**31,628**	**31,546**	**100.0**	**100.0**

Source: Labour Costs, Australia (6348.0).

Average total labour costs per employee in 1990–91 of $32,386 represented an increase of nearly 14 per cent over 1988–89 costs and was 5 per cent above 1989–90 costs. For 1990–91, the average labour costs in the manufacturing industry were significantly higher than the average of $29,734 per employee for all industries.

20.9 AVERAGE LABOUR COST PER EMPLOYEE IN MANUFACTURING INDUSTRY ($)

			1990–91	
Type of labour cost	*1988–89*	*1989–90*	*Manufacturing*	*All industries*
Earnings	25,374	27,306	28,466	26,225
Other labour costs	3,084	3,503	3,920	3,509
Payroll tax	1,220	1,307	1,431	1,029
Superannuation	853	1,058	1,205	1,647
Workers' compensation	871	983	1,082	630
Fringe benefits tax	140	155	201	203
Total major labour costs	**28,457**	**30,809**	**32,386**	**29,734**

Source: Labour Costs, Australia (6348.0).

Training expenditure

In the three month period July 1990 to September 1990, average training expenditure per employee in the manufacturing industry was $148.80, with an average of 6.7 paid training hours per employee being recorded (table 20.10). Average training expenditure per employee in Chemical, petroleum and coal products of $309.60 was more than double the manufacturing average, with figures for Basic metal products and Transport equipment also being relatively high. Wood, wood products and furniture recorded the lowest value for average training expenditure per employee ($76.50). The average of 16.8 paid training hours per employee recorded in Transport equipment was more than two and a half times the manufacturing industry average of 6.7 hours per employee.

Although the manufacturing industry spent less on training per employee than the average for all industries, it had a higher average of paid training hours per employee.

20.10 MANUFACTURING INDUSTRY: AVERAGE TRAINING EXPENDITURE AND PAID TRAINING HOURS PER EMPLOYEE, JULY TO SEPTEMBER 1990

Industry subdivision	*Average training expenditure per employee(a)*	*Average paid training hours per employee(b)*
	$	no.
Food, beverages and tobacco	89.1	3.5
Textiles; Clothing and footwear	95.3	4.1
Wood, wood products and furniture	76.5	4.9
Paper, paper products, printing and publishing	171.2	8.4
Chemical, petroleum and coal products	309.6	8.3
Non-metallic mineral products	103.9	4.3
Basic metal products	288.8	10.9
Fabricated metal machinery and equipment(c)	117.9	5.0
Transport equipment	275.9	16.8
Miscellaneous manufacturing	100.2	3.3
Total manufacturing	**148.8**	**6.7**
All industries	162.8	5.9

(a) Estimated training expenditure divided by estimated total number of employees. (b) The total time receiving formal training averaged over the total number of employees. (c) Includes Fabricated metal products and Other machinery and equipment.

Source: Employer Training Expenditure, Australia (6353.0).

Industrial disputes

There were 239 industrial disputes in progress in the manufacturing industry during 1991. These disputes involved nearly 475,000 employees and resulted in a loss of more than 833,000 working days (table 20.11). The Basic metal products, Fabricated metal products, Transport equipment, and Other machinery and equipment industries combined accounted for 61 per cent of the disputes; comprising nearly 74 per cent of employees involved and 80 per cent of working days lost.

Although disputes in the manufacturing industry only represented 23 per cent of all disputes, 40 per cent of employees involved and 52 per cent of working days lost were attributable to this sector.

Trade union membership

Between 1982 and 1986, a fall in the proportion of manufacturing employees with trade union membership coupled with a contraction in manufacturing industry employment resulted in a decrease in union membership of nearly 90,000 persons (14%) in this industry. The number of manufacturing employees with union membership fell a further 90,100 persons (17%) between 1986 and 1992, resulting in an overall fall of nearly 180,000 persons (28%) between 1982 and 1992. Despite this large fall in membership numbers, manufacturing industry continues to display a higher rate of union membership than the average for all industries (table 20.12).

The number of trade union members in all industries decreased between 1982 and 1992 and in percentage terms membership followed a downward trend similar to manufacturing.

Although nearly a half of permanent manufacturing employees belonged to a trade union in 1992, less than a fifth of casual employees were members. Female employees (both permanent and casual) displayed lower membership rates than males of the same employment status. The membership rate for casual manufacturing employees was higher than the all industries average (table 20.13).

20.11 MANUFACTURING INDUSTRY: INDUSTRIAL DISPUTES IN PROGRESS DURING 1991

Industry subdivision	*Total industrial disputes in progress (no.)(a)*	*Employees involved (directly and indirectly)('000)*	*Working days lost ('000)*
Food, beverages and tobacco	40	50.0	78.3
Textiles; Clothing and footwear	4	10.4	19.5
Wood, wood products and furniture	4	7.2	7.4
Paper, paper products, printing and publishing	18	29.7	33.2
Chemical, petroleum and coal products	18	15.7	18.9
Metal products, machinery and equipment(b)	146	350.3	664.0
Other manufacturing(c)	9	11.6	12.0
Total manufacturing	**239**	**474.8**	**833.3**
All industries	1,058	1,181.5	1,610.5

(a) Disputes affecting more than one industry have been counted as a separate dispute in each industry. (b) Includes Basic metal products; Fabricated metal products; Transport equipment; and Other machinery and equipment. (c) Includes Non-metallic mineral products; and Miscellaneous manufacturing.
Source: Industrial Disputes, Australia (6322.0).

20.12 EMPLOYEES WITH TRADE UNION MEMBERSHIP: MANUFACTURING AND ALL INDUSTRIES

	Manufacturing		*All industries*	
	Number ('000)	*Percentage of total employment*	*Number ('000)*	*Percentage of total employment*
March–May 1982	635.0	53.9	2,567.6	49.5
August 1986	545.4	51.2	2,593.9	45.6
August 1988	546.7	48.5	2,535.9	41.6
August 1990(a)	520.9	46.1	2,659.6	40.5
August 1992	455.3	44.4	2,508.8	39.6

(a) The August 1990 survey included persons aged 70 years and over.
Source: Trade Union Members, Australia (6325.0).

20.13 MANUFACTURING INDUSTRY: PROPORTION OF EMPLOYEES WITH TRADE UNION MEMBERSHIP BY SEX AND EMPLOYEE STATUS, AUGUST 1992 (per cent)

	Males			*Females*			*Persons*		
Industry	*Permanent employee*	*Casual employee*	*Total*	*Permanent employee*	*Casual employee*	*Total*	*Permanent employee*	*Casual employee*	*Total*
Manufacturing	50.5	21.6	48.2	38.6	16.7	33.6	47.8	19.1	44.4
All industries	48.1	18.4	43.4	42.9	16.5	34.8	46.0	17.2	39.6

Source: Trade Union Members, Australia (6325.0).

Capital expenditure

New capital expenditure in the manufacturing industry fell by 8 per cent between 1990–91 and 1991–92, with Textiles, Clothing and footwear (up 36%), Paper, paper products, printing and publishing (up 25%) and Basic metal products (up 24%) registering increases over the period. Fabricated metal products and Other machinery and equipment (down 27%) experienced the largest fall in new capital expenditure in 1991–92. Only Basic metal products showed consecutive increases in the latest three years, while consecutive decreases were recorded for Transport equipment and Fabricated metal products and Other machinery and equipment over the same period.

20.14 PRIVATE NEW CAPITAL EXPENDITURE IN MANUFACTURING INDUSTRY
($ million)

Industry subdivision	*1989–90*	*1990–91*	*1991–92*
Food, beverages and tobacco	1,315	1,379	1,171
Textiles; Clothing and footwear	376	192	262
Paper, paper products, printing and publishing	896	546	684
Chemical, petroleum and coal products	1,201	1,184	927
Basic metal products	1,168	1,321	1,639
Transport equipment	779	716	554
Fabricated metal products and Other machinery and equipment	1,060	846	620
Other manufacturing(a)	1,709	1,286	1,003
Total manufacturing	**8,504**	**7,471**	**6,861**

(a) Includes Wood, wood products and furniture; Non-metallic mineral products; and Miscellaneous manufacturing.
Source: Private New Capital Expenditure, Australia, Actual and Expected Expenditure (5626.0).

Stocks

In average 1984–85 price terms, the value of stocks at end of June 1992 was three per cent lower than in June 1991, following a fall of five per cent between June 1990 and June 1991. Only Textiles (up 31%) recorded a stock increase between June 1990 and June 1992. Fabricated metal products (down 23%) and Miscellaneous manufacturing (down 23%) showed the largest percentage stock rundowns between June 1990 and June 1992.

20.15 BOOK VALUE OF STOCKS OWNED BY PRIVATE MANUFACTURING BUSINESSES AT AVERAGE 1984–85 PRICES
($ million)

			June
Industry subdivision	*1990*	*1991*	*1992*
Food, beverages and tobacco	3,139	3,230	3,121
Textiles	624	688	815
Clothing and footwear	549	521	513
Wood, wood products and furniture	917	802	918
Paper, paper products, printing and publishing	902	761	793
Chemical, petroleum and coal products	2,254	2,158	2,187
Non-metallic mineral products	812	747	732
Basic metal products	2,089	1,962	1,976
Fabricated metal products	1,226	1,021	948
Transport equipment	1,443	1,405	1,162
Other machinery and equipment	2,294	2,183	1,859
Miscellaneous manufacturing	968	829	744
Total manufacturing	**17,217**	**16,307**	**15,768**

Source: Stocks, Manufacturers' Sales and Expected Sales, Australia (5629.0).

Price indexes of articles produced

From 1988–89 to 1991–92, the price index of articles produced by the manufacturing industry rose by 11.6 per cent (over the same period, the Consumer Price Index rose by 15.9%). The largest increase occurred in the price index of articles produced by the Petroleum products industry (34.3%).

20.16 PRICE INDEXES OF ARTICLES PRODUCED BY MANUFACTURING INDUSTRY(a)
(Reference base year 1988–89 = 100.0)

Industry subdivision	*1989–90*	*1990–91*	*1991–92*
Food, beverages and tobacco	106.9	109.5	112.3
Textiles	103.2	103.4	102.9
Clothing and footwear	107.3	112.0	114.9
Wood, wood products and furniture	107.6	112.7	114.2
Paper, paper products printing and publishing	104.3	111.0	117.3
Chemicals and chemical products	104.4	109.3	109.9
Petroleum products	118.4	150.1	134.3
Non-metallic mineral products	108.7	117.2	119.3
Basic metal products	105.6	106.2	99.9
Fabricated metal products	107.9	113.7	114.3
Transport equipment	105.6	109.9	112.7
Other machinery and equipment	104.2	107.0	107.0
Miscellaneous manufacturing	103.7	106.4	107.8
All manufacturing industry	**106.5**	**111.2**	**111.6**

(a) These indexes relate only to articles produced in the industry for sale or transfer outside the industry.
Source: Price Indexes of Articles Produced by Manufacturing Industry, Australia (6412.0).

Company profits

Profits before income tax earned by manufacturing companies increased by 17 per cent between 1990–91 and 1991–92, however the 1991–92 profit figure of $5,790 million was still 25 per cent lower than that recorded in 1989–90. Only Paper, paper products, printing and publishing; Food, beverages and tobacco; Textiles, Clothing and footwear; and Fabricated metal products and Other machinery and equipment recorded higher profits in 1991–92 than in 1989–90.

Basic metal products was a significant contributor to manufacturing profits in 1989–90 (19%), but a large fall in profits for 1991–92 resulted in this industry accounting for only two per cent of manufacturing profits in that year.

The increase in manufacturing profit of 17 per cent between 1990–91 and 1991–92 compared favourably with the selected main industries (principally mining, manufacturing, retail, wholesale and construction) increase of only five per cent.

20.17 MANUFACTURING COMPANIES: PROFIT BEFORE INCOME TAX BY INDUSTRY
($ million)

Industry subdivision	*1989–90*	*1990–91*	*1991–92*
Food, beverages and tobacco	1,316	1,543	1,712
Textiles; Clothing and footwear	265	176	269
Paper, paper products, printing and publishing	376	263	752
Chemical, petroleum and coal products	1,022	711	686
Basic metal products	1,454	705	140
Transport equipment	457	–209	58
Fabricated metal products and Other machinery and equipment	1,015	603	1,016
Other manufacturing(a)	1,860	1,164	1,157
Total manufacturing	**7,766**	**4,956**	**5,790**

(a) Includes Wood, wood products and furniture; Non-metallic mineral products; and Miscellaneous manufacturing.
Source: Company Profits, Australia (5651.0).

Foreign investment

The level of foreign investment in manufacturing industry in Australia was $50,066 million at 30 June 1991. The industries with the highest levels of foreign investment were Food, beverages and tobacco ($13,869 million) and Basic metal products

($11,263 million). Between 30 June 1989 and 30 June 1991 the level of foreign investment in manufacturing industry increased by nearly eight per cent (in current price terms). Fabricated metal products (up 94%) and Miscellaneous manufacturing (up 28%) showed the largest percentage increases. Four industry subdivisions recorded falls over the period, with Clothing and footwear (down 36%) and Textiles (down 34%) recording the largest percentage falls.

20.18 FOREIGN INVESTMENT IN MANUFACTURING INDUSTRY(a) AT 30 JUNE
($ million)

Industry subdivision	*1989*	*1990*	*1991*
Food, beverages and tobacco	12,532	12,823	13,869
Textiles	553	432	365
Clothing and footwear	211	112	135
Wood, wood products and furniture	56	73	61
Paper, paper products, printing and publishing	3,475	3,935	3,503
Chemical, petroleum and coal products	5,302	5,374	5,340
Non-metallic mineral products	1,138	959	1,035
Basic metal products	11,242	10,625	11,263
Fabricated metal products	843	1,180	1,639
Transport equipment	2,335	2,406	2,510
Other machinery and equipment	2,917	2,632	2,866
Miscellaneous manufacturing	5,851	7,327	7,481
Total manufacturing	**46,454**	**47,878**	**50,066**

(a) The industry categories shown relate to the predominant activity of the enterprise group receiving the investment funds. This is not necessarily the industry of end use of the funds.
Source: International Investment Position, Australia (5305.0).

Principal manufacturing commodities

Table 20.19 shows the total recorded production of some selected articles manufactured in Australia.

Of the 27 selected articles produced by manufacturing establishments, 13 had lower levels of production in 1991–92 than in 1990–91. Only nine commodities had higher levels of production in 1991–92 than in 1988–89.

Concentration in the Manufacturing Industry

Concentration statistics provide information on the extent to which a few enterprise groups predominate in individual industries. They are a useful aid in assessing the degree of competition existing among enterprise groups engaged in an industry.

In 1990–91, the most concentrated industries, in terms of the share of employment accounted for by the largest four enterprise groups, were Basic metal products (49%) and Non-metallic mineral products (40%). The industries with the lowest levels of concentration were Wood, wood products and furniture (7%), Fabricated metal products (8%) and Other machinery and equipment (8%) (tables 20.20 and 20.21).

Manufacturing technology

The proportion of manufacturing establishments (employing more than nine people) using advanced manufacturing technologies increased by about one-quarter to 41 per cent in the three-year period to December 1991 (tables 20.22 and 20.23). Over the same period, the proportion of manufacturing establishments using the advanced management technique, Total Quality Control/Management (TQC/TQM), increased by more than half to 24 per cent. By 1996, a further nine per cent of manufacturers intend introducing advanced manufacturing technologies and 25 per cent intend introducing TQC/TQM. As at December 1991, the most widely used advanced manufacturing technology was computer aided design and/or engineering.

20.19 QUANTITIES OF SELECTED ARTICLES PRODUCED IN MANUFACTURING ESTABLISHMENTS

Article	*Unit of quantity*	*1988–89*	*1989–90*	*1990–91*	*1991–92*
Basic iron, spiegeleisen and sponge iron	'000 tonnes	5,875	6,188	5,600	6,394
Iron and steel ingots or other primary forms(a)	'000 tonnes	6,651	6,681	6,219	6,444
Blooms and slabs(b)	'000 tonnes	2,578	2,440	2,521	2,485
Gas(c)	terajoules	548,454	591,210	536,193	553,438
Electricity	mill.kWh	144,839	151,907	153,822	156,413
Bricks, clay(d)	million	2,175	2,077	1,765	1,655
Cement, portland	'000 tonnes	6,901	7,075	6,110	5,709
Particle boards and similar boards(e)	'000 cu m	n.a.	768	625	644
Plastics in primary forms(f)	'000 tonnes	980	987	949	1,002
Sulphuric acid, oleum	'000 tonnes	1,878	1,464	986	816
Refrigerators, domestic	'000	380	346	363	372
Clothes washing machines, domestic	'000	397	330	326	296
Colour television sets(g)	'000	162	158	167	177
Electric motors	'000	3,076	2,528	2,480	2,421
Lawn mowers, rotary petrol type	'000	298	263	222	214
Motor vehicles					
Cars and station wagons	'000	333	386	311	269
Vehicles for goods and materials(h)	'000	30	26	18	15
Yarn(i)					
Cotton	tonnes	20,364	20,603	23,781	25,069
Wool	tonnes	21,458	19,758	18,809	18,551
Woven fabric(i)					
Cotton (incl. towelling)	'000 sq. m	36,316	40,452	35,766	38,417
Wool (incl. blanketing)	'000 sq. m	9,803	8,459	7,641	8,132
Man-made fibre	'000 sq. m	191,596	173,848	178,419	179,255
Textile floor coverings	'000 sq. m	45,923	45,101	42,854	41,881
Confectionery					
Chocolate base	tonnes	93,418	92,820	93,631	95,071
Other	tonnes	64,655	64,020	64,271	65,415
Beer(j)	million litres	1,951	1,939	1,915	1,862
Tobacco & cigarettes(k)	tonnes	27,158	27,318	26,833	24,538

(a) Includes ingots, puddled bars, pilings, blocks or lumps and steel in the molten state. There is a break in the series as statistics after 1991 exclude a small proportion of total production, due to the withdrawal of consent for the ABS to release the information. (b) From rolling and forging of iron and steel (primary mills output). Excludes from continuous casting. (c) Available for issue through mains. Includes natural gas. (d) For structural purposes. (e) Not laminated. Includes board for subsequent conversion to other purposes. (f) Includes liquid, paste, powder, granules, flakes, blocks, irregular shapes, lumps and similar forms. (g) Excludes combination with radio etc. (h) Includes utilities, panel vans and prime movers for semi-trailers. Excludes off-highway trucks (for example, dump wagons), materials handling trucks (for example, forklift trucks) and semi-trailers. (i) Includes mixtures predominantly of the fibre named. (j) Includes ale and stout. Excludes extra light beer containing less than 1.15 per cent but more than 0.5 per cent by volume of alcohol. (k) Source: Australian Tobacco Marketing Advisory Committee.

NOTE: Data in this table exclude operations by single establishment enterprises employing fewer than four persons.

Source: ABS manufacturing production publications (8357.0 to 8363.0 and 8367.0 to 8369.0).

20.20 CONCENTRATION OF ENTERPRISES IN MANUFACTURING INDUSTRY IN TERMS OF EMPLOYMENT(a)

Enterprise groups ranked by turnover	*1977–78*		*1982–83*		*1987–88*		*1988–89*		*1990–91*	
	'000	*Ratio*	*'000*	*Ratio*	*'000*	*Ratio*	*'000*	*Ratio*	*'000*	*Ratio*
4 largest	88.1	0.08	82.4	0.08	64.7	0.06	67.4	0.06	39.2	0.04
8 largest	117.0	0.11	103.9	0.10	93.6	0.09	106.3	0.10	79.7	0.08
12 largest	147.7	0.13	137.3	0.14	120.6	0.11	137.4	0.13	101.5	0.11
16 largest	163.9	0.14	158.5	0.15	139.5	0.13	167.3	0.16	123.2	0.13
20 largest	183.0	0.16	166.7	0.16	154.7	0.15	183.0	0.17	152.4	0.16
25 largest	201.2	0.18	194.2	0.19	181.5	0.17	202.1	0.19	170.2	0.18
50 largest	283.3	0.25	281.7	0.28	250.2	0.24	284.7	0.27	244.3	0.25
100 largest	395.8	0.35	374.0	0.37	339.4	0.32	370.9	0.35	336.2	0.35
200 largest	520.4	0.46	475.3	0.47	431.9	0.41	459.5	0.43	412.8	0.43
All enterprise groups	**1,132.7**	**1.00**	**1,011.6**	**1.00**	**1,063.8**	**1.00**	**1,072.6**	**1.00**	**961.8**	**1.00**

(a) Employment at end of June. Includes working proprietors.

NOTE: Data in this table exclude operations by single establishment enterprises employing fewer than four persons.

Source: Manufacturing Industry, Concentration Statistics, Australia (8207.0) and Manufacturing Industry, Australia (8221.0).

20.21 CONCENTRATION OF ENTERPRISES IN MANUFACTURING IN TERMS OF EMPLOYMENT(a) BY INDUSTRY, 1990–91

	Enterprise groups ranked by turnover									
	Largest 4		*5–8*		*9–12*		*13–16*		*Remainder*	
Industry subdivision	*'000*	*Ratio*	*'000*	*Ratio*	*'000*	*Ratio*	*'000*	*Ratio*	*'000*	*Ratio*
Food, beverages and tobacco	20.9	0.12	15.3	0.09	9.8	0.06	11.9	0.07	111.2	0.66
Textiles	5.0	0.18	1.8	0.06	2.5	0.09	1.4	0.05	17.7	0.62
Clothing and footwear	9.3	0.17	2.9	0.05	2.3	0.04	1.5	0.03	39.7	0.71
Wood, wood products and furniture	5.4	0.07	2.8	0.04	2.2	0.03	1.2	0.02	64.2	0.85
Paper, paper products, printing and publishing	24.6	0.24	7.2	0.07	4.0	0.04	4.7	0.05	63.9	0.61
Chemical, petroleum and coal products	8.1	0.16	2.9	0.06	3.6	0.07	2.3	0.04	35.1	0.68
Non-metallic mineral products	15.8	0.40	4.7	0.12	2.0	0.05	1.8	0.04	15.5	0.39
Basic metal products	32.4	0.49	9.1	0.14	6.6	0.10	2.7	0.04	16.0	0.24
Fabricated metal products	7.8	0.08	6.1	0.06	3.5	0.04	2.8	0.03	77.5	0.79
Transport equipment	22.0	0.25	9.2	0.10	7.6	0.08	6.0	0.07	44.6	0.50
Other machinery and equipment	10.0	0.08	6.9	0.06	5.8	0.05	3.3	0.03	95.9	0.79
Miscellaneous manufacturing	8.9	0.15	4.4	0.07	2.0	0.03	1.4	0.02	44.1	0.73
Total manufacturing	**39.2**	**0.04**	**40.5**	**0.04**	**21.8**	**0.02**	**21.7**	**0.02**	**838.5**	**0.87**

(a) Employment at end of June. Includes working proprietors.

NOTE: Data in this table exclude operations by single establishment enterprises employing fewer than four persons.

Source: Manufacturing Industry, Concentration Statistics, Australia (8207.0) and Manufacturing Industry, Australia (8221.0).

20.22 PROPORTION OF MANUFACTURING ESTABLISHMENTS(a) WITH ADVANCED TECHNOLOGY, 1988 AND 1991 (per cent)

		Proportion of manufacturing establishments having one or more technologies	
ASIC code	*Industry subdivision*	*1988*	*1991*
21	Food, beverages and tobacco	28	32
23	Textiles	34	34
24	Clothing and footwear	15	29
25	Wood, wood products and furniture	23	30
26	Paper, paper products, printing and publishing	21	27
27	Chemical, petroleum and coal products	43	44
28	Non-metallic mineral products	41	47
29	Basic metal products	50	62
31	Fabricated metal products	31	46
32	Transport equipment	47	54
33	Other machinery and equipment	56	64
34	Miscellaneous manufacturing	34	44
21-34	**Total manufacturing**	**33**	**41**

(a) Establishments with employment of 10 or more.

Source: Manufacturing Technology Statistics, Australia, 31 December 1991 (8123.0).

20.23 PROPORTION OF MANUFACTURING ESTABLISHMENTS(a) WITH ADVANCED TECHNOLOGY, BY BROAD TECHNOLOGY CATEGORY, 31 DECEMBER 1991
(per cent)

		Broad technology category				
ASIC code	*Industry subdivision*	*Design and engineering*	*Fabrication, machining and assembly*	*Automated material handling*	*Automated inspection and/or testing equipment*	*Communi-cations and control*
21	Food, beverages and tobacco	8	13	9	7	29
23	Textiles	12	15	4	7	26
24	Clothing and footwear	15	17	3	1	8
25	Wood, wood products and furniture	17	18	3	3	13
26	Paper, paper products, printing and publishing	16	8	2	2	15
27	Chemical, petroleum and coal products	19	14	8	8	43
28	Non-metallic mineral products	12	20	15	7	36
29	Basic metal products	28	45	12	8	44
31	Fabricated metal products	23	34	2	1	21
32	Transport equipment	28	44	3	7	34
33	Other machinery and equipment	44	43	3	5	34
34	Miscellaneous manufacturing	23	25	5	7	24
21-34	**Total manufacturing**	**21**	**24**	**5**	**4**	**24**

(a) Establishments with employment of 10 or more.
Source: Manufacturing Technology Statistics, Australia, 31 December 1991 (8123.0).

Research and experimental development

Research and experimental development (R&D) activity in the business context is systematic investigation or experimentation involving innovation or technical risk, the outcome of which is *new knowledge*, with or without a specific practical application or *new or improved* products, processes, materials, devices or services. R&D activity extends to modifications to existing products/processes.

Business enterprises classified to the Other machinery and equipment industry (*see* footnote (b) to table 20.24) accounted for nearly 36 per cent of all manufacturing research and development expenditure in 1990–91. Chemical, petroleum and coal products (17%) and Transport equipment (15%) were also major contributors to R&D expenditure.

Expenditure on R&D by manufacturing business enterprises increased by more than 50 per cent between 1986–87 and 1990–91. Paper, paper products, printing and publishing (up 254%) had the largest percentage increase over the period, while Textiles, Clothing and footwear (down 42%) was the only industry to experience a fall in R&D expenditure.

Between 1988–89 and 1990–91 falls in R&D expenditure were recorded by Wood, wood products and furniture (down 30%); Non-metallic mineral products (down 21%); Textiles, Clothing and footwear (down 18%); Transport equipment (down 4%) and Food, beverages and tobacco (down 2%).

Paper, paper products, printing and publishing (up 47%) and Basic metal products (up 43%) exhibited the largest percentage increases over the period.

20.24 EXPENDITURE ON RESEARCH AND EXPERIMENTAL DEVELOPMENT BY MANUFACTURING ENTERPRISES
($ million)

			1990–91			
			Type of expenditure			
Industry subdivision	*1986–87*	*1988–89*	*Capital expenditure*	*Labour costs(a)*	*Other current expenditure*	*Total*
Food, beverages and tobacco	58.8	87.4	11.9	42.5	30.9	85.3
Textiles; Clothing and footwear	12.9	9.1	1.1	3.3	3.1	7.5
Wood, wood products and furniture	6.4	10.4	0.5	4.4	2.4	7.3
Paper, paper products, printing and publishing	10.0	24.1	6.3	10.8	18.4	35.4
Chemical, petroleum and coal products	120.1	147.1	17.7	84.1	76.9	178.7
Non-metallic mineral products	15.3	22.2	2.9	7.4	7.3	17.5
Basic metal products	63.2	91.4	23.3	49.6	57.6	130.5
Fabricated metal products	23.0	26.1	7.8	15.0	9.9	32.6
Transport equipment	127.9	162.3	14.5	81.9	58.7	155.0
Photographic, professional and scientific equipment(b)	25.7	35.7	3.8	23.0	15.1	41.9
Appliances and electrical equipment(b)	174.5	236.4	25.0	155.4	94.8	275.1
Industrial machinery and equipment(b)	43.3	56.1	3.6	27.6	29.1	60.3
Miscellaneous manufacturing	21.6	27.1	3.8	16.3	12.8	32.9
Total manufacturing	**702.7**	**937.2**	**122.0**	**521.2**	**416.9**	**1,060.0**

(a) Includes wages and salaries, payroll tax, payments to contract staff on the payroll, fringe benefits tax and workers compensation, holiday pay, long service leave payments, sick pay, employer contributions to superannuation and pension schemes. (b) Photographic, professional and scientific equipment; Appliances and electrical equipment; and Industrial machinery and equipment comprise subdivision 33 (Other machinery and equipment) of ASIC.

Source: Research and Experimental Development, Business Enterprises, Australia (8104.0).

Commonwealth government authorities

The Industry Commission, the Government's major review and inquiry body in industry matters, is an advisory body with an economy-wide perspective, a broad industry charter and public inquiry processes. The principal function of the Industry Commission is to hold public inquiries and report on the industry matters referred to it. In order to ensure the widest possible scope for its inquiries, industry matters include legislative or administrative actions of the Commonwealth, States or Territories, and industry is defined to cover industry of any kind or grouping.

The Commission is required to report annually on the economic performance of industry, the principal factors affecting that performance, and the effects of assistance and regulation on industry and the economy generally. The Commission also has a role advising on business regulations and preparing occasional research and information papers that enhance community understanding of industry policy issues.

The Commission operates under general policy guidelines which are specified in the Industry Commission Act. These guidelines are cast in terms of encouraging the development of efficient industries, facilitating structural adjustment, reducing unnecessary industry regulation and recognising the interests of other industries and the community generally. In addition, the Commission must report on the social and environmental consequences of any recommendations it makes.

The legislation contains provisions similar to those in the IAC Act which constrain Commonwealth Ministers from changing certain forms of assistance without a prior report from the Commission unless Parliament passes overriding legislation. However, the Government is not obliged to accept the Commission's advice. Final responsibility for determining industry arrangements rests with the Commonwealth Government and the State and Territory Governments.

Department of Industry, Technology and Regional Development. Through its many diverse programs, the Department of Industry, Technology and Regional

Development (DITRD) aims to develop and support international competitiveness throughout the manufacturing and services sectors. In support of this mission, a number of broad priority areas have been identified:

- internationalisation of Australian industry;
- creation of world class firms and markets;
- achievement of the competitive potential of particular industry sectors;
- achievement of an efficient and attractive general business environment; and
- strengthening of the national science and technology infrastructure (*see* also chapter on Science and Technology).

The Department has primary responsibility for advising the Government on industry, science and technology. It also delivers programs on behalf of the Government to firms in the Australian manufacturing and services sectors and to the science and technology community.

The Department has two major programs:

- Industry Sectors Program; and
- Industry Infrastructure Program.

The Industry Sectors Program promotes internationally competitive manufacturing and services industries. Of particular priority in 1991–92 were the resource based sectors, including food processing and forest products and the telecommunications and information technology industries. The Industry Sectors Program is administered by the Heavy Industries Light Industries, Construction and Service Industries and Resource Processing and Environment Divisions.

The Industry Infrastructure Program provides an infrastructure which gives the manufacturing and services sectors a greater capacity to become internationally competitive. The Program is administered by the Innovation, International and Policy and Projects Divisions, by the Bureau of Industry Economics, by the Trade Marks and Designs Office and by the NIES Branch of the Heavy Industries Division.

Bureau of Industry Economics. The Australian Government established the Bureau of Industry Economics in 1977 as a major centre for research into the manufacturing and commerce sectors. In recent years this role has been expanded to include science and technology and building issues. Formally attached to the Department of Industry, Technology and Regional Development, the Bureau has professional independence in the conduct and reporting of its research.

The major objectives of the Bureau are to:

- increase community and industry understanding of economic developments and industry policy issues in the manufacturing and services sectors by conducting and publishing objective research;
- carry out applied economic research to assist the evaluation and formulation of industry policies and programs; and
- foster basic and applied economic research into industry policy issues at Australian tertiary institutions and research institutes.

The research and analysis carried out by the Bureau seeks to identify the principal factors influencing industry performance and growth so that a more competitive and efficient industry structure can be developed.

Major research projects completed by the BIE in 1991–92 include:

- international performance indicators — electricity;
- international performance indicators — rail freight;
- international comparison of the cost of capital;
- environmental regulation: the economics of tradeable permits;
- regulation of occupational noise;
- finance for small business;
- networks: a third form of organisation;
- international comparisons of plant productivity;
- economic evaluation of the CSIRO's industrial research;
- the pharmaceutical industry: impediments and opportunities; and
- economic evaluation of the national space program.

In order to ensure the continuing relevance of its research, the Bureau seeks suggestions and sponsorship from interested parties in the private and public sectors on the most pressing economic issues requiring analysis. In formulating the final research program, the Bureau has regard to the priorities of the portfolio Minister and Department, and the view of its own Council of Advice.

The Bureau publishes the results of its research, makes submissions to public enquiries and organises seminars and conferences on key issues of industry economics. The Bureau holds an annual Manufacturing Outlook Conference and Conference of Industry Economics.

In addition to its research work, the Bureau provides specialist economic advice to the Department of Industry, Technology and Commerce on matters of immediate importance. The Bureau is also responsible for providing specialist macro-economic and statistical advice to the portfolio Minister and the Department.

RETAIL TRADE

The retail and related service industries are a major sector of the Australian economy. These businesses number in excess of 200,000 and employ over 900,000 people.

The most recent statistics about retail trade are derived from a monthly survey of employing businesses. (Non-employers are excluded from the survey.) Data from this and several other collections are discussed below.

At June 1992, retail trade, adjusted for seasonal and price fluctuations, was at higher levels than in late 1989 and early 1990. As indicated in graph 20.26, this upward trend began with the March quarter 1991, ending the decline of the previous four quarters.

In constant price terms, that is, removing the effect of price changes, 1991–92 retail trade more than recovered the decrease recorded in 1990–91, (table 20.25). Growth of 2.3 per cent for the year put retail trade at a level 0.7 per cent higher than at the end of 1989–90.

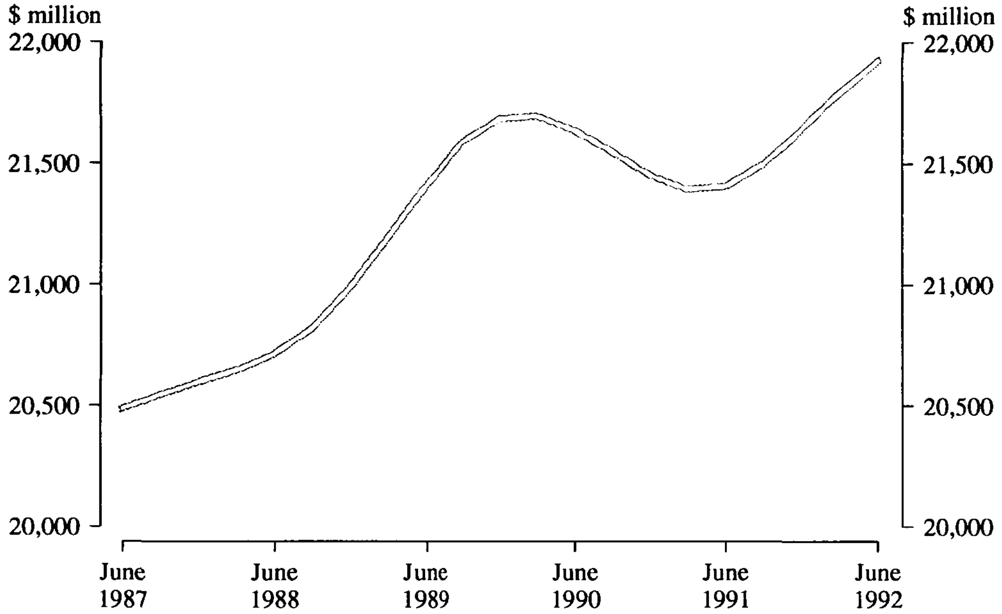
Growth was experienced across most sectors with only two industries, Electrical goods stores and Hotels, liquor stores and licensed clubs, recording decreases. Hotels, liquor stores and licensed clubs contracted by 7.5 per cent in real terms. Butchers recorded real growth of 0.7 per cent compared with a nominal decrease of 1.0 per cent, indicating that sales were greater in volume but at lower prices than the previous financial year.

20.25 TURNOVER OF SELECTED RETAIL ESTABLISHMENTS AT CONSTANT (AVERAGE 1989–90) PRICES ($ million)

Industry	*1989–90*	*1990–91*	*1991–92*
Grocers, confectioners, tobacconists	23,635.5	24,387.2	25,426.5
Butchers	2,220.4	2,219.2	2,233.9
Other food stores	5,769.2	5,808.5	6,147.6
Hotels, liquor stores, licensed clubs	11,730.9	11,231.3	10,393.0
Cafes and restaurants	4,327.5	4,056.5	4,360.6
Clothing and fabric stores	6,376.4	6,205.5	6,481.7
Department and general stores	9,726.0	9,364.4	9,667.9
Footwear stores	1,146.7	1,161.0	1,214.2
Domestic hardware stores, jewellers	2,767.8	2,593.7	2,769.5
Electrical goods stores	5,339.3	5,188.4	5,110.5
Furniture stores	1,822.2	1,720.8	1,836.1
Floor coverings stores	781.5	714.7	765.5
Pharmacies	3,324.0	3,382.0	3,432.3
Newsagents	3,166.8	2,927.9	2,936.2
Other stores	4,525.4	4,378.8	4,495.8
Total	**86,659.6**	**85,339.9**	**87,271.3**

Source: Retail Trade, Australia (8501.0).

20.26 TURNOVER OF SELECTED RETAIL ESTABLISHMENTS AT CONSTANT (AVERAGE 1989–90) PRICES



Source: Unpublished ABS data.

In current price terms retail trade for the financial year 1991–92 amounted to $93,698.5 million (table 20.27). This represented a 5.2 per cent increase on 1990–91 which in turn was up 2.8 per cent on the previous financial year.

20.27 TURNOVER OF SELECTED RETAIL ESTABLISHMENTS AT CURRENT PRICES ($ million)

Industry	*1989–90*	*1990–91*	*1991–92*
Grocers, confectioners, tobacconists	23,635.5	25,468.1	27,282.4
Butchers	2,220.4	2,237.2	2,214.0
Other food stores	5,769.2	5,938.3	6,499.6
Hotels, liquor stores, licensed clubs	11,730.9	11,985.7	11,486.0
Cafes and restaurants	4,327.5	4,295.7	4,792.7
Clothing and fabric stores	6,376.4	6,496.2	6,888.3
Department and general stores	9,726.0	9,734.1	10,248.8
Footwear stores	1,146.7	1,200.1	1,289.5
Domestic hardware stores, jewellers	2,767.8	2,591.9	2,827.4
Electrical goods stores	5,339.3	5,217.3	5,150.1
Furniture stores	1,822.2	1,828.0	2,008.8
Floor coverings stores	781.5	745.7	793.7
Pharmacies	3,324.0	3,688.8	4,076.4
Newsagents	3,166.8	3,079.8	3,266.8
Other stores	4,525.4	4,588.2	4,874.1
Total	**86,659.6**	**89,094.9**	**93,698.5**

Source: Retail Trade, Australia (8501.0).

Growth was recorded in most retail industries but Butchers; Hotels, liquor stores and licensed clubs; and Electrical goods stores reported decreases. The strongest growth was achieved by Cafes and restaurants; Pharmacies; Domestic hardware stores and jewellers; and Furniture stores; with the largest industry, Grocers, reporting solid growth.

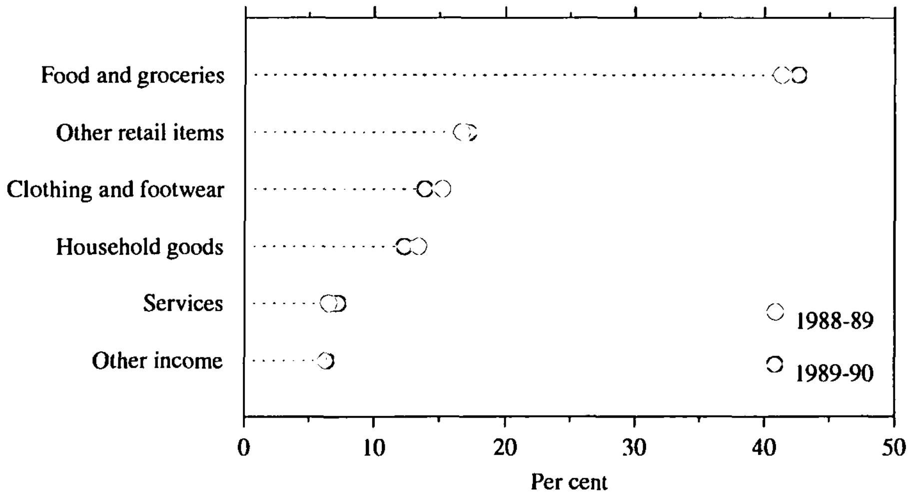
Retail sales of commodities

Sales in the Food and groceries commodity group were the largest component of turnover of the retail and related service industries in 1988–89 and 1989–90. For 1988–89 the Food and groceries commodity group accounted for $31,703 million or 42.1 per cent of total turnover. Sales increased to $37,013 million or 42.7 per cent in 1989–90.

Of the other major commodities, Clothing and footwear accounted for 15.3 per cent of total turnover in 1988–89 and 13.9 per cent in 1989–90, while Household goods accounted for 13.5 per cent and 12.4 per cent in 1988–89 and 1989–90 respectively.

Graph 20.28 shows the proportions that each of the commodity groups represented of the total turnover figure in these two years.

20.28 MAJOR COMMODITY GROUPS, PROPORTION OF TOTAL TURNOVER 1988–89 AND 1989–90 (current prices)



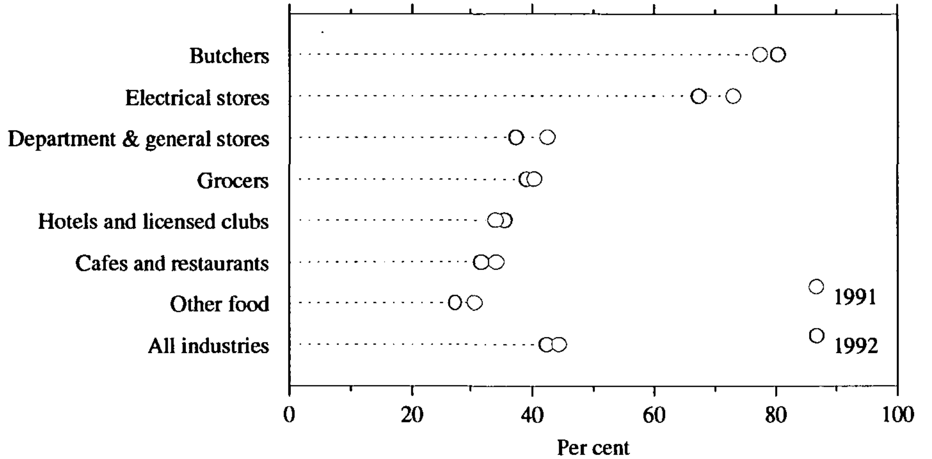
Source: Retail Trade, Australia, Commodity Details (8512.0).

Employment

At March 1992 there were 935,553 people employed in the retail and related service industries compared with 912,362 at March 1991. Overall, there were more part-time employees (57.7%) than full time. In the 12 months ending March 1992, the number of full-time employees fell from 405,113 (44.4%) to 395,879 (42.3%) (graph 20.29). This drop was the result of a 2.3 per cent decrease in the number of full-time jobs and a 6.4 per cent increase in the number of part-time positions.

The composition of the work force varies across different types of retail stores. For instance, Butchers employ predominantly full-time workers, while Hotels, liquor stores and licensed clubs employ mostly part-time workers (graph 20.29).

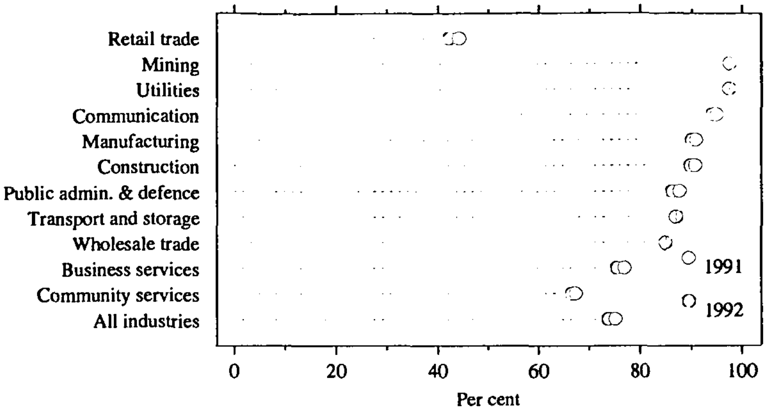
20.29 PERCENTAGE OF FULL-TIME EMPLOYEES FOR SELECTED RETAIL INDUSTRIES MARCH QUARTERS 1991 AND 1992



Source: Unpublished data under the title Employed Wage and Salary Earners, Australia (6248.0).

In comparison with other industries, retail trade has a significantly lower percentage of full-time employees (graph 20.30). Also indicated in the graph, is the relatively greater fall in the proportion of full-time employees in retail trade compared with other industries, such as Wholesale trade and Mining, where there has been little or no apparent shift in the proportion of full-time workers.

20.30 PERCENTAGE OF FULL-TIME EMPLOYEES FOR SELECTED INDUSTRIES MARCH QUARTERS 1991 AND 1992

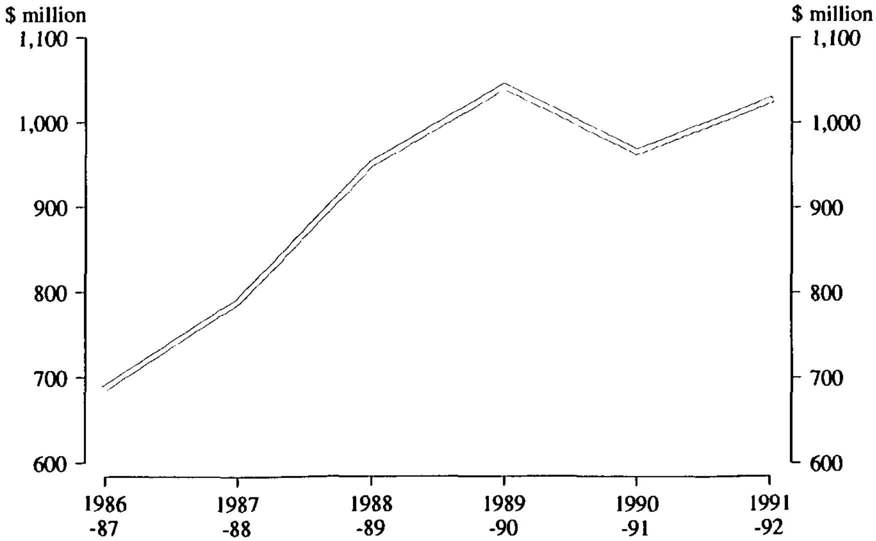


Source: Employed Wage and Salary Earners, Australia (6248.0).

Company profits

Company profits of the retail industry for the 1991–92 financial year amounted to more than a billion dollars, a recovery to 1989–90 profit levels. Food stores were the major contributor to retail company profits (graph 20.31).

20.31 TOTAL RETAIL TRADE(a), COMPANY PROFITS BEFORE TAX



(a) Profits from cafes and restaurants, hotels and licensed clubs, and the sale of motor vehicles, are excluded.
Source: Company Profits, Australia (5651.0).

SERVICE INDUSTRIES

Surveys of service industries are only conducted by the ABS periodically. The next surveys are being undertaken in respect of 1991–92 and the results are not yet available.

The following table provides a summary of operational characteristics of certain service industries covered in the Services Industries Surveys for 1986–87 and 1987–88.

20.32 SELECTED SERVICE INDUSTRIES: SUMMARY OF OPERATIONS 1986–87 AND 1987–88

Industry (ASIC class)	*Enterprises operating at end June*	*Persons employed at end June*	*Wages and salaries(a)*	*Turnover*	*Gross product*	*Net operating surplus*
	no.	no.	$m	$m	$m	$m
1986–87						
Motor vehicle hire (5711)	281	3,173	54.8	446.8	102.1	20.6
Travel agency services (5741)(b)	1,494	11,632	191.5	428.8	207.2	– 0.2
Motion picture theatres (9133)	202	4,472	56.6	256.5	96.2	29.2
Cafes and restaurants (9231)	8,489	85,974	646.7	2,583.9	942.2	221.5
Hotels and bars (9232)	4,986	82,644	814.8	4,807.6	1,270.0	370.5
Accommodation (9233)	4,841	56,364	640.3	2,281.5	1,078.8	310.7
Licensed clubs (9241–3)	3,927	52,336	687.8	2,636.1	1,059.4	229.0
Laundries and dry cleaners (9340)(c)	1,581	12,452	142.0	400.1	228.4	52.6
Hairdressers and beauty salons (9351–2)	11,027	39,628	300.0	790.0	433.0	113.1
Photography services (9361)	1,547	4,290	36.5	183.3	67.6	23.3
1987–88						
Real estate agents (6310)	5,741	42,196	835	2,201	1,262	356
Architectural services (6334)	4,534	17,717	354	1,030	584	185
Surveying services (6335)	1,104	6,872	116	309	178	46
Engineering and technical services (6336)(d)	5,190	28,326	682	1,716	1,000	223
Legal services (6371)	6,459	55,363	500	3,069	1,427	884
Accounting services (6372)	6,048	49,479	503	2,334	1,050	497
Computing services (6381)	3,691	24,067	585	1,628	775	78
Advertising services (6382)	2,390	16,048	423	4,675	619	147
Debt collecting and credit reporting services (6385)	234	2,658	52	142	69	12
Pest control services (6386)	565	2,902	44	135	76	25
Cleaning services (6387)(e)	4,181	44,322	330	622	434	81
Security/protection and business services n.e.c. (6388 and 6389)(f)	1,087	25,483	365	839	515	120

(a) Gross earnings of all employees before taxation and other deductions. Drawings of working proprietors and partners are excluded. (b) Includes Australian branch offices of foreign resident airlines and the travel agency divisions of the major financial institutions (mainly banks). (c) Excludes carpet cleaning services. (d) Includes quantity surveyors. (e) Includes carpet cleaning services. (f) Excludes quantity surveyors.

Source: ABS Service Industry survey publications (8652.0 to 8660.0 and 8663.0 to 8673.0).

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FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Twenty-one

Prices

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Prices are a key factor in the operation of the economy, and the indexes which measure movements in the various categories of prices are used extensively by a wide range of users who need to be aware of and to analyse price movements. This chapter provides an outline of various price indexes, their history, and their underlying concepts and methodology, more details of which are contained in the source publications referred to throughout the chapter and in the bibliography.

CONSUMER PRICE INDEX

The Consumer Price Index (CPI) measures quarterly changes in the retail 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 eight groups: food; clothing; housing; household equipment and operation; transportation; tobacco and alcohol; health and personal care; and recreation and education. The eight groups in turn are divided into 35 subgroups and 107 expenditure classes.

Retail prices of food and groceries and average rentals of houses have been collected by the Australian Bureau of Statistics for the years extending back to 1901 and, in some cases, by the statistical offices 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 collected at frequent and regular intervals since 1923. (Comparable information was collected for the month of November in each year from 1914 to 1922.) The range of items for which retail prices data are obtained was considerably expanded in 1948 and in later years. Average retail prices of certain food and grocery items in the relevant periods were published in the annual *Labour Report* (now discontinued). An historical perspective giving more detail of these earlier indexes was published in *Year Book Australia 1988*.

From its inception in 1960, the CPI covered the six State capital cities. In 1964 the geographical coverage of the CPI was extended to include Canberra. From June quarter 1982 geographic coverage was further extended to include Darwin.

Index numbers at the Group and All Groups levels are published for each capital city and for the weighted average of eight capital cities. Subgroup index numbers are published for the weighted average of eight capital cities. Expenditure class index numbers are available for each city plus the weighted average of eight capital cities.

21.1 CONSUMER PRICE INDEX: ALL GROUPS INDEX NUMBERS (Reference base year 1989–90 = 100.0)(a)

Year	*Sydney*	*Mel-bourne*	*Brisbane*	*Adelaide*	*Perth*	*Hobart*	*Canberra*	*Darwin*	*Weighted average of eight capital cities*
1980–81	49.3	49.1	50.2	49.7	49.6	50.4	50.0	52.7	49.4
1981–82	54.3	54.2	55.6	54.9	55.1	55.5	55.3	58.5	54.6
1982–83	60.8	60.3	61.7	61.4	60.7	61.5	61.9	64.8	60.9
1983–84	64.5	64.9	66.1	65.8	65.0	65.5	66.1	68.5	65.0
1984–85	67.0	67.8	69.2	68.9	67.5	68.6	69.3	71.1	67.8
1985–86	72.7	73.6	74.8	74.7	72.9	74.6	75.3	77.0	73.5
1986–87	79.5	80.5	81.2	81.5	80.2	81.9	81.6	83.9	80.4
1987–88	85.6	86.4	86.9	87.0	85.9	87.9	87.3	89.8	86.3
1988–89(b)	92.5	92.3	93.0	93.3	92.3	93.4	93.1	94.2	92.6
1989–90	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1990–91	104.9	105.8	104.9	106.2	105.1	104.9	105.1	105.7	105.3
1991–92	106.7	108.1	107.0	108.9	105.9	107.1	107.8	108.0	107.3

(a) The separate city indexes measure price movements within each city individually. They do not compare price levels between cities.
(b) These series have been affected by a change in the treatment of mortgage interest charges from March Quarter 1989.
Source: Consumer Price Index (6401.0).

21.2 CONSUMER PRICE INDEX: GROUP INDEX NUMBERS WEIGHTED AVERAGE OF EIGHT CAPITAL CITIES (Reference base year 1989–90 = 100.0)

Year	*Food*	*Clothing*	*Housing*	*Household equipment and operation*	*Transport-ation*	*Tobacco and alcohol*	*Health and personal care*	*Recreation and educ-ation(a)*	*All groups*
1980–81	51.9	54.1	43.8	52.0	47.8	44.2	50.1	. .	49.4
1981–82	56.3	57.9	48.7	57.5	52.7	48.2	62.2	. .	54.6
1982–83	61.5	61.7	53.8	64.4	59.4	54.8	76.7	62.6	60.9
1983–84	66.3	65.3	57.6	69.0	64.4	61.7	73.4	66.6	65.0
1984–85	69.7	69.4	62.0	72.3	68.5	66.8	61.0	69.1	67.8
1985–86	75.1	75.1	67.2	78.1	74.4	72.9	66.6	75.3	73.5
1986–87	81.1	82.4	72.2	83.9	82.7	80.6	77.3	82.2	80.4
1987–88	85.3	88.8	77.2	89.7	89.1	87.4	86.1	88.7	86.3
1988–89(b)	93.4	95.1	86.9	94.8	92.5	92.4	93.3	94.2	92.6
1989–90	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1990–91	103.3	104.6	103.5	105.1	106.9	108.8	109.6	105.0	105.3
1991–92	105.8	106.4	98.9	107.5	108.8	115.0	121.3	106.9	107.3

(a) Group first compiled for 1982-83. (b) Series for Housing and All groups have been affected by a change in the treatment of mortgage interest charges from March Quarter 1989.
Source: Consumer Price Index (6401.0).

Conceptual basis for measuring price changes

The CPI is a quarterly measure of the change in average retail price levels. It provides a method of comparing the average price level for a quarter with the average price level of the reference base year or changes in the average price level from one quarter to the next. In measuring price changes, the CPI aims to measure only pure price changes (that is, price changes excluding the effects of any changes in the quality or quantity of the goods or services concerned) — in other words to measure, each quarter, the change in the cost of purchasing an identical basket of goods and services. The CPI is a measure of changes in transaction prices — the prices actually paid by consumers for the goods and services they buy. It is not concerned with nominal, recommended or list prices (unless they are the prices consumers actually pay).

The CPI is often loosely, and incorrectly, referred to as a cost-of-living index. However, a true cost-of-living index (if such a measure could be compiled) would not be the same thing as a fixed-weight retail price index like the CPI. A cost-of-living index would need to take account of changes in standards of living and the substitutions that consumers make in response to changing market conditions, such as changes in supply, or in response to disparate price movements.

The CPI measures price change over time and does not provide comparisons between relative price levels at a particular date. For example, it does not show whether beef is dearer than lamb, or whether bus fares are dearer than train fares. The fact that the index number for any particular component is higher than that for another component in a particular quarter does not mean that the first component is more expensive than the second — it merely means that, since the reference base year, prices for the first component have risen more than prices for the second component. Similarly, the CPI does not provide any basis for measuring relative price levels between the different cities. For example, it says nothing about whether prices are higher in Sydney or Perth — it shows only whether prices have changed more in Sydney or in Perth.

Index population

Because the spending patterns of various groups in the population differ somewhat, the pattern of one large group, fairly homogeneous in its spending habits, is chosen for the purpose of calculating the CPI. The CPI population group is, in concept, metropolitan employee households. For this purpose employee households are defined as those households which obtain the major part of their household income from wages and salaries; metropolitan means the eight capital city Statistical Divisions.

Weighting pattern

Each of the 107 expenditure classes in the current CPI has a fixed weight (that is, the measure of its relative importance). Details of the weighting pattern are shown in the following table.

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 twelve separate series which have been linked to form a continuous series. The 12th series (that is, the current series) was introduced in the September quarter 1992, with a weighting pattern based on estimated household expenditure in 1988-89.

The CPI 'basket of goods and services' covers items which are considered representative of metropolitan households' spending habits and whose prices can be associated with an identifiable and specific quantity of a commodity or service. 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 any goods or services.

21.3 CONSUMER PRICE INDEX — 12TH SERIES: WEIGHTING PATTERN AT JUNE QUARTER 1992
WEIGHTED AVERAGE OF EIGHT CAPITAL CITIES

Groups and subgroups	*Percentage contribution to the All Groups CPI*
Food	**18.324**
Dairy products	1.463
Cereal products	2.097
Meat and seafoods	3.001
Fresh fruit and vegetables	1.417
Processed fruit and vegetables	0.829
Soft drinks, ice cream and confectionery	2.890
Meals out and take away foods	4.959
Other food	1.668
Clothing	**6.264**
Men's and boys' clothing	1.686
Women's and girls clothing	2.545
Fabrics and knitting wool	0.746
Footwear	1.063
Dry cleaning and shoe repairs	0.224
Housing	**15.900**
Rents	4.865
Home ownership	11.035
Household equipment and operation	**18.370**
Fuel and light	2.339
Furniture and floor coverings	4.344
Appliances	1.538
Household textiles	0.754
Household utensils and tools	1.212
Household supplies and services	3.970
Postal and telephone services	1.715
Consumer credit charges	2.498
Transportation	**15.967**
Private motoring	14.755
Urban transport fares	1.212

... continued

21.3 CONSUMER PRICE INDEX — 12TH SERIES: WEIGHTING PATTERN AT JUNE QUARTER 1992 WEIGHTED AVERAGE OF EIGHT CAPITAL CITIES — *continued*

Groups and subgroups	*Percentage contribution to the All Groups CPI*
Tobacco and alcohol	**7.475**
Alcoholic drinks	5.061
Cigarettes and tobacco	2.414
Health and personal care	**6.850**
Health services	3.961
Personal care products	2.097
Hairdressing services	0.792
Recreation and education	**10.850**
Books, newspapers and magazines	1.146
Recreational goods	2.564
Holiday travel and accommodation	2.349
Recreationál services	2.852
Education and child care	1.939
Total All Groups	**100.000**

Source: The Australian Consumer Price Index 12th Series Review (6450.0).

Collecting prices

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 normally purchase goods and services. This involves collecting prices from many sources including supermarkets, department stores, footwear stores, restaurants, motor vehicle dealers and service stations, dental surgeries, hotels and clubs, schools, hairdressers, travel agents, airlines, bus operators, house builders, real estate developers, electricians and plumbers. 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 and government housing authorities. In total, around 100,000 separate price quotations are collected each quarter.

Prices of the goods and services included in the CPI are generally collected quarterly. However, some important items are priced monthly or more frequently (for example, bread, fresh meat and fish, fresh fruit and vegetables, petrol, alcohol and tobacco) and a small number are collected annually (for example, seasonal clothing, local government rates and charges).

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 (that is, 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.

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, the most recent being completed in the September quarter 1992. Previous revisions of the CPI were introduced at: December quarter 1963; December quarter 1968; December quarter 1973; September quarter 1974; September quarter 1976; March quarter

1982; and March quarter 1987. Following each revision, the new series, with its changed composition and weighting pattern, 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.

Changes in quality

Since the CPI aims to measure the price change of a constant basket of goods and services over time it is necessary 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.

Long-term linked series

To provide an approximate long-term measure of retail price change for the period since the first Australian retail price index was compiled, a single series of index numbers has been constructed by linking together selected retail price index series. The index numbers are expressed on a reference base 1945 = 100, which was the end of a period of relative price stability during World War II. The successive series linked together to produce this long-term series of index numbers are:

- from 1901 to 1914, the A Series Index;
- from 1914 to 1946–47, the C Series Index;
- from 1946–47 to 1948–49, a combination of the C Series Index (excluding rent) and the housing group of the CPI; and
- from 1948–49 onwards, the CPI.

21.4 RETAIL PRICE INDEX NUMBERS(a), LONG-TERM LINKED SERIES
(Reference base year 1945 = 100)

Year	*Index number*	*Year*	*Index number*	*Year*	*Index number*	*Year*	*Index Number*
1901	47	1924	88	1947	106	1970	313
1902	50	1925	88	1948	117	1971	332
1903	49	1926	90	1949	128	1972	352
1904	46	1927	89	1950	140	1973	385
1905	48	1928	89	1951	167	1974	443
1906	48	1929	91	1952	196	1975	510
1907	48	1930	87	1953	205	1976	579
1908	51	1931	78	1954	206	1977	650
1909	51	1932	74	1955	211	1978	702
1910	52	1933	71	1956	224	1979	766
1911	53	1934	73	1957	229	1980	844
1912	59	1935	74	1958	233	1981	926
1913	59	1936	75	1959	237	1982	1,028
1914	61	1937	78	1960	245	1983	1,132
1915	70	1938	80	1961	252	1984	1,177
1916	71	1939	82	1962	251	1985	1,257
1917	75	1940	85	1963	252	1986	1,370
1918	80	1941	89	1964	258	1987	1,487
1919	91	1942	97	1965	268	1988	1,594
1920	103	1943	101	1966	276	1989	1,714
1921	90	1944	100	1967	286	1990	1,839
1922	87	1945	100	1968	293	1991	1,898
1923	89	1946	102	1969	302	1992	1,917

(a) The index numbers relate to the weighted average of six State capital cities up to 1980; from 1981 they relate to the weighted average of eight capital cities.

Source: Labour Report and Consumer Price Index (6401.0).

Comparison with other countries

The following table provides a comparison of the Australian CPI with that of selected other countries.

21.5 CONSUMER PRICE INDEX NUMBERS: AUSTRALIA AND OTHER COUNTRIES(a)
(Reference base year 1980 = 100.0 (b))

Period	*Australia*	*Canada*	*Germany (c)*	*Japan*	*New Zealand*	*United Kingdom*	*United States of America*
Year							
1986	76.9	148.9	120.9	115.2	199.5	146.3	133.0
1987	83.4	155.6	121.2	115.3	230.9	152.4	137.9
1988	89.4	161.8	122.8	116.2	245.6	159.9	143.6
1989	96.2	169.9	126.2	118.8	259.6	172.3	150.5
1990	103.2	178.1	129.5	122.4	275.6	188.6	158.6
1991	106.5	188.1	134.0	126.4	282.8	199.7	165.3
Quarter							
1990							
September	103.3	178.8	129.7	122.7	277.3	191.6	159.7
December	106.0	181.3	130.9	124.8	280.3	194.6	162.3
1991							
March	105.8	186.5	131.9	125.4	262.0	195.7	163.6
June	106.0	187.9	133.2	126.4	282.3	199.8	164.6
September	106.6	189.0	135.1	126.3	283.3	200.7	165.9
December	107.6	188.7	136.0	127.9	283.0	202.7	167.1
1992							
March	107.6	189.6	137.7	127.4	284.3	203.8	168.3
June	107.3	190.5	139.1	129.2	285.0	208.1	169.6
September	107.4	191.3	139.8	n.y.a.	286.0	208.0	171.0
December	107.9	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.

(a) The composition of these indexes varies considerably in the various countries. The index numbers show changes in prices in each country over time and do not measure relative price levels between countries. (b) Except Australia, for which base year is 1989–90 = 100.0. (c) Since 3 October 1990 no longer known as Federal Republic of Germany.

Source: Monthly Bulletin of Statistics of the Statistical Office of the United Nations.

PRODUCER PRICE INDEXES

The first price index of this kind compiled by the ABS was the Melbourne Wholesale Price Index which was introduced in 1912 with index numbers compiled back to 1861 from prices extracted from newspapers and trade publications. Index numbers were compiled up to 1961. The index related chiefly to basic materials and foods weighted in accordance with consumption in about the year 1910.

The next index published was the Wholesale Price (Basic Materials and Foodstuffs) Index which was introduced in 1939; index numbers are available for the period 1928 to 1970. The index related to commodities in their basic or primary form and prices were obtained as near as possible to the point where they made their first effective impact on the local price structure. With few exceptions, prices were obtained from Melbourne sources.

The present range of producer price indexes was developed and produced progressively from the 1960s. The current indexes relate to the building industry, manufacturing industry, and (not included in this chapter) the mining industry.

21.6 PRODUCER AND WHOLESALE PRICE INDEXES
(Reference base year 1968–69 = 100.0)

Year	Melbourne Wholesale Price Index (All Groups)	Wholesale Price (Basic Materials and Foodstuffs) Index (All Groups)	Price Index of Materials Used in House Building (All Groups)	Price Index of Materials Used in Building Other than House Building (All Groups)	Price Indexes of Materials Used in Manufacturing Industries (Manufacturing Division)	Price Indexes of Articles Produced by Manufacturing Industry (Manufacturing Division)
1861	24.2	. .	. .	. .	. .	. .
1871	19.3	. .	. .	. .	. .	. .
1881	17.6	. .	. .	. .	. .	. .
1891	14.9	. .	. .	. .	. .	. .
1901	15.3	. .	. .	. .	. .	. .
1911	15.7	. .	. .	. .	. .	. .
1921	30.0	. .	. .	. .	. .	. .
1928–29	28.3	28.3	. .	. .	. .	. .
1931–32	. .	24.4	. .	. .	. .	. .
1936–37	. .	25.5	. .	. .	. .	. .
1941–42	. .	31.9	. .	. .	. .	. .
1946–47	. .	37.0	. .	. .	. .	. .
1951–52	. .	37.0	. .	. .	. .	. .
1956–57	. .	76.4	. .	. .	. .	. .
1960–61	. .	92.5	. .	. .	. .	. .
1961–62	. .	86.4	. .	. .	. .	. .
1962–63	. .	87.4	. .	. .	. .	. .
1963–64	. .	90.0	. .	. .	. .	. .
1964–65	. .	91.3	. .	. .	. .	. .
1965–66	. .	95.4	. .	. .	. .	. .
1966–67	. .	98.4	94.1	94.7	. .	. .
1967–68	. .	99.7	96.6	96.8	. .	. .
1968–69	. .	100.0	100.0	100.0	100.0	100.0
1969–70	. .	101.3	104.3	104.6	102.6	103.9
1970–71	. .	. .	108.8	109.4	100.1	108.5
1971–72	. .	. .	115.4	116.5	102.6	113.9
1972–73	. .	. .	123.3	122.1	113.9	120.7
1973–74	. .	. .	142.3	138.1	134.7	134.6
1974–75	. .	. .	172.5	169.7	145.1	158.1
1975–76	. .	. .	195.8	195.3	158.6	177.8
1976–77	. .	. .	219.1	218.1	182.2	196.9
1977–78	. .	. .	237.1	236.5	198.5	213.8
1978–79	. .	. .	252.2	253.9	248.8	237.4
1979–80	. .	. .	284.9	286.9	321.8	274.9
1980–81	. .	. .	323.6	323.9	353.2	305.2
1981–82	. .	. .	355.3	359.8	358.9	328.9
1982–83	. .	. .	389.0	400.6	388.0	360.2
1983–84	. .	. .	419.2	422.7	402.1	382.8
1984–85	. .	. .	452.4	446.2	422.2	404.8
1985–86	. .	. .	484.6	481.8	442.9	430.3
1986–87	. .	. .	512.7	519.0	445.0	458.5
1987–88	. .	. .	551.7	564.7	470.3	492.1
1988–89	. .	. .	611.3	616.6	477.5	526.0
1989–90	. .	. .	658.4	665.3	502.4	559.9
1990–91	. .	. .	688.7	699.2	522.7	584.6
1991–92	. .	. .	690.1	703.4	509.6	586.7

Source: Labour Report; Price Index of Materials Used in Building Other than House Building, Eight Capital Cities (6407.0); Price Index of Materials Used in House Building, Six State Capital Cities and Canberra (6408.0); Price Indexes of Materials Used in Manufacturing Industries, Australia (6411.0); Price Indexes of Articles Produced by Manufacturing Industry, Australia (6412.0).

A description of the main producer price indexes is given below. In addition to the figures contained in the various ABS producer and foreign trade publications, a large volume of unpublished figures is available on request. These price indexes are used by both the government and private sectors for applications such as adjusting business contracts. They are also used extensively for economic analysis.

Price Index of Materials Used in House Building

The Price Index of Materials Used in House Building measures changes in prices of selected materials used in the construction of houses in each capital city Statistical Division. It was first compiled on a reference base of 1966–67 = 100.0, using a weighting pattern derived from estimated material usage in 1968–69. Monthly index numbers on a 1966–67 = 100.0 reference base are available for the period July 1966 to September 1986.

The current indexes for the six State capital cities were introduced in October 1986 on a reference base of 1985–86 = 100.0 and were linked to the previous series. The items were selected and allocated weights on the basis of the estimated values of each material used in a sample of representative houses constructed in 1985–86. The index for Canberra was introduced in respect of February 1988 on a reference base of 1986–87 = 100.0.

21.7 PRICE INDEX OF MATERIALS USED IN HOUSE BUILDING(a)
(Reference base year 1985–86 = 100.0)

Year(b)	*Weighted average of six State capital cities*	*Sydney*	*Melbourne*	*Brisbane*	*Adelaide*	*Perth*	*Hobart*	*Canberra (c)*
1986–87	105.8	106.2	105.7	104.6	105.1	106.7	105.0	100.0
1987–88	113.8	114.8	114.3	112.0	110.8	114.2	110.7	109.7
1988–89	126.1	128.4	125.8	123.8	120.9	128.1	120.0	121.0
1989–90	135.8	139.1	133.5	134.1	129.7	140.8	128.0	130.5
1990–91	142.1	145.7	138.1	141.9	136.2	148.7	134.2	136.4
1991–92	142.4	146.1	137.3	144.7	135.5	149.3	138.3	140.3

(a) The separate city indexes measure price movement within each city individually. They do not compare price levels between cities. (b) The index series for years prior to 1985–86 are based on the series previously published on a reference base 1966–67 = 100.0. They have been converted to reference base 1985–86 = 100.0 by linking the old and new series at September 1986. (c) Reference base 1986–87 = 100.0.
Source: Price Index of Materials Used in House Building, Six State Capital Cities and Canberra (6408.0).

Price Index of Materials Used in Building Other than House Building

The Price Index of Materials Used in Building Other than House Building measures changes in prices of selected materials used in the construction of buildings other than houses in metropolitan areas. The types of building directly represented in the index are:

- flats and other dwellings;
- hotels, motels and hostels;
- shops;
- factories;
- offices;
- other business premises;
- education buildings;
- health buildings; and
- other non-residential buildings.

It was first compiled on a reference base of 1966–67 = 100.0 using a weighting pattern derived from estimated materials usage in 1966–67. Monthly index numbers for this first series are available for the period July 1966 to January 1981.

The current indexes for the six State capital cities were introduced in February 1981 on a reference base of 1979–80 = 100.0. Its composition reflects the usage of materials in the construction of buildings (other than houses) commenced in the three years ending June 1977. An index for Darwin was published for the first time in September 1982 on a reference base of 1981–82 = 100.0 and an index for Canberra was introduced in November 1987 on a reference base of 1986–87 = 100.0.

21.8 PRICE INDEX OF MATERIALS USED IN BUILDING OTHER THAN HOUSE BUILDING(a)
(Reference base year 1979–80 = 100.0)

Year	*Weighted average of six State capital cities*	*Sydney*	*Melbourne*	*Brisbane*	*Adelaide*	*Perth*	*Hobart*	*Darwin (b)*	*Canberra (c)*
1986–87	180.9	181.0	177.8	179.7	187.9	183.9	177.9	139.6	100.0
1987–88	196.8	197.5	192.6	194.4	204.7	201.5	188.9	149.3	111.5
1988–89	214.9	214.7	211.6	213.7	220.7	221.8	204.7	161.7	122.3
1989–90	231.9	231.3	227.8	233.9	237.1	240.0	216.8	171.9	132.2
1990–91	243.7	244.2	238.0	245.2	249.6	253.2	225.2	181.1	140.4
1991–92	245.2	247.8	235.6	251.3	250.0	252.5	232.1	186.6	143.7

(a) The separate city indexes measure price movements within each city individually. They do not compare price levels between cities. (b) Reference base 1981–82 = 100.0. (c) Reference base 1986–87 = 100.0.
Source: Price Index of Materials Used in Building Other than House Building, Eight Capital Cities (6407.0).

21.9 PRICE INDEX OF MATERIALS USED IN BUILDING OTHER THAN HOUSE BUILDING
INDEX NUMBERS FOR SELECTED BUILDING MATERIALS
WEIGHTED AVERAGE OF SIX STATE CAPITAL CITIES
(Reference base year 1979–80 = 100.0)

Year	*Structural timber*	*Clay bricks*	*Ready mixed concrete*	*Galvanised steel decking cladding and sheet products*	*Structural steel*	*Reinforcing steel bar fabric and mesh*
1986–87	178.6	183.0	167.7	166.8	170.9	165.8
1987–88	184.2	193.7	175.6	181.5	186.2	176.2
1988–89	208.2	221.2	193.7	199.6	204.3	193.1
1989–90	221.1	245.7	210.3	221.3	219.0	210.3
1990–91	226.8	254.4	230.1	232.8	223.4	223.8
1991–92	221.8	258.0	222.9	235.9	220.5	222.4

Year	*Aluminium windows*	*Conductors (mains cable and circuitry)*	*Lamps and light fittings*	*Non-ferrous pipes*	*Builders' hardware*	*Paint*
1986–87	174.2	216.3	180.4	142.4	200.9	201.9
1987–88	192.1	301.3	193.5	183.3	214.7	208.9
1988–89	210.0	369.7	206.2	209.7	235.6	228.4
1989–90	223.8	447.7	211.2	215.6	252.2	254.1
1990–91	227.9	511.7	210.9	220.0	264.5	275.7
1991–92	222.6	508.6	212.9	217.4	276.8	296.5

Source: Price Index of Materials Used in Building Other Than House Building, Eight Capital Cities (6407.0).

Price Indexes of Materials Used in Manufacturing Industries

These indexes measure changes in prices of materials (including fuels) used by establishments classified to the Manufacturing Division of the Australian Standard Industrial Classification (ASIC), 1983 edition.

Separate price indexes are published for materials used in Manufacturing Industry as a whole, for 14 separate Manufacturing *sectors* (defined in terms of ASIC Subdivisions or ASIC Groups) and for selected groups of materials classified according to whether the material is home produced or imported.

The indexes are compiled and published on a *net sector basis*, that is, each index includes only those materials which are used in the defined sector of Australian manufacturing industry and which have been produced by establishments outside that sector.

The indexes were first compiled on a reference base of 1968–69 = 100.0, using a weighting pattern derived from estimated manufacturing usage in 1971–72. Monthly index numbers for this first series are available for the period July 1968 to November 1985.

The current indexes were introduced in December 1985 on a reference base of 1984–85 = 100.0. With a few exceptions the items included in the indexes were allocated weights in accordance with the estimated value of manufacturing usage in 1977–78.

21.10 PRICE INDEXES OF MATERIALS USED IN MANUFACTURING INDUSTRIES(a) SELECTED CATEGORIES OF MATERIALS (Reference base year 1984–85 = 100.0)

	Imported materials				*Home produced materials*				
Year	*Agricultural*	*Mining*	*Manufactured*	*Total imported materials*	*Agricultural, forestry and fishing*	*Mining*	*Electricity*	*Total home produced materials*	*All materials*
1986–87	126.0	68.9	131.7	117.3	109.3	89.3	107.4	99.1	105.4
1987–88	106.5	67.9	136.4	120.0	118.3	96.3	112.3	106.8	111.4
1988–89	95.3	56.7	135.8	116.5	131.0	93.6	118.3	111.3	113.1
1989–90	85.5	66.1	139.5	121.1	134.0	103.5	123.6	117.9	119.0
1990–91	83.5	79.7	140.3	124.7	126.9	119.1	128.9	123.3	123.8
1991–92	85.0	70.2	141.3	123.3	128.7	108.7	133.0	119.3	120.7

(a) The index is on a net basis and relates in concept only to materials that enter Australian manufacturing industry from other sectors of the Australian economy or from overseas.

Source: Price Indexes of Materials Used in Manufacturing Industries, Australia (6411.0).

Price Indexes of Articles Produced by Manufacturing Industry

These indexes measure movements in the prices of articles produced by manufacturing industry. For the purpose of the index, manufacturing industry is defined to be establishments classified to the Manufacturing Division of the ASIC, 1983 edition.

The indexes are constructed on a *net sector* basis. This approach means that:

- The All Manufacturing Industry Index represents price movements of goods which are produced by establishments in the Manufacturing Division, for sale or transfer to establishments outside the Manufacturing Division, for export, or for use as capital equipment. Articles which are sold or transferred to other establishments within manufacturing industry for further processing or for use as inputs are excluded.
- The net subdivision indexes for each of the manufacturing subdivisions represent movements in prices of goods produced by establishments in the respective subdivisions, for sale or transfer to other subdivisions within manufacturing or to establishments outside the Manufacturing Division, for export, or for use as capital equipment. Sales or transfers to establishments within the subdivision are excluded.

The indexes were first published in June 1976 on a reference base of 1968–69 = 100.0, with indexes compiled retrospectively to July 1968. The composition and weighting patterns of the indexes were based on the value of production in 1971–72.

The current indexes were introduced from May 1990. The composition and weighting pattern are based on the value of production in 1986–87 and the indexes are on a reference base of 1988–89 = 100.0.

21.11 PRICE INDEXES OF ARTICLES PRODUCED BY MANUFACTURING INDUSTRY(a)
(Reference base year 1988–89 = 100.0)

Year	All Manufacturing Industry Index	Food, beverages and tobacco (21)	Textiles (23)	Clothing and footwear (24)	Wood, wood products and furniture (25)	Paper, paper products and printing (26)	Chemicals and chemical products (275 & 276)	Petroleum products (277 & 278)
		Net subdivision indexes						
1986–87	87.2	88.1	83.1	87.1	85.3	89.6	n.a.	n.a.
1987–88	93.6	93.4	94.6	92.9	91.3	95.9	n.a.	n.a.
1988–89	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1989–90	106.5	106.9	103.2	107.3	107.6	104.3	104.4	118.4
1990–91	111.2	109.5	103.4	112.0	112.7	111.0	109.3	150.1
1991–92	111.6	112.3	102.9	114.9	114.2	117.3	109.9	134.3

Year	Non-metallic mineral products (28)	Basic metal products (29)	Fabricated metal products (31)	Transport equipment (32)	Other machinery and equipment (33)	Miscellaneous manufacturing products (34)
1986–87	86.5	81.1	87.7	85.4	86.9	85.2
1987–88	92.1	90.5	92.5	93.9	93.7	93.7
1988–89	100.0	100.0	100.0	100.0	100.0	100.0
1989–90	108.7	105.6	107.9	105.6	104.2	103.7
1990–91	117.2	106.2	113.7	109.9	107.0	106.4
1991–92	119.3	99.9	114.3	112.7	107.0	107.8

(a) For a full description of Division C, 'Manufacturing' and the subdivisions within the Manufacturing Division, *see Australian Standard Industrial Classification (ASIC)* (1201.0), 1983 edition.
Source: Price Indexes of Articles Produced by Manufacturing Industry, Australia (6412.0).

FOREIGN TRADE PRICE INDEXES

The first index of export prices was compiled annually from 1901 to 1916–17 as a current weighted unit value index.

The method of calculation was changed in 1918 to incorporate fixed weights, applied to the average unit values of each export in successive years. This index was published for the years 1897 to 1929–30.

Two new series of monthly export price indexes were published in 1937, compiled back to 1928. One index used fixed weights and the other used changing weights. The methodology was changed and actual export prices were used instead of unit values. The indexes were compiled until 1962.

In 1962, a fixed weights index on the reference base of 1959–60 = 100.0 was introduced. A new interim series was linked to this index, still with a reference base of 1959–60 = 100.0, but from July 1969 with updated weights. The interim index was replaced in 1979 by an index on a reference base of 1974–75. In 1990, the current index was released.

The first import price index produced by the ABS covered the period from September quarter 1981 to September quarter 1991 on a reference base of 1981–82 = 100.0. This index replaced an index previously published by the Reserve Bank of Australia on a reference base of 1966–67 = 100.0. The Reserve Bank's import price index was published from 1928 until September 1982.

The latest Import Price Index series was introduced in December 1991 with monthly index numbers compiled from April 1991 onwards, on a reference base of 1989–90 = 100.0.

To give a broad indication of long-term changes, the following table draws on the available foreign trade indexes.

Export Price Index

The index measures changes in the prices of all exports of merchandise from Australia, including re-exports (that is, goods which are imported into Australia and exported at a later date without physical alteration). The index numbers for each month relate to prices of exports actually shipped during that month.

The current Export Price Index is a fixed weights index compiled on a reference base of 1989–90 = 100.0, with the weights based predominantly on Australian exports for 1988–89.

In general, prices are obtained from major exporters of the selected commodities included in the index.

The commodities included in the current index have been combined into broad index groups in three ways. Index numbers are produced for groupings defined in terms of the Australian Harmonized Export Commodity Classification (AHECC), on an industry of origin basis defined in terms of the Australian Standard Industrial Classification (ASIC) and for selected Sections of the Standard International Trade Classification (SITC).

21.12 FOREIGN TRADE PRICE INDEXES
(Reference base year 1968–69 = 100)

Year	*Export Price Index (All Groups)*	*Import Price Index (All Groups)*	*Year*	*Export Price Index (All Groups)*	*Import Price Index (All Groups)*
1901	15	. .	1971–72	102	114
1911	17	. .	1972–73	131	113
1921–22	25	. .	1973–74	157	131
1931–32	18	22	1974–75	177	189
1936–37	29	21	1975–76	193	214
1941–42	27	35	1976–77	216	246
1946–47	53	51	1977–78	227	278
1951–52	123	92	1978–79	256	307
1956–57	115	91	1979–80	309	403
1960–61	93	95	1980–81	328	450
1961–62	94	94	1981–82	332	458
1962–63	99	94	1982–83	360	506
1963–64	112	96	1983–84	369	524
1964–65	103	97	1984–85	396	580
1965–66	105	99	1985–86	417	659
1966–67	103	100	1986–87	431	731
1967–68	98	99	1987–88	469	742
1968–69	100	100	1988–89	501	694
1969–70	101	103	1989–90	529	729
1970–71	99	108	1990–91	503	752
			1991–92	474	749

Source: The sources used for the Import Price Index are the Reserve Bank of Australia Bulletin up to and including 1981–82, and the ABS Import Price Index, Australia (6414.0) thereafter. The source used for the Export Price Index is the ABS Export Price Index, Australia (6405.0).

21.13 EXPORT PRICE INDEX: INDEX NUMBERS BASED ON AUSTRALIAN HARMONIZED EXPORT COMMODITY CLASSIFICATION (AHECC)(a)
(Reference base year 1989–90 = 100.0)

		AHECC Sections				
Year	*All groups*	*Live animals, animal products*	*Vegetable products*	*Prepared foodstuffs*	*Mineral products*	*Products of chemical or allied industries*
1989–90	100.0	100.0	100.0	100.0	100.0	100.0
1990–91	95.0	96.1	77.9	91.8	108.3	100.2
1991–92	89.6	97.6	83.1	87.9	103.1	89.6

For footnotes *see* end of table.

21.13 **EXPORT PRICE INDEX: INDEX NUMBERS BASED ON AUSTRALIAN HARMONIZED EXPORT COMMODITY CLASSIFICATION (AHECC)(a)** — *continued*
(Reference base year 1989–90 = 100.0)

	AHECC Sections				
Year	*Wool and cotton fibres*	*Gold, diamonds and coin*	*Base metals and articles of base metals*	*Machinery and mechanical appliances*	*Motor vehicles, aircraft and vessels*
1989–90	100.0	100.0	100.0	100.0	100.0
1990–91	77.8	96.6	92.6	97.8	100.0
1991–92	66.6	91.8	79.7	94.8	100.4

(a) Data prior to 1989–90 are not available because AHECC is not strictly comparable with the AECC formerly used.
Source: Export Price Index, Australia (6405.0).

21.14 **EXPORT PRICE INDEX: INDEX NUMBERS BASED ON AUSTRALIAN STANDARD INDUSTRIAL CLASSIFICATION (ASIC)**
(Reference base year 1989–90 = 100.0)

	ASIC Divisions		
Year	*Agriculture*	*Mining*	*Manufacturing*
1986–87	71	93	81
1987–88	93	84	89
1988–89	103	83	96
1989–90	100.0	100.0	100.0
1990–91	77.2	106.5	96.9
1991–92	72.9	103.5	89.8

Source: Export Price Index, Australia (6405.0).

Import Price Index

The Import Price Index measures changes in prices of imports of merchandise into Australia on a free on board country of origin basis. The index numbers for each month relate to prices of imports landed in Australia during the month.

The Import Price Index was first published in May 1983 on a reference base of 1981–82 = 100.0. Quarterly index numbers are available from the September quarter 1981 to the September quarter 1991.

A review of the index was completed in December 1991. The resulting index is on a reference base of 1989–90 = 100.0 and uses a weighting pattern based on the pattern of Australian imports during 1988–89 and 1989–90. Monthly index numbers are available from April 1991.

Prices of individual shipments are obtained from major importers of the selected items.

Index items have been grouped according to four different classifications:

- the Standard International Trade Classification (SITC);
- the Combined Customs Tariff and Statistical Nomenclature;
- on an industry of origin basis defined in terms of the ASIC; and
- the United Nations Classification by Broad Economic Categories (BEC).

21.15 IMPORT PRICE INDEX: INDEX NUMBERS BASED ON THE STANDARD INTERNATIONAL TRADE CLASSIFICATION (SITC)
(Reference base year 1989–90 = 100.0)

SITC section	*1989–90*	*1990–91*	*1991–92*
Food and live animals chiefly for food	100.0	98.7	98.1
Beverages and tobacco	100.0	107.2	115.7
Crude materials, inedible, except fuels	100.0	94.6	90.8
Mineral fuels, lubricants and other related materials	100.0	119.0	92.5
Animal and vegetable oils, fats and waxes	100.0	96.3	116.6
Chemicals and related products n.e.s.	100.0	100.4	100.5
Manufactured goods classified chiefly by material	100.0	102.1	103.3
Machinery and transport equipment	100.0	102.6	104.8
Miscellaneous manufactured articles	100.0	103.0	105.7
Commodities and transactions not elsewhere classified	100.0	96.0	91.4
All groups	**100.0**	**103.2**	**102.7**

Source: Import Price Index, Australia (6414.0).

21.16 IMPORT PRICE INDEX: INDUSTRY OF ORIGIN INDEX NUMBERS BASED ON THE AUSTRALIAN STANDARD INDUSTRIAL CLASSIFICATION (ASIC)
(Reference base year 1989–90 = 100.0)

Division	*1989–90*	*1990–91*	*1991–92*
Agriculture, forestry, fishing and hunting	100.0	97.6	99.7
Mining	100.0	120.8	105.5
Manufacturing	100.0	102.5	102.6

Source: Import Price Index, Australia (6414.0).

21.17 IMPORT PRICE INDEX: INDEX NUMBERS FOR BROAD ECONOMIC CATEGORIES (BEC) AND END USE CLASSES
(Reference base year 1989–90 = 100.0)

Categories/Classes	*1989–90*	*1990–91*	*1991–92*
Broad Economic Categories			
Food and beverages	100.0	100.3	102.1
Industrial supplies n.e.s.	100.0	99.9	98.8
Fuels and lubricants	100.0	119.1	94.7
Capital goods and parts and accessories thereof	100.0	103.6	102.3
Transport equipment and parts and accessories thereof	100.0	102.5	108.5
Consumer goods n.e.s.	100.0	102.6	106.0
End Use Classes			
Capital goods	100.0	103.7	105.1
Intermediate goods	100.0	102.9	98.6
Consumption goods	100.0	103.4	107.0

Source: Import Price Index, Australia (6414.0).

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Export Price Index, Australia (6405.0)

A Guide to the Consumer Price Index (6440.0)

House Price Indexes: Eight Capital Cities (6416.0)

Import Price Index, Australia (6414.0)

Information Paper: Review of the Price Indexes of Articles Produced by Manufacturing Industry (6418.0)

Labour Report

Price Index of Copper Materials (6410.0)

Price Index of Materials Used in Building Other Than House Building, Eight Capital Cities (6407.0)

Price Index of Materials Used in House Building, Six State Capital Cities and Canberra (6408.0)

Price Indexes of Articles Produced by Manufacturing Industry, Australia (6412.0)

Price Indexes of Materials Used in Coal Mining (6415.0)

Price Indexes of Materials Used in Manufacturing Industries, Australia (6411.0)

Producer and Foreign Trade Price Indexes: Concepts, Sources and Methods (6419.0)

Other Publications

Monthly Bulletin of Statistics of the Statistical Office of the United Nations

Reserve Bank of Australia Bulletin

FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book.* Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book.*

Chapter Twenty-two

Construction and Housing

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This chapter covers two main subjects. First, there is an account of the industry activity involved in construction, ranging from house building to large-scale construction projects such as roads, power plants and other public facilities. Second, it focuses on housing and associated characteristics. The chapter concludes with an outline of main government activities in the field of housing.

CONSTRUCTION

The construction sector engages in three broad areas of activity — residential building (houses, flats, etc.), non-residential building (offices, shops, hotels, etc.), and engineering construction (roads, bridges, water and sewerage, etc.). In this section an overview of the structure, operations and trends is presented of the construction industry as a whole, based on statistical collections undertaken about every five years, 1988–89 being the latest period for which this overall data is available. This is followed by more recent and detailed statistics on residential building, non-residential building and engineering construction activities obtained from other ongoing statistical collections. Because of the different sources and methods used for the various collections the resulting statistics are not always comparable with each other.

Significance in the economy

The construction industry is an important sector of the Australian economy. Not only is it significant in its own right, but it has an influential effect on other sectors of the economy.

At average 1984–85 prices the construction industry has, over the last 12 years, contributed on average 7.5 per cent of total gross product. This contribution has fluctuated between 6.3 per cent and 8.6 per cent which reflects the cyclical nature of the industry. The 1991–92 contribution of 6.3 per cent is the lowest relative contribution of the last 12 years.

Employment within the construction industry also varies and has ranged from 6.4 per cent to 7.7 per cent of total employment, with an average of 7.2 per cent. The 1991–92 contribution of 6.8 per cent is the lowest figure of the last eight years and reflects the decline in construction activity and the depressed economic conditions over the last two years.

22.1 CONSTRUCTION INDUSTRY: CONTRIBUTION TO ALL INDUSTRY AGGREGATES

	Construction industry		*Construction industry's contribution to all industry aggregates for*	
Year	*Gross product at average 1984–85 prices*	*Employment*	*Gross product at average 1984–85 prices*	*Employment*
	$m	'000	%	%
1980–81	16,558	490.3	8.5	7.7
1981–82	17,282	476.4	8.6	7.4
1982–83	15,297	437.1	7.9	6.9
1983–84	15,342	409.8	7.5	6.4
1984–85	16,662	456.7	7.7	7.0
1985–86	17,396	474.1	7.7	6.9
1986–87	17,069	499.6	7.4	7.1
1987–88	17,837	503.8	7.4	7.0
1988–89	19,199	567.5	7.6	7.5
1989–90	19,836	600.1	7.5	7.7
1990–91	17,504	571.3	6.7	7.3
1991–92	16,337	518.2	6.3	6.8

Source: Australian National Accounts: Gross Product, Employment and Hours Worked (5211.0); Employed Wage and Salary Earners, Australia (6248.0).

The structure of the Construction Industry

Construction activity is undertaken by both the private and public sector in Australia. Private sector activity is concentrated in the residential and non-residential (offices, hotels, etc.) building sectors, while the public sector plays a key role in initiating and undertaking engineering construction activity.

The ABS conducts construction industry surveys about every five years. For the most recent survey period, 1988–89, two collections were undertaken: the Construction Industry Survey of private sector construction establishments and a survey of construction activities undertaken by public sector enterprises. Key statistics for the two sectors are presented below. Because of the different concepts used in the collection of these data, the public sector results cannot be validly aggregated with those for the private sector.

Private sector construction. Australia wide, there were 98,100 private sector construction establishments operating at some time during 1988–89 (table 22.3). These establishments employed 395,000 persons, 287,000 (73%) as employees and the remaining 108,000 (27%) as working proprietors and partners, the latter occurring predominantly among special trade construction establishments. Total turnover was $46,755.9 million and value added, $15,690.7 million.

The special trade construction industries, while comprising 76 per cent of the number of establishments, contributed 66 per cent to employment and 54 per cent to value added. Non-residential construction (that is, the sum of non-residential building construction and non-building construction) on the other hand, while comprising only 8 per cent of the number of establishments, contributed 21 per cent to employment and 31 per cent to value added.

An estimated 294,600 people were employed on-site by private sector construction establishments at 30 June 1989 (table 22.2). The largest occupational group was Building trades which accounted for 33 per cent of on-site employment. This was followed by Managers, supervisors and technicians with 15 per cent, Finishing trades with 14 per cent and Labourers, and Electrical and electronic trades both with 11 per cent.

22.2 PRIVATE SECTOR CONSTRUCTION: NUMBER OF ON-SITE WORKERS BY OCCUPATION, 30 JUNE 1989

Occupation	*'000*	*%*
Managers, supervisors and technicians	42.7	14.5
Building trades	96.7	32.8
Finishing trades	40.9	13.9
Electrical and electronic trades	32.0	10.9
Metal trades	13.8	4.7
Other trades	4.9	1.7
Plant and machine operators	22.5	7.6
Labourers	32.2	10.9
Other occupations	9.0	3.1
Total	**294.6**	**100.0**

Source: Construction Industry, Australia: Summary of Private Sector Operations, 1988–89 (8771.0).

Public sector construction. The Public Sector Construction Activity Survey provided details on the construction and/or repair and maintenance activities of all public sector enterprises which had expenditure of $250,000 or more. This includes hospitals and universities administered by relevant public authorities.

Australia wide, $20,567.3 million was spent by the public sector on construction and repair and maintenance activity in 1988–89 (table 22.4). Of this, $8,087.7 million (39%) represents payments to private sector contractors, $7,135.6 million (35%) was spent on materials and other expenses, with the remaining $5,343.9 million (26%) spent on wages and salaries of public sector employees. State Government was responsible for the bulk of the expenditure with $12,335.1 million (60%). The Commonwealth Government outlayed $5,214.9 million (25%) and local government $3,017.3 million (15%).

22.3 PRIVATE SECTOR CONSTRUCTION ESTABLISHMENTS: SUMMARY OF OPERATIONS BY INDUSTRY CLASS, 1988–89

ASIC code	Description	Establishments operating during the year ('000)	Employment: Working proprietors and partners ('000)	Employment: Employees ('000)	Employment: Total ('000)	Wages and salaries ($m)	Total turnover (a) ($m)	Stocks: Opening ($m)	Stocks: Closing ($m)	Total purchases and selected expenses (b) ($m)	Value added ($m)
4111	House construction	13.9	13.9	29.4	43.4	566.5	8,488.7	691.4	1,077.1	7,029.8	1,844.6
4112	Residential building construction n.e.c.	1.8	1.5	6.3	7.8	136.4	1,851.0	206.9	309.5	1,543.9	409.8
4113	Non-residential building construction	3.9	2.8	44.5	47.3	1,349.2	13,749.2	790.8	1,082.8	11,069.3	2,971.9
411	*Total building construction*	*19.6*	*18.2*	*80.2*	*98.4*	*2,052.1*	*24,088.9*	*1,689.1*	*2,469.4*	*19,643.0*	*5,226.2*
4121	Road and bridge construction	0.8	0.5	11.5	12.0	324.1	2,214.7	75.6	98.2	1,481.0	756.3
4122	Non-building construction n.e.c.	3.1	2.9	22.1	25.0	662.5	3,076.0	130.8	116.8	1,868.2	1,193.8
412	*Total non-building construction*	*3.9*	*3.4*	*33.6*	*37.0*	*986.6*	*5,290.7*	*206.4*	*215.0*	*3,349.2*	*1,950.1*
41	*Total general construction*	*23.5*	*21.6*	*113.8*	*135.4*	*3,038.7*	*29,379.6*	*1,895.5*	*2,684.4*	*22,992.2*	*7,176.3*
4231	Concreting	4.1	4.3	12.1	16.4	275.8	1,452.6	16.5	*23.5	835.2	624.4
4232	Bricklaying	7.7	10.4	10.3	20.8	198.1	763.6	5.5	7.6	232.4	533.4
4233	Roof tiling	1.5	1.9	3.2	5.1	52.6	343.2	8.4	8.9	218.2	125.5
4234	Floor and wall tiling	2.9	3.7	2.2	5.9	39.6	240.6	3.7	5.6	103.8	138.6
4241	Structural steel erection	1.2	1.1	7.1	8.2	195.0	506.8	11.7	11.8	180.4	326.6
4242	Plumbing	10.6	11.1	25.1	36.2	522.6	2,451.3	45.4	56.3	1,294.1	1,168.2
4243	Electrical work	8.5	8.2	30.5	38.7	735.3	2,753.9	86.7	88.9	1,458.3	1,297.8
4244	Heating and air conditioning	1.3	0.9	12.7	13.5	312.7	1,595.9	72.1	86.1	1,002.2	607.8
4245	Plastering and plaster fixing	4.5	5.4	10.5	15.9	204.2	1,040.2	14.3	21.3	587.9	459.4
4246	Carpentry	12.7	16.8	13.6	30.4	280.3	1,288.6	24.9	29.0	539.2	753.5
4247	Painting	8.9	11.3	13.1	24.4	273.3	1,085.4	14.3	14.8	427.8	658.1
4248	Earthmoving and dredging	4.5	4.9	12.3	17.2	290.7	1,662.8	42.6	47.7	860.7	807.3
4249	Special trades n.e.c.	6.3	6.4	20.6	27.0	483.8	2,191.3	50.2	58.2	1,185.6	1,013.7
42	*Total special trade construction*	*74.5*	*86.4*	*173.2*	*259.6*	*3,863.8*	*17,376.3*	*396.3*	*459.9*	*8,925.6*	*8,514.4*
41,42	**Total construction**	**98.1**	**108.0**	**287.0**	**395.0**	**6,902.5**	**46,755.9**	**2,291.8**	**3,144.4**	**31,917.7**	**15,690.7**

(a) Includes contract construction revenue; sales of speculative construction projects; capital work done for own use, rental or lease; and other operating revenue. (b) Includes purchases of materials and plant fuels; transfers in; payments to contractors and sub-contractors; rent, leasing and hiring expenses; motor vehicle running expenses; outward freight and cartage; and commission expenses.
Source: Construction Industry, Australia: Summary of Private Sector Operations, 1988–89 (8771.0).

22.4 PUBLIC SECTOR ENTERPRISES UNDERTAKING CONSTRUCTION: EXPENDITURE BY LEVEL OF GOVERNMENT, 1988–89
(\$ million)

	Expenditure on construction, repair and maintenance				
	Work done by own employees				
Level of government	*Wages and salaries*	*Materials and other expenses*	*Total*	*Work done by private sector contractors*	*Total expenditure*
Commonwealth	1,491.8	1,991.3	3,483.1	1,731.8	5,214.9
State	2,800.6	3,853.9	6,654.5	5,680.6	12,335.1
Local	1,051.5	1,290.4	2,341.9	675.4	3,017.3
Total	**5,343.9**	**7,135.6**	**12,479.6**	**8,087.8**	**20,567.3**

Source: Public Sector Construction Activity, Australia, 1988–89 (8775.0).

The largest construction expenditure component across all governments was \$3,663.8 million (18%) spent on roads, highways and subdivisions (table 22.5). Of this, \$2,228.4 million (61%) was spent on construction of new roads and the remaining \$1,435.4 million (39%) on the repair and maintenance of existing roads.

State Governments' largest construction outlay of \$2,627.8 million (21%) was on the repair and maintenance of non-road engineering structures. Electricity generation, transmission and distribution was next with \$1,314.2 million (11%) and construction of roads, highways and

22.5 PUBLIC SECTOR ENTERPRISES UNDERTAKING CONSTRUCTION: TOTAL EXPENDITURE BY TYPE OF WORK, 1988–89

	Commonwealth Government		*State Government*		*Local Government*		*Total*	
	\$m	*%*	*\$m*	*%*	*\$m*	*%*	*\$m*	*%*
New work, alterations, additions, improvements and renovations								
Building								
Residential	73.7	1.4	768.5	6.2	11.0	0.4	853.1	4.1
Non-residential	1,319.7	25.3	2,843.6	23.1	232.8	7.7	4,396.1	21.4
Total building	*1,393.4*	*26.7*	*3,612.1*	*29.3*	*243.8*	*8.1*	*5,249.2*	*25.5*
Engineering								
Roads, highways and subdivisions	95.5	1.8	1,298.6	10.5	834.3	27.7	2,228.4	10.8
Electricity generation, transmission and distribution	40.4	0.8	1,314.2	10.7	228.5	7.6	1,583.0	7.7
Telecommunications	1,899.7	36.4	25.5	0.2	0.2	—	1,925.4	9.4
Other engineering	130.5	2.5	1,741.1	14.1	443.8	14.7	2,315.5	11.3
Total engineering	*2,166.1*	*41.5*	*4,379.4*	*35.5*	*1,506.8*	*49.9*	*8,052.3*	*39.2*
Total new work, alterations, additions, improvements and renovations	*3,559.4*	*68.3*	*7,991.4*	*64.8*	*1,750.6*	*58.0*	*13,301.5*	*64.7*
Repair and maintenance								
Building	552.3	10.6	1,089.5	8.8	114.8	3.8	1,756.6	8.5
Roads, highways and subdivisions	33.5	0.7	621.9	5.0	780.0	25.9	1,435.4	7.0
Other repair and maintenance	1,069.5	20.5	2,627.8	21.3	371.4	12.3	4,068.7	19.8
Total repair and maintenance	*1,655.4*	*31.7*	*4,339.2*	*35.2*	*1,266.2*	*42.0*	*7,260.7*	*35.3*
Total demolition	0.1	—	4.4	—	0.6	—	5.1	—
Total construction, repair, maintenance and demolition	**5,214.9**	**100.0**	**12,335.1**	**100.0**	**3,017.3**	**100.0**	**20,567.3**	**100.0**

Source: Public Sector Construction Activity, Australia, 1988–89 (8775.0).

subdivisions accounted for $1,298.6 million (11%). An additional $621.9 million (5%) was spent on the repair and maintenance of existing roads, highways and land subdivisions. In contrast, the Commonwealth Government's largest construction outlay was $1,899.7 million (36%) on telecommunications. The repair and maintenance of non-road engineering structures accounted for $1,069.5 million (21%). Expenditure on buildings (new and alterations and additions) was $1,393.4 million (27%) with expenditure of $552.3 million (11%) on the repair and maintenance of existing buildings.

Local governments' principal construction expenditure was on roads, highways and subdivisions with $834.3 million (28% of total expenditure) spent on new work and $780.0 million (26%) spent on their repair and maintenance. Other major expenditure was $371.4 million (12%) on the repair and maintenance of non-road engineering structures.

Overall, 1,502 Commonwealth, State and local government enterprises, employing 203,600 people in construction-related occupations, were involved in significant construction and/or repair and maintenance activity during 1988–89 (table 22.6). Of the 203,600 public sector personnel involved in construction activity, 51 per cent were employed by State Government, 25 per cent by local government and 24 per cent by the Commonwealth Government. A total of 164,200 employees (81%) were engaged in on-site construction activities, and 39,400 employees (19%) worked off-site — a ratio of one off-site support employee for every four employees working on-site.

22.6 PUBLIC SECTOR ENTERPRISES UNDERTAKING CONSTRUCTION: EMPLOYMENT BY LEVEL OF GOVERNMENT, JUNE 1989(a)

		Employment ('000)		
Level of government	*Number of enterprises*	*On-site*	*Off-site*	*Total*
Commonwealth	176	41.7	6.8	48.5
State	498	79.3	24.8	104.1
Local	828	43.2	7.8	51.0
Total	**1,502**	**164.2**	**39.4**	**203.6**

(a) During last pay period in June 1989. Includes apprentices.
Source: Public Sector Construction Activity, Australia, 1988–89 (8775.0).

The largest occupational category of on-site employees was Electrical and electronic trades with 47,500 employees (29%) (table 22.7). This was followed by Labourers with 41,300 (25%), Plant and machine operators with 28,200 (17%) and Managers, supervisors and technicians with 20,400 (12%).

22.7 PUBLIC SECTOR ENTERPRISES UNDERTAKING CONSTRUCTION: NUMBER OF ON-SITE EMPLOYEES BY OCCUPATION, JUNE 1989(a)

Occupation	*'000*	*%*
Managers, supervisors and technicians	20.4	12.4
Building trades	12.8	7.8
Finishing trades	3.7	2.3
Electrical and electronic trades	47.5	28.9
Metal trades	3.0	1.8
Other trades	6.7	4.1
Plant and machine operators	28.2	17.2
Labourers	41.3	25.2
Other occupations	0.7	0.4
Total	**164.2**	**100.0**

(a) During the last pay period in June 1989. Includes apprentices.
Source: Public Sector Construction Activity, Australia, 1988–89 (8775.0).

Trends in the Construction Industry

Table 22.8 sets out some selected items and operating ratios at average 1984–85 prices, by industry for 1988–89 and 1984–85. Although the construction industry has suffered the effects of a downturn since 1988–89, these statistics provide a general view of the level of the performance and the relationship between various key statistics of the industry.

The number of establishments fell four per cent from 100,800 in 1984–85 to 96,600 in 1988–89. However, employment increased by 21 per cent from 326,000 to 395,000 in the same period. This indicates a rationalisation within the construction industry with fewer but larger establishments. The employment per establishment ratio of 3.2 in 1984–85 rose 28 per cent to 4.1 in 1988–89.

Turnover at average 1984–85 prices rose significantly from $24,949 million in 1984–85 to $33,903 million in 1988–89, a 36 per cent increase. This increase was most pronounced in the non-residential building construction (up 76%) and the residential building construction n.e.c. (up 59%) industries. Turnover in the non-building construction n.e.c. industry fell 11 per cent from $2,499 million in 1984–85 to $2,219 million in 1988–89.

22.8 PRIVATE SECTOR CONSTRUCTION: SELECTED ITEMS AND OPERATING RATIOS AT AVERAGE 1984–85 PRICES BY INDUSTRY, 1988–89 AND 1984–85

	General construction industry									
	Building construction industry				*Non-building construction industry*					
	House	*Residential building n.e.c.*	*Non-residential building*	*Total*	*Road and bridge*	*Non-building n.e.c.*	*Total*	*Total*	*Special trade construction industry*	*Total construction industry*
ITEMS										
Establishments operating										
At 30 June 1989 (number)	13,791	1,770	3,861	19,422	777	3,105	3,882	23,304	73,301	96,605
At 30 June 1985 (number)	19,438	1,536	2,987	23,961	844	2,519	3,362	27,323	73,467	100,789
Movement (%)	*−29.1*	*15.2*	*29.3*	*−18.9*	*−7.9*	*23.3*	*15.5*	*−14.7*	*−0.2*	*−4.2*
Employment										
At 30 June 1989 ('000)	43.3	7.8	47.3	98.4	12.0	25.0	37.0	135.4	259.6	395.0
At 30 June 1985 ('000)	47.5	4.9	31.9	84.4	12.1	22.8	34.9	119.3	206.9	326.2
Movement (%)	*−8.8*	*59.2*	*48.3*	*16.6*	*−0.8*	*9.6*	*6.0*	*13.5*	*25.5*	*21.1*
Turnover										
1988–89 ($ million)	5,907.3	1,323.1	10,043.2	17,273.6	1,809.4	2,219.4	4,028.8	21,302.4	12,600.7	33,903.1
1984–85 ($ million)	5,107.0	830.3	5,717.0	11,654.3	1,655.5	2,498.6	4,154.2	15,808.5	9,140.0	24,948.5
Movement (%)	*15.7*	*59.4*	*75.7*	*48.2*	*9.3*	*−11.2*	*−3.0*	*34.8*	*37.9*	*35.9*
OPERATING RATIOS										
Employment per establishment										
At 30 June 1989 (number)	3.1	4.4	12.3	5.1	15.4	8.1	9.5	5.8	3.5	4.1
At 30 June 1985 (number)	2.4	3.2	10.7	3.5	14.3	9.1	10.4	4.4	2.8	3.2
Movement (%)	*29.2*	*37.5*	*15.0*	*45.7*	*7.7*	*−11.0*	*−8.7*	*31.8*	*25.0*	*28.1*
Turnover per establishment										
1988–89 ($'000)	428.3	747.5	2,601.2	889.4	2,328.7	714.8	1,037.8	914.1	171.9	350.9
1984–85 ($'000)	262.7	540.4	1,914.0	486.4	1,961.5	991.9	1,235.6	578.6	124.4	247.5
Movement (%)	*63.0*	*38.3*	*35.9*	*82.9*	*18.7*	*−27.9*	*−16.0*	*58.0*	*38.2*	*41.8*
Turnover to employment										
1988–89 ($'000)	136.4	169.6	212.3	175.5	150.8	88.8	108.9	157.3	48.5	85.8
1984–85 ($'000)	107.5	169.4	179.2	138.1	136.8	109.6	119.0	132.5	44.2	76.5
Movement (%)	*26.9*	*0.1*	*18.5*	*27.1*	*10.2*	*−19.0*	*−8.5*	*18.7*	*9.7*	*12.2*

Source: Construction Industry, Australia: Summary of Private Sector Operations, 1988–89 (8771.0).

Trends over more recent years in the level of activity of the construction industry as a whole are shown below.

After being in decline since the September quarter 1989, construction activity at average 1984–85 prices recorded modest increases in the March and June quarters 1992, but fell again in the September quarter 1992. There has been some recovery in residential building, but engineering construction and non-residential building has continued to decline.

In the 1991–92 financial year, estimated construction activity at average 1984–85 prices was $22,410 million. This was 10 per cent less than the 1990–91 estimate of $24,963 million and was the lowest level of activity since 1984–85. The decline in activity was concentrated mainly in non-residential building, which recorded a 24 per cent fall from $8,948 million in 1990–91 to $6,844 million in 1991–92. Engineering construction fell by six per cent (from $7,861 million to $7,362 million), while residential building showed a marginal increase from $8,154 million to $8,204 million.

22.9 CONSTRUCTION ACTIVITY AT AVERAGE 1984–85 PRICES, SEASONALLY ADJUSTED ($ million)

Year/quarter	*Residential building*	*Non-residential building*	*Engineering construction*	*Total construction*
1990				
September	2,095	2,361	1,976	6,432
December	2,076	2,313	1,944	6,333
1991				
March	2,028	2,155	1,938	6,121
June	1,949	2,102	2,007	6,058
September	1,898	1,866	1,784	5,548
December	2,050	1,650	1,848	5,548
1992				
March	2,082	1,687	1,832	5,601
June	2,181	1,636	1,888	5,705
September	2,331	1,471	1,698	5,500

Source: Construction Activity at Constant Prices, Australia (8782.0).

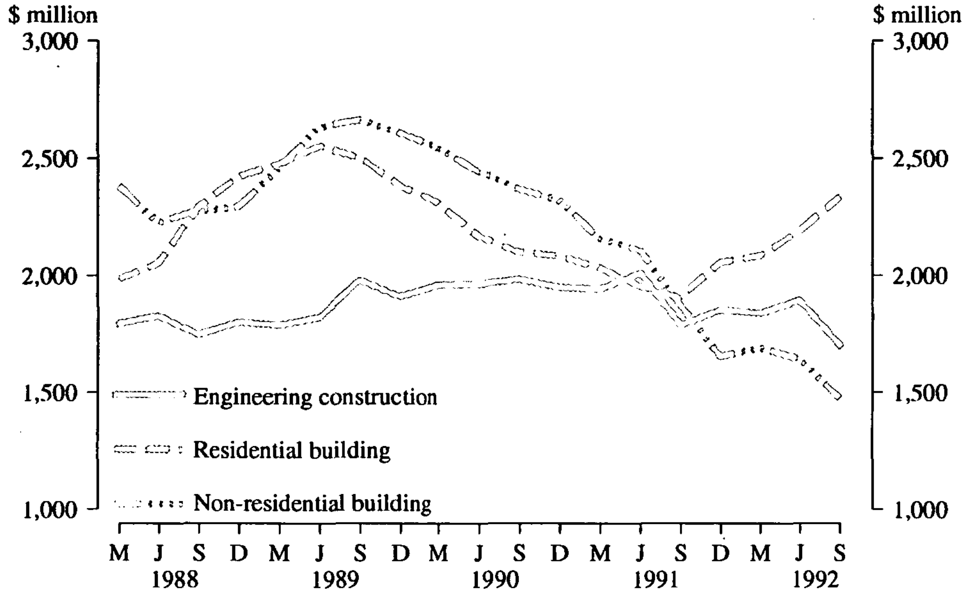
The area of construction with the largest contribution to total activity in 1991–92 was residential building with 37 per cent of the total, while engineering construction and non-residential building accounted for 33 per cent and 31 per cent respectively (graph 22.10). By contrast, in 1990–91 non-residential building was the largest sector, accounting for 36 per cent of total construction work done followed by residential building (33%) and engineering construction (31%).

Of the $22,410 million of construction expenditure in 1991–92, $14,506 million (65%) was work done for the private sector. Of this, $7,758 million (53%) was on residential building, $4,564 million (31%) on non-residential building and the remaining $2,184 million (15%) on engineering construction.

Public sector construction expenditure displayed a different pattern, with $5,178 million (66%) out of a total expenditure of $7,904 million being on engineering construction. Non-residential building ($2,280 million) accounted for almost 29 per cent of total expenditure, with the remaining $446 million (6%) being spent on residential building.

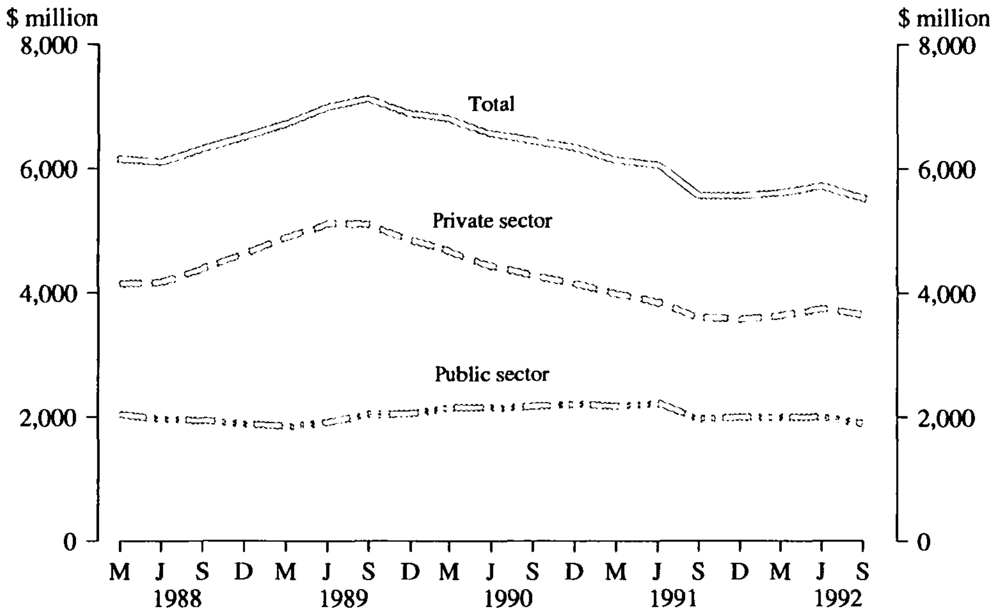
Construction activity for the public sector has remained relatively constant (graph 22.11) at around $2,000 million each quarter over the last 10 years. The volatility evident in the total construction series is dominated by the trends in the private sector construction activity series.

22.10 CONSTRUCTION ACTIVITY AT AVERAGE 1984–85 PRICES, SEASONALLY ADJUSTED



Source: Construction Activity at Constant Prices, Australia (8782.0).

22.11 PRIVATE AND PUBLIC CONSTRUCTION ACTIVITY AT AVERAGE 1984–85 PRICES SEASONALLY ADJUSTED



Source: Construction Activity at Constant Prices, Australia (8782.0).

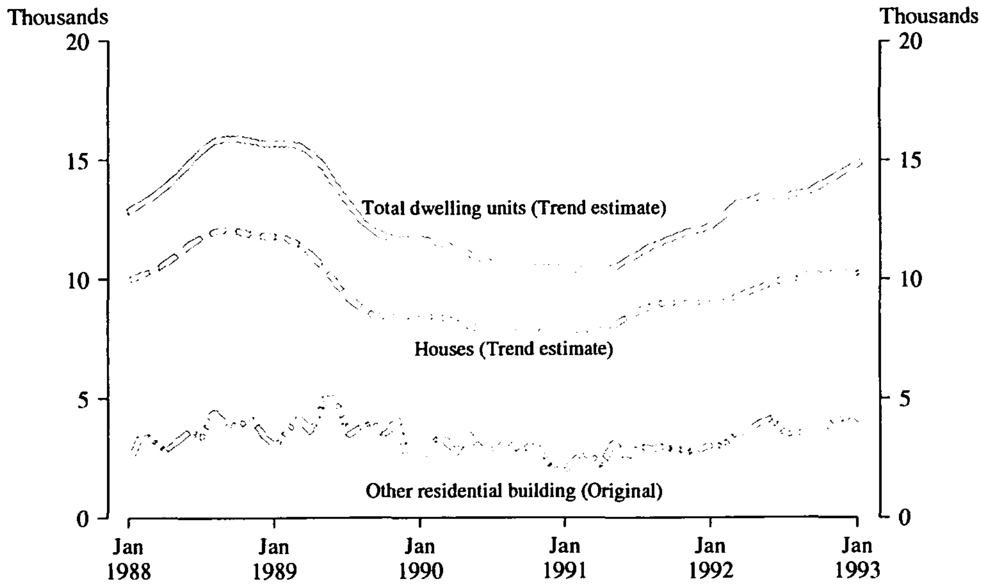
Up to this point, this chapter has provided an overview of the construction industry as a whole. The industry has three broad areas of activity — residential building, non-residential building and engineering construction. These sectors are examined in more detail below.

Residential building

Residential building involves the construction of dwelling units, which are separated into new houses and other residential building (flats, appartments, villa units, town houses, and other dwelling units).

As can be seen from the following graph, after a period of decline throughout 1989 and 1990, total dwelling unit approvals grew steadily during 1991 and 1992. However, the level of approvals was still well below that of the last peak in the trend series in September 1988. Approvals for separate houses, which account for over 70 per cent of all dwelling units approved, followed a similar pattern.

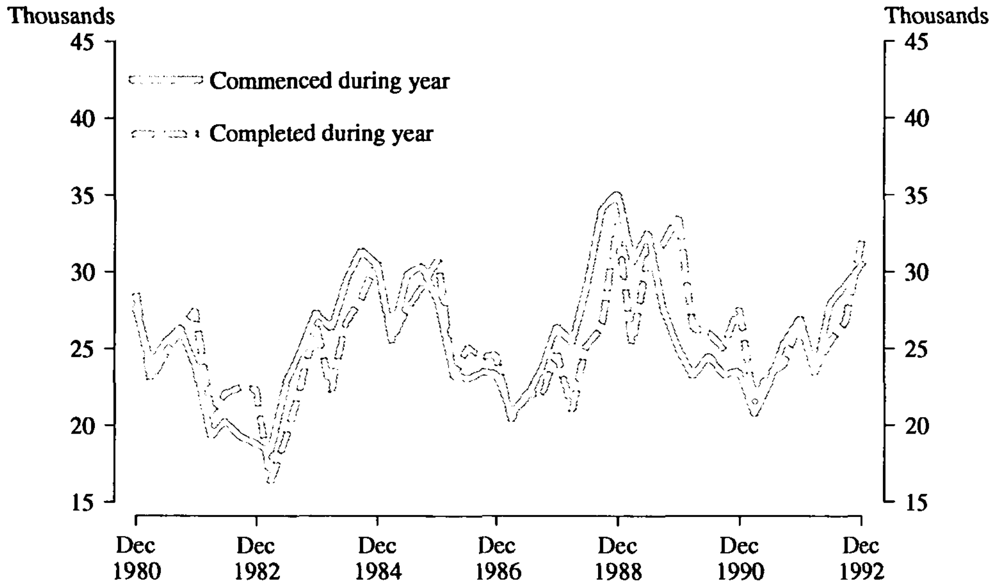
22.12 NUMBER OF DWELLING UNITS APPROVED



Source: Building Approvals, Australia (8731.0).

New houses. Graph 22.13 illustrates to some extent the cyclical nature of new house commencements. These follow a cyclical pattern which lasts for approximately four years. Lows were recorded in 1982–83, 1986–87 and 1990–91, with peaks in 1984–85 and 1988–89. In 1991–92 new house construction was in a growth phase, with a moderate increase in the number of commencements. House completions generally follow a similar cyclical pattern to commencements.

22.13 NEW HOUSE BUILDING ACTIVITY: NUMBER OF HOUSES



Source: Building Activity, Australia (8752.0).

Table 22.14 shows that the number of new houses approved in 1991–92 was 110,900, an increase of 18 per cent on the 1990–91 figure of 94,100. Private sector approvals dominated, contributing 97 per cent to the total number of new houses approved.

The estimated number of new houses commenced in 1991–92 was 104,100, an increase of 15 per cent on the 1990–91 figure (90,500). The increase in commencements is not quite as large as the increase in approvals, reflecting the lag between these series and the fact that not all house approvals are realised as commencements.

New house completions (99,900) increased by a modest two per cent over the 1990–91 estimate of 97,800. The small increase compared with both approvals and commencements is evidence that the increases in these series had not yet flowed on into completions, and suggests that completions should increase significantly in 1992–93. The figures for the first two quarters (*see* graph 22.13) confirm this expectation.

Other residential building. The level of activity of other residential building construction is highly variable and does not follow the regular pattern experienced in house construction. This is, partly, because of the generally larger size of other residential building construction jobs and also by the extent of speculative building of private flats, home units and similar other residential building projects.

Table 22.14 shows that, in 1991–92, 39,300 new other residential dwelling units were approved, 23 per cent more than in 1990–91. Of these, 79 per cent were owned by the private sector, compared with 82 per cent in the previous year. In 1991–92 public sector owned other residential approvals were 45 per cent higher than in 1990–91, compared with an 18 per cent increase for the private sector.

The number of new other residential dwelling units commenced in Australia during 1991–92 was 36,200, 17 per cent higher than the 1990–91 figure of 30,900. The number of commencements increased in all States and Territories except South Australia.

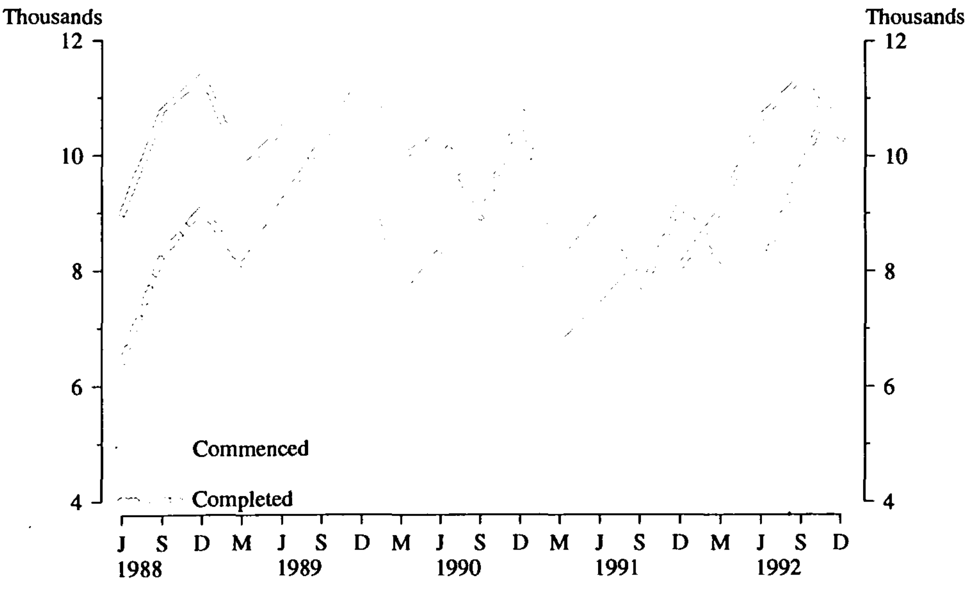
New other residential completions in 1991–92 totalled 32,800, a fall of 12 per cent on the 1990–91 figure of 36,700. As with houses, this reflects the lag between commencements and completions, which were expected to show a sizable increase in 1992–93. This expectation is being realised (*see* graph 22.15).

22.14 RESIDENTIAL BUILDING, 1991–92
('000)

	New houses	*New other residential building*
Private Sector		
Approved	107.2	31.0
Commenced	100.6	28.9
Completed	96.2	26.8
Public Sector		
Approved	3.7	8.3
Commenced	3.5	7.3
Completed	3.7	6.0
Total		
Approved	110.9	39.3
Commenced	104.1	36.2
Completed	99.9	32.8

Source: Building Approvals, Australia (8731.0) and Building Activity, Australia (8752.0).

22.15 OTHER RESIDENTIAL BUILDING ACTIVITY: NUMBER OF DWELLING UNITS



Source: Building Activity, Australia (8752.0).

Value of residential building. Approvals for total new residential building were valued at $12,005.9 million in 1991–92. New house approvals were valued at $9,388.5 million, or 78.2 per cent of the total value of new residential building approvals. Approvals for alterations and additions totalled $1,973.9 million.

The value of work done on new residential buildings in 1991–92 was $11,341.0 million, making up 48.6 per cent of the total value of building work done, and the value of alterations and additions to residential buildings was $2,053.0 million.

22.16 VALUE OF RESIDENTIAL BUILDING, 1991–92
($ million)

Class of building	*Approved*	*Work done(a)*
New residential buildings		
New houses	9,388.5	8,968.5
New other residential buildings	2,617.4	2,372.5
Total new residential building	*12,005.9*	*11,341.0*
Alterations and additions to residential buildings(b)	1,973.9	2,053.0

(a) During period. (b) Valued at $10,000 or more.
Source: Building Approvals, Australia (8731.0) and Building Activity, Australia (8752.0).

Non-residential building

Value of non-residential building. The value of non-residential building approved in Australia in 1991–92 was $7,208.7 million, a 20 per cent decrease on the 1990–91 figure of $8,957.4 million. Falls were recorded in all categories except Entertainment and recreational which rose by $140.6 million, and Religious and Educational which were up marginally by $3.3 million and $2.2 million respectively. In absolute terms the largest fall was in the approvals of Offices, which decreased from $2,383.3 million to $1,745.7 million, a drop of $637.6 million (or 27%). This followed a 56 per cent drop from 1989–90 to 1990–91. Other significant falls were in Factories, down from $1,111.7 million in 1990–91 to $704.9 million in 1991–92 (37%), and Shops which fell from $1,256.2 million to $885.2 million (30%).

22.17 VALUE OF NON-RESIDENTIAL BUILDING, 1990–91 AND 1991–92
($ million)

	1990–91		*1991–92*	
Class of building	*Approved*	*Work done(a)*	*Approved*	*Work done(a)*
Hotels, etc.	526.0	1,193.8	406.3	664.7
Shops	1,256.2	1,584.2	885.2	1,093.5
Factories	1,111.7	1,312.6	704.9	1,011.7
Offices	2,383.3	4,730.6	1,745.7	3,223.1
Other business premises	1,054.3	1,608.9	774.7	922.8
Educational	928.1	1,225.6	930.3	1,039.4
Religious	76.1	81.2	79.4	81.5
Health	526.2	676.0	497.5	624.6
Entertainment and recreational	536.0	649.9	676.6	602.9
Miscellaneous	559.4	665.0	508.0	657.7
Total non-residential building(b)	**8,957.4**	**13,727.8**	**7,208.7**	**9,922.1**

(a) During period. (b) Valued at $50,000 or more.
Source: Building Approvals, Australia (8731.0) and Building Activity, Australia (8752.0).

The total value of work done on non-residential building in 1991–92 was $9,922.1 million, a decrease of 28 per cent on the 1990–91 figure of $13,727.8 million. This follows a 12 per cent fall from 1989–90 to 1990–91. All categories of non-residential building recorded decreases in the value of work done in 1991–92, except the Religious category which remained unchanged. Significant falls in relative terms were in the categories Hotels, etc. (44%), Other business premises (43%), Offices (32%), Shops (31%) and Factories (23%).

Building activity at constant prices

Estimates of the value of building (residential and non-residential) work done at average 1984–85 prices are presented in table 22.18 below. Constant price estimates measure changes in value after the direct effects of price changes have been eliminated.

At average 1984–85 prices, the value of total building work done fell significantly in 1991–92. Following a fall of 13 per cent in 1990–91 the value of building work done declined by $2,054 million (or 12%) to $15,048 million in 1991–92.

The bulk of this fall occurred in non-residential building, which declined from $8,948 million in 1990–91 to $6,844 million in 1991–92, a drop of 24 per cent. The value of work done on alterations and additions to residential buildings also fell (by 4%), while work done on new residential building rose marginally by two per cent.

22.18 VALUE OF BUILDING WORK DONE AT AVERAGE 1984–85 PRICES
($ million)

	New residential building					
Year	*Houses*	*Other residential buildings*	*Total*	*Alterations and additions to residential buildings*	*Non-residential building*	*Total building*
1986–87	4,808.2	1,116.2	5,924.4	951.9	8,045.3	14,921.6
1987–88	5,314.9	1,170.2	6,485.1	1,071.2	9,223.6	16,779.9
1988–89	6,696.9	1,784.2	8,481.1	1,228.2	9,620.1	19,329.4
1989–90	6,038.4	1,983.7	8,022.1	1,314.2	10,239.3	19,575.6
1990–91	5,192.4	1,689.5	6,881.9	1,271.9	8,947.9	17,101.7
1991–92	5,390.8	1,596.8	6,987.6	1,216.5	6,844.0	15,048.1

Source: Building Activity, Australia (8752.0).

Engineering construction

This section contains estimates of engineering construction activity in Australia by both public and private sector organisations. These estimates, together with the preceding data on residential and non-residential building, complete the picture of construction activity in Australia.

The total value of engineering construction work done during 1991-92 was $11,091 million, a $584 million (or 5%) fall on the 1990–91 figure of $11,675 million (table 22.19). This fall was almost entirely in work done for the public sector, which declined by $602 million (7%) to $7,923 million. Engineering construction work done for the private sector rose marginally by $18 million to $3,168 million.

Overall, significant expenditure occurred in the categories of Roads, highways and subdivisions (30% of total expenditure), Telecommunications (16%), Heavy industry (15%) and Electricity generation, transmission and distribution (14%).

For the private sector, engineering construction activity centred around the categories of Heavy industry, which accounted for 48 per cent of total activity (up from 42% in 1990–91), Roads, highways and subdivisions which was 33 per cent (the same as in 1990–91) and Recreation, 6 per cent (down from 10%).

For the public sector, major construction activity was undertaken in the categories of Roads, highways and subdivisions (28% of total expenditure, the same as in 1990–91), Telecommunications (23%, down from 27% in 1990–91) and Electricity generation, transmission and distribution (19%, up from 17%).

22.19 VALUE OF ENGINEERING CONSTRUCTION WORK DONE, 1990–91 AND 1991–92
($ million)

	1990–91			1991–92		
	For the private sector	For the public sector	Total	For the private sector	For the public sector	Total
Roads, highways and subdivisions	1,024.1	2,380.3	3,404.4	1,038.2	2,252.6	3,290.8
Bridges	11.0	229.5	240.5	12.0	245.1	257.0
Railways	17.7	406.8	424.4	33.3	443.3	476.6
Harbours	49.0	99.0	148.0	30.1	56.6	86.7
Water storage and supply	100.2	663.6	763.8	59.8	695.4	755.2
Sewerage and drainage	93.8	582.7	676.5	56.6	541.6	598.3
Electricity generation transmission and distribution	94.6	1,460.8	1,555.4	99.9	1,497.2	1,597.0
Pipelines	68.3	104.6	172.9	99.3	52.7	152.0
Recreation	321.2	158.5	479.8	183.4	155.5	338.9
Telecommunications	8.8	2,285.3	2,294.1	6.9	1,801.6	1,808.5
Heavy industry	1,335.4	123.1	1,458.5	1,517.5	156.7	1,674.2
Other	26.4	30.3	56.7	31.4	24.4	55.8
Total	**3,150.4**	**8,524.5**	**11,674.9**	**3,168.2**	**7,922.7**	**11,091.0**

Source: Engineering Construction Activity, Australia (8762.0).

Price indexes of materials used in building

Two price indexes measure the changes in prices of selected materials used in the construction of buildings — one for materials used in house building, the other for materials used in building other than house building.

Price Index of Materials Used in House Building

The following table shows the changes in prices of selected materials used in the construction of houses in each capital city Statistical Division.

The All groups index (weighted average of the six State capital cities) increased a mere 0.2 per cent (0.3 index points) from 1990–91 to 1991–92. This follows a 4.6 per cent (6.3 index points) increase in the previous financial year.

Hobart (up 3.1 index points), Canberra (up 2.9 index points) and Brisbane (up 2.0 index points) recorded the largest increases. Melbourne (down 0.6 points) and Adelaide (down 0.5 points) recorded falls.

22.20 PRICE INDEX OF MATERIALS USED IN HOUSE BUILDING
(Reference base year 1985–86 = 100.0)

	Weighted average of six State capital cities	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Canberra (a)
	INDEX NUMBERS							
1989–90	135.8	139.1	133.5	134.1	129.7	140.8	128.0	130.5
1990–91	142.1	145.7	138.1	141.9	136.2	148.7	134.2	136.4
1991–92	142.4	146.1	137.3	144.7	135.5	149.3	138.3	140.3

(a) Reference base year 1986–87 = 100.0.

Source: Price Index of Materials Used in House Buildings, Six State Capital Cities and Canberra (6408.0).

Price Index of Materials Used in Building Other than House Building

The All groups index (weighted average of six State capital cities) increased by 0.6 per cent (or 1.5 index points) from 1990–91 to 1991–92. This follows a 5.1 per cent (11.8 index points) increase between 1989–90 and 1990–91.

Large increases in the index occurred in Hobart (up 3.1%), Darwin (up 3.0%), Brisbane (up 2.5%) and Canberra (up 2.4%). Melbourne (down 1.0%) and Perth (down 0.3%) were the only capital cities to record falls.

22.21 PRICE INDEX OF MATERIALS USED IN BUILDING OTHER THAN HOUSE BUILDING ALL GROUPS
(Reference base year 1979–80 = 100.0)

	Weighted average of six State capital cities	*Sydney*	*Melbourne*	*Brisbane*	*Adelaide*	*Perth*	*Hobart*	*Darwin (a)*	*Canberra (b)*
					INDEX NUMBERS				
1989–90	231.9	231.3	227.8	233.9	237.1	240.0	216.8	171.9	132.2
1990–91	243.7	244.2	238.0	245.2	249.6	253.2	225.2	181.1	140.4
1991–92	245.2	247.8	235.6	251.3	250.0	252.5	232.1	186.6	143.7

(a) Reference base year 1981–82 = 100.0. (b) Reference base year 1986–87 = 100.0.
Source: Price Index of Materials Used in Building Other Than House Buildings, Eight Capital Cities (6407.0).

Labour costs

After growing by 20.1 per cent to $10,314 million in 1989–90, total major labour costs in the construction industry fell 17.1 per cent to $8,548 million in 1990–91, reflecting the decline in employment and activity in the industry. However, the distribution between the components has remained relatively constant with earnings accounting for 88.2 per cent of this figure. Superannuation accounted for 5.6 per cent, payroll tax 3.5 per cent, workers' compensation 2.1 per cent and fringe benefits the remaining 0.7 per cent.

22.22 MAJOR LABOUR COSTS OF CONSTRUCTION INDUSTRY

				1990–91	
				Percentage distribution of labour costs by type	
Type of labour cost	*1988–89*	*1989–90*	*1990–91*	*Construction*	*All industries*
	$m	$m	$m	%	%
Earnings	7,606	9,103	7,450	87.2	88.2
Other labour costs	980	1,211	1,097	12.8	11.8
Superannuation	386	537	492	5.8	5.6
Emerging cost	64	80	40	0.5	0.8
Ongoing cost	322	457	452	5.3	4.8
Payroll tax	254	316	278	3.3	3.5
Workers' compensation	303	304	267	3.1	2.1
Fringe benefits tax	36	53	60	0.7	0.7
Total major labour costs	**8,586**	**10,314**	**8,548**	**100.0**	**100.0**

Source: Labour Costs, Australia (6348.0).

Following an increase of 19.9 per cent from 1988–89 to 1989–90, the average labour cost per employee in the construction industry fell by 7.2 per cent to $31,666 in 1990–91.

The average labour cost per employee in the construction industry in 1990–91 was 6.5 per cent higher than the all industries average of $29,734. Earnings at $27,602 were 5.3 per cent higher, superannuation at $1,821 was 10.6 per cent higher and workers' compensation costs, at $991, were 57.3 per cent higher than the all industries average.

22.23 AVERAGE LABOUR COST PER EMPLOYEE IN CONSTRUCTION INDUSTRY, BY TYPE
($)

			Construction	*All industries*
	1988–89	*1989–90*	*1990–91*	*1990–91*
Earnings	25,210	30,126	27,602	26,225
Other labour costs	3,248	4,006	4,064	3,509
Superannuation	1,280	1,777	1,821	1,647
Payroll tax	842	1,045	1,031	1,029
Workers compensation	1,005	1,008	991	630
Fringe benefits tax	121	177	221	203
Total major labour costs	**28,458**	**34,132**	**31,666**	**29,734**

Source: Labour Costs, Australia (6348.0).

Industrial disputes

Of the 1,058 industrial disputes in progress during 1991, 63 or six per cent affected the construction industry. These 63 disputes involved (either directly or indirectly) 100,000 construction industry employees and resulted in the loss of 121,000 working days.

22.24 CONSTRUCTION INDUSTRY: INDUSTRIAL DISPUTES IN PROGRESS DURING 1991

Industry	*Total industrial disputes in progress (no.)*	*Employees involved (directly & indirectly) ('000)*	*Working days lost ('000)*
Construction	63	100.4	120.7
Total industries	**1,058**	**1,181.5**	**1,610.5**

Source: Industrial Disputes, Australia (6322.0).

Table 22.25 shows that, Australia wide, the construction industry recorded an average of 428 working days lost per thousand employees, a figure 62 per cent higher than the Australian all industries average of 265 working days lost per thousand employees. New South Wales was the most strike affected State with 626 working days lost per thousand construction industry employees. This figure is 46 per cent higher than the Australian average for the construction industry of 428 working days lost per thousand employees, and 19 per cent higher than the New South Wales all industries average of 528 working days lost per thousand employees. Tasmania was the least strike affected State with only 22 working days lost per thousand construction industry employees which was 79 percent of the Tasmanian all industries average of 28 working days lost or 5 per cent of the Australian construction industry average of 428 working days lost per thousand employees.

22.25 CONSTRUCTION INDUSTRY: INDUSTRIAL DISPUTES IN PROGRESS DURING 1991
(working days lost per thousand employees)

State/Territory	*Construction*	*All industries*
New South Wales	626	528
Victoria	312	128
Queensland	222	114
South Australia	586	112
Western Australia	501	223
Tasmania	22	28
Northern Territory	66	51
Australian Capital Territory	205	18
Australia	**428**	**265**

Source: Industrial Disputes, Australia (6322.0).

Trade union membership

The proportion of construction industry employees who are trade union members has been falling steadily since 1986.

In 1986, 48 per cent of construction industry employees were trade union members. This figure fell to 47 per cent in 1988, 45 per cent in 1990 and 42 per cent in 1992.

This fall in trade union membership participation was not restricted to the construction industry. In all industries the estimated average trade union membership has also been falling steadily from 46 per cent in 1986 to 42 per cent (1988), 41 per cent (1990) and 40 per cent (1992).

As might be expected, in the construction industry permanently employed males were most likely to belong to trade unions with 55 per cent of this category belonging to a union. Females employed in the construction industry were less likely to belong to trade unions with only 10 per cent of permanently employed and no casually employed females being trade union members (table 22.27).

22.26 CONSTRUCTION INDUSTRY: EMPLOYEES WHO WERE TRADE UNION MEMBERS AUGUST 1986, 1988, 1990 AND 1992

	Construction	*All industries*
August 1986(a)		
No. of members ('000)	145.3	2,593.9
Proportion of employees who are in trade unions (%)	48.0	45.6
August 1988(a)		
No. of members ('000)	157.5	2,535.9
Proportion of employees who are in trade unions (%)	47.1	41.6
August 1990		
No. of members ('000)	170.7	2,659.6
Proportion of employees who are in trade unions (%)	45.4	40.5
August 1992		
No. of members ('000)	123.9	2,508.8
Proportion of employees who are in trade unions (%)	42.4	39.6
Total number of employees ('000)	292.6	6,334.8

(a) Estimates from 1986 to 1988 have been revised to exclude persons aged 70 years and over.
Source: Trade Union Members, Australia (6325.0).

22.27 CONSTRUCTION INDUSTRY: EMPLOYEES WHO WERE TRADE UNION MEMBERS AUGUST 1992 (per cent)

	Construction	*All industries*
Males		
Permanent	55.1	48.1
Casual	23.4	18.4
Total	*47.2*	*43.4*
Females		
Permanent	*9.7	42.9
Casual	*0.0	16.5
Total	**5.9*	*34.8*
Persons		
Permanent	50.7	46.0
Casual	19.4	17.2
Total	*42.4*	*39.6*

Source: Trade Union Members, Australia (6325.0).

Training expenditure

In the three month period July 1990 to September 1990, average training expenditure per employee in the construction industry was $140. This was 14 per cent lower than the all industries average of $163.

Although the two construction subdivisions Non-building construction and Other construction spent similar amounts ($140) on training per employee, the number of paid training hours per employee varied significantly. Average training hours per employee in the Non-building construction industry was only 4.6 hours, substantially less than the 10.3 hours recorded by the Other construction industry.

Even though the construction industry spent less on training per employee than the average for all industries, construction industry employees received, on average, a higher number of paid training hours. Construction industry employees recorded 9.0 paid training hours per employee, 53 per cent higher than the all industries average of 5.9 paid training hours per employee.

22.28 CONSTRUCTION INDUSTRY: AVERAGE TRAINING EXPENDITURE PER EMPLOYEE JULY TO SEPTEMBER 1990

	Private			*Total*		
Industry	*In-house*	*External*	*Total*	*In-house*	*External*	*Total*
DOLLARS PER EMPLOYEE						
Construction	35.5	85.1	120.6	57.6	82.7	140.3
Non-building construction	45.4	40.9	86.3	97.8	41.9	139.7
Other construction(a)	34.3	90.6	124.9	46.4	94.1	140.4
All industries	**85.5**	**46.6**	**132.1**	**112.2**	**50.6**	**162.8**
HOURS PER EMPLOYEE						
Construction	1.1	8.4	9.5	1.8	7.3	9.0
Non-building construction(a)	1.2	*1.8	3.0	3.0	1.6	4.6
Other construction(a)	1.1	9.2	10.3	1.4	8.8	10.3
All industries	**2.7**	**2.2**	**4.9**	**3.6**	**2.3**	**5.9**

For footnotes *see* end of table.

22.28 CONSTRUCTION INDUSTRY: AVERAGE TRAINING EXPENDITURE PER EMPLOYEE JULY TO SEPTEMBER 1990 — *continued*

Industry	*Private*			*Total*		
	In-house	*External*	*Total*	*In-house*	*External*	*Total*
	DOLLARS PER HOUR					
Construction	32.0	10.2	12.7	32.8	11.4	15.6
Non-building construction	36.8	22.7	28.5	33.0	26.0	30.5
Other construction(a)	31.3	9.9	12.1	32.6	10.7	13.7
All industries	**31.6**	**20.7**	**26.7**	**31.0**	**21.9**	**27.5**

(a) Comprises building and special trades construction.
Source: Employer Training Expenditure, Australia (6353.0).

HOUSING

Since Federation, Australian Governments, through their policies, have encouraged home ownership. A high level of home ownership is seen as promoting a stable, healthy and productive society. In addition, a strong housing construction industry provides substantial employment both within the industry and in associated sectors of the economy, such as banking, real estate and manufacturing.

In recent times, adequate, affordable housing was identified as a government priority with the establishment of a National Housing Strategy in June, 1990.

This part of the chapter provides a profile of the various aspects of housing in Australia, based on information from the five-yearly Census of Population and Housing and from periodic surveys. Care should be taken when comparing statistics from different sources because of differences in the timing of individual statistical collections and in the conceptual bases for respective topics.

Number and types of dwellings

Number of dwellings. The number of occupied dwellings is distributed broadly according to the population of each State and Territory. However the growth in the number of occupied dwellings in each State/Territory between 1986 and 1991 was variable. Queensland and Western Australia had the highest growth (18%), followed by the Australian Capital Territory (17%), then the Northern Territory (15%). The remainder, New South Wales, Victoria, South Australia and Tasmania grew by less than nine per cent. The average growth for Australia over the five year period was 11 per cent.

The number of caravans, etc. in caravan parks and occupied boats in marinas has increased in all States/Territories except Victoria where the number decreased 2.4 per cent. The Northern Territory had the highest growth rate (37%), with the growth rate in New South Wales (19%), South Australia (17%) and Queensland (16%) above the Australian average. The remainder were all below eight per cent. The average growth for Australia was 13 per cent.

The number of unoccupied dwellings increased in all States/Territories except the Northern Territory where the number decreased 15 per cent. Growth in Victoria (15%), Tasmania (12%), New South Wales and South Australia (both 10%) were at or above the average for Australia (10%).

22.29 NUMBER OF DWELLINGS BY STATE/TERRITORY

	30 June 1986			6 August 1991		
State/Territory	*Occupied*	*Caravans, etc.(a)*	*Unoccupied*	*Occupied*	*Caravans, etc.(a)*	*Unoccupied*
New South Wales	1,817,392	21,916	174,467	1,961,229	26,036	192,140
Victoria	1,351,118	9,475	143,264	1,466,150	9,243	164,754
Queensland	838,122	27,310	94,714	986,013	31,787	99,014
South Australia	474,456	3,162	48,546	511,995	3,710	53,534
Western Australia	458,762	10,749	53,851	539,024	10,907	57,643
Tasmania	149,484	658	19,470	162,321	680	21,764
Northern Territory	39,779	3,456	3,639	45,805	4,737	3,075
Australian Capital Territory	79,363	368	5,588	92,485	395	5,658
Australia(b)	**5,208,476**	**77,094**	**543,539**	**5,765,022**	**87,496**	**597,582**

(a) Occupied caravans, etc. in caravan parks were counted as occupied private dwellings in the 1976 and 1981 Censuses.
(b) Excludes off-shore and migratory dwellings.
Source: 1991 Census of Population and Housing, 6 August, CVC2033.

Type of dwellings. The standard suburban cottage remains the dominant form of housing in Australia. 'Separate houses' represent 77 per cent of all dwellings found by the 1991 Census. Of the other categories of dwellings the majority are semi-detached dwellings (8%) and flats (12%).

Tasmania has the highest proportion of separate houses (85%) while the Northern Territory has the lowest (57%).

A relatively high proportion of dwellings in South Australia and Western Australia, (13 and 12% respectively) and the Australian Capital Territory (11%) are semi-detached houses, compared with the average for Australia of eight per cent. South Australia and Western Australia together account for 30 per cent of all semi-detached houses in Australia.

Australia has just over 12 per cent of its dwellings in the form of flats, units and apartments (low and high-rise). In New South Wales, 17 per cent of dwellings are flats, and nearly half (47%) of all flats in Australia are in that State. This compares to New South Wales' 34 per cent of all dwellings in Australia.

22.30 STRUCTURE OF DWELLINGS BY STATE/TERRITORY, 6 AUGUST 1991

State/Territory	*Separate house*	*Semi-detached (a)*	*Flat or apartment (b)*	*Caravan in caravan park*	*Other(c)*	*Total*
New South Wales	1,584,335	155,115	369,752	26,036	44,167	2,179,405
Victoria	1,308,552	130,027	166,040	9,243	26,285	1,640,147
Queensland	873,876	47,596	137,716	31,787	25,840	1,116,815
South Australia	437,934	75,448	43,248	3,710	8,899	569,239
Western Australia	471,921	74,660	39,194	10,907	10,892	607,574
Tasmania	156,687	11,229	12,054	680	4,115	184,765
Northern Territory	30,355	4,169	7,932	4,737	6,424	53,617
Australian Capital Territory	77,950	10,520	8,947	395	726	98,538
Australia(d)	**4,941,610**	**508,764**	**784,883**	**87,495**	**127,348**	**6,450,100**

(a) Includes row/terrace houses, townhouses, of one or more storeys. (b) Includes blocks of one or more storeys; and flats attached to houses. (c) Includes caravans, etc. not in caravan parks, improvised homes, campers out, houses or flats attached to shop, office, etc., and not stated. (d) Excludes non-private dwellings, and off-shore and migratory dwellings.
Source: 1991 Census of Population and Housing, 6 August 1991, CVC2039.

Standard of housing and facilities

The following information on certain physical features and facilities of dwellings provides some indication of the standard of housing conditions in Australia.

Material of outer walls. The use of certain materials for outer walls is dictated by such factors as availability, cost, durability, appearance and climatic conditions. Changes in the materials used over time indicate changes in the characteristics of the housing stock.

The majority of new houses approved in Australia in 1991–92 were constructed using brick veneer (64%). Double brick was the next most common material (17%), followed by timber (6%) and fibre cement (4%).

In the States and Territories, brick veneer is the most popular material except in Western Australia and the Northern Territory, where double brick is the most common material. In Western Australia, 88 per cent of new houses approved are double brick; in the Northern Territory, 61 per cent are double brick. Tasmania has the largest percentage for timber construction (18% of Tasmanian approvals).

In the Northern Territory, the second most popular materials are aluminium and steel which are included in 'Other' (35%).

22.31 NUMBER OF NEW HOUSES APPROVED, BY MATERIAL OF OUTER WALLS, AS A PROPORTION OF TOTAL STATE/TERRITORY, 1991–92
(per cent)

Material of outer wall	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
Double brick(a)	11.2	1.2	5.3	3.7	88.3	8.9	60.6	0.9	16.7
Brick veneer	76.3	60.4	78.2	74.0	3.8	67.5	0.7	91.0	63.7
Timber	6.5	6.7	8.5	1.9	2.9	18.0	2.1	—	6.4
Fibre cement	4.7	0.9	6.0	3.6	3.1	2.5	1.6	—	3.8
Other	1.2	1.5	2.0	0.3	1.8	2.8	35.0	2.5	1.8
Not stated	—	29.2	—	16.5	—	0.3	—	5.5	7.5
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Includes houses constructed with outer walls of stone and concrete.
Source: Building Approvals Microfiche Service, Australia (8734.0).

Number of rooms, by purpose. The most readily available indicator of dwelling size is the number of bedrooms. The table below shows the preponderance of three bedroom houses. Sixty per cent of all separate houses, and half of all dwellings, have three bedrooms. About half of semi-detached homes, and 62 per cent of flats, units and apartments have two bedrooms.

22.32 NUMBER OF DWELLINGS BY DWELLING STRUCTURE AND NUMBER OF BEDROOMS OCTOBER–DECEMBER 1990
('000)

		Semi-detached(a)		*Flat/unit*			
Number of bedrooms	*Separate house*	*1 storey*	*2 or more storeys*	*1–3 storeys*	*4 or more storeys*	*Other*	*All house-holds*
None	12.5	3.5	*1.1	10.0	2.3	2.4	31.9
One	60.8	36.9	11.0	180.6	18.2	14.1	321.7
Two	817.9	182.3	50.9	413.9	25.7	14.1	1,504.8
Three	2,949.2	95.6	39.9	47.6	6.5	10.1	3,148.8
Four	959.2	4.4	6.3	2.5	—	3.6	976.0
Five or more	158.1	1.8	1.7	1.9	—	*0.4	163.9
Total	**4,957.6**	**324.6**	**110.9**	**656.5**	**52.7**	**44.8**	**6,147.2**

(a) Includes row/terrace houses, townhouses, of one or more storeys.
Source: Unpublished data from the ABS 1990 Survey of Income, and Housing Costs and Amenities.

However, while 60 per cent of all houses have three bedrooms, only 37 per cent of households in separate houses use three bedrooms as bedrooms. Similarly, in the majority of two bedroom dwellings only one bedroom is used for that purpose.

22.33 NUMBER OF ROOMS USED AS BEDROOMS, BY DWELLING STRUCTURE OCTOBER-DECEMBER 1990 ('000)

Number of rooms used as bedrooms	*Separate house*	*Semi-detached(a)* *1 storey*	*Semi-detached(a)* *2 or more storeys*	*Flat/unit* *1–3 storeys*	*Flat/unit* *4 or more storeys*	*Other*	*All house-holds*
None	34.0	4.0	2.5	9.2	3.8	2.0	55.4
One	1,152.3	148.7	44.7	375.2	34.0	21.4	1,776.3
Two	1,416.9	120.6	37.9	246.3	12.0	11.9	1,845.7
Three	1,818.8	45.9	20.7	22.9	2.9	6.5	1,917.8
Four	468.0	4.3	4.0	*1.0	—	2.9	480.2
Five or more	67.7	*1.2	*1.1	1.9	—	—	71.8
Total	**4,957.6**	**324.6**	**110.9**	**656.5**	**52.7**	**44.8**	**6,147.2**

(a) Includes row/terrace houses, townhouses, of one or more storeys.
Source: Unpublished data from the ABS 1990 Survey of Income, and Housing Costs and Amenities.

A further indication of living standards is the number of bathrooms. While most dwellings have only one bathroom, 23 per cent of separate houses have two bathrooms. Likewise, semi-detached dwellings and flats with more than one or two storeys are more likely to have two bathrooms. This includes 20 per cent of semi-detached dwellings of two or more storeys, and 15 per cent of flats in blocks of four or more storeys. All other types of dwelling structure have insignificant numbers of dwellings with two or more bathrooms.

In general, bathrooms are less likely to have bathtubs in semi-detached dwellings and flats.

Seventy-three per cent of all households have no separate toilet room in their dwelling. Separate toilet rooms are still found in 32 per cent of separate houses but are rare in low-rise flats (3%).

Only 25 per cent of dwellings have dual flush toilets. Separate houses and semi-detached homes (26%) are slightly more likely to have dual flush toilets.

An average of 11 per cent of all households have no laundry in their dwelling. This situation is less common for separate houses (4%) and most common for high-rise flats (65%). The other categories of dwelling structure range from 19 per cent to 46 per cent having no laundry.

Table 22.34 presents a profile of the number of rooms for various purposes contained in different types of dwelling.

22.34 PERCENTAGE OF DWELLINGS, BY TYPE OF ROOM AND DWELLING STRUCTURE OCTOBER–DECEMBER 1990
(per cent)

	Separate house	*Semi-detached(a)* *1 storey*	*Semi-detached(a)* *2 or more storeys*	*Flat/unit* *1–3 storeys*	*Flat/unit* *4 or more storeys*	*Other*	*All house-holds*
Number of bedrooms							
None	0.3	1.1	*1.0	1.5	4.4	5.4	0.5
One	1.2	11.4	9.9	27.5	34.5	31.6	5.2
Two	16.5	56.2	45.9	63.0	48.7	31.5	24.5
Three	59.5	29.5	35.9	7.2	12.3	22.6	51.2
Four	19.3	1.4	5.7	0.4	—	8.1	15.9
Five or more	3.2	0.5	1.6	0.3	—	*0.9	2.7
Number of rooms used as bedrooms							
None	0.7	1.2	2.2	1.4	7.1	4.4	0.9
One	23.2	45.8	40.3	57.2	64.5	47.8	28.9
Two	28.6	37.2	34.2	37.5	22.8	26.7	30.0
Three	36.7	14.1	18.7	3.5	5.5	14.6	31.2
Four	9.4	1.3	3.6	*0.1	—	6.5	7.8
Five or more	1.4	*0.4	*1.0	0.3	—	—	1.2
Number of kitchens							
None	0.3	*0.4	2.7	1.6	4.4	8.1	0.6
One	98.5	99.4	96.3	97.8	95.6	91.9	98.3
Two	1.1	*0.2	*1.0	0.2	—	—	0.9
Three or more	0.1	*0.1	—	0.3	—	—	0.1
Number of bathrooms							
None	0.4	0.6	*1.0	1.5	—	20.2	0.7
One	73.1	95.4	76.8	95.1	83.3	73.4	76.8
Two	22.9	3.9	20.2	3.1	14.9	6.6	19.6
Three or more	3.6	*0.1	2.2	0.3	*1.8	—	3.0
Number of bathtubs							
None	8.9	24.0	13.8	30.4	23.2	45.0	12.5
One	88.1	75.4	85.5	69.2	74.4	53.6	85.0
Two	2.8	0.6	*0.7	*0.1	*2.5	*1.4	2.3
Three or more	0.2	*0.1	—	0.3	—	—	0.2
Number of bathtubs with shower facility							
None	63.1	55.4	48.9	60.6	50.3	66.7	62.1
One	36.0	44.3	50.8	39.0	48.4	33.3	37.1
Two	0.8	*0.2	*0.3	*0.1	*1.3	—	0.7
Three or more	0.1	*0.1	—	0.3	—	—	0.1
Number of separate shower cubicles							
None	29.3	43.0	42.9	40.0	44.1	47.9	31.7
One	49.8	54.1	46.6	57.4	44.8	48.9	50.7
Two	18.1	2.8	7.8	2.3	11.1	*3.2	15.3
Three or more	2.8	*0.1	2.8	0.3	—	—	2.3
Number of separate toilets (rooms)							
None	68.1	89.1	60.2	96.8	90.9	91.9	72.5
One	20.8	9.0	27.0	2.1	5.9	*2.9	18.0
Two	10.2	1.4	12.9	0.8	3.1	4.1	8.6
Three or more	0.9	*0.5	—	0.3	—	*1.1	0.8

... continued

22.34 PERCENTAGE OF DWELLINGS, BY TYPE OF ROOM AND DWELLING STRUCTURE OCTOBER–DECEMBER 1990 — *continued*
(per cent)

	Separate house	*Semi-detached(a)*		*Flat/unit*		*Other*	*All households*
		1 storey	*2 or more storeys*	*1–3 storeys*	*4 or more storeys*		
Number of dual flush toilets							
None	73.9	74.1	73.3	81.1	86.3	89.1	74.9
One	17.8	22.8	13.1	17.3	12.0	9.7	17.8
Two	6.7	2.7	11.3	1.2	*0.6	*1.3	5.9
Three or more	1.6	*0.5	2.3	0.4	*1.1	—	1.4
Number of laundries							
None	4.2	19.4	26.0	45.6	64.8	41.1	10.6
One	95.4	80.5	74.0	54.1	34.0	58.9	89.0
Two	0.3	—	—	*0.1	*1.3	—	0.3
Three or more	0.1	*0.1	—	0.3	—	—	0.1
Number of lounge/dining/family rooms							
None	1.7	7.0	8.5	12.1	10.9	19.7	3.4
One	47.8	72.3	67.2	82.1	80.1	61.0	53.5
Two	34.6	19.8	17.9	5.3	9.0	19.3	30.0
Three or more	15.9	0.9	6.5	0.5	—	—	13.0
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Includes row/terrace houses, townhouses, of one or more storeys.
Source: Unpublished data from the ABS 1990 Survey of Income, and Housing Costs and Amenities.

On-site parking. Parking is a valued facility in most urban areas, particularly in the inner suburbs of cities. Twelve per cent of dwellings have only open space parking on-site and a further nine per cent have no on-site parking.

Just over half (51%) of high-rise flats, which tend to be concentrated in inner urban areas, have no undercover parking; of these high-rise flats, 32 per cent have no on-site car parking.

For semi-detached dwellings and low-rise flats approximately one-third have no undercover car parking, and of these, one-fifth have no on-site car parking.

22.35 NUMBER OF DWELLINGS, BY TYPE OF DWELLING BY TYPE OF ON-SITE PARKING AVAILABLE, OCTOBER–DECEMBER 1990
('000)

	Separate house	*Semi-detached(a)*		*Flat/unit*		*Other*	*All households*
		1 storey	*2 or more storeys*	*1–3 storeys*	*4 or more storeys*		
None	340.6	67.8	21.3	119.3	16.7	13.9	579.5
Carport only	1,244.4	104.1	30.9	194.7	17.1	8.0	1,599.2
Garage only	2,248.1	97.0	41.9	204.0	8.8	11.9	2,611.6
Both	622.5	7.2	3.3	5.4	—	1.6	640.1
Total undercover parking	*4,115.0*	*208.3*	*76.0*	*404.1*	*25.9*	*21.5*	*4,850.9*
Open space only	502.0	48.5	13.6	133.1	10.2	9.3	716.8
Total	**4,957.6**	**324.6**	**110.9**	**656.5**	**52.7**	**44.8**	**6,147.2**

(a) Includes row/terrace houses, townhouses, of one or more storeys.
Source: Unpublished data from the ABS 1990 Survey of Income, and Housing Costs and Amenities.

Over half of all separate houses have garages (58%) and over a third have carports (38%). Thirteen per cent have both, while 17 per cent have neither. Ten per cent have no undercover car parking and of these dwellings, seven per cent have no on-site car parking.

Dwelling problems. Over half of all households in the four cities included in a 1991 survey reported at least one problem with their dwelling. The main problems reported were a leaky roof, holes or cracks in walls or ceiling, peeling paint or plaster, plumbing and infestations by pests other than white ants.

For Sydney, the worst problems were infestations by pests other than white ants (35% of households) and plumbing (21%). In Melbourne, the worst problems were with the plumbing (21%), and holes or cracks in walls or ceiling (19%). Adelaide had good roofs but had the most problems with the plumbing (29%), and had holes or cracks in walls or ceiling (20%); while Canberra dwellings had problems with plumbing (25%) and infestations by pests other than white ants (17%).

22.36 HOUSEHOLDS WITH A PROBLEM WITH THEIR DWELLING, 1991

	Sydney	*Melbourne*	*Adelaide*	*Canberra*
		— per cent —		
Leaky roof	16.6	17.6	9.8	11.8
Holes in floor	3.6	3.9	1.7	0.7
Holes or cracks in walls or ceiling	16.1	19.3	19.6	13.2
Peeling paint or plaster	16.7	13.1	11.6	10.1
Plumbing	21.2	20.9	28.8	25.4
Electrical	8.9	8.0	6.8	11.2
Heating/cooling	3.7	8.0	6.9	13.0
Salt damp	5.4	4.6	5.8	2.0
White ants	3.0	2.9	3.6	0.4
Infestations by other pests	35.1	17.8	11.1	17.0
Other problems	5.8	5.9	1.4	3.7
Total households with dwelling problems	62.2	56.0	55.5	57.4
Households with no dwelling problems	37.8	44.0	44.5	42.6
		— households —		
Number of households	1,195,000	1,055,000	358,000	89,000

Source: Housing Characteristics and Decisions, A Comparative Study of Sydney, Melbourne, Adelaide and Canberra, 1991 (8710.0).

Time and mode of travel. Not surprisingly, the median travel time to work was highest in the largest cities and declined as city size declined. In all cities, males took longer to travel to work than females. The median travel time to work for males in Sydney was 30 minutes, in Melbourne it was 25 minutes, in Adelaide it was 20 minutes, while in Canberra it was 17 minutes. For females, a similar pattern emerged although the range of times taken was narrower. Working females in Sydney and Melbourne usually took a median time of 20 minutes to get to work, compared with 15 minutes in Adelaide and Canberra.

These data on travel time to work seem to reflect that many people live relatively close to where they work. Only around five per cent of all Sydney travellers reported taking more than 60 minutes to get to work. In Melbourne, this proportion was less than two per cent, while in the other two cities, the proportion was negligible.

22.37 PERSONS WHO USE A MODE OF TRANSPORT TO GO TO WORK, BY TIME SPENT TRAVELLING, BY SEX, 1991

	Sydney		*Melbourne*		*Adelaide*		*Canberra*	
Travel time and mode	*Males*	*Females*	*Males*	*Females*	*Males*	*Females*	*Males*	*Females*
				— per cent —				
Less than 16 minutes	27.0	37.8	29.4	43.4	40.0	50.4	45.0	57.3
16 to 30 minutes	28.7	31.3	34.9	32.3	34.1	31.1	40.5	34.1
31 to 45 minutes	14.8	13.0	14.9	12.4	11.1	10.9	4.4	3.5
46 to 60 minutes	9.8	8.4	7.2	6.0	3.8	3.3	2.5	1.3
More than 60 minutes	5.7	4.4	2.2	1.5	0.3	0.6	0.5	—
Variable workplace	14.1	5.1	11.3	4.3	10.7	3.7	7.1	3.8
				— minutes —				
Median travel time(a)	30	20	25	20	20	15	16.5	15
				— persons —				
Number of persons	920,000	569,000	761,000	531,000	248,000	187,000	79,000	62,000

(a) The data collected on travel time to work was the number of minutes usually taken. Given this concept, a high proportion of respondents reported travel time rounded to the nearest five minutes, which is reflected in the median data presented. However, the rounding procedure may also tend to minimise the differences between cities in median travel time.

Source: Housing Characteristics and Decisions, A Comparative Study of Sydney, Melbourne, Adelaide and Canberra, 1991 (8710.0).

Household energy use and conservation. Electricity is the most commonly used energy source for all households. More than 64 per cent of households in Australia use electricity for their hot water service and 43 per cent use electricity for heating their home. The next most commonly used energy source was the use of mains gas for hot water (28%) and room heating (27%).

22.38 NUMBER OF DWELLINGS WITH ROOM AND/OR WATER HEATING, BY TYPE OF FUELS USED, OCTOBER–DECEMBER 1990 ('000)

	Type of fuel used in household					
	Electricity	*Mains gas*	*Solar*	*Wood, coal and oil*	*Other*	*Number of house-holds*
Room heating	2,664.3	1,688.3	5.1	1,553.7	435.0	5,277.8
Hot water service	3,954.5	1,734.3	350.4	169.4	179.8	6,057.7

Source: Unpublished data from the ABS 1990 Survey of Income, and Housing Costs and Amenities.

Forty per cent of separate houses have insulation only in the roof, three per cent have insulation only in the walls and 15 per cent have insulation in the roof and walls. This leaves 41 per cent of separate houses where the respondent did not know whether there was insulation in either the roof and/or the walls or whether there was none.

The high number of surveyed households in this last group, who do not know or have no insulation, reduces the usefulness of the data. In general, households were more confident of knowing whether there was insulation in the roof of the dwelling. Thirty-two per cent of respondents living in one storey semi-detached dwellings were aware of insulation in their roof, as were 18 per cent of respondents living in semi-detached dwellings with two or more storeys, and 13 per cent of respondents living in one to three storey flats. Only a very small number of respondents living in flats with four or more storeys were able to answer the question, which is not surprising given that the insulation in such dwellings is less apparent to individual households than in houses. Information on household energy usage and related household appliances and facilities during the 1980s is contained in the 1992 Year Book.

22.39 NUMBER OF DWELLINGS, BY TYPE AND LOCATION OF INSULATION
OCTOBER–DECEMBER 1990
('000)

	Type of insulation				
Type of dwelling	*Wall*	*Roof*	*Both*	*None or unknown*	*All house-holds*
Separate house	139.5	2,005.5	755.3	2,057.3	4,957.6
Semi-detached(a)					
1 storey	2.5	103.6	11.7	206.7	324.6
2 or more storeys	2.2	19.9	1.6	87.2	110.9
Flat/unit					
1–3 storeys	3.1	84.3	13.0	556.1	656.5
4 or more storeys	—	*0.2	—	52.5	52.7
Other	—	9.6	4.9	30.3	44.8
Total	**147.4**	**2,223.2**	**786.5**	**2,990.1**	**6,147.2**

(a) Includes row/terrace houses, townhouses, of one or more storeys.
Source: Unpublished data from the ABS 1990 Survey of Income, and Housing Costs and Amenities.

HOME OWNERSHIP AND RENTING

Seventy-two per cent of Australians either own or are purchasing their own home. The most common type of tenancy is outright ownership of a separate house (38%). The next most common tenancy is households purchasing separate houses (27%). These two groups account for 65 per cent of all households.

22.40 NUMBER OF HOUSEHOLDS, BY DWELLING STRUCTURE AND NATURE OF OCCUPANCY
OCTOBER–DECEMBER 1990
('000)

	Nature of occupancy						
			Renters				
	Owners	*Purchasers*	*Government*	*Private*	*Other*	*Rent-free*	*All house-holds*
Separate house	2,349.6	1,665.9	184.3	498.3	131.6	128.1	4,957.6
Semi-detached(a)							
1 storey	85.6	48.0	72.1	102.3	8.5	8.0	324.6
2 or more storeys	21.2	20.9	11.9	52.2	3.9	*0.9	110.9
Flat/unit							
1–3 storeys	120.8	54.1	71.9	360.9	30.3	18.5	656.5
4 or more storeys	14.3	2.0	14.5	17.7	*1.2	3.0	52.7
Other	12.7	7.6	—	18.3	3.4	2.8	44.8
Total	**2,604.2**	**1,798.3**	**354.6**	**1,049.7**	**179.0**	**161.4**	**6,147.2**

(a) Includes row/terrace houses, townhouses, of one or more storeys.
Source: Unpublished data from the ABS 1990 Survey of Income, and Housing Costs and Amenities.

For other dwelling types, those households that rent their dwelling outnumber those who have equity in their dwelling (that is, owners and purchasers) — twice as many in the case of high-rise flats or units, 2.6 times as many in the case of low-rise flats or units, and one and a half times as many in the case of semi-detached houses.

Twenty-six per cent of Australians rent their home, of which less than a quarter rent from a public housing authority. Those renting through a private landlord form the largest proportion regardless of the type of dwelling. In particular, tenants renting through private landlords in low-rise flats or units accounted for 78 per cent of all rental tenants in that type of dwelling. However, government rental tenants formed a high proportion of those renting one storey semi-detached homes (39%) and those renting flats, units or apartments in four or more storey blocks of flats (43%).

Table 22.41 shows the type of households in various tenancy situations in 1990. Two-thirds of all outright owners were married couples, of which nearly one-half were married couples without children in the home (32% of all households). Single people made up nearly one-quarter of households that owned their dwelling outright.

Over three-quarters (77%) of purchasers were married couples, of which 61 per cent were married couples with dependent children only (47% of all households).

The three main household types renting from government housing authorities are single people (28%), married couple families with dependent children only (20%), and one parent families with dependent children only (19%). For private renters, the four main groups are group households (26%), single people (25%), married couple families with dependent children only (20%), and married couples without children in the household (19%).

Among married couple households, the level of home ownership is very high. In 1990, 81 per cent of all married couples, either owned or were purchasing their own home. It is particularly high for married couples with non-dependent children (90%), and lowest for married couple families with dependent children only (78%) and married couples without children in the household (79%).

22.41 NUMBER OF HOUSEHOLDS BY TYPE OF HOUSEHOLD AND TENURE OCTOBER-DECEMBER 1990 ('000)

	Nature of occupancy						
			Renters				
Types of household	*Owners*	*Purchasers*	*Government*	*Private*	*Other*	*Rent-free*	*All house-holds*
Married couple only	837.7	347.7	45.3	195.5	31.0	35.1	1,492.4
Married couple with dependent children only	470.8	846.0	71.4	207.0	53.4	34.8	1,683.4
Married couple with dependent children and non-dependent children only	132.9	106.7	9.1	16.8	5.0	1.5	271.9
Married couple with non-dependent children only	281.3	91.5	7.1	22.5	8.1	3.3	413.7
Single parent with dependents only	40.2	62.0	67.1	64.6	8.3	7.1	249.4
Single parent with dependents and non-dependents only	11.8	11.2	9.6	4.6	*0.5	—	37.7
Single person only	586.3	168.0	100.7	264.1	37.9	60.2	1,217.3
Other(a)	243.2	165.4	44.2	274.7	34.7	19.3	781.4
Total	**2,604.2**	**1,798.3**	**354.6**	**1,049.7**	**179.0**	**161.4**	**6,147.2**

(a) Includes multi-family households, related adult households and group households, as well as married couple and single parent households not defined above.
Source: Unpublished data from the ABS 1990 Survey of Income, and Housing Costs and Amenities.

In contrast, 62 per cent of single person households were equity holders, while 43 per cent of one parent families, especially those with only dependent children (41%) were in this position. For one parent families with dependent and non-dependent children, 61 per cent had equity in their home.

Approximately one-quarter of one parent households — with or without dependent children — were government rental tenants (27%), purchasers (25%), private tenants (24%) or outright owners (18%). The number of one parent households renting from government housing authorities is much higher than the proportion of public tenants (6%) among the total population. The proportion renting from private landlords is slightly ahead of the proportion of private tenants (17%) among the total population.

Some three-tenths of one parent households with dependent and non-dependent children were purchasers (30%) and a similar proportion were outright owners (31%). Also in contrast with the general picture for one parent families only 12 per cent were private tenants.

The pattern of different types of tenure varies across States and Territories (table 22.42).

Victoria had the highest level of home ownership with nearly 79 per cent either owning outright or paying off their home. In contrast, while most States and Territories are over 70 per cent, the Northern Territory has only 39 per cent of its households in a home they own or are paying off.

Purchasers are roughly a consistent proportion (between 27 and 34%) of the population across all States and Territories, except for the Australian Capital Territory where nearly 45 per cent are paying off their home.

Outright home ownership levels across all States are about 40 to 46 per cent, except for the Australian Capital Territory (25%) and in the Northern Territory (12%), reflecting a combination of the relatively recent development of the Territories, and a generally younger and more mobile population.

22.42 PERCENTAGE OF HOUSEHOLDS, BY TYPE OF TENURE, OCTOBER–DECEMBER 1990
(per cent)

Nature of occupancy	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*All households*
Owners	44.3	45.8	43.6	41.6	39.6	44.3	11.7	24.9	42.7
Purchasers	31.1	32.8	28.1	32.0	34.3	30.4	27.2	44.5	31.7
Renters									
Government	4.4	2.9	2.8	10.9	6.9	8.3	17.0	13.2	5.5
Private	16.2	14.9	18.7	10.6	13.3	12.4	19.2	15.2	15.0
Other	2.1	1.8	4.3	2.8	3.5	2.1	18.5	1.8	2.9
Total renters	*22.7*	*19.6*	*25.7*	*24.3*	*23.6*	*22.8*	*54.7*	*30.3*	*23.5*
Rent-free/other	1.9	1.9	2.6	2.1	2.5	2.5	6.4	0.3	2.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Unpublished data from the ABS' 1990 Survey of Income, and Housing Costs and Amenities.

The Northern Territory and the Australian Capital Territory have a high proportion of renters, 55 per cent and 30 per cent respectively, compared with the Australian average of 24 per cent. The Territories also have the highest proportion of government tenants, along with South Australia, all over 10 per cent, compared with an Australian average of only six per cent. The Northern Territory and Queensland have the highest proportion of private tenants at 19 per cent, compared with an Australian average of only 15 per cent.

ACCESSIBILITY AND AFFORDABILITY OF HOUSING

The ability of people to acquire housing depends on two considerations — their ability to buy or rent housing in the first instance (housing accessibility) and their ability to subsequently maintain their housing financial commitments (housing affordability). The cost of acquiring and/or maintaining housing is a major component in the cost of living. Some measures of the cost and financing of housing are shown in the following statistics.

The unit used in the statistics on housing accessibility and affordability varies between 'household' and 'income unit', depending on the subject. For statistical purposes a household is a social unit, a group of people who live together in a single dwelling with common housekeeping arrangements. An income unit, in simple terms, is more in the nature of an economic unit, which may comprise only some members of one or more households, for example, a married couple owning, buying or maintaining the cost of a dwelling, but excluding dependent or non-dependent children living with them. However, as it is estimated that there were 5.6 million households and 6.2 million income units in 1990, these figures are close enough to allow general compatibility between the various statistics whether based on the household or income unit.

Home buyers

In late 1990, nearly 28 per cent of all 6.4 million income units were paying off their dwelling. Of the 1.8 million home purchasers, nearly 62 per cent had bought their home from 1985 to 1990 inclusive. Only about nine per cent of all income units paying off their home loan had purchased before 1975.

Nearly four-fifths of purchasers (78%) who had bought their home from 1985 to 1990 inclusive owed up to $70,000, while 58 per cent owed up to $50,000. For those purchasers who had bought their home from 1980 to 1984 inclusive, the roughly equivalent amounts outstanding dropped to under $50,000 owed (88% of purchasers), and under $30,000 owed (59% of purchasers). For those purchasers who had bought their home from 1975 to 1979 inclusive, these figures drop further to under $30,000 owed (81% of purchasers), and under $20,000 owed (62% of purchasers). Finally, for purchasers who had bought their home before 1970, amounts outstanding drop away to under $10,000 owed by 83 per cent of purchasers.

22.43 NUMBER PURCHASING THEIR HOME, BY AMOUNT OUTSTANDING BY YEAR OF PURCHASE, OCTOBER–DECEMBER 1990
('000 income units)

Amount of mortgage outstanding	*Before 1970*	*1970–74*	*1975–79*	*1980–84*	*1985 or later*	*Total*
Less than $10,000	72.2	49.0	48.4	56.2	119.5	345.4
$10,000–19,999	5.9	11.6	54.1	70.2	72.2	214.1
$20,000–29,999	3.3	7.6	31.7	84.6	112.2	239.4
$30,000–39,999	2.4	*1.2	9.8	62.7	180.9	256.9
$40,000–49,999	*1.3	*0.6	8.8	40.6	158.2	209.5
$50,000–59,999	—	3.4	5.3	13.0	117.3	138.9
$60,000–69,999	*0.3	*1.0	2.0	10.2	107.2	120.7
$70,000–79,999	*0.3	—	*0.6	7.8	69.7	78.5
$80,000–89,999	—	2.0	*0.5	3.5	54.3	60.2
$90,000–99,999	—	1.7	*0.6	3.5	32.9	38.7
$100,000 or more	*0.9	*0.7	4.1	6.7	84.4	96.9
Total	**86.7**	**78.8**	**165.9**	**359.1**	**1,108.8**	**1,799.2**

Source: Unpublished data from the ABS 1990 Survey of Income, and Housing Costs and Amenities.

Table 22.44 shows the relationship between mortgage payments and income for people paying off their home. Married couple income units paid, on average, more in mortgage payments ($160 per week) than one parent income units ($108 per week) and one person income units ($135 per week). However, one parent and one person income units paid the greatest proportion of their income in mortgage payments, on average just under one-quarter of their income.

For married couple income units, the average weekly mortgage payment was generally higher for those in semi-detached homes, flats, units and apartments than for those in houses.

22.44 MORTGAGE PAYMENTS AND INCOME OF THOSE PURCHASING THEIR HOME IN OCTOBER–DECEMBER 1990, BY TYPE OF DWELLING AND INCOME UNIT

		Semi-detached(a)		*Flat/unit*			
	Separate house	*1 storey*	*2 or more storeys*	*1–3 storeys*	*4 or more storeys*	*Other*	*All house-holds*
Married couple							
Mean weekly mortage payments ($)	156	299	212	170	(b)*102	210	160
Mean weekly income ($)	902	1,087	1,100	971	(b)*438	781	907
Mortgage payments as a proportion of income (%)	17.3	27.5	19.3	17.5	23.4	26.9	17.6
One parent							
Mean weekly mortgage payments ($)	108	101	(b)*132	80	—	(b)*175	108
Mean weekly income ($)	459	453	(b)*389	325	—	(b)*242	455
Mortagage payments as a proportion of income (%)	23.5	22.4	33.9	24.5	—	72.3	23.7
One person							
Mean weekly mortagage payments ($)	129	146	210	141	(b)*80	(a)*200	135
Mean weekly income ($)	515	547	974	621	(b)*378	(a)*598	547
Mortgage payments as a proportion of income (%)	25.0	26.7	21.6	22.8	21.2	33.4	24.6
Number of income units ('000)	1,663.5	50.1	21.3	54.9	2.0	7.4	1,799.2

(a) Includes row/terrace houses, townhouses, of one or more storeys. (b) Not considered sufficiently reliable to provide typical payments and relative size of housing costs, because there were too few respondents in this kind of income unit who were in this type of dwelling structure in the sample.

Source: Unpublished data from the ABS 1990 Survey of Income, and Housing Costs and Amenities.

The total number of households who bought a home during 1988–90 was approximately 942,400. Approximately 290,200 households bought a home for the first time. This was about five per cent of all households in Australia, which accounted for almost 31 per cent of all homes bought during the period. These households are termed first home buyers. The remaining 652,200 households who bought during 1988–90 had previously owned or part-owned a home (change-over buyers).

The typical first home buyer household was a married couple on a high income. They were usually aged between 25 and 34 years, were well-qualified and were born in Australia. Generally they bought three bedroom separate houses with some form of undercover parking. The prices paid for the houses ranged fairly evenly across the market. Some comparisons can be drawn on certain characteristics of first home buyers and changeover buyers during the period 1988–90, and of the Australian population as a whole (table 22.45).

There was a slightly higher proportion of married couples among first home buyers (69%) than in the general population (62%) and an even higher proportion among recent changeover buyers (73%). First home buyers had higher incomes than all households.

Well over two-thirds (70%) of first home buyer households earned more than $30,381 and 43 per cent earned over $45,014 per annum. This was much higher than the general population, of which just over half earned more than $30,381 and only 31 per cent earned more than $45,014. For recent changeover buyers, 41 per cent earned more than $45,014 and 21 per cent between $30,381 and $45,014.

On the whole, first home buyers were younger than home owners generally. Well over half of first home buyers were aged between 25 and 34 years (54%), compared with only 20 per cent of households generally (*see* footnote to table 22.45).

First home buyers (87%) and recent changeover buyers (86%) were more likely to have a separate house than Australian households as a whole (79%).

Over half of first home buyers had post-secondary qualifications (55%), close to the national figure of 49 per cent. However, only 29 per cent of first home buyers did not complete secondary schooling compared to 41 per cent for households generally.

For first home buyers, 72 per cent were born in Australia which was close to the 71 per cent for all households. There was a greater proportion of first home buyer households born in Asia than for the general population (10% first home buyers born in Asia, 4% for all households). Europeans were less likely to be first home buyers (13% of first home buyers were born in Europe, 21% for all households).

First home buyers were more likely to buy lower value houses than recent changeover buyers (11% of first home buyers estimated the value of their house as less than $62,500, compared with 5% of recent changeover buyers). For households in general, 35 per cent valued their dwellings at less than $62,500. At the higher end of the market (houses estimated at more than $120,000) the proportion of first home buyers was around 40 per cent (the figure estimated for all households was 41%) and 63 per cent for recent changeover buyers.

First home buyers were more likely to buy a three bedroom house (62%) than recent changeover buyers (52%). A greater proportion of recent changeover buyers bought houses with more than three bedrooms (28% of recent changeover buyers compared to 12% of first home buyers).

22.45 SELECTED CHARACTERISTICS OF HOUSEHOLDS WHICH BOUGHT HOMES (OCTOBER–DECEMBER 1990) COMPARED WITH ALL HOUSEHOLDS

Selected characteristics(a)	*First home buyers*	*Changeover buyers*	*All households*
		— per cent —	
Income more than $45,014	43	41	31
Income between $30,381 and $45,014	27	22	21
Married/de facto			
Income more than $45,014	72	88	81
Income less than $9,259	35	22	14
Total	*69*	*73*	*62*
Home buyers aged 25–34			
Income more than $45,014	61	29	23
Total	*54*	*24*	*20*
Home buyers aged 35–64			
Income more than $45,014	24	68	69
Total	*30*	*63*	*54*
Separate houses	87	86	79
Post secondary qualifications			
Income more than $45,014	66	68	63
Total	*55*	*57*	*49*
Did not complete secondary qualification	29	33	41
Birthplace of home buyers			
Australia	72	68	71
Asia	10	4	4
Europe	13	23	21

... continued

22.45 SELECTED CHARACTERISTICS OF HOUSEHOLDS WHICH BOUGHT HOMES (OCTOBER–DECEMBER 1990) COMPARED WITH ALL HOUSEHOLDS — *continued*

Selected characteristics(a)	*First home buyers*	*Changeover buyers*	*All house-holds*
		— per cent —	
Estimated value of house			
More than $120,000	40	63	41
Less than $62,500	11	5	35
Number of bedrooms			
Three	62	52	50
More than three	13	28	20
Less than three	25	20	30
Undercover car parking	74	85	79
Number of households ('000)	290.2	652.2	6,244.1

(a) Where the home buyer is a partnership the personal characteristics of age, qualifications, and birthplace usually relate to the oldest partner. The same statistical convention applies to all households.
Source: Unpublished data from the ABS 1990 Survey of Income, and Housing Costs and Amenities.

House Price Index

Established house prices rose dramatically in Brisbane and Canberra over the period from 1988–89 to 1991–92. The price index for Brisbane rose by around 14 per cent each year, while for Canberra it increased by 7 per cent during 1989–90 and 1990–91 after which it jumped 16 per cent during 1991–92.

Project home prices in Brisbane recorded an average yearly increase of about 12 per cent in 1989–90 followed by 4 per cent and then 1 per cent increases in subsequent years. In Canberra the index for project homes grew at around 10 per cent each year.

Both Melbourne and Perth showed a negative movement in the price index after 1989–90, except for project homes in Melbourne during 1990–91 which increased by 3 per cent. Prices for the other cities increased by relatively small increments.

The price indexes of established houses and project homes over recent years are shown in the following tables.

22.46 ESTABLISHED HOUSE PRICE INDEX NUMBERS (Reference base year 1989–90 = 100.0)

Period	*Sydney*	*Melbourne*	*Brisbane*	*Adelaide*	*Perth*	*Hobart*	*Darwin*	*Canberra*
1988–89	95.2	91.4	86.2	91.3	89.0	93.1	98.8	93.9
1989–90	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1990–91	100.5	95.2	114.3	106.2	94.8	106.3	109.3	107.3
1991–92	104.9	94.8	128.2	106.5	94.1	112.0	115.6	124.4
PERCENTAGE CHANGE FROM PREVIOUS YEAR								
1989–90	5.1	9.4	16.0	9.5	12.4	7.3	1.2	6.5
1990–91	0.5	−4.8	14.3	6.2	−5.2	6.3	9.2	7.3
1991–92	4.4	−0.4	12.1	0.3	−0.8	5.4	5.8	15.9

Source: House Price Indexes: Eight Capital Cities (6416.0).

22.47 PROJECT HOME PRICE INDEX NUMBERS
(Reference base year 1989–90 = 100.0)

Period	*Sydney*	*Melbourne*	*Brisbane*	*Adelaide*	*Perth*	*Hobart*	*Darwin*	*Canberra*
1988–89	91.4	91.0	89.1	96.1	93.8	93.5	84.3	91.6
1989–90	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1990–91	102.9	103.2	104.3	104.5	91.9	106.4	105.3	110.6
1991–92	103.1	101.8	105.2	105.4	90.6	110.1	107.8	123.7
PERCENTAGE CHANGE FROM PREVIOUS YEAR								
1989–90	9.4	9.9	12.2	4.1	6.6	7.0	18.6	9.2
1990–91	2.9	3.2	4.3	4.5	–8.1	6.4	5.3	10.6
1991–92	0.2	–1.4	0.9	0.9	–1.4	3.5	2.4	11.8

Source: House Price Indexes: Eight Capital Cities (6416.0).

The price index of materials used in house building is contained in the chapter on Prices.

Housing finance

Table 22.48 presents statistics of secured housing finance commitments made by significant lenders to individuals for the construction or purchase of dwellings for owner occupation.

In 1991–92, a total of $28,538.4 million was committed for the purchase of 379,306 dwellings. This represents strong growth on the 1990–91 figures, an increase of 37.4 per cent in dollars and 29.1 per cent in the number of loans. Of this, 77.3 per cent of the money was used to purchase established dwellings, 16.9 per cent to finance construction of new dwellings and the remainder (5.7%) was used to purchase newly erected dwellings.

Banks continue to be the predominant lenders and in 1991–92 provided $22,262.3 million (78%) to 298,123 individuals (78.6%) in finance commitments. This represents a 47.1 per cent increase in lending, and a 36.9 per cent increase in the number of loans.

The permanent building societies remain significant lenders, providing $3,797.3 million (13.3%) to 47,712 individuals (12.6%) in finance commitments during 1991–92. This represents a 32.9 per cent growth in the dollars committed by the permanent building societies, and a 28.6 per cent growth in the number of loans.

In 1991–92, the average size loan from banks was $74,700, from permanent building societies $79,600, and from all types of lenders the average was $75,200.

22.48 HOUSING FINANCE FOR OWNER OCCUPATION: NUMBER OF DWELLING UNITS AND VALUE OF COMMITMENTS TO INDIVIDUALS, BY TYPE OF LENDER

	Banks	*Permanent building societies*	*Other lenders (a)*	*Total*
CONSTRUCTION OF DWELLINGS				
		— number —		
1989–90	52,091	3,576	6,916	62,583
1990–91	52,256	4,979	5,890	63,125
1991–92	60,229	7,372	6,941	74,542
		— $ million —		
1989–90	2,862.0	245.2	428.5	3,535.7
1990–91	3,043.9	372.9	404.4	3,821.2
1991–92	3,749.5	564.4	514.3	4,828.2

For footnotes *see* end of table.

22.48 HOUSING FINANCE FOR OWNER OCCUPATION: NUMBER OF DWELLING UNITS AND VALUE OF COMMITMENTS TO INDIVIDUALS, BY TYPE OF LENDER — *continued*

	Banks	*Permanent building societies*	*Other lenders (a)*	*Total*
PURCHASE OF NEWLY ERECTED DWELLINGS				
			— number —	
1989–90	8,148	1,309	4,861	14,318
1990–91	10,117	2,260	4,034	16,411
1991–92	11,925	3,481	4,360	19,766
			— $ million —	
1989–90	589.8	108.0	387.5	1,085.3
1990–91	773.2	201.5	345.5	1,320.2
1991–92	949.8	310.3	376.1	1,636.2
PURCHASE OF ESTABLISHED DWELLINGS				
			— number —	
1989–90	150,276	21,179	31,720	203,175
1990–91	155,369	29,853	28,963	214,185
1991–92	225,969	36,859	22,170	284,998
			— $ million —	
1989–90	10,607.2	1,525.7	2,205.9	14,338.8
1990–91	11,320.0	2,283.4	2,030.8	15,634.3
1991–92	17,563.0	2,922.6	1,588.4	22,073.9
TOTAL				
			— number —	
1989–90	210,515	26,064	43,497	280,076
1990–91	217,742	37,092	38,887	293,721
1991–92	298,123	47,712	33,471	379,306
			— $ million —	
1989–90	14,059.1	1,878.9	3,021.9	18,959.9
1990–91	15,137.2	2,857.9	2,780.7	20,775.7
1991–92	22,262.3	3,797.3	2,478.8	28,538.4

(a) Includes cooperative housing societies.
Source: Unpublished ABS housing finance statistics.

Housing decisions

In 1991, surveys conducted in Sydney, Melbourne, Adelaide and Canberra revealed that, for all tenure categories, the three most important reasons given for moving were to purchase a home, to increase the size or quality of their dwelling, or because of life cycle, family or social reasons. This was consistent in Sydney, Melbourne and Adelaide. In Canberra however, a relatively high proportion of movers said that the move was outside their personal control, or a result of work changes.

The relative importance of these reasons differs with tenure status.

For renters, life cycle, family and social reasons were given as the most important reasons in Sydney, Melbourne and Adelaide, while work changes (such as moving to be closer to work) were the most important in Canberra, where one in four households gave this as the most important reason for moving.

The desire to purchase a home was the overwhelming reason for first home buyers to move in all cities, especially in Sydney where 70 per cent gave this as the most important reason for moving.

The most important reason for moving among changeover buyers in Sydney and Melbourne was to improve the size or quality of their home. In Canberra, the most important reason was the desire to purchase a home, while in Adelaide both reasons were equally important.

22.49 HOUSEHOLDS WHO HAVE RECENTLY MOVED (1986–1991), BY THE REASONS GIVEN FOR MOVING FROM THEIR PREVIOUS DWELLING, SYDNEY, MELBOURNE, ADELAIDE AND CANBERRA

	Sydney		*Melbourne*		*Adelaide*		*Canberra*	
Reason	*All reasons*	*Most important reason*	*All reasons*	*Most important reason*	*All reasons*	*Most important reason*	*All reasons*	*Most important reason*
	— per cent —							
Home purchase	21.6	19.1	18.8	18.1	22.2	20.7	21.0	19.0
Investment	3.7	1.1	5.1	1.7	1.7	0.7	2.7	1.6
Size or quality of home	28.8	18.4	31.5	18.8	20.9	14.7	20.2	11.6
Reduce costs	10.0	7.0	11.7	7.3	6.9	4.5	4.5	3.2
Family changes/social contacts	25.3	16.6	28.8	19.3	23.7	19.2	20.4	13.8
Neighbourhood services	3.1	1.1	3.2	0.7	1.0	0.3	1.9	0.2
Neighbourhood characteristics	10.2	4.4	10.9	3.6	6.9	3.4	5.2	2.2
Work changes	12.9	8.4	15.6	9.6	8.8	6.6	19.6	15.3
Outside personal control	11.8	10.5	9.9	8.4	11.3	11.0	18.8	17.7
Personal reasons	5.9	2.9	4.5	2.5	5.8	4.0	5.8	4.3
Other	8.0	6.2	7.8	5.7	16.7	13.9	13.6	9.9
Don't know or no reason	—	4.3	—	4.3	—	1.0	—	1.3
	— households —							
Number of households	. .	497,000	. .	428,000	. .	168,000	. .	51,000

Source: Housing Characteristics and Decisions, A Comparative Study of Sydney, Melbourne, Adelaide and Canberra, 1991 (8710.0).

Some other interesting findings from this survey include the following points.

Households who had moved during 1986–91 gave the following reasons for choosing a particular dwelling (in order) — price, availability and architectural style.

The most common reason for purchasing a home was the security of ownership and the freedom it gave to households. The main reasons people did not buy a home were that they did not have the deposit or could not afford the repayments.

Reasons given for choosing an area in which to live, varied according to the type of tenure. For private renters it was mainly the need to be close to work and the affordability of rent, while first home buyers were mainly concerned with affordability and the characteristics of the area. Changeover buyers, though, were mainly concerned about the characteristics of the area before considering affordability.

Ongoing cost of housing

In addition to the initial cost of acquiring housing, there are the ongoing costs such as water and general rates, mortgage repayments, rent or board payments.

Table 22.50 shows mean weekly housing costs by type and size of income unit. Housing costs for married couples with dependent children show an average of $123 per week, and for single persons $62 per week. Generally, the cost of housing rose with the income, although there were some variations. In particular, the lowest income group (under $202) for married couple income units showed greater mean weekly housing costs than the next (higher) income group ($202 to $350).

Care should be taken in interpreting the data in the first income group (that is, income units earning less than $202 per week). The relatively high housing costs in this category can be explained partly by the fact that at the time of the survey interview, some income units did not include any person who had a job or was receiving income of any significance. This could be because they:

- are relying on irregular income;
- have recently become unemployed; or
- are in the process of changing their job.

22.50 MEAN WEEKLY HOUSING COSTS, BY TYPE AND SIZE OF INCOME UNIT(a) OCTOBER–DECEMBER 1990 ($)

Type of income unit	*Gross weekly income groups* <$202	*$202–$350*	*$351–$531*	*$532–$848*	*>$848*	*Total*
			— housing costs —			
Married couples						
With dependent children	134	84	92	117	146	123
Without dependent children	51	28	52	79	133	76
One parent	57	70	93	117	156	81
One person	33	50	82	98	134	62
Total	**42**	**48**	**77**	**102**	**140**	**86**
Mean weekly income ($)	140	275	440	678	1,306	619
Number of income units ('000)	1,085.2	1,198.7	1,165.7	1,430.5	1,532.7	6,412.7

(a) Excludes one-person income units renting from parents/relatives in the same household, and income units living rent-free.
Source: Unpublished data from the ABS 1990 Survey of Income, and Housing Costs and Amenities.

Table 22.51 shows housing costs for income units by nature of occupancy. Housing costs are highest for purchasers who spent an average of $182 per week on housing and are lowest for outright owners who spent an average of $19 per week. Also, amongst renters, those renting privately on average pay almost twice as much as State housing authority tenants.

Ongoing housing costs as a proportion of income (table 22.52) are an effective way of looking at affordability of housing across income units. For all types of dwellings, income units pay about 14 per cent of mean weekly income on housing. For those living in separate houses, 13 per cent of income is spent on housing. However in flats, units and other dwellings, the percentages were higher (up to 19%).

New South Wales was the State with generally the greatest proportion of income spent on housing (15%) regardless of the type of dwelling while Tasmania was the lowest at 11 per cent.

The most expensive housing, in terms of the average proportion of income, were semi-detached homes in New South Wales (23%) and the Northern Territory (21%), and flats in buildings of one to three storeys (22%) in Queensland.

22.51 MEAN WEEKLY HOUSING COSTS, BY TYPE OF TENURE AND SIZE OF INCOME UNITS(a), OCTOBER–DECEMBER 1990
($)

Nature of occupancy	Gross weekly income groups					Total
	<$202	$202–$350	$351–$531	$532–$848	>$848	
	— housing costs —					
Owners	13	15	19	24	27	19
Purchasers	135	109	142	169	226	182
Renters						
Government	35	51	81	95	107	57
Private	80	95	100	120	156	108
Resident relatives	40	36	42	52	60	41
Other	44	45	53	54	52	50
Total	*53*	*61*	*73*	*96*	*128*	*75*
Total	**42**	**46**	**71**	**99**	**140**	**82**
Mean weekly income ($)	139	276	439	676	1,306	590
Number of income units ('000)	1,281.4	1,410.8	1,408.8	1,503.0	1,539.6	7,143.6

(a) Excludes income units living rent-free.
Source: Unpublished data from the ABS 1990 Survey of Income, and Housing Costs and Amenities.

22.52 PROPORTION OF MEAN WEEKLY INCOME SPENT ON HOUSING, BY DWELLING STRUCTURE BY STATE/TERRITORY(a), OCTOBER–DECEMBER 1990
(per cent)

State/Territory	Separate house	Medium density: 1 storey	Medium density: 2 or more storeys	Flat/unit: 1–3 storeys	Flat/unit: 4 or more storeys	Other	Total	Number of income units
	— housing costs as a percentage of mean weekly income —							'000
New South Wales	13.8	23.1	18.5	19.7	17.1	15.2	15.0	2,177.2
Victoria	13.1	16.5	16.6	17.4	4.2	23.3	13.7	1,651.4
Queensland	13.1	18.9	17.9	22.1	19.8	11.7	13.9	1,087.7
South Australia	12.0	15.1	17.0	15.1	*1.5	26.8	12.4	557.7
Western Australia	12.9	13.1	14.8	12.7	15.4	17.3	13.0	606.6
Tasmania	10.5	15.2	17.9	17.0	—	n.a.	11.0	170.1
Northern Territory	12.9	21.1	*19.1	14.3	*8.2	*2.0	13.5	53.2
Australian Capital Territory	13.3	13.9	18.6	18.3	*18.6	—	13.7	108.8
Total	**13.2**	**18.1**	**17.6**	**18.7**	**14.1**	**17.2**	**14.0**	**6,412.7**
Number of income units ('000)	5,091.2	352.8	144.0	716.3	54.4	53.9	6,412.7	6,412.7

(a) Excludes one-person income units renting from parents/relatives in the same household, and income units living rent-free.
Source: Unpublished data from the ABS 1990 Survey of Income, and Housing Costs and Amenities.

GOVERNMENT INITIATIVES

National Housing Strategy

The National Housing Strategy was established in June 1990 and its final issues paper was released in December 1992.

The Strategy's aims are to develop a policy of housing reform that responds to the diverse and changing needs of all Australians and which can be sustained over the next two decades. To achieve this, in line with its terms of reference it seeks to:

- gain a better understanding of Australia's housing needs now and in the future;
- examine innovative mechanisms that will make quality housing more affordable, particularly for people with low to moderate incomes;

- focus on what is appropriate housing, giving special attention to those who are poorly housed or disadvantaged, and to people's differing needs through their lives;
- determine mechanisms which can regulate and assist the efficient supply of housing; and
- explore ways of obtaining better links between housing, employment opportunities, community services and aspects of urban infrastructure, such as transportation, to ensure minimum locational disadvantage.

The Strategy was undertaken in close cooperation with State Housing Authorities and in consultation with relevant Commonwealth, State, Territory and local government, non-government and other agencies.

A list of issues papers can be found in the bibliography at the end of the chapter.

The National Urban Development Program (NUDP)

The NUDP was announced in the 1992 Commonwealth Budget, in order to achieve better integration and coordination of a range of urban reform initiatives. It encompasses and builds on a number of urban reform initiatives and includes the following key elements:

- continuation of the Housing Industry Development Program including development and implementation of the Australian Model Code for residential Development (AMCORD) and the higher density housing code (AMCORD: URBAN), the Green Street Program, the Local Approvals Review Program, research into housing industry and urban issues and demonstration activities;
- incorporation of integrated local area planning involving the development and adoption of strategic local area plans covering housing, transport, community services and employment opportunities; and
- analysis of information on the capacity of current urban infrastructure, to enable more efficient use of such resources.

The Australian Housing Industry Development Council

The Council which comprises representatives of industry, unions and the three levels of government, provides advice on urban reform initiatives, including those under NUDP and coordinates Commonwealth activity in this area. It carries this out through three working groups:

- Regulatory Reform which aims to improve the regulatory environment within which the housing industry operates;
- Urban Form which aims to promote effective and efficient investment in land and infrastructure and increase the range of choices available in the housing market including higher density housing forms; and
- Industry Development which aims to assist the industry and the house production process to become more flexible, efficient, internationally competitive and able to produce a range of affordable, quality housing.

Indicative Planning Council for the Housing Industry (IPC)

The IPC is a forum to promote and facilitate informed discussion between industry and government on short-term prospects for the industry, its supply of resources, projections of underlying demand for housing, and issues affecting industry activity and efficiency. In this context, the IPC undertakes special investigations on land and infrastructure in the urban environment. It is composed of government and industry representatives, and has State and Territory committees.

The IPC has also commissioned a number of studies on issues relating to long-term demand for housing: the factors that determine interstate and inter-regional migration; how to determine the optimum buffer stocks of residential land; and it is currently studying availability and use of data on infrastructure.

Commonwealth and State government housing assistance

A range of assistance programs has been developed to target assistance to households in the owner-occupied, public housing and private rental housing sectors. The Government provides funds for public housing, supported accommodation services, crisis accommodation, mortgage and rent relief and home purchase assistance to individuals and families.

The bulk of Commonwealth financial assistance for housing is provided to the States and Territories through the Commonwealth–State Housing Agreement (CSHA). A priority under the Agreement which was announced in the 1992–93 Budget was the introduction of a new Community Housing Program. In addition, the Social Housing Subsidy Program was announced as a new initiative to increase the supply of affordable housing.

A housing authority exists in each State and Territory which is responsible for home construction, home loans, and the provision of homes on a rental basis, as follows:

- New South Wales — Department of Housing;
- Victoria — Department of Planning and Housing;
- Queensland — Department of Housing, Local Government and Planning;
- South Australia — South Australian Housing Trust;
- Western Australia — Homeswest;
- Tasmania — Department of Community Services;
- Northern Territory — Department of Lands and Housing; and
- Australian Capital Territory — The ACT Housing Trust.

The Defence Service Homes authority provides housing for the three military services (that is, Navy, Air Force and Army).

Details of their activities were contained in *Year Book Australia 1991*.

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House Price Indexes: Eight Capital Cities (6416.0)

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Housing Survey: Housing Finance of Purchasers, 1988 (4131.0)

Housing Survey: Housing History and Intentions, 1988 (4132.0)

Housing Survey: State and Territory Comparisons, 1988 (4134.0)

Industrial Disputes, Australia (6322.0)

Information Paper: Output from the Survey of Income and Housing Costs and Amenities (4136.0)

Labour Costs, Australia (6348.0)

National Energy Survey: Annual Consumption of Reticulated Energy by Households, Australia (8213.0)

National Energy Survey: Household Appliances, Facilities and Insulation, Australia (8212.0)

Occasional Paper: Review of Social and Labour Statistics: Housing, Paper No. 5 (4165.0)

Price Index of Materials Used in Building Other Than House Building, Eight Capital Cities (6407.0)

Price Index of Materials Used in House Building, Six State Capital Cities and Canberra (6408.0)

Public Sector Construction Activity, Australia, 1988–89 (8775.0)

Survey of Income & Housing Costs and Amenities: Characteristics of Dwellings, Australia, 1988 and 1990 (4133.0)

Survey of Income & Housing Costs amd Amenities: Housing Occupancy and Costs, Australia, 1988 and 1990 (4130.0)

Trade Union Members, Australia (6325.0)

Details for particular States and Territories are available from publications issued regularly by the Deputy Commonwealth Statistician in each State or as unpublished 'special tables' available from the ABS.

Other Publications

The issue papers published by the National Housing Strategy:

Issues Paper 1: Australian Housing: The Demographic, Economic and Social Environment

Issues Paper 2: The Affordability of Australian Housing

Issues Paper 3: Financing Australian Housing

BIBLIOGRAPHY — *continued*

Issues Paper 4: Efficient Supply of Affordable Land & Housing

Issues Paper 5: Housing Location and Access to Services

Issues Paper 6: Housing Choice: Reducing the Barriers

Issues Paper 7: The National Housing Strategy: An Agenda for Action

The annual reports of the Commonwealth and State Government Housing Authorities show further details of government activities in the field of housing.

FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Twenty-three

Transport and Communications

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THE TRANSPORT INDUSTRY

The following table provides an overview of the transport industry — that is, those establishments whose prime activity is engaging in one or more of the different modes of transport. These statistics, obtained from the ABS' Transport Industry Survey of such establishments, are the latest available which provide an overview across the industry and while they relate to 1983–84 they give some indication of the size and structure of the industry.

Road freight transport contributed the highest figures for value added and employment, although it was second to rail transport for wages and salaries.

23.1 SUMMARY OF OPERATIONS BY THE TRANSPORT INDUSTRY, 1983–84

ASIC code	*Industry description*	*Establish-ments at 30 June 1984*	*Average employ-ment over whole year(a)*	*Wages and salaries (b)*	*Turn-over*	*Stocks*		*Total purchases, transfers in and selected expenses*	*Value added*	*Fixed capital expend-iture less disposals*
						Opening	*Closing*			
		no.	no.	$m	$m	$m	$m	$m	$m	$m
511	Road freight transport	32,943	99,606	902.5	5,187.3	47.4	49.8	2,921.8	2,267.8	237.6
512	Road passenger transport	10,615	45,841	571.2	1,528.6	34.0	37.4	593.5	938.5	56.4
5200	Rail transport	12	86,721	1,688.5	3,314.8	178.9	179.4	1,417.5	1,897.8	406.9
53	Water transport	165	8,978	212.7	1,238.9	14.9	14.7	814.5	424.3	23.2
54	Air transport	334	23,597	600.8	2,958.0	20.4	19.9	1,747.9	1,209.6	178.1
51–54	**Total transport**	**44,069**	**264,743**	**3,975.7**	**14,227.6**	**295.6**	**301.2**	**7,495.2**	**6,738.0**	**902.2**

(a) Includes working proprietors and partners. (b) Excludes the drawings of working proprietors and partners.
Source: Transport Establishments: Details of Operations by Industry Class, Australia (9104.0).

Road freight also comprises a substantial part of the activity of establishments engaged primarily in activities other than transport, such as wholesale and retail trade. For this reason, to provide a complete picture of road freight transport, the ABS complemented the Transport Industry Survey by also conducting the Business Vehicle Survey in respect of 1983–84, which covered enterprises which engaged in road freight transport as part of some other main activity. Statistics from this survey are contained in the later section in this chapter on road freight activity.

The following table provides more recent figures on selected measures of revenue for the transport industry.

23.2 SELECTED REVENUE DATA FOR THE TRANSPORT INDUSTRY, 1990–91 and 1991–92
($ million)

		1990–91		*1991–92*	
ASIC code	*Industry description*	*Adjusted profit*	*Gross operating surplus*	*Adjusted profit*	*Gross operating surplus*
511	Road freight transport	333.5	603.2	268.2	627.7
512	Road passenger transport	4.2	37.1	113.3	192.0
52	Rail transport(a)	n.a.	n.a.	n.a.	n.a.
53	Water transport(b)	n.a.	115.1	92.3	131.7
54	Air transport(c)	– 107.5	324.9	n.a.	186.4

(a) At the time of printing, no figures were available for rail transport. (b) For 1990–91, only limited figures are available for water transport. (c) For 1991–92, only limited figures are available for air transport.
Source: Company Profits, Australia (5651.0).

Other sections of the chapter provide information on other aspects and activities of transport, which, although they may fall outside the transport industry as defined in the Australian Standard Industrial Classification, nevertheless provide a broad picture of the subject. Because of their different sources and periods to which they relate the various statistics may not be strictly compatible and comparable.

ROAD TRANSPORT

Length of road system

Information on lengths of roads open for general traffic in Australia, at the latest dates available, classified according to certain broad surface groups as defined by the respective States and Territories are as follows.

23.3 LENGTHS OF ROADS OPEN FOR GENERAL TRAFFIC, 30 JUNE (kilometres)

Surface of roads	*NSW(a) 1990*	*Vic.(b) 1990*	*Qld 1992*	*SA 1990*	*WA(c) 1992*	*Tas.(d) 1992*	*NT(e) 1992*	*ACT 1990*
Bitumen or concrete	77,803	68,408	59,567	24,347	43,134	9,515	5,812	2,445
Gravel, crushed stone or other improved surface	64,572	48,287	48,353	—	45,955	12,968	6,646	170
Formed only	32,438	23,580	49,385	70,560	36,328	233	5,154	—
Cleared only	20,616	21,009	16,684	—	17,726	1,874	2,800	—
Total	**195,429**	**161,284**	**173,989**	**94,907**	**143,143**	**24,590**	**20,412**	**2,615**

(a) Excludes roads designated but not trafficable. Excludes Lord Howe Island and the unincorporated area of the Western Division. (b) Excludes roads coming under the responsibility of the State Electricity Commission and Forests Commission. (c) Excludes approximately 25,300 kilometres of forestry roads. (d) Forestry roads have been reclassified from cleared only to gravel. (e) Excludes roads in towns and Local Government Areas, 7,838 kilometres of roads on Aboriginal land, and 387 kilometres of park roads.
Source: Derived mainly from local government sources in each State and the ACT Department of Urban Services.

Registered motor vehicles

Censuses of registered motor vehicles have been conducted in respect of 31 December 1955 and 1962 and 30 September 1971, 1976, 1979, 1982, 1985, 1988 and 1991. Summary details of registered motor vehicles are also compiled as at 30 June each year from information supplied by the various motor vehicle registration authorities in the States and Territories. They cover vehicles owned by private individuals, local government authorities, State Governments, and the Commonwealth Government (excluding those belonging to the defence services).

Figures from the censuses differ from the corresponding year's figures compiled for the annual vehicles on register series. These inconsistencies result from different dates of recording and because, for some States and Territories, the annual figures include vehicles where the registration has lapsed but the details have not been removed from the register, whereas the census excludes such vehicles.

There were 10,099,953 registered motor vehicles (excluding tractors, plant and equipment, caravans and trailers) in Australia at 30 September 1991. This represents an increase of 681,946 vehicles (7.2%) since 30 September 1988 (table 23.4).

Table 23.5 shows the average age of vehicle by type of vehicle. The average age of the total motor vehicle fleet increased by 7.7 from 9.1 years in 1988 to 9.8 years in 1991. The largest increase was for rigid trucks (21%) while the average age for buses remained the same over the three years.

As shown in table 23.6, the number of motor vehicles (excluding motor cycles) steadily increased every year between 1986 and 1990 before dropping in 1991. In contrast, the number of motor cycles has decreased markedly over the same period.

Motor vehicles (excluding motor cycles) on register per 1,000 of population were 1.3 per cent lower in 1991 than in 1990. Tasmania had the highest ratio in 1991 with 635.3 vehicles for every 1,000 people (table 23.7).

23.4 MOTOR VEHICLE CENSUS, 30 SEPTEMBER 1991 ('000)

State/Territory	Passenger vehicles	Light comm-ercials	Trucks: Rigid	Trucks: Artic-ulated	Non-freight carrying	Buses	Motor cycles	Total(a)
New South Wales	2,486.0	410.8	105.6	14.8	10.5	9.7	69.6	3,106.9
Victoria	2,199.1	365.2	84.4	14.4	11.2	11.5	70.5	2,756.4
Queensland	1,248.1	306.9	57.2	8.9	5.9	8.4	58.7	1,694.1
South Australia	730.8	116.3	29.7	4.8	6.5	3.1	31.4	922.7
Western Australia	782.6	189.3	40.8	5.8	8.7	6.1	38.7	1,072.0
Tasmania	223.7	52.7	11.1	1.6	3.2	1.9	6.2	300.4
Northern Territory	53.0	22.8	2.2	1.2	0.2	0.7	4.3	84.3
Australian Capital Territory	138.2	15.7	2.3	0.3	0.8	1.1	4.8	163.2
Australia	**7,861.5**	**1,479.7**	**333.3**	**51.7**	**47.0**	**42.5**	**284.2**	**10,100.0**

(a) Excludes tractors, plant and equipment, caravans and trailers.
Source: Motor Vehicle Census: Australia (9309.0).

23.5 AVERAGE AGE OF VEHICLE BY TYPE OF VEHICLE 30 SEPTEMBER 1991 AND 1988

Type of vehicle	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	1991 Aust.	1988 Aust.
Passenger vehicles	8.9	10.2	9.6	10.6	10.1	10.9	8.9	9.4	9.7	9.1
Light commercial vehicles	9.1	10.4	10.0	10.7	10.0	11.2	8.9	9.2	10.0	9.1
Rigid trucks	10.7	13.3	11.3	13.8	13.3	13.1	9.1	7.3	12.1	10.0
Articulated trucks	9.5	10.2	9.8	9.6	11.0	8.6	9.0	6.7	9.9	9.3
Non-freight carrying trucks	12.1	12.9	12.4	11.1	14.8	13.9	10.4	12.5	12.8	11.9
Buses	9.2	10.2	9.5	9.8	10.3	12.1	7.1	7.3	9.8	9.8
Motor cycles	8.0	8.5	8.8	8.8	9.4	8.8	7.4	8.5	8.6	7.1
Total	**9.0**	**10.3**	**9.7**	**10.7**	**10.2**	**11.1**	**8.8**	**9.4**	**9.8**	**9.1**

NSW to ACT: State of registration.

Source: Motor Vehicle Census, Australia (Supplementary Statistics).

23.6 MOTOR VEHICLES ON REGISTER, BY TYPE OF VEHICLE ('000)

30 June	Passenger vehicles(a)	Light commercial vehicles(b), trucks, non-freight carrying trucks(c)	Total (excludes motor cycles)	Motor cycles
1987	7,072.8	1,949.8	9,022.7	351.0
1988	7,243.6	1,977.6	9,221.1	323.3
1989	7,442.2	2,047.3	9,489.5	316.6
1990	7,672.3	2,104.3	9,776.6	304.0
1991	7,734.1	1,915.4	9,649.5	284.6
1992(d)	7,913.2	2,041.3	9,944.5	292.4

(a) Formerly described as motor cars and station wagons. From 1 July 1991 includes forward control passenger vehicles of less than 10 seats. (b) Combination of utilities and panel vans. From 1 July 1991 includes cab chassis vehicles 3.5 tonnes gross vehicle mass or less. (c) Formerly 'Other truck type vehicles'. (d) From 1 July 1991 some vehicles were reclassified from rigid trucks into light commercial vehicles and from buses into passenger vehicles.
Source: Motor Vehicle Registrations, Australia (9304.0).

23.7 MOTOR VEHICLES(a) ON REGISTER PER 1,000 OF POPULATION

30 June	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
1987	522.3	581.0	562.6	575.5	582.0	598.1	459.7	497.3	555.3
1988	523.8	589.8	568.0	580.3	587.4	607.2	440.5	498.5	559.9
1989	532.7	583.3	574.9	584.9	597.0	617.0	465.8	512.3	564.6
1990	537.8	590.0	580.5	593.3	612.2	630.5	479.7	539.2	572.3
1991	508.1	611.6	535.9	569.2	617.4	635.3	486.1	522.1	558.4
1992	525.3	587.3	584.8	590.8	629.7	633.2	456.7	543.5	569.3

(a) Excludes motor cycles, tractors, plant and equipment, caravans and trailers.
Source: Motor Vehicle Registrations, Australia (9304.0).

Registrations of new motor vehicles

Registrations of new vehicles processed by motor vehicle registration authorities in all States and Territories are shown in table 23.8 and graph 23.9.

23.8 REGISTRATIONS OF NEW MOTOR VEHICLES, BY TYPE OF VEHICLE

Year	*Passenger vehicles(a)*	*Light commercial vehicles(b)*	*Trucks — Rigid*	*Trucks — Articulated*	*Non-freight carrying trucks(c)*	*Buses*	*Total (excludes motor cycles)*	*Motor cycles*
1986–87	376,080	52,628	28,693	3,149	1,664	6,587	468,801	23,199
1987–88	384,203	48,113	28,596	2,811	1,602	5,495	470,820	18,532
1988–89	447,913	72,330	36,973	3,669	1,668	6,671	569,224	19,076
1989–90	492,235	82,021	41,074	4,065	1,815	6,552	627,762	20,453
1990–91	430,874	72,395	29,173	2,142	1,648	6,222	542,454	20,506
1991–92(d)	437,075	67,804	9,924	1,634	787	3,848	521,072	16,675
1991–92								
NSW	164,288	23,960	3,823	524	201	1,205	194,001	4,974
Vic.	98,740	11,122	1,820	405	184	646	112,917	3,878
Qld	76,493	16,481	2,187	400	115	810	96,486	3,666
SA	32,351	4,296	576	93	135	119	37,570	1,375
WA	41,976	7,669	1,024	109	101	674	51,553	1,815
Tas.	9,780	2,083	206	63	33	87	12,252	358
NT	3,218	1,257	167	32	11	198	4,883	288
ACT	10,229	936	121	8	7	109	11,410	321

(a) Formerly described as motor cars and station wagons. From 1.7.1991 includes forward control passenger vehicles of less than 10 seats. (b) Combination of utilities and panel vans. From 1.7.1991 includes cab chassis vehicles 3.5 tonnes gross vehicle mass or less. (c) Formerly 'Other truck type vehicles'. (d) From 1.7.1991 some vehicles were reclassified from rigid trucks into light commercial vehicles and from buses into passenger vehicles.
Source: Motor Vehicle Registrations, Australia (9304.0).

Use of motor vehicles

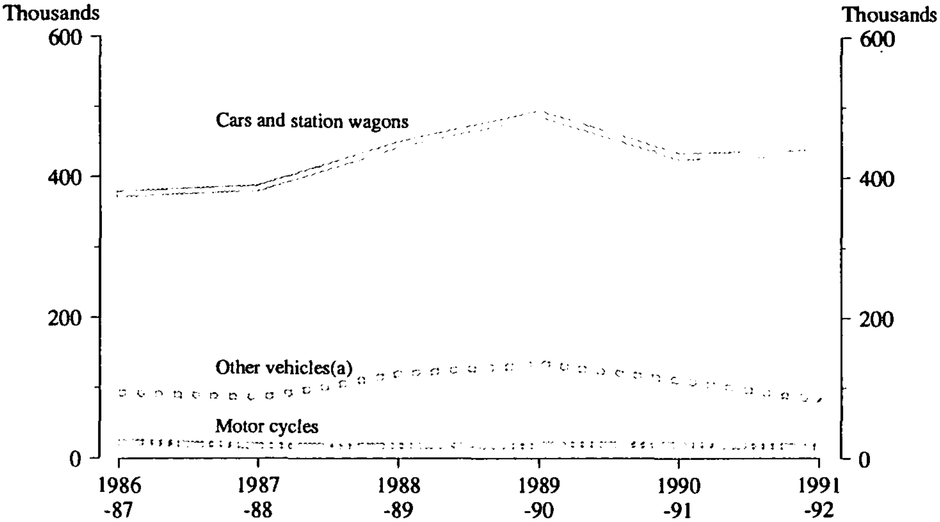
A Survey of Motor Vehicle Use is undertaken by the ABS every three years. The following are some of the main statistics from the latest survey undertaken in 1991.

Motor vehicles in Australia travelled a total of 151,154 million kilometres in the 12 months ending September 1991, a decrease of 1.8 per cent over the corresponding period in 1988. 34.8 per cent of the total distance travelled was for business purposes, 22.5 per cent for travel to and from work and 42.7 per cent for private purposes. Passenger vehicles accounted for 76.2 per cent of total distance travelled in Australia; freight carrying vehicles (including light commercial vehicles, rigid trucks and articulated trucks) 21.8 per cent; motor cycles 1.1 per cent and buses 0.9 per cent (table 23.10).

The average distance travelled annually by all vehicles was 15,000 kilometres (15,300 kilometres if unused vehicles are disregarded), a decrease of approximately 8.5 per cent over the corresponding 1988 period. Table 23.11 shows the average kilometres travelled by different types of vehicles, and where they travelled.

Total tonne-kilometres by load carrying vehicles was estimated to be 88,449.3 million tonne-kilometres (table 23.12), with vehicles registered in New South Wales and Victoria accounting for about 52.1 per cent of the total (23,213.0 and 22,907.7 million tonne-kilometres respectively).

23.9 REGISTRATIONS OF NEW MOTOR VEHICLES, BY TYPE OF VEHICLE



(a) Other motor vehicles include utilities, trucks, panel vans, non-freight carrying type vehicles and buses.

Source: Motor Vehicle Registrations, Australia (9304.0).

23.10 TOTAL KILOMETRES TRAVELLED, BY TYPE OF VEHICLE AND PURPOSE TWELVE MONTHS ENDED 30 SEPTEMBER 1991 (million kilometres)

	Purpose					
	Business			*Total to and from work*		
Type of vehicle	*Laden*	*Unladen*	*Total(a)*		*Private*	*Total*
Passenger vehicles	. .	. .	27,709.4	28,566.9	58,739.1	115,015.4
Motor cycles	. .	. .	165.5	643.5	806.5	1,615.4
Light commercial vehicles	9,831.4	2,883.1	13,566.8	4,495.9	4,791.0	22,853.7
Rigid trucks	4,328.5	1,386.2	5,798.9	247.0	113.8	6,159.7
Articulated trucks	2,935.2	1,000.4	3,935.6	25.0	4.3	3,964.9
Other truck types	. .	. .	158.1	2.5	1.6	162.2
Buses	. .	. .	1,302.5	27.1	52.9	1,382.4
Total	**17,095.1**	**5,269.6**	**52,636.7**	**34,007.9**	**64,509.1**	**151,153.7**

(a) Includes business travel of non-load carrying vehicles except for articulated trucks.

Source: Survey of Motor Vehicle Use, Australia (9208.0).

23.11 AVERAGE KILOMETRES TRAVELLED(a), BY TYPE OF VEHICLE AND AREA OF OPERATION, TWELVE MONTHS ENDED 30 SEPTEMBER 1991
('000 kilometres)

	Area of operation					
Type of vehicle	*Capital city(b)*	*Provincial urban*	*Other areas of State or Territory*	*Total within State of registration*	*Interstate*	*Australia*
Passenger vehicles	10.8	5.4	6.7	14.1	3.8	14.6
Motor cycles	5.4	4.1	3.4	5.8	3.7	6.1
Light commercial vehicles	14.6	8.8	11.2	16.8	6.5	17.3
Rigid trucks	19.8	13.0	11.5	18.5	12.1	19.1
Articulated trucks	26.0	24.3	47.2	59.0	68.1	77.8
Non-freight carrying types	18.9	11.2	6.2	13.1	8.4	13.2
Buses	26.2	17.1	20.8	30.7	23.0	33.6
Total	**11.4**	**6.0**	**7.7**	**14.6**	**4.9**	**15.3**

(a) As this table relates to actual vehicle usage, vehicles which travelled zero distance are excluded from the calculation of averages. (b) Includes all of ACT for ACT registered vehicles.
Source: Survey of Motor Vehicle Use, Australia (9208.0).

23.12 TOTAL TONNE-KILOMETRES(a), BY TYPE OF VEHICLE AND STATE/TERRITORY OF REGISTRATION, TWELVE MONTHS ENDED 30 SEPTEMBER 1991
(million tonne-kilometres)

	State of registration								
Type of vehicle	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
Light commercial vehicles	1,386.9	1,102.2	995.2	384.8	614.8	118.8	86.2	76.5	4,765.4
Rigid trucks	5,608.7	5,078.1	4,468.9	1,628.8	2,559.8	786.0	265.5	261.5	20,657.3
Articulated trucks	16,217.5	16,727.3	11,453.0	6,062.0	7,725.9	1,624.8	2,832.3	383.7	63,026.6
Total	**23,213.0**	**22,907.7**	**16,917.0**	**8,075.6**	**10,900.5**	**2,529.7**	**3,184.0**	**721.7**	**88,449.3**

(a) Total tonne-kilometres is the product of reported average load and total business kilometres travelled while laden.
Source: Survey of Motor Vehicle Use, Australia (9208.0).

Drivers' and riders' licences

23.13 DRIVERS' AND RIDERS' LICENCES, 30 JUNE 1992
(number)

Type of licence	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*
Motor vehicle	3,637,009	2,826,735	n.p.	941,493	n.p.	262,164	114,511	181,089
Motor cycle	317,988	165,825	n.p.	148,768	n.p.	189	19,223	n.a.
Combined	—	—	—	—	—	28,440	—	23,348
Total	**3,954,997**	**2,992,560**	**1,885,110**	**1,090,261**	**1,052,228**	**290,793**	**133,734**	**204,437**

Source: Motor Registry in each State and Territory.

Road traffic accidents

The number of persons killed in Australia as a result of road traffic accidents has fallen significantly between 1985 and 1991. This decline is reflected in all States and Territories, but less so in Tasmania, Western Australia, Queensland and the Northern Territory.

23.14 ROAD TRAFFIC ACCIDENTS INVOLVING FATALITIES

Year	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
				ACCIDENTS INVOLVING FATALITIES					
1987	855	605	398	226	193	67	80	33	2,457
1988	926	615	483	204	200	68	45	32	2,573
1989	783	681	376	201	213	68	57	27	2,406
1990	702	492	346	187	181	63	54	24	2,049
1991	585	435	362	166	187	65	60	16	1,876
1992	578	361	364	142	171	56	41	18	1,731
				PERSONS KILLED					
1987	959	705	442	256	213	77	84	36	2,772
1988	1,037	701	539	223	230	75	51	32	2,888
1989	960	776	428	222	242	83	61	32	2,804
1990	797	548	399	226	196	71	68	26	2,331
1991	663	503	395	184	207	75	67	17	2,111
1992	652	392	416	165	200	73	53	20	1,971

Source: Federal Office of Road Safety, Road Fatality Statistics Australia, Annual Report, 1991.

23.15 ROAD TRAFFIC ACCIDENTS INVOLVING CASUALTIES(a) NUMBER OF PERSONS KILLED OR INJURED, 1990

			Per 100,000 of mean population		*Per 10,000 motor vehicles registered(b)*	
State/ Territory	*Persons killed*	*Persons injured*	*Persons killed*	*Persons injured*	*Persons killed*	*Persons injured*
NSW	797	7,546	13.6	130.2	2.5	23.4
Vic.	548	7,084	12.4	163.2	2.0	26.7
Qld	399	3,965	13.6	138.4	2.2	22.6
SA	226	2,397	15,6	168.3	2.5	27.1
WA	196	2,644	11.9	165.9	1.8	25.5
Tas.	71	609	15.5	132.7	2.4	20.7
NT	68	521	42.9	320.8	8.4	65.5
ACT	26	207	9.0	74.3	1.6	13.1
Australia	**2,331**	**24,973**	**13.5**	**147.6**	**2.3**	**24.8**

(a) Accidents reported to the police or other relevant authority which occurred in public thoroughfares and which resulted in death within thirty days or personal injury to the extent that the injured person was admitted to hospital. (b) Number of motor vehicles (excluding tractors, plant and equipment) on register at 30 June 1990.

Source: Federal Office of Road Safety.

Road freight activity

Table 23.16 shows estimates of road freight activity derived from the 1983–84 Transport Industry Survey (TIS), and the Business Vehicle Survey, run concurrently with the TIS.

As would be expected the Transport and storage industry carried the greatest amount of freight during the 1983–84 financial year. However, the Agriculture, forestry, fishing and hunting industry had the most enterprises engaged in road freight activities, while the Construction and Wholesale and retail trade industries also had a substantial number of such enterprises.

Interstate freight movement

Graph 23.17 compares trends in freight movements by different modes of transport over time. The graph indicates relative movements from a common base year and cannot be used to compare actual levels of activity. Since 1983–84, movements of freight interstate by road and rail have shown significant increases. Movements by sea have shown a relative decline since reaching a peak in 1985–86. Transport of freight interstate by air has declined significantly. The large decline in freight moved by air in 1989–90 was mainly due to the airline pilot's dispute.

23.16 ROAD FREIGHT ACTIVITY OF PRIVATE ENTERPRISES, BY INDUSTRY, 1983–84

ASIC code	Industry description	Enterprises at 30 June 1984	Trucks operated at 30 June 1984: Rigid	Articulated	Total	Truck drivers at 30 June 1984: Working proprietors/ partners	Employees	Total	Wages and salaries paid to truck drivers(a)	Freight carried on trucks (b)
		no.	no.	no.	no.	no.	no.	no.	$	million tonnes
A	Agriculture, forestry, fishing and hunting	85,796	105,446	8,163	113,609	11,727	3,416	15,143	35.3	58.5
B	Mining	557	2,151	424	2,575	62	1,810	1,872	37.6	17.3
C	Manufacturing	8,109	21,545	2,867	24,413	694	16,049	16,743	279.0	43.8
E	Construction	12,383	18,327	1,494	19,822	2,066	4,860	6,926	79.8	40.1
F	Wholesale and retail trade	19,333	34,222	3,544	37,766	4,070	16,885	20,955	297.9	55.8
511	Road freight transport	32,616	36,535	21,307	57,842	28,147	27,818	55,966	501.5	362.1
512 — 580	Other transport and storage	742	1,237	251	1,488	157	684	841	13.0	5.2
G	Total transport and storage	33,358	37,772	21,558	59,330	28,305	28,502	56,807	514.5	367.3
I	Finance, property and business services	1,718	3,725	922	4,647	97	2,612	2,710	51.0	11.4
K	Community services	1,055	2,277	42	2,319	500	1,187	1,688	20.4	6.5
L	Recreation, personal and other services	1,773	2,523	159	2,682	247	677	924	10.0	6.2
Total		**164,081**	**227,988**	**39,174**	**267,161**	**47,769**	**75,999**	**123,768**	**1,325.5**	**606.9**

(a) Excludes the drawings of working proprietors and partners. (b) Estimates of freight carried relate to freight uplifted by trucks and therefore, to the extent that transshipment occurs (that is, the transfer of freight from one truck to another), estimates of freight carried will overstate the actual physical quantity of freight moved.

NOTE: Road freight activity data collected from road freight establishments included in the TIS has been tabulated against the industry to which the enterprise of the road freight transport establishment is classified, for example, the figures for a road freight establishment of a manufacturing enterprise would be tabulated against ASIC Division C.

Source: Road Freight Transport Activity of Private Enterprises by Industry Division, Australia and States (9107.0).

Bus and tram services

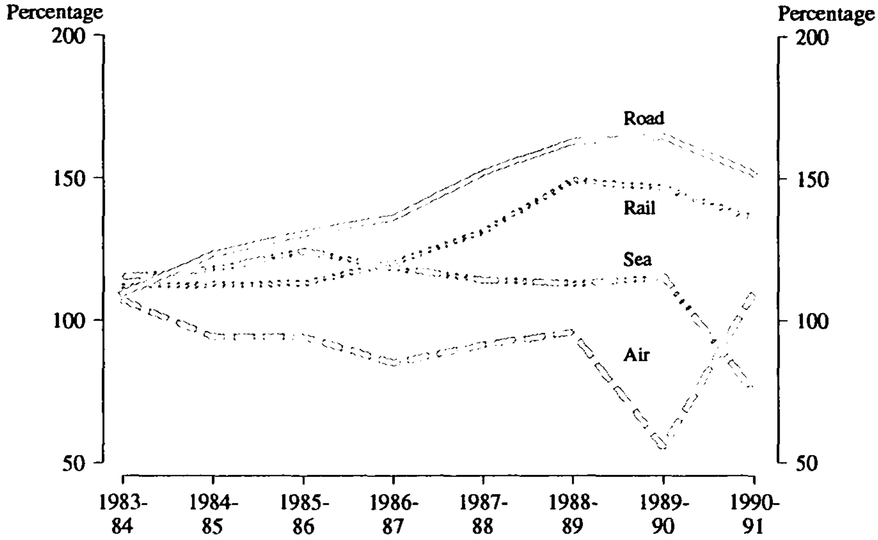
Bus services are operated by government or municipal authorities and private operators. Statistics are collected for government and municipal bus services which are located in all capital cities and Newcastle, New South Wales; Rockhampton, Queensland; Launceston and Burnie, Tasmania; and for country road services operated by the Victorian Railways, the State Rail Authority of New South Wales, the Western Australian Government Railways and the Australian National Railways.

Tram services operate in Melbourne and Adelaide. Additionally, services are operated in Ballarat and Bendigo on an irregular basis, generally during holiday periods as a tourist attraction.

A private tourist operation has commenced on the Melbourne system using a renovated historic tram as a mobile restaurant.

In 1990–91 the Melbourne tram fleet was upgraded with 20 new light rail vehicles. The light rail vehicles operate on selected lines throughout the system and on the St. Kilda and Port Melbourne lines which were converted from trains to light rail operation during 1987.

23.17 INDEXES OF INTERSTATE FREIGHT MOVEMENTS: MODE OF TRANSPORT
(Reference base year 1982–83 = 100.0)



Source: Interstate Freight Movement, Australia (9212.0).

23.18 BUS AND TRAM SERVICES: GOVERNMENT AND MUNICIPAL

	NSW 1991–92	*Vic.(a) 1990–91*	*Qld 1990–91*	*SA 1991–92*	*WA(b) 1990–91*	*Tas. 1991–92*	*NT 1991–92*	*ACT 1991–92*
Route-kilometres at 30 June								
Bus (kilometres)	1,260	n.a.	951	1,081	7,648	505.5	528	1,560
Tram (kilometres)	. .	228	. .	11	. .	. .	. .	. .
Vehicle-kilometres								
Bus ('000)	68,024	65,737	31,251	39,475	51,676	9,321	2,600	19,117
Tram ('000)	. .	22,295	. .	888	. .	. .	. .	. .
Rolling stock at 30 June								
Bus (number)	1,441	1,400	686	744	941	257	46	452
Tram (number)	. .	605	. .	21	. .	. .	. .	. .
Passenger journeys								
Bus ('000)	190,541	n.a.	43,201	44,112	53,893	12,118	3,053	24,577
Tram ('000)	. .	107,659	. .	1,684	. .	. .	. .	. .
Gross revenue(c)								
Bus and tram ($'000)	382,987	n.a.	49,709	n.a.	48,521	10,370	2,751	15,190
Working expenses(d)								
Bus and tram ($'000)	299,988	n.a.	93,451	n.a.	119,870	27,044	8,392	74,492
Net revenue								
Bus and tram ($'000)	82,999	n.a.	–43,741	n.a.	–71,349	–16,724	–5,641	–59,302
Employees at 30 June								
Bus and tram (number)	4,002	n.a.	1,681	n.a.	1,951	536	68	1,050

(a) Public and private transport State-wide merged into the Public Transport Corporation. (b) Excludes operations of Eastern Goldfields Transport Board. (c) Excludes government grants. (d) Includes provision of reserves for depreciation, etc. where possible.
Source: Various State and Territory bus and tram authorities.

23.19 BUS AND TRAM SERVICES: GOVERNMENT AND MUNICIPAL

	1985–86	1986–87	1987–88(a)	1988–89(a)	1989–90(b)	1990–91
Route-kilometres at 30 June						
Bus (kilometres)	n.a.	n.a.	n.a.	16,217	n.a.	n.a.
Tram (kilometres)	340	343	343	351	239	239
Vehicle kilometres						
Bus ('000)	255,753	266,516	214,687	254,355	289,291	287,201
Tram ('000)	24,778	24,863	24,621	24,971	24,940	23,183
Rolling stock at 30 June						
Bus (number)	5,918	5,939	5,962	5,950	5,957	5,967
Tram (number)	663	648	641	651	684	626
Passenger journeys						
Bus ('000)	460,281	463,670	387,601	494,476	472,770	n.a.
Tram ('000)	115,111	115,758	117,876	121,444	97,593	109,343

(a) Excludes details of metropolitan bus and tram services in South Australia. (b) Victorian public and private transport State-wide merged into the Public Transport Corporation in 1989–90.
Source: Various State and Territory tram and bus authorities.

RAIL TRANSPORT

Government railways

The six government owned railway systems are operated by:

- the State Rail Authority of New South Wales;
- the State Transport Authority of Victoria (operating 'V/Line' and 'The Met');
- Queensland Rail;
- the Western Australian Government Railways Commission (Westrail);
- the State Transport Authority of South Australia; and
- the Australian National Railways Commission.

The Australian National system includes routes in more than one State, and the Victorian system extends into New South Wales, therefore the system route-kilometres shown in table 23.20 do not represent route-kilometres exclusively within each State and Territory.

The National Rail Corporation (operating as 'National Rail') was incorporated on 19 September 1991. Its shareholders are the Commonwealth Government, and the governments of New South Wales, Victoria and Western Australia. Terminal operations are scheduled to commence in April 1993.

National Rail will take over interstate rail freight operations and the ownership of rail assets, including infrastructure, in mainland States during the next few years. However, it has not yet been determined which assets will be transferred.

23.20 GOVERNMENT RAILWAYS: ROUTE-KILOMETRES OPEN, BY SYSTEM
(kilometres)

30 June	NSW	Vic.	Qld	SA	WA	Australian National	Aust.
1986	9,909	5,518	10,224	153	5,553	7,333	38,690
1987	9,909	5,403	10,210	149	5,553	7,315	38,539
1988	9,917	5,289	10,089	127	5,553	7,187	38,162
1989	7,755	5,200	10,094	125	5,553	7,050	35,777
1990	7,747	5,196	10,107	125	5,554	6,757	35,486
1991	9,810	5,179	10,015	125	5,554	6,612	37,295

Source: Various rail authorities, the Rail Industry Council and Australian Bureau of Statistics.

The following information relating to train-kilometres, passenger journeys, freight-tonnes carried, and freight tonne-kilometres refers only to operations for which revenue was received.

23.21 GOVERNMENT RAILWAYS: SUMMARY OF OPERATIONS, 1990–91

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Australian National*	*Aust.*
Train-kilometres ('000)(a)(b)							
Suburban passenger	33,251	12,874	6,860	n.a.	2,519	—	n.a.
Country passenger	3,881	7,113	2,417	—	1,172	1,664	16,247
Goods(b)	17,408	5,532	22,467	—	6,559	8,069	60,035
Total	**54,542**	**25,519**	**31,744**	**n.a.**	**10,250**	**9,733**	**n.a.**
Passenger journeys ('000)(c)							
Suburban	243,800	106,772	42,067	n.a.	7,983	—	n.a.
Country(d)	2,298	6,151	923	—	309	294	10,330
Total	**246,098**	**112,923**	**42,990**	**n.a.**	**8,292**	**294**	**n.a.**
Freight							
Tonnes carried ('000)(d)	58,337	9,659	82,965	—	24,410	13,189	188,560
Net tonne-kilometres (million)(e)	13,811	3,700	22,869	—	4,583	7,789	52,752

(a) One train (that is, 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) One tonne carried one kilometre.

Source: Various rail authorities, the Rail Industry Council and the Australian Bureau of Statistics.

23.22 GOVERNMENT RAILWAYS: TRAIN-KILOMETRES(a)
('000 kilometres)

Year	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Australian National*	*Aust.*
1985–86	62,237	29,809	35,116	n.a.	10,364	r12,968	n.a.
1986–87	n.a.	28,399	35,051	n.a.	9,436	r11,034	n.a.
1987–88	61,954	27,435	34,099	n.a.	9,465	r10,754	n.a.
1988–89	61,503	26,826	33,572	n.a.	9,472	r11,329	n.a.
1989–90	60,442	26,332	32,927	n.a.	10,873	r10,379	n.a.
1990–91	54,540	25,519	31,744	n.a.	10,250	9,733	n.a.

(a) One train (that is, a complete unit of locomotive and vehicles, electric train set, or rail motor) travelling one kilometre for revenue purpose.

Source: Various rail authorities, the Rail Industry Council and the Australian Bureau of Statistics.

23.23 GOVERNMENT RAILWAYS: FREIGHT CARRIED, NET TONNE-KILOMETRES AND FREIGHT EARNINGS

Year	*NSW*	*Vic.*	*Qld*	*WA*	*Australian National*	*Aust.*
			FREIGHT CARRIED ('000 tonnes)			
1985–86	53,800	10,516	73,599	20,877	13,049	171,841
1986–87	54,747	10,597	75,169	21,264	12,900	174,677
1987–88	54,412	10,901	74,893	21,946	11,269	173,421
1988–89	50,188	9,950	80,508	24,294	13,821	178,761
1989–90	53,700	10,250	82,543	24,906	14,132	185,531
1990–91	58,266	9,659	82,965	24,410	13,189	188,489
			NET TONNE-KILOMETRES (million)			
1985–86	r13,415	3,094	20,450	4,005	7,081	48,045
1986–87	13,540	r3,588	20,871	4,062	6,873	48,934
1987–88	14,212	r3,474	20,676	4,203	7,165	49,730
1988–89	13,552	r3,365	20,884	4,881	8,082	50,764
1989–90	14,100	r3,672	22,579	4,872	8,115	53,338
1990–91	14,222	3,700	22,869	4,583	7,789	53,163

... *continued*

23.23 GOVERNMENT RAILWAYS: FREIGHT CARRIED, NET TONNE-KILOMETRES AND FREIGHT EARNINGS — *continued*

Year	*NSW*	*Vic.*	*Qld*	*WA*	*Australian National*	*Aust.*
			FREIGHT EARNINGS ($'000)			
1985–86	736,795	168,641	905,494	200,974	237,345	2,249,249
1986–87	739,250	174,700	960,950	200,731	238,097	2,313,728
1987–88	767,820	176,161	910,409	204,330	236,782	2,295,502
1988–89	667,038	166,526	r1,021,854	231,749	284,905	r2,372,072
1989–90	667,000	172,603	r1,062,988	235,983	282,638	r2,421,212
1990–91	783,602	164,175	1,124,800	235,420	275,294	2,583,291

Source: Various rail authorities, the Rail Industry Council and the Australian Bureau of Statistics.

Non-government railways

Statistics shown in table 23.24 relate to non-government railways with a route distance exceeding two kilometres which operate outside industrial estates, harbour precincts, mines and quarries.

23.24 ACTIVITIES OF AUSTRALIAN NON-GOVERNMENT RAILWAYS

Year	*Iron ore railways*	*Sugar tramways*	*Coal railways(a)*	*Other non-government railways*	*Total(a)*
		TONNES CARRIED (million)			
1985–86	86.8	21.6	8.1	10.3	126.8
1986–87	91.1	23.1	7.8	11.1	133.1
1987–88	94.6	23.6	8.5	10.7	137.3
1988–89	90.5	23.6	7.4	14.1	135.6
1989–90	103.9	24.4	8.7	13.2	150.2
1990–91	113.6	22.2	7.9	14.3	158.0
		TONNE-KILOMETRES (million)			
1985–86	28,517	368	116	201	29,202
1986–87	29,552	393	116	220	30,281
1987–88	30,218	425	126	230	30,998
1988–89	27,866	425	106	274	28,671
1989–90	31,654	438	123	263	32,478
1990–91	34,533	400	114	300	35,347

(a) Includes transfers to and from government railways.
Source: Bureau of Transport and Communications Economics.

WATER TRANSPORT

Water transport is of vital importance because ports remain the principal means of transport of goods into and out of Australia. International shipping carried $35 billion worth of goods to Australia's ports in 1990–91 and $43 billion worth of exports from Australia's ports (32 million tonnes and 304 million tonnes respectively).

The Australian fleet

Together, New South Wales and Queensland account for 57 per cent of ships registered in Australia. The majority of these ships are used for non-commercial purposes (table 23.25).

Of the 75 ships which comprise the major Australian trading fleet (2,000 dead weight tonnes and over), 60 per cent operated on coastal routes (table 23.26).

23.25 SHIPS REGISTERED(a) IN AUSTRALIA AT 30 JUNE 1991

						Nature of registration
Location	*Demise chartered (b)*	*Other(c)*	*Government*	*Fishing*	*Pleasure*	*Total*
New South Wales	6	248	3	276	1,422	1,955
Victoria	4	113	5	183	460	765
Queensland	5	307	29	644	1,017	2,002
South Australia	—	40	3	276	221	540
Western Australia	5	134	3	390	441	973
Tasmania	—	60	4	222	178	464
Northern Territory	2	18	1	57	169	247
Total	**22**	**920**	**48**	**2,048**	**3,908**	**6,946**

(a) Any Australian ship longer than 24 metres must be registered. Any Australian ships travelling overseas must be registered regardless of length. A ship less than 24 metres may be registered, but this is not required by law. (b) A demise chartered ship is a foreign owned ship chartered by way of a charter party to an Australian based operator, who is an Australian national and who under the charter party has whole possession and control of the ship, including the right to appoint the master and crew of the ship. (c) Relates to vessels used for commercial purposes.

Source: Department of Transport and Communications.

23.26 SUMMARY OF THE AUSTRALIAN TRADING FLEET OF SHIPS 150 GROSS TONNES OR MORE, 30 JUNE 1991

Ships	*Number*	*DWT(a)*	*Gross tonnes*
Major Australian fleet(b)			
Coastal			
Australian owned and registered	42	1,287,280	883,389
Overseas owned, Australian registered	6	121,580	72,668
Overseas owned and registered	2	9,590	5,646
Coastal fleet	*50*	*1,418,450*	*961,703*
Overseas			
Australian owned and registered	20	1,475,127	995,665
Overseas owned, Australian registered	5	430,515	262,161
Overseas owned and registered	1	4,260	3,236
Overseas fleet	*26*	*1,909,902*	*1,261,062*
Major Australian fleet	*76*	*3,328,352*	*2,222,765*
Other trading ships			
Australian owned and registered	14	5,820	8,366
Australian trading fleet	**90**	**3,334,172**	**2,231,131**

(a) Dead weight tonnage. (b) 2,000 DWT and over.

Source: Department of Transport and Communications.

Coastal shipping cargo

Table 23.27 shows the gross weight of shipping cargo loaded at an Australian port for discharge at another Australian port. Both interstate and intrastate cargo movements are included. Cargo loaded or to be discharged at an overseas port is excluded.

OVERSEAS SHIPPING

Ship arrivals and departures

Table 23.28 shows particulars of ship arrivals and departures according to the country of registration of the ships.

Shipping at principal ports

Ship and cargo movements to and from Australian ports during 1990–91 are shown in table 23.29.

23.27 COASTAL CARGO LOADED AND DISCHARGED AT AUSTRALIAN PORTS, 1990–91
('000 gross weight tonnes)

	Loaded			Discharged		
Australian port	*Interstate*	*Intrastate*	*Total*	*Interstate*	*Intrastate*	*Total*
New South Wales						
Sydney	173	—	173	2,764	754	3,518
Port Kembla	1,627	52	1,679	4,430	—	4,430
Botany Bay	460	97	557	3,520	5	3,524
Other	310	1,786	2,096	3,050	1,361	4,411
Total	*2,570*	*1,935*	*4,505*	*13,764*	*2,120*	*15,884*
Victoria						
Melbourne	1,491	—	1,491	2,349	—	2,349
Geelong	1,489	173	1,662	949	—	949
Westernport	5,383	—	5,383	711	—	711
Other	6	—	6	654	124	777
Total	*8,369*	*173*	*8,542*	*4,663*	*124*	*4,786*
Queensland						
Brisbane	703	1,238	1,941	3,806	478	4,284
Gladstone	980	540	1,520	162	8,558	8,720
Other	841	8,406	9,247	111	1,269	1,380
Total	*2,524*	*10,184*	*12,708*	*4,079*	*10,305*	*14,384*
South Australia						
Adelaide	543	29	572	457	963	1,419
Port Stanvac	596	4	600	451	380	831
Other	2,916	1,492	4,408	1,179	150	1,329
Total	*4,055*	*1,525*	*5,580*	*2,087*	*1,493*	*3,579*
Western Australia						
Fremantle	730	910	1,640	496	914	1,410
Other	7,023	909	7,932	123	784	907
Total	*7,753*	*1,819*	*9,572*	*619*	*1,698*	*2,317*
Tasmania						
Hobart	460	86	546	675	207	882
Burnie	662	227	889	557	55	611
Devonport	411	—	411	310	—	310
Launceston	290	7	297	1,033	4	1,037
Other	649	10	659	71	11	82
Total	*2,472*	*330*	*2,802*	*2,646*	*277*	*2,923*
Northern Territory						
Darwin	3	34	37	153	—	153
Other	429	12	441	4	81	85
Total	*432*	*46*	*478*	*157*	*81*	*238*
Total all ports	**28,175**	**16,012**	**44,187**	**28,015**	**16,097**	**44,112**

Source: Department of Transport and Communications.

23.28 OVERSEAS SHIPPING: SHIP ARRIVALS AND DEPARTURES BY COUNTRY OF SHIP REGISTRATION, 1990–91

	Ship arrivals		Ship departures	
Country of registration	*Ship calls*	*DWT(a) ('000 tonnes)*	*Ship calls*	*DWT(a) ('000 tonnes)*
Australia	668	19,969	660	21,444
China	793	12,766	861	23,517
Denmark	75	990	69	448
Germany	1,021	19,124	694	13,077
Greece	407	10,154	567	20,766
Hong Kong	329	13,065	526	25,115
India	12	393	121	4,815
Japan	618	14,948	1,090	97,190
Korea, Republic of	105	3,526	299	22,275
Liberia	792	28,984	916	39,887
Malaysia	455	8,794	390	7,976
Netherlands	505	8,941	302	4,920
New Zealand	421	8,104	392	7,267
Norway	632	17,409	484	17,676
Panama	1,264	22,254	1,658	48,488
Philippines	437	10,150	751	28,506
Singapore	514	11,484	589	17,555
Sweden	94	3,641	75	3,353
Taiwan	259	8,448	329	23,189
United Kingdom	1,155	33,151	1,116	32,591
United States of America	43	1,250	9	180
USSR	629	8,687	699	10,637
Other countries	2,317	64,888	2,646	84,108
Total all countries	**13,545**	**331,118**	**15,243**	**554,978**

(a) Dead weight tonnage.

Source: Shipping and Air Cargo Commodity Statistics, Australia (9206.0).

23.29 OVERSEAS SHIP AND CARGO MOVEMENTS AT AUSTRALIAN PORTS, 1990–91

	Ship arrivals		Ship departures	
Australian port	*Ship calls*	*DWT(a) ('000 tonnes)*	*Ship calls*	*DWT(a) ('000 tonnes)*
New South Wales				
Sydney	4,060	93,704	2,428	53,873
Botany Bay	364	8,425	813	18,295
Newcastle	163	5,136	726	47,922
Port Kembla	100	5,752	316	19,075
Other	77	4,115	66	1,954
Total	*4,764*	*117,132*	*4,349*	*141,119*
Victoria				
Melbourne	3,479	77,665	2,615	58,258
Geelong	104	3,379	133	3,840
Other	28	984	150	5,415
Total	*3,611*	*82,028*	*2,898*	*67,513*
Queensland				
Brisbane	1,981	47,048	1,793	40,245
Cairns	88	2,449	138	3,586
Townsville	180	3,454	273	5,722
Other	173	5,220	1,184	82,296
Total	*2,422*	*58,171*	*3,388*	*131,849*
South Australia				
Port Adelaide	784	19,510	570	14,677
Port Pirie	5	150	62	1,636
Other	52	3,557	214	7,060
Total	*841*	*23,217*	*846*	*23,373*

For footnotes *see* end of table.

23.29 OVERSEAS SHIP AND CARGO MOVEMENTS AT AUSTRALIAN PORTS, 1990–91 — *continued*

	Ship arrivals		*Ship departures*	
Australian port	*Ship calls*	*DWT(a) ('000 tonnes)*	*Ship calls*	*DWT(a) ('000 tonnes)*
Western Australia				
Fremantle	1,234	29,153	1,053	27,280
Port Hedland	27	543	409	38,436
Other	218	8,521	1,327	95,634
Total	*1,479*	*38,217*	*2,789*	*161,350*
Tasmania				
Hobart	75	1,804	179	4,331
Launceston	54	1,701	168	5,133
Burnie	117	3,214	211	5,332
Other	22	707	94	3,131
Total	*268*	*7,426*	*652*	*17,927*
Northern Territory				
Darwin	141	3,714	210	6,580
Other	19	1,212	111	5,268
Total	*160*	*4,926*	*321*	*11,849*
Total Australia	**13,545**	**331,118**	**15,243**	**554,978**

(a) Dead weight tonnage.
Source: Shipping and Air Cargo Commodity Statistics, Australia (9206.0).

Overseas cargo — by trade area

Details of cargo discharged in Australia from overseas, and cargo loaded in Australia for discharge overseas, classified according to the various trade areas of the world and by ship type are shown in tables 23.30 and 23.31.

23.30 INWARD OVERSEAS SEA CARGO, BY TRADE AREA OF PORT OF LOADING BY SHIP TYPE, 1990–91
('000 tonnes)

Trade area	*General cargo*	*Tanker*	*Bulk carrier*	*Other ships*	*Total ships*
Europe — Atlantic	1,102	189	506	25	1,822
Europe — Baltic — Western	182	. .	2	. .	184
Europe — Baltic — Eastern	18	28	. .	. .	46
Europe — Mediterranean — Western	307	171	22	2	501
Europe — Mediterranean — Eastern	36	. .	. .	1	38
East Asia	844	274	178	17	1,314
Japan and North Asia	1,024	529	1,648	81	3,284
North America — West Coast	625	361	1,988	18	2,991
North America — East Coast	519	945	1,054	17	2,535
Central America and Caribbean	4	41	231	. .	274
South America — West Coast	44	. .	. .	. .	45
South America — East Coast	130	30	495	1	656
Africa — West and Mediterranean	2	. .	107	. .	109
South and East Africa	54	. .	53	7	114
Red Sea and Mediterranean Middle East	41	544	196	. .	781
Middle East Gulf	52	6,437	757	. .	7,246
West India	55	. .	268	9	332
East India	37	. .	4	18	59
South-East Asia	524	4,364	1,384	393	6,664
New Zealand	230	967	588	271	2,056
Papua New Guinea and Solomon Islands	38	. .	13	1	53
Other countries	88	20	809	19	936
Trade area not available	130	1	21	3	156
Total inward overseas cargo	**6,085**	**14,901**	**10,330**	**887**	**32,202**

Source: Shipping and Air Cargo Commodity Statistics, Australia (9206.0).

23.31 OUTWARD OVERSEAS SEA CARGO, BY TRADE AREA OF PORT OF DISCHARGE BY SHIP TYPE, 1990–91
('000 tonnes)

Trade area	*General cargo*	*Tanker*	*Bulk carrier*	*Other ships*	*Total ships*
Europe — Atlantic	1,171	546	34,228	6	35,953
Europe — Baltic — Western	8	. .	649	. .	657
Europe — Baltic — Eastern	40	. .	1,652	1	1,692
Europe — Mediterranean — Western	278	240	6,168	4	6,689
Europe — Mediterranean — Eastern	29	48	2,688	. .	2,766
East Asia	2,343	212	32,062	238	34,855
Japan and North Asia	4,815	5,958	158,563	43	169,377
North America — West Coast	464	2,091	4,922	107	7,584
North America — East Coast	463	211	4,274	16	4,966
Central America and Caribbean	17	. .	13	. .	32
South America — West Coast	53	. .	722	. .	775
South America — East Coast	7	. .	1,711	. .	1,718
Africa — Mediterranean and West	64	—	2,792	45	2,901
South and East Africa	88	52	502	3	645
Red Sea and Mediterranean Middle East	117	26	1,637	68	1,847
Middle East Gulf	287	18	4,330	71	4,706
West India	189	282	4,817	89	5,377
East India	180	105	1,461	38	1,785
South-East Asia	1,908	3,418	5,244	617	11,186
New Zealand	270	296	970	139	1,675
Papua New Guinea and Solomon Islands	270	345	826	30	1,470
Other countries	287	584	219	40	1,132
Trade area not available	392	9	4,219	31	4,651
Total outward overseas cargo	**13,740**	**14,441**	**274,669**	**1,586**	**304,439**

Source: Shipping and Air Cargo Commodity Statistics, Australia (9206.0).

Overseas cargo — by commodity

This section provides details of inward and outward overseas sea cargo movements classified according to the Australian Transport Freight Commodity Classification (ATFCC).

Road vehicles were the single largest commodity category of inward sea cargo in 1990–91, contributing 12.5 per cent ($4,394 million) of the total value of such movements. The largest single contributor to outward cargo movements in 1990–91 was coal, coke and briquettes, contributing 8.5 per cent ($3,663 million) to total outward overseas cargo movements (table 23.32).

Table 23.33 shows commodity cargoes classified by the type of liner service which carried them.

23.32 INWARD AND OUTWARD OVERSEAS SEA CARGO BY COMMODITY, 1990–91(a)
($ million)

ATFCC division	*Title*	*Inward cargo*	*Outward cargo*
00	Live animals	1	104
01	Meat and meat preparations	31	3,042
02	Dairy products and birds' eggs	115	744
03	Fish, crustaceans, molluscs and aquatic invertebrates	409	566
04	Cereals and cereal preparations(b)	104	2,411
05	Vegetables and fruit	356	547
06	Sugar, sugar preparations and honey	61	935
07	Coffee, tea, cocoa, spices and manufactures thereof(b)	232	39
08	Feeding stuff for animals	66	242
09	Miscellaneous edible products and preparations(b)	361	154

For footnotes *see* end of table.

23.32 INWARD AND OUTWARD OVERSEAS SEA CARGO BY COMMODITY, 1990–91(a) — *continued*
($ million)

ATFCC division	*Title*	*Inward cargo*	*Outward cargo*
11	Beverages(b)	290	218
12	Tobacco and tobacco manufactures(c)	104	17
21	Hides, skins and furskins(b)	8	152
22	Oil seeds and oleaginous fruits(c)	58	47
23	Crude rubber(b)(c)	72	8
24	Cork and wood(b)	438	24
25	Pulp and waste paper	150	28
26	Textile fibres and their wastes(b)	133	3,558
27	Fertilisers and minerals, crude(b)	104	221
28	Metalliferous ores and metal scrap(b)	131	2,946
29	Crude animal and vegetable materials, n.e.s.(b)(c)	69	119
32	Coal, coke and briquettes(b)	5	3,663
33	Petroleum, petroleum products and related materials(b)	2,991	2,561
34	Gases, natural and manufactured(b)(c)	8	—
41	Animals oils and fats(b)	2	34
42	Fixed vegetable oils and fats, crude, refined or fractionated(b)(c)	113	4
43	Animal and vegetable fats and oils, processed, and waxes of animal or vegetable origin(b)(c)	12	3
51	Organic chemicals(b)	677	58
52	Inorganic chemicals(b)	287	170
53	Dyeing, tanning and colouring materials(b)	212	178
54	Medicinal and pharmaceutical products(b)	298	87
55	Essential oils, perfume materials(b)	262	96
56	Fertilisers, manufactured(b)	221	18
57	Plastics in primary forms(b)	328	160
58	Plastics in non-primary forms(b)	353	40
59	Chemical materials and products(b)	548	106
61	Leather, leather manufactures(c)	55	139
62	Rubber manufactures(b)	520	56
63	Cork and wood manufactures(b)	207	23
64	Paper, paperboard and articles of paper(b)	1,128	175
65	Textile yarn, fabrics, made-up articles, n.e.s.(b)	1,535	108
66	Non-metallic mineral manufactures, n.e.s.(b)	726	138
67	Iron and steel(b)	743	957
68	Non-ferrous metals(b)	260	3,346
69	Manufactures of metal, n.e.s.(b)	910	412
71	Power generating machinery and equipment	906	373
72	Machinery specialised for particular industries(b)	1,852	414
73	Metalworking machinery	278	58
74	General industrialised machinery and equipment(b)	1,916	326
75	Office machines and ADP equipment	953	77
76	Telecommunications and sound recording or reproducing apparatus and equipment(b)	866	75
77	Electrical machinery, apparatus and appliances(b)	1,367	273
78	Road vehicles	4,394	776
79	Other transport equipment	245	127

For footnotes *see* end of table.

23.32 INWARD AND OUTWARD OVERSEAS SEA CARGO BY COMMODITY, 1990–91(a) — *continued* ($ million)

ATFCC division	*Title*	*Inward cargo*	*Outward cargo*
81	Prefabricated buildings, sanitary plumbing, heat and light fixtures and fittings(c)	124	37
82	Furniture and parts thereof	277	29
83	Travel goods, handbags and similar containers(c)	152	1
84	Articles of apparel and clothing accessories	684	28
85	Footwear	325	7
87	Professional, scientific and controlling apparatus(b)	451	38
88	Photographic apparatus, equipment and supplies(b)	319	46
89	Miscellaneous manufactured articles(b)	1,937	217
93	Special transactions and commodities not classified by kind(c)	12	146
96	Coins, not being legal tender(c)	—	—
97	Gold, non-monetary(c)	15	43
99	Other commodities and transactions(d)	2,348	11,244
Total all commodities		**35,116**	**42,995**

(a) The recorded value of inward cargo is the free on board (f.o.b.) Customs value. The value of outward cargo is the f.o.b. transactions value expressed in Australian dollars. (b) Excludes import commodities regarded as confidential. These items are included in Division 99. (c) Excludes export commodities regarded as confidential. These items are included in Division 99. (d) Includes commodities regarded as confidential.

Source: Shipping and Air Cargo Commodity Statistics, Australia (9206.0).

23.33 OVERSEAS SEA CARGO BY COMMODITY BY TYPE OF LINER SERVICE 1990–91(a) ($ million)

		Liner service			
ATFCC section and title		*Conference(a)*	*Non-conference*	*Other*	*Total*
	INWARD(b)				
0	Food and live animals(c)	1,111	459	166	1,735
1	Beverages and tobacco	218	129	46	393
2	Crude materials, inedible, except fuels(c)	400	332	432	1,163
3	Mineral fuels, lubricants and related materials(c)	21	23	2,959	3,005
4	Animal and vegetables oils, fats and waxes(c)	50	21	58	128
5	Chemicals and related products(c)	1,538	896	753	3,187
6	Manufactured goods classified chiefly by material(c)	3,217	1,903	966	6,085
7	Machinery and transport equipment(c)	5,472	2,551	4,754	12,777
8	Miscellaneous manufactured articles(c)	2,293	1,601	375	4,268
9	Other commodities and transactions(d)	910	483	981	2,375
Total all commodities		**15,230**	**8,398**	**11,488**	**35,116**

For footnotes *see* end of table.

23.33 OVERSEAS SEA CARGO BY COMMODITY BY TYPE OF LINER SERVICE
1990–91(a) — *continued*
($ million)

	ATFCC section and title	*Liner service* *Conference(a)*	*Non-conference*	*Other*	*Total*
	OUTWARD(b)				
0	Food and live animals(c)	3,475	1,553	3,758	8,782
1	Beverages and tobacco(c)	145	65	27	235
2	Crude materials, inedible, except fuels(c)	2,353	1,546	3,204	7,103
3	Mineral fuels, lubricants and related materials(c)	29	27	6,169	6,224
4	Animal and vegetable oils, fats and waxes(c)	11	13	17	41
5	Chemicals and related products(c)	427	270	216	913
6	Manufactured goods classified chiefly by material(c)	1,680	1,131	2,545	5,355
7	Machinery and transport equipment(c)	1,311	444	745	2,500
8	Miscellaneous manufactured articles(c)	214	133	58	403
9	Other commodities and transactions(d)	1,049	519	9,865	11,435
Total all commodities		**10,692**	**5,698**	**26,604**	**42,995**

(a) An association of ship owners which regulates the freight rates and terms and conditions of the carriage of goods in any particular trade. (b) The recorded value of inward cargo is the free on board (f.o.b.) Customs value. The value of outward cargo is the f.o.b. transactions value expressed in Australian dollars. (c) Excludes commodities regarded as confidential. These items are included in Section 9. (d) Includes commodities regarded as confidential.
Source: Shipping and Air Cargo Commodity Statistics, Australia (9206.0).

AIR TRANSPORT

International activity

International scheduled services. At 31 July 1992, 37 international airlines were operating regular scheduled air services to and from Australia. The carriers (and contracting states) were:

Aerolineas Argentinas	(Argentina)
Air Caledonie International	(New Caledonia)
Air China International	(People's Republic of China)
Air Nauru	(Nauru)
Air New Zealand	(New Zealand)
Air Niugini	(Papua New Guinea)
Air Pacific	(Fiji)
Air Vanuatu	(Vanuatu)
Airlanka	(Sri Lanka)
Alitalia	(Italy)
All Nippon Airways	(Japan)
Australia Asia Airlines	(Australia)
British Airways	(UK)
Cathay Pacific Airways	(Hong Kong)
Continental Airlines	(USA)
Federal Express Corporation	(USA)
Garuda Indonesia Airways	(Indonesia)
Gulf Air	(Bahrain)
Japan Airlines	(Japan)
KLM Royal Dutch Airlines	(Netherlands)
Korean Airlines	(Korea)
Lauda Air	(Austria)
Lufthansa German Airlines	(Germany)
Malaysia Airlines	(Malaysia)
Merpati Nusantara Airlines	(Indonesia)
Northwest Airlines	(USA)
Olympic Airways	(Greece)
Philippine Airlines	(Philippines)
Polynesian Airlines	(Western Samoa)
Qantas	(Australia)
Royal Brunei Airlines	(Brunei)
Singapore Airlines Ltd	(Singapore)
Solomon Airlines	(Solomon Islands)
South African Airways	(South Africa)
Thai Airways International	(Thailand)
United Airlines	(USA)
Union de Transport Aeriens	(France)

Australia Asia Airlines, although a subsidiary of Qantas, operates regular scheduled air services independently to and from Taiwan.

Canadian Airlines International operates a code-share arrangement with Qantas: CAI operates the Canada–Honolulu sector whilst Qantas operates the Australia–Honolulu sector of the code-share flights.

Polynesian Airlines also operates services on behalf of Cook Islands International (Cook Islands).

Qantas, Australia's international airline, operates a fleet of 33 Boeing 747 and 20 Boeing 767 jet aircraft. 25 per cent of Qantas Airways Limited was purchased by British Airways on 10 March 1993. The remainder of shares are expected to be sold in a public float, scheduled for November 1993.

International non-scheduled services. Passenger and freight charter policies in Australia encourage in-bound tourism and freight carriage by non-scheduled services, particularly over routes not served by the scheduled carriers.

International traffic. Particulars of scheduled international airline operations and passenger and freight traffic during 1990–91 moving into and out of an area which embraces Australia and Norfolk Island are shown in tables 23.34, 23.35 and 23.36. These figures do not include traffic between Australia and Norfolk Island. Statistics of the operations of Australia's regular overseas services include all stages of Qantas flights linking Australia with overseas countries.

Domestic activity

The Commonwealth Government deregulated domestic aviation in Australia and opened the nation's interstate air services to free competition from 31 October 1990.

Major airlines. At 30 June 1992, the Ansett group's fleet consisted of 12 Airbus A320s, 5 Boeing 767-200s, 5 Boeing 727-200s, 16 Boeing 737-300s, 5 Fokker F28-1000s, 2 Fokker F28-3000s, 7 Fokker F28-4000s, 4 Fokker F50's and 5 British Aerospace 146-200s.

Australian Airlines (owned by Qantas Ltd) operates a fleet of 4 Airbus A300s, 7 Boeing 727-200s, 15 Boeing 737-300s and 9 Boeing 737-400s.

Australian Airlink (a fully owned subsidiary of Australian Airlines) operates four British Aerospace 146-100 series aircraft on routes previously serviced by Australian Airlines.

Eastwest Airlines operated a fleet of two Boeing 727-200s and seven British Aerospace 146-300s.

Compass Airlines commenced operations on 1 December 1990 and ceased operations on 21 December 1991. Southern Cross Airlines, trading as Compass Airlines, commenced operations on 31 August 1992, but ceased operations on 11 March 1993 and went into liquidation.

The Interstate Parcel Express Company Australia Pty Ltd, trading as IPEC Aviation, operates cargo airline services using two DC9 aircraft.

Regional services. At 30 June 1992, 47 regional operators provided regular public transport air services to approximately 220 ports in Australia.

The aircraft types used by regional operators are predominantly in the six to nine seats category, such as the Piper PA31 and Cessna 310, 402 and 404 series. However, an increasing number of larger types utilised include De Havilland Canada Twin Otter and Dash 8, Embraer Bandeirante and Brasilia, Shorts 330 and 360, the SAAB 340 and the Metroliner. During 1991–92, regional operators carried an estimated 2.0 million passengers.

Scheduled domestic air services. Statistics of all regular domestic airline services and the number of domestic airline passengers passing through airports are set out in tables 23.37 and 23.38.

Other aviation matters

In addition to scheduled services, there is a wide range of other activities undertaken by the aviation industry, including business flying, aerial agriculture, charter, training and private flying. Charter operations and training have, in recent years, made up over 45 per cent of general aviation hours flown. Charter operations involve the use of aircraft in non-scheduled operations for the carriage of passengers and cargo for hire or reward.

Aerodromes. At 30 June 1991, there were 428 Commonwealth or licensed aerodromes in Australia and its Territories. Of these, 23 were owned and operated by the Federal Airports Corporation, three of them being shared with the Department of Defence. A further 42 were owned by the Commonwealth under the control of Commonwealth departments. The remaining 363 were owned by either local authorities or private organisations.

Air transport registrations and licences in force in Australia. At 30 June 1992, there were 9,197 aircraft registered in Australia. At the same time there were 33,822 current aeroplane pilot licence holders, including 21,595 private pilots, 6,633 commercial pilots, 1,054 senior commercial pilots and 4,548 air transport pilots. The number of licence holders has dropped significantly since 31 December 1991, due to a reclassification of student pilots which now excludes them and to the effects of restructuring in the airlines.

In addition, there were 2,061 current helicopter pilot licence holders of which 363 were private pilots, 1,499 commercial pilots, 134 senior commercial pilots and 200 air transport pilots. There were also 63 commercial balloon, 867 flight engineer and 14 navigator licences in force.

23.34 SCHEDULED INTERNATIONAL AIRLINE TRAFFIC TO AND FROM AUSTRALIA(a), 1990–91

Type of traffic	*Number of flights(b)(c)*	*Passengers*	*Freight tonnes*	*Mail tonnes*
Traffic to Australia				
Qantas Airways Limited	8,821	1,632,025	67,736	2,047
Other airlines	13,922	2,623,563	106,464	7,860
All airlines	**22,743**	**4,255,588**	**174,200**	**9,907**
Traffic from Australia				
Qantas Airways Limited	8,788	1,589,685	64,568	4,885
Other airlines	13,769	2,573,685	118,647	1,954
All airlines	**22,557**	**4,163,370**	**183,215**	**6,839**

(a) Australia and Norfolk Island. (b) Includes Qantas flights using aircraft leased from other airlines and vice versa. (c) The difference between in/out numbers arises because some outward flights are operated as non-scheduled, and thus not counted in the above table.
Source: Department of Transport and Communications.

23.35 OPERATIONS OF AUSTRALIA'S SCHEDULED OVERSEAS AIRLINE SERVICES

		1985–86	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*
Hours flown	number	100,648	117,383	126,812	140,172	148,706	163,332
Kilometres flown	'000	79,050	91,874	98,999	109,102	115,783	127,421
Passengers							
Embarkations	number	2,671,486	3,052,411	3,612,197	3,947,544	4,078,669	3,880,533
Passenger-kilometres	'000	18,233,088	21,258,519	24,535,745	26,516,771	27,054,999	26,774,074
Freight							
Tonnes uplifted	tonnes	91,961	110,389	119,202	130,635	146,937	155,638
Tonne-kilometres	'000	691,352	811,627	855,260	929,458	1,072,999	1,131,729
Mail							
Tonnes uplifted	tonnes	4,869	5,327	5,858	5,988	5,963	6,992
Tonne-kilometres	'000	45,370	51,819	57,946	61,049	59,398	75,110

Source: Department of Transport and Communications.

23.36 INWARD AND OUTWARD OVERSEAS AIR CARGO, BY TRADE AREA, 1990–91

	Inward cargo		*Outward cargo*	
Trade area	*Gross weight*	*Value*	*Gross weight*	*Value*
	tonnes	$'000	tonnes	$'000
Europe	39,541	3,846,098	11,640	2,372,436
Japan, North and East Asia	27,147	1,849,483	47,010	2,906,040
North America	40,384	4,530,059	12,475	1,049,024
Central and South America(a)	528	56,394	317	21,987
Africa	812	35,427	491	28,785
Middle East(b)	244	49,757	6,150	48,943
India	2,839	95,758	882	31,713
South-East Asia	11,125	764,785	45,469	1,757,655
New Zealand	37,820	747,655	39,376	1,047,828
Papua New Guinea and Solomon Islands	422	534,964	2,577	125,748
Other	2,386	100,175	5,124	104,035
Not available	116	5,466	4,286	126,496
Total	**163,364**	**12,616,021**	**175,797**	**9,620,690**

(a) Includes Caribbean region. (b) Includes Red Sea, Mediterranean Middle East and Gulf areas.
Source: Shipping and Air Cargo Commodity Statistics, Australia (9206.0).

23.37 DOMESTIC AIRLINE ACTIVITY

Domestic airlines	*1987–88*	*1988–89*	*r1989–90*	*r1990–91*	*1991–92*
Domestic airlines					
Passengers (thousands)	13,647.9	14,012.1	9,905.2	14,098.6	18,014.0
Passenger kilometres performed (millions)	13,267.2	13,732.7	9,989.5	14,505.0	19,117.4
Revenue passenger load factor (per cent)	75.2	76.4	72.2	70.8	78.4
Cargo tonnes (thousands)(a)	164.1	169.1	100.0	136.3	136.9
Cargo tonnes kilometres (millions)(a)	157.1	161.4	93.8	140.8	151.0
Total tonnes kilometres (millions)	1,351.2	1,397.4	992.8	1446.3	1,720.6
Revenue weight load factor (per cent)	63.1	63.7	59.4	57.0	61.3
Hours flown (thousands)	285.3	290.3	192.9	281.7	337.6
Aircraft movements (thousands)	429.8	420.0	256.4	375.0	428.5
Regional airlines					
Passenger (thousands)	1,224.7	1,324.1	1,560.4	p1,448.1	p2,013.8
Cargo tonnes (thousands)(a)	3.9	n.a.	2.4	p1.6	p2.6

(a) Includes freight and mail.
Source: Department of Transport and Communications — AVSTATS.

23.38 SCHEDULED MAJOR DOMESTIC AIRLINES PASSENGER UPLIFTS AND DISCHARGES AT PRINCIPAL AUSTRALIAN AIRPORTS

	1986–87	*1987–88*	*r1988–89*	*r1989–90*	*1990–91*	*p1991–92*
Sydney	6,660,129	7,374,065	7,541,281	5,497,040	7,599,616	9,902,465
Melbourne	5,313,403	5,827,494	5,999,957	4,635,608	6,388,802	8,141,806
Brisbane	2,973,743	3,312,524	3,581,535	2,657,313	3,828,124	4,959,696
Adelaide	1,704,871	1,833,001	1,876,691	1,414,557	2,014,778	2,554,368
Perth	1,352,214	1,437,035	1,479,851	1,055,104	1,563,114	2,082,763
Canberra	1,006,652	1,087,595	1,073,519	651,897	1,044,850	1,262,511
Coolangatta	844,581	1,005,622	1,080,222	586,029	976,045	1,410,271
Cairns	627,703	777,316	824,880	545,497	825,942	1,181,136
Hobart	474,345	511,308	519,055	430,013	566,437	664,079
Townsville	415,870	400,439	379,362	248,715	316,828	350,664
Launceston	351,432	351,004	371,327	249,373	338,746	397,809
Darwin	341,835	366,639	388,324	302,213	402,403	445,277

Source: Department of Transport and Communications — AVSTATS.

Accidents and casualties

23.39 AIR TRANSPORT: ACCIDENTS INVOLVING CASUALTIES(a)(b)

	1986	*1987*	*1988*	*1989*	*1990*	*1991*
Number	40	44	53	49	58	40
Persons killed	44	33	63	66	70	48
Persons seriously injured	31	42	32	36	44	25

(a) Accidents involving civil aircraft (including registered gliders and registered balloons) which resulted in death or serious injury. Excludes parachutists and casualties involving non-registered aircraft. (b) Excludes accidents outside Australia involving aircraft on the Australian register; includes all accidents to overseas registered aircraft that occur in Australia.
Source: Department of Transport and Communications.

GOVERNMENT TRANSPORT ORGANISATIONS

General

The Australian Transport Advisory Council comprises Commonwealth, State and Territory ministers responsible for transport, roads and marine and ports matters. The New Zealand and the Papua New Guinea Ministers for Transport are also represented on the Council as observers.

The Council meets bi-annually and its primary role is to review and coordinate various aspects of transport policy, development and administration. The Council initiates discussion and reports on issues raised by Council members, and provides advice on policies which will promote better coordination and development of transport to the benefit of Australia.

The Australian Road Transport Advisory Committee was established in April 1990 as part of the continuing push to reform the land transport sector.

Its function is to provide the Minister for Land Transport with direct industry based advice on all aspects of the road transport industry. The specialist advice from the Committee also assists the task of integrating road and rail with other forms of transport.

The Bureau of Transport and Communications Economics is a centre for applied economic research in the Department of Transport and Communications. It undertakes studies and investigations that contribute to an improved understanding of the factors influencing the efficiency and growth of the transport and communications sector and the development of effective transport and communication policies.

Road and Rail

AUSTROADS, the national association of road and traffic authorities, provides strategic direction for the development, management and use of Australia's road system through consultation and discussion with peak bodies that have a stake in the road industry. Its functions are the coordination of research, preparation of guides and standards, and improvements in and harmonisation of practices within an agreed national policy framework.

The Australian Road Research Board (ARRB) is a non-profit national organisation owned by the Federal Department of Transport and Communications, the State and Territory road/transport authorities and the Australian Local Government Association. It conducts research into all aspects of roads and road transport including freight and heavy vehicles, human behaviour, intersection design and capacity, the environment, road safety, construction and maintenance of infrastructure, and the development of equipment for traffic analysis and road condition measurement. This work is undertaken for all three levels of government and for industry.

ARRB provides an information service to many external customers — government, industry, educational and research organisations and the general public. The service is supported by ARRB research staff, an extensive library, and an information network encompassing access to worldwide electronic databases and a network of contacts, both in Australia and abroad.

Water

ANL Limited was incorporated as a public company on 1 July 1989 taking over all the assets, liabilities and operations of the former Australian Shipping Commission. All shares in ANL Limited are currently held by the Commonwealth Government.

ANL is an integrated international and domestic shipping operation participating in both blue-water and shore-based shipping activities, either in its own right or in joint venture arrangements with private sector interests. ANL has a primary focus on liner (container) trades, both domestic and international; domestic bulk trades; and through a 50 per cent shareholding in National Terminals (Australia) Ltd, container terminal activities in Australia. The geographic focus of ANL's activities is in the Australasian region.

As at 30 June 1992, ANL Ltd fleet consisted of 14 vessels. The overseas fleet comprised 7 liner vessels totalling 175,967 DWT. The coastal fleet comprised 4 bulk carriers totalling 217,033 DWT, and 3 liner vessels totalling 20,731 DWT.

Australian Maritime Safety Authority (AMSA) is a government business enterprise established under the *Australian Maritime Safety Authority Act 1990* on

1 January 1991. AMSA is responsible for maritime safety regulatory activities in Australia and provision of the Australian marine navigational aids network. It operates the Marine Rescue Co-ordination Centre, which coordinates major maritime search and rescue activities in Australian waters. It is responsible for oil pollution prevention and clean up, and for the registration of Australian vessels.

Air

The Civil Aviation Authority, an independent government business enterprise established under the *Civil Aviation Act 1988*, is responsible for the safety regulation of civil aviation in Australia and of Australian aircraft operating overseas. It also provides air route and airway facilities and associated services to the aviation industry including air traffic control, flight service, rescue and fire fighting, search and rescue and aeronautical information.

The Federal Airports Corporation owns, manages and develops Australia's major airports and oversees the commercial activities in the airports including arrangements with airlines and other operators for the use of airports and for leasing of property and the letting of business concessions. The Corporation is a statutory transport business undertaking of the Commonwealth and is required to be financially self-supporting. It has been established with a capital base and debt/equity ratio determined by the Commonwealth Government.

International organisations. Australia is one of the 169 members (at 30 June 1992) of the International Civil Aviation Organisation (ICAO). Australia has been a member of the governing Council since ICAO was established in 1947. Australia is also represented on the 15 member Air Navigation Commission which is responsible for drawing up international standards and procedures for the safety and efficiency of air navigation. In addition, Australia participates in the Commonwealth Air Transport Council, the South Pacific Regional Civil Aviation Council, the Airport Operators Council International and the International Civil Airports Association.

International agreements. Australia has air services agreements with 33 countries at 30 June 1992. 30 of these agreements have full treaty status while Hong Kong, Switzerland and Zimbabwe, will be upgraded to treaty status when draft agreements are ratified. Australia also has eight air service arrangements which are of less than treaty status. These agreements and arrangements enable airlines of both Australia and its bilateral partners to operate a network of international air services to and from Australia.

Multiple designation and the International Air Services Commission. In February 1992 the Prime Minister announced a range of reforms to aviation policy including the introduction of multiple designation of Australia's international air services, enabling Australian carriers in addition to Qantas to operate international services. To develop the necessary legislative and administrative framework to implement multiple designation, including a mechanism for the allocation of international aviation capacity and route entitlements, a detailed analysis of overseas practices and views of major Australian carriers was undertaken.

As a result the International Air Services Commission was established on 1 July 1992, having the role of making determinations on the allocation of international aviation capacity and route entitlements among Australia's international airlines. The Commission determines the merits of competing claims according to a strict public benefit test laid down by the Government. This test includes matters such as tourism and trade, route economies, competition policy benefits and broader national interests. The Commission reports separately to Parliament.

COMMUNICATIONS

Radio and television broadcasting

Radio and television broadcasting falls within the jurisdiction of the Commonwealth Minister for Transport and Communications. Commonwealth bodies which are involved include the Australian and Overseas Telecommunications Corporation (AOTC), the Australian Broadcasting Corporation (ABC), the Special Broadcasting Service (SBS), the Australian Broadcasting Authority (ABA), the Department of Transport and Communications, and the Australian Telecommunications Authority AUSTEL.

Basically, the Australian broadcasting system comprises the following types of services:

- national radio and television services broadcasting programs produced by the Australian Broadcasting Corporation and the Special Broadcasting Service;
- commercial radio and television services operated by companies under licence;
- public radio services operated by incorporated associations under licence on a non-profit basis; and
- Parliamentary radio service to State capitals, Canberra and Newcastle.

National Transmission Agency (NTA), which is attached to the Department of Transport and Communications, is responsible for the design, construction, operation and maintenance of a complex network of transmission facilities used primarily for the transmission of the programs for the ABC and the SBS throughout Australia. In regional and remote areas, commercial licensees make extensive use of the NTA's transmission facilities to deliver their services, as do radiocommunications operators.

The Australian Broadcasting Corporation (ABC) is an independent statutory corporation receiving 90 per cent of its funding from Commonwealth Parliament appropriations and the remainder from sales and other revenue.

The *Australian Broadcasting Act 1983* requires the ABC to:

- provide within Australia innovative and comprehensive radio and television services of a high standard;
- provide programs that contribute to a sense of national identity, inform and entertain, and reflect the cultural diversity of the Australian community;
- provide radio and television programs of an educational nature;
- promote Australia's musical, dramatic and other performing arts; and
- transmit to other countries radio and television programs of news, current affairs, entertainment and cultural enrichment that encourage awareness of Australia and an international understanding of Australian attitudes on world affairs.

At 30 June 1992, the ABC provided:

- five main radio services across Australia on over 437 transmitters which include Metropolitan Radio, Regional Radio, Radio National, ABC-FM, and the Triple J youth radio network;
- a national television service on over 568 transmitters;
- Radio Australia, the ABC's international broadcasting service;
- an international office network so that an Australian perspective is available on major world events; and
- six State Symphony Orchestras.

Television and radio programs produced by the ABC are broadcast through transmitters operated by the National Transmission Agency.

International broadcasting service. The international short-wave service known as Radio Australia provides an emphasis on news and current affairs, information programs and sports coverage serving the needs and interests of the Asia/Pacific region.

The broadcasts — in English, Indonesian, Standard Chinese, Cantonese, Tok Pisin, French, Thai and Vietnamese — are directed to the Pacific, South-East/South Asia and North Asia. The English Service is also heard in the Middle East, United Kingdom, Europe and North and South America. Overall, the services reach an estimated 50 million regular listeners.

The Special Broadcasting Service (SBS) was established by the Commonwealth Government on 1 January 1978 to provide multilingual radio services and, was authorised by regulations from August 1978, to provide multilingual television services.

Commercial radio and television services. At 30 June 1992, there were 149 commercial radio services (including four supplementary services) and 42 commercial television services in operation in Australia.

At 30 June 1992, there were three remote commercial television services licensed, transmitting their programs via satellite to remote localities in the Western Zone (Western Australia), Central Zone (Northern Territory, South Australia, western New South Wales and north-western Victoria) and North-East Zone (Queensland and north-western New South Wales). There was also one remote radio service providing a monophonic service via satellite to remote localities in the Western Zone.

Public broadcasting services. At 30 June 1992, 102 public radio services were broadcasting programs ranging from fine music to ethnic languages and programs produced by and directed towards specific communities. Some public radio services are associated with tertiary educational institutions. There are no public television services operating permanently in Australia.

23.40 RADIO TRANSMITTERS, 30 JUNE 1992

Type of transmitterand location	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
ABC									
Medium frequency (AM)	25	9	22	11	25	7	6	3	108
High frequency (HF)	—	—	2	—	1	—	3	—	6
Very high frequency (FM)	42	15	113	28	83	7	33	2	323
SBS									
Medium frequency (AM)	3	1	—	—	—	—	—	—	4
Very high frequency (FM)	—	—	—	—	—	—	—	—	—
International									
Short wave (Radio Australia)	—	6	2	—	3	—	3	—	14
Commercial									
Medium frequency (AM)	46	17	32	8	19	7	1	2	132
Very high frequency (FM)	13	7	9	4	39	3	2	2	79
Public									
Medium frequency (AM)	2	2	2	2	2	—	—	1	11
Very high frequency (FM)	36	26	10	9	5	6	18	1	111

Source: Department of Transport and Communications.

23.41 TELEVISION TRANSMITTERS, 30 JUNE 1992

Type of transmitter and location	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
National	104	67	142	56	122	27	43	7	568
Commercial	203	94	219	55	118	22	36	9	756

Source: Department of Transport and Communications.

The Australian Broadcasting Authority. As at 30 June 1992, the former Australian Broadcasting Tribunal was the independent statutory authority established to regulate aspects of commercial and public radio and commercial television in Australia. The Tribunal was empowered to grant, renew, suspend or revoke licences, to determine program and advertising standards applicable to licensed stations, to authorise changes to the ownership and control of licences, and to collect and make available information about broadcasting in Australia. In particular, the Tribunal conducted public inquiries into the granting of licences following the invitation of applications by the Minister.

From 5 October 1992, the Tribunal was replaced by a new regulatory body, the Australian Broadcasting Authority, established under the Broadcasting Services Act. The Authority subsumed many of the functions of the Tribunal but has wider discretionary powers to support its decisions, and will also assume a significant role in planning of broadcasting services previously undertaken by the Department of Transport and Communications on behalf of the Minister.

Radiocommunication stations

At 30 June 1992, there were 1,298,806 radiocommunication stations authorised for operation in Australia and its territories. Of these, 668,862 were associated with land mobile services, 62,751 were fixed services, 83,046 were for marine services, 431,493 were citizen band (CB) stations and amateur stations.

Telecommunications services within Australia

Telecom Australia and OTC were merged on 1 February 1992 to form the Australian and Overseas Telecommunications Corporation (AOTC). Telecom was Australia's domestic carrier (the Australian Telecommunications Corporation), supplying telecommunications services within Australia; OTC provided Australia's links with the world, and was a founding member of both the International Telecommunications Satellite Organisation (INTELSAT), and the International Maritime Satellite Organisation (INMARSAT). AOTC continues to carry out these functions, in competition with a new telecommunications carrier, Optus Communications Pty Ltd.

Postal communications

Australian Postal Corporation. The Australian Postal Corporation's principal function is to supply postal services within Australia and between Australia and overseas. Its subsidiary function is to carry on any business or activity relating to postal services either domestically or overseas.

The Australian Postal Corporation is the authority for the issue of postage stamps throughout the Commonwealth of Australia and its external territories. The following tables provide details of the Corporation's finances, services and operation.

23.42 AUSTRALIAN POSTAL CORPORATION PROFIT AND LOSS STATEMENT YEARS ENDING 30 JUNE(a) ($'000)

	1986–87	*1987–88*	*1988–89*	*1989–90*	*1990–91*
Revenue					
Mail services	1,370,930	1,501,487	1,605,998	1,779,573	1,949,439
Philatelic sales	n.a.	n.a.	38,871	41,474	41,471
Commission on agency services	83,328	89,803	88,031	79,780	89,900
Postal money order services	12,384	13,242	16,792	19,029	21,647
Other revenue	38,440	51,847	61,516	60,617	63,807
Total	*1,505,082*	*1,656,379*	*1,811,208*	*1,980,473*	*2,166,264*
Expenditure					
Labour and related expenditure	1,049,186	1,131,190	1,235,530	1,324,254	1,407,198
Carriage of mail by contractors	121,183	132,832	151,131	158,311	172,222
Accommodation	n.a.	n.a.	79,334	103,601	124,081
Stores and supplies	n.a.	n.a.	101,801	112,055	106,095
Depreciation	(b)27,744	(b)38,454	34,466	44,947	54,337
Interest	(b)n.a.	(b)n.a.	5,282	6,246	2,440
Other operating expenditure	252,079	298,955	142,051	160,976	153,712
Total	*1,450,192*	*1,601,431*	*1,749,595*	*1,910,390*	*2,020,085*
Operating profit	**54,890**	**54,948**	**61,613**	**70,083**	**146,179**

(a) Does not include appropriations. (b) Depreciation and Interest are combined for 1986–87 and 1987–88 data.
Source: Australian Postal Corporation.

23.43 AUSTRALIAN POSTAL CORPORATION: PERSONS ENGAGED IN PROVIDING POSTAL SERVICES AT 30 JUNE 1990 AND 1991

	1991							
	HQ	*NSW (incl. ACT)*	*Vic. and Tas.*	*Qld*	*SA (incl. NT)*	*WA*	*Aust.*	*Aust. 1990*
Official staff(a)								
Full-time permanent	563	12,679	10,023	4,280	2,549	2,403	32,497	31,981
Full-time temporary	14	1,161	581	328	100	162	2,346	3,126
Part-time	—	1,729	1,230	660	451	544	4,614	4,549
Other staff(b)	—	2,397	1,992	1,691	855	686	7,621	8,058
Total	**577**	**17,966**	**13,826**	**6,959**	**3,955**	**3,795**	**47,078**	**47,714**

(a) 'Official staff' are those whose employment is governed by the *Australian Postal Corporation Act 1989*. (b) Includes persons who are not employed under the Australian Postal Corporation Act, but who are engaged on the basis of business transacted. Also included are persons or organisations who hold road mail service contracts with the Australian Postal Corporation.

Source: Australian Postal Corporation.

23.44 AUSTRALIAN POSTAL CORPORATION: MAIL DELIVERY NETWORK AND POST OFFICES AT 30 JUNE 1990 AND 1991 (number)

	1991						
Number	*NSW (incl. ACT)*	*Vic. & Tas.*	*Qld*	*WA*	*SA (incl. NT)*	*Aust.*	*Aust. 1990*
Households receiving mail	2,287,178	1,775,800	1,129,287	607,022	608,403	6,407,690	6,279,631
Businesses receiving mail	250,369	195,818	126,718	72,032	62,036	706,973	673,196
Post offices	483	366	214	150	139	1,352	1,356
Agencies	879	1,008	499	252	371	3,009	3,045
Total post offices and agencies	**1,362**	**1,374**	**713**	**402**	**510**	**4,361**	**4,401**

Source: Australian Postal Corporation.

23.45 AUSTRALIAN POSTAL CORPORATION: TOTAL POSTAL ARTICLES HANDLED (million)

Year ended 30 June	*Posted for delivery within Australia*	*Posted for places abroad*	*Received from abroad*	*Total postal articles handled*
1986	2,970.3	115.7	166.4	3,252.4
1987	3,143.2	126.0	169.3	3,438.5
1988	3,342.2	142.3	177.4	3,662.0
1989	3,564.4	157.6	194.0	3,916.0
1990	3,665.3	171.3	213.7	4,050.3
1991	3,721.9	176.7	219.9	4,118.5

Source: Australian Postal Corporation.

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Road Traffic Accidents Involving Casualties, Australia (9405.0)

Road Traffic Accidents Involving Fatalities, Australia (9401.0)

Shipping and Air Cargo Commodity Statistics, Australia (9206.0)

Survey of Motor Vehicle Use, Australia (9208.0)

Survey of Motor Vehicle Use, Australia, Preliminary (9202.0)

Transport Establishments: Details of Operations by Industry Class, Australia (9104.0)

Transport Establishments: Selected Items of Data Classified by Industry and Size Group, Australia (9105.0)

Transport Establishments: Summary of Operations by Industry Class, Australia and States (9103.0)

Other Publications

FEDERAL OFFICE OF ROAD SAFETY. Road Fatality Statistics Australia, Annual Report, 1991

Information additional to that contained in ABS publications is available in the annual reports and other statements of the Department of Transport and Communications, the various harbour boards and trusts, the several government railway authorities, the Federal Airports Corporation, the Australian Postal Corporation, the Australian Telecommunications Corporation, and the Australian Broadcasting Corporation.

FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Twenty-four

Science and Technology

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Science and technology directly influence the strength and competitiveness of industry by providing a basis for technological change and thereby encouraging economic growth and development. They can be seen as making major contributions to the achievement of many of Australia's social, economic and industrial goals.

OFFICIAL ORGANISATIONS AND ADMINISTRATION

There are many organisations in Australia concerned in some way with the development of science and technology in Australia.

The Commonwealth Government's conviction of the importance of science and technology is reflected in the functions of the Department of Industry, Technology and Commerce. Apart from having general responsibility for science and technology, the Department is concerned with the development and maintenance of Australia's scientific and technological capability.

A number of other Commonwealth government organisations either support or carry out scientific and technological activities. State Governments are also involved in science and technology via State government departments, science and technology councils and other organisations. Non-government organisations participating in scientific and technological activities include higher education institutions, professional and learned bodies, private organisations and industry groups. *See Year Book Australia 1991.*

The Department of Industry, Technology and Regional Development

The main scientific and technological bodies and activities of the portfolio include the Commonwealth Scientific and Industrial Research Organisation, the Australian Nuclear Science and Technology Organisation, and the 150 per cent tax concession for research and development (R&D), which are described below. Details of others, such as R&D grants and assistance schemes; the Patent, Trade Marks and Design Office; the Snowy Mountains Engineering Corporation; the Commission for the Future; The Australian Space Office; and the National Standards Commission, are contained in *Year Book Australia 1991.*

The Commonwealth Scientific and Industrial Research Organisation (CSIRO)

CSIRO was established as an independent statutory authority by the *Science and Industry Research Act 1949*. The Act has been amended on a number of occasions since then, including in 1978, following the government-instigated 'Birch Committee of Inquiry' and in November 1986, following the 'Review of Public Investment in Research and Development in Australia', specifically including CSIRO, carried out by the Australian Science and Technology Council (ASTEC).

The 1986 amendments to the Act confirm that CSIRO's primary role is to continue as an applications-oriented research organisation in support of major industry sectors and selected areas of community interest, but with a stronger commitment to the effective transfer of its results to users. The most recent amendments have also included changes to the top management structure and the organisation's advisory mechanisms.

Briefly, CSIRO's primary statutory functions are to:

- carry out scientific research for the benefit of Australian industry, the community, national objectives, national or international responsibilities, or for any other purpose determined by the Minister; and
- encourage or facilitate the application or utilisation of the results of such research.

Other functions include dissemination and publication of scientific information, international liaison in scientific matters, and provision of services and facilities.

The research work of the organisation is carried out in Institutes, each headed by a Director and each specifically established to undertake work in support of industry or community interest sectors of the Australian economy. Institutes are composed of Divisions, which are individually responsible for broad programs of research in support of the objectives of the Institute.

Institute of Information, Science and Engineering: Divisions of Information Technology; Radiophysics; Mathematics and

Statistics; CSIRO Office of Space Science and Applications; Australia Telescope.

Institute of Industrial Technologies: Divisions of Manufacturing Technology; Materials Science and Technology; Applied Physics; Chemicals and Polymers; Biomolecular Engineering.

Institute of Minerals, Energy and Construction: Divisions of Building, Construction and Energy (now incorporates National Building Technology Centre); Exploration Geoscience; Mineral and Process Engineering; Mineral Products; Coal and Energy Technology; Geomechanics.

Institute of Animal Production and Processing: Divisions of Animal Health; Animal Production; Wool Technology; Tropical Animal Production; Food Processing; Human Nutrition.

Institute of Plant Production and Processing: Divisions of Plant Industry; Tropical Crops and Pastures; Horticulture; Entomology; Soils; Forestry and Forest Products.

Institute of Natural Resources and Environment: Divisions of Water Resources; Fisheries; Oceanography; Atmospheric Research; Wildlife and Ecology; Centre for Environmental Mechanics.

CSIRO has a total staff of more than 7,000 in more than 100 locations throughout Australia. About one-third of the staff are professional scientists, with the others providing technical, administrative or other support. CSIRO's budget for 1991–92 was $620.5 million.

The Australian Nuclear Science and Technology Organisation (ANSTO)

ANSTO was established as a statutory authority under the *Australian Nuclear Science and Technology Organisation Act Number 3 of 1987*, and replaced the Australian Atomic Energy Commission. Its mission is to benefit the Australian community by the development and peaceful application of nuclear science and technology in industry, medicine, agriculture, science and other fields.

Tax Concession for Research and Development

The 150 per cent tax concession for Research and Development (R&D) which commenced from July 1985 is the major program in the Government's package of measures to encourage R&D in Australia.

The concession allows companies incorporated in Australia, public trading trusts and partnerships of eligible companies to deduct up to 150 per cent of eligible expenditure incurred on R&D activities when lodging their corporate tax return. This effectively reduces the after tax cost of R&D to about 41.5 cents in the dollar at the 39 per cent corporate tax rate.

The concession is broad based, being available to the majority of companies undertaking R&D in Australia. The concession is market driven, being structured in a manner which is neither industry nor product oriented, allowing individual companies to determine both the specific area of innovation and direction of their R&D activities.

Expenditure eligible under the concession at 150 per cent include: salaries, wages and other overhead costs which are directly related to the company's Australian R&D activities; contract expenditure; and capital expenditure on R&D plant and equipment (over three years). Expenditure on acquiring, or acquiring the right to use, technology for the purposes of the company's own R&D activities is 100 per cent deductible.

The concession is only available for R&D projects carried out in Australia or an external Territory and must meet exploitation and adequate Australian content requirements.

To attract the full 150 per cent deduction, annual eligible R&D expenditure must exceed $50,000, with a sliding scale operating from 100 to 150 per cent where annual eligible R&D expenditures range from $20,000 to $50,000. Where R&D is contracted to an approved Registered Research Agency this expenditure threshold is waived and the R&D expenditure can be deducted at 150 per cent.

Cooperative Research Centres (CRC)

Launched in May 1990 the Cooperative Research Centres Program is a major initiative in Commonwealth support of R&D. A CRC committee advises on the operation of the program and selection of up to 50 centres to undertake collaborative research and education in the fields of natural sciences and engineering.

The program has the following objectives:

- to support long-term high quality scientific and technological research which contributes to national objectives, including economic and social development, the maintenance of a strong capability in basic research and the development of internationally competitive industry sectors;
- to capture the benefits of research, and to strengthen the links between research and its commercial and other applications, by the active involvement of the users of research in the work of the centres;
- to build centres of research concentration by promoting cooperative research, and through it a more efficient use of resources in the national research effort; and
- to stimulate education and training, particularly in graduate programs, through the active involvement of researchers from outside the higher education system in educational activities, and graduate students in major research programs.

35 selected centres were in operation by 1 July 1992, and a further 15 have been selected. The Commonwealth Government will provide funding of up to $100 million (in 1990–91 dollars) to the centres. This is to be allocated to enable funding of up to 50 per cent of the cost of establishing and operating the centre. The participating organisations in each centre contribute the remainder.

RESEARCH AND DEVELOPMENT — EXPENDITURE AND HUMAN RESOURCES

The statistics which follow are based on the definitions described by the OECD for national research and development (R&D) surveys. The OECD defines R&D as comprising 'creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications'.

Tables 24.1 and 24.2 show the amount of expenditure and human resources devoted to R&D in the business enterprise, general government, higher education, and private non-profit sectors.

24.1 EXPENDITURE ON RESEARCH AND DEVELOPMENT IN AUSTRALIA AT CURRENT AND AVERAGE 1984–85 PRICES ($ million)

Sector	*1986–87r*	*1987–88r*	*1988–89r*	*1989–90r*	*1990–91*
		AT CURRENT PRICES			
Business enterprises					
Private sector	1,156.5	1,340.3	1,635.2	1,787.1	1,813.2
Public sector	123.5	117.6	149.2	187.0	204.2
General government					
Commonwealth	786.5	797.0	868.9	n.a.	1,039.7
State	368.4	394.6	474.4	n.a.	611.4
Higher education					
Universities	844.9	929.8	1,018.4	n.a.	n.y.a.
CAEs	36.7	53.8	54.5	n.a.	n.y.a.
Private non-profit	49.1	53.9	51.9	n.a.	68.3
Total	**3,365.6**	**3,687.0**	**4,252.5**	**n.a.**	**n.y.a.**

... continued

24.1 EXPENDITURE ON RESEARCH AND DEVELOPMENT IN AUSTRALIA AT CURRENT AND AVERAGE 1984–85 PRICES — *continued*
($ million)

Sector	1986–87r	1987–88r	1988–89r	1989–90r	1990–91
	AT AVERAGE 1984–85 PRICES				
Business enterprises					
Private sector	992.3	1,072.4	1,244.9	1,254.3	1,216.0
Public sector	106.6	97.6	119.3	139.4	143.4
General government					
Commonwealth	693.8	655.7	679.9	n.a.	717.9
State	322.5	324.2	371.1	n.a.	427.0
Higher education					
Universities	750.8	788.7	816.5	n.a.	n.y.a.
CAEs	32.2	40.3	41.0	n.a.	n.y.a.
Private non-profit	45.5	47.3	43.4	n.a.	49.2
Total	**2,943.7**	**3,026.2**	**3,316.1**	**n.a.**	**n.y.a.**

Source: Research and Experimental Development: All Sector Summary, Australia (8112.0).

24.2 HUMAN RESOURCES DEVOTED TO RESEARCH AND DEVELOPMENT
(person years)

Sector	1986–87r	1987–88r	1988–89r	1989–90r	1990–91
Business enterprises					
Private sector	16,198	16,952	18,858	18,572	18,103
Public sector	1,393	1,527	1,597	1,729	1,881
General government					
Commonwealth	11,529	11,491	11,705	n.a.	11,386
State	6,796	7,133	7,992	n.a.	8,295
Higher education					
Universities	21,690	22,435	22,939	n.a.	n.a.
CAEs	1,529	1,888	1,963	n.a.	n.a.
Private non-profit	945	1,016	990	n.a.	1,049
Total	**60,080**	**62,442**	**66,044**	**n.a.**	**n.a.**

Source: Research and Experimental Development: All Sector Summary, Australia (8112.0).

Source of funds

In 1990–91, 94 per cent of funding for R&D carried out by businesses came from the business sector and has remained at this level since 1988–89. General government organisations provided four per cent.

60 per cent of general government sector R&D was funded by Commonwealth government organisations and 30 per cent by State government organisations. These percentages have fallen slightly since 1988–89 and have been offset by increases from both business enterprises and private non-profit organisations.

For the private non-profit sector Commonwealth government organisations funded 31 per cent of the R&D in 1990–91 (down from 37% in 1988–89) while State Governments doubled their contribution to 15 per cent.

24.3 EXPENDITURE ON RESEARCH AND DEVELOPMENT IN AUSTRALIA BY SECTOR BY SOURCE OF FUNDS
($'000)

	Source of funds						
Sector	*Common-wealth government*	*State government*	*Business enterprises*	*Higher education*	*Private non-profit and other Australian*	*Overseas*	*Total*
			1988–89				
Business enterprises							
Private sector	59,074	2,709	1,529,077	168	4,060	40,676	1,635,213
Public sector	2,900	1,642	144,126			—	149,217
General government							
Commonwealth	816,248	3,862	40,617	—	2,651	5,563	868,941
State	43,369	388,377	22,651	299	18,543	1,162	474,401
Higher education							
Universities	940,066	11,856	18,676	—	40,961	6,824	1,018,383
CAEs	11,228	4,779	8.906	28,057	1,180	369	54,519
Private non-profit	19,382	5,660	4,305	632	19,735	2,193	51,906
Total	**1,892,267**	**418,885**	**1,768,357**	**29,156**	**87,130**	**56,787**	**4,252,577**
			1990–91				
Business enterprises							
Private sector	61,296	8,951	1,696,971	4,241	3,542	41,728	1,813,202
Public sector	5,611		195,071			—	204,209
General government							
Commonwealth	922,933	7,482	48,801	13	51,285	9,161	1,039,676
State	68,891	480,827	35,944	2,099	20,883	2,731	611,376
Higher education	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.
Private non-profit	21,466	10,304	5,650	890	27,259	2,776	68,344
Total	**n.y.a.**	**n.y.a.**	**n.y.a.**	**n.y.a.**	**n.y.a.**	**n.y.a.**	**n.y.a.**

Source: Research and Experimental Development: All Sector Summary, Australia (8112.0).

Business sector

Business expenditure on R&D in Australia in 1990–91 is estimated to be $2,017 million at current prices and has been steadily increasing over the years. However, at average 1984–85 prices, it is estimated to be two per cent lower in 1990–91 than in 1989–90.

Of the total business expenditure in 1990–91, 53 per cent of expenditure ($1,060 million) and 56 per cent of human resources (11,258 person years) were devoted to R&D in the manufacturing sector (table 24.4). The major industries contributing to this were Appliances and electrical equipment (26% of expenditure, 32% of human resources); Chemical, petroleum and coal products (17% and 16% respectively) and Transport equipment (17% and 13% respectively).

Outside of manufacturing, the largest industry was Property and business services. In 1990–91 this industry contributed 12 per cent of both expenditure and human resources for all business enterprises in Australia.

Business expenditure on R&D represents 0.53 per cent of Gross Domestic Product (GDP). This ratio increased fairly rapidly in the early 1980s but started to plateau from 1986–87. It has remained steady over the last couple of years, and is relatively low when compared with other OECD countries (table 24.5).

24.4 RESEARCH AND DEVELOPMENT BY BUSINESS ENTERPRISES

Industry of enterprise		*Expenditure on R&D ($m)*			*Person years of effort on R&D*		
ASIC code	*Description*	*1986–87r*	*1988–89r*	*1990–91*	*1986–87r*	*1988–89r*	*1990–91*
11–15	Mining (excluding services to mining)	55.6	68.7	77.3	524	589	559
	Manufacturing						
21	Food, beverages and tobacco	58.8	87.4	85.3	883	891	925
23–24	Textiles; Clothing and footwear	12.9	9.1	7.5	119	118	74
25	Wood, wood products and furniture	6.4	10.4	7.3	118	122	107
26	Paper, paper products, printing and publishing	10.0	24.1	35.4	158	234	231
27	Chemical, petroleum and coal products	120.1	147.1	178.7	1,857	1,660	1,799
28	Non-metallic mineral products	15.3	22.2	17.5	178	204	159
29	Basic metal products	63.2	91.4	130.5	855	948	969
31	Fabricated metal products	23.0	26.1	32.6	392	382	354
32	Transport equipment	127.9	162.3	155.0	1,562	1,804	1,463
334	Photographic, professional and scientific equipment	25.7	37.5	41.9	433	513	490
335	Appliances and electrical equipment	174.5	236.4	275.1	2,835	3,450	3,605
336	Industrial machinery and equipment	43.3	56.1	60.3	720	799	710
34	Miscellaneous manufacturing	21.6	27.1	32.9	329	400	375
C	*Total manufacturing*	*702.7*	*937.2*	*1,060.0*	*10,438*	*11,523*	*11,258*
	Other industries						
F	Wholesale and retail trade	99.9	159.4	174.2	1,264	1,689	1,629
61–62	Finance	59.0	106.4	124.0	836	1,165	1,271
63	Property and business services	183.6	228.5	249.0	2,413	2,810	2,490
8461	Research and scientific institutions	45.3	127.4	111.2	640	1,094	986
	Other n.e.c.	134.1	156.8	221.8	1,476	1,584	1,791
16, D–L	*Total other industries*	*521.8*	*778.5*	*880.1*	*6,629*	*8,342*	*8,168*
Total all industries		**1,280.1**	**1,784.4**	**2,017.4**	**17,591**	**20,454**	**19,985**
Private sector contribution		1,156.5	1,635.2	1,813.2	16,198	18,858	18,103
Public sector contribution		123.5	149.2	204.2	1,393	1,597	1,881

Source: Research and Experimental Development, Business Enterprises, Australia (8104.0).

24.5 BUSINESS EXPENDITURE ON R&D AS A PERCENTAGE OF GDP — OECD COUNTRIES

Country	*Per cent*
Switzerland	2.14
Japan	2.08
Germany	2.07
United States	1.90
Sweden	1.83
United Kingdom	1.48
Finland	1.17
Denmark	0.84
Italy	0.79
Canada	0.75
Australia	**0.53**
Spain	0.49
Ireland	0.47

Source: Research and Experimental Development, Business Enterprises, Australia (8104.0).

24.6 GOVERNMENT EXPENDITURE ON R&D AS A PERCENTAGE OF GDP — OECD COUNTRIES

Country	*Per cent*
France	0.56
Iceland	0.51
Australia	**0.44**
Germany	0.37
New Zealand	0.37
Finland	0.35
United Kingdom	0.34
United States	0.34
Italy	0.32
Denmark	0.29
Canada	0.27
Japan	0.23
Ireland	0.15
Sweden	0.11

Source: Research and Experimental Development, General Government and Private Non-Profit Organisations, Australia (8109.0).

General government sector

Government expenditure on R&D carried out in Australia in 1990–91 is estimated to be $1,651 million at current prices and represents an increase of 23 per cent over the two years since 1988–89. At average 1984–85 prices expenditure in 1990–91 is estimated to have increased by nine per cent compared with 1988–89 (table 24.1).

The socio-economic objectives on which most government R&D expenditure was carried out were: agriculture ($403 million), defence ($233 million), environment ($226 million) and manufacturing ($178 million). Much the same pattern applies in terms of the human resources devoted to R&D. Labour costs continue to be the main component of R&D expenditure (57%) but, as a proportion of total R&D costs, have been decreasing for a number of years (table 24.7).

Government expenditure on R&D represents 0.44 per cent of GDP. This ratio is at a similar level to the early 1980s. It increased in 1990–91 after the downward trend of the late 1980s, and is relatively high when compared with other OECD countries (table 24.6).

24.7 EXPENDITURE ON RESEARCH AND DEVELOPMENT BY GENERAL GOVERNMENT ORGANISATIONS, 1990–91
($'000)

	Type of expenditure				
Socio-economic objective	*Land and buildings*	*Other capital expend-iture*	*Labour costs*	*Other current expend-iture*	*Total*
Defence	11,855	25,082	137,503	58,706	233,145
Economic development					
Agriculture	18,975	23,638	249,968	110,145	402,726
Forestry	2,002	1,823	18,879	9,033	31,738
Fishing	1,635	2,250	25,135	14,321	43,341
Other agriculture, forestry and fishing	380	971	5,752	7,297	14,401
Mineral	1,188	5,989	51,229	42,444	100,849
Energy	1,017	3,915	18,025	9,322	32,279
Manufacturing	7,741	17,685	99,423	53,614	178,463
Construction	622	2,546	19,292	8,456	30,916
Transport	239	1,578	16,039	7,705	25,561
Information and communication services	1,785	4,290	19,634	13,099	38,809
Commercial services	151	302	2,272	1,350	4,074
Economy	1,581	1,545	12,535	4,682	20,342
Environmental aspects	2,961	7,208	70,608	35,882	116,659
Total economic development	*40,277*	*73,741*	*608,789*	*317,351*	*1,040,158*
National welfare					
Environment	3,212	7,646	57,451	40,932	109,241
Health	24,518	8,370	66,313	24,337	123,538
Education and training	499	810	7,285	3,756	12,349
Social and community development	1,781	6,098	22,497	15,966	46,343
Total national welfare	*30,010*	*22,924*	*153,546*	*84,991*	*291,472*
Advancement of knowledge					
Natural sciences, technologies and engineering	11,453	8,137	32,385	32,467	84,442
Humanities and social sciences	352	55	1,005	423	1,835
Total advancement of knowledge	*11,805*	*8,192*	*33,390*	*32,891*	*86,278*
Total	**93,947**	**129,939**	**933,227**	**493,939**	**1,651,052**

Source: Research and Experimental Development, General Government and Private Non-profit Organisations, Australia (8109.0).

24.8 HUMAN RESOURCES DEVOTED TO RESEARCH AND DEVELOPMENT BY GENERAL GOVERNMENT ORGANISATIONS, 1990–91
(person years)

		Type of employee		
Socio-economic objective	*Researchers*	*Technicians*	*Other supporting staff*	*Total*
Defence	1,230	804	949	2,984
Economic development				
Agriculture	1,948	1,913	1,372	5,233
Forestry	191	167	86	444
Fishing	205	230	130	565
Other agriculture, forestry and fishing	40	27	31	97
Mineral	491	264	241	996
Energy	164	87	65	316
Manufacturing	859	476	644	1,979
Construction	200	85	98	383
Transport	179	65	79	324
Information and communication services	243	52	79	374
Commercial services	29	7	9	46
Economy	172	54	44	270
Environmental aspects	694	409	318	1,420
Total economic development	*5,415*	*3,835*	*3,197*	*12,447*
National welfare				
Environment	520	340	307	1,167
Health	1,099	606	189	1,894
Education and training	109	20	20	149
Social and community development	263	88	89	441
Total national welfare	*1,991*	*1,055*	*606*	*3,652*
Advancement of knowledge				
Natural sciences, technologies and engineering	311	178	89	578
Humanities and social sciences	17	3	1	21
Total advancement of knowledge	*328*	*180*	*90*	*599*
Total	**8,965**	**5,874**	**4,842**	**19,681**

Source: Research and Experimental Development, General Government and Private Non-profit Organisations, Australia (8109.0).

Higher education sector

The estimate of expenditure on R&D carried out in Australia by higher education in 1988 ($1,073 million) increased by 22 per cent over 1986 (table 24.9). Estimates for more recent (calendar) years are not yet available.

24.9 EXPENDITURE ON RESEARCH AND DEVELOPMENT BY HIGHER EDUCATION ORGANISATIONS
($ million)

			1986			1988
Socio-economic objective	*CAEs*	*Univer-sities*	*Total*	*CAEs*	*Univer-sities*	*Total*
National security (Defence)	0.2	1.7	1.9	0.2	2.2	2.4
Economic development						
Agriculture	2.1	72.0	74.1	4.0	81.5	85.5
Forestry and fisheries	0.4	8.6	9.0	0.8	11.2	12.0
Mining (prospecting)						
Energy sources	0.3	3.7	4.0	0.4	3.3	3.7
Other	0.2	7.0	7.2	0.7	5.5	6.2

... continued

24.9 EXPENDITURE ON RESEARCH AND DEVELOPMENT BY HIGHER EDUCATION ORGANISATIONS — *continued*
($ million)

			1986			1988
Socio-economic objective	*CAEs*	*Univer-sities*	*Total*	*CAEs*	*Univer-sities*	*Total*
Mining (extraction)						
Energy sources	0.1	1.2	1.3	0.3	2.5	2.8
Other	1.2	5.6	6.8	1.5	6.8	8.3
Manufacturing	4.8	24.1	28.9	6.8	39.4	46.2
Construction	0.8	8.2	9.0	1.4	11.2	12.6
Energy	1.9	25.4	27.3	2.5	27.4	29.9
Transport	0.5	4.2	4.7	0.4	4.5	4.9
Communications	1.0	7.2	8.2	1.4	8.9	10.3
Economic services n.e.c.	2.8	33.3	36.1	3.3	46.4	49.7
Total economic development	*16.1*	*200.6*	*216.7*	*23.5*	*248.6*	*272.0*
Community welfare						
Urban and regional planning	0.4	5.6	6.0	0.8	6.2	7.0
Environment	1.4	15.7	17.1	2.6	25.8	28.4
Health	6.8	180.8	187.6	9.9	216.3	226.2
Education	3.8	32.9	36.7	6.8	35.1	41.9
Welfare	0.9	9.1	10.0	0.7	7.9	8.6
Community services n.e.c.	1.7	17.0	18.7	2.1	19.8	21.9
Total community welfare	*15.0*	*261.1*	*276.1*	*22.9*	*311.0*	*334.0*
Advancement of knowledge						
Earth, ocean and atmosphere n.e.c.	0.6	49.9	50.5	1.2	49.5	50.7
General advancement of knowledge	4.9	331.7	336.6	6.7	407.0	413.7
Total advancement of knowledge	*5.5*	*381.6*	*387.0*	*7.9*	*456.5*	*464.4*
Total	**36.7**	**844.9**	**881.6**	**54.5**	**1,018.4**	**1,072.9**

Source: Research and Experimental Development: Higher Education Organisations, Australia (8111.0).

24.10 HUMAN RESOURCES DEVOTED TO RESEARCH AND DEVELOPMENT BY HIGHER EDUCATION ORGANISATIONS
(person years)

			1986			1988
Socio-economic objective	*CAEs*	*Univer-sities*	*Total*	*CAEs*	*Univer-sities*	*Total*
National security (Defence)	13	39	52	6	36	42
Economic development						
Agriculture	63	1,949	2,012	129	2,045	2,174
Forestry and fisheries	19	237	256	35	224	260
Mining (prospecting)						
Energy sources	17	95	112	20	85	105
Other	12	194	206	32	131	163
Mining (extraction)						
Energy sources	2	37	40	12	63	75
Other	38	156	194	51	163	213
Manufacturing	215	682	896	284	949	1,233
Construction	25	201	226	36	233	269
Energy	76	643	719	93	602	695
Transport	28	109	137	19	97	116
Communications	58	200	258	49	196	245
Economic services n.e.c.	105	700	805	136	853	989
Total economic development	*659*	*5,202*	*5,861*	*896*	*5,640*	*6,536*

... *continued*

24.10 HUMAN RESOURCES DEVOTED TO RESEARCH AND DEVELOPMENT BY HIGHER EDUCATION ORGANISATIONS — *continued*
(person years)

			1986			*1988*
Socio-economic objective	*CAEs*	*Univer-sities*	*Total*	*CAEs*	*Univer-sities*	*Total*
Community welfare						
Urban and regional planning	16	134	150	25	119	144
Environment	66	427	493	92	554	646
Health	283	4,526	4,809	327	4,894	5,221
Education	140	843	984	239	824	1,062
Welfare	41	229	269	29	171	199
Community services n.e.c.	76	379	454	62	401	463
Total community welfare	*621*	*6,538*	*7,159*	*773*	*6,962*	*7,735*
Advancement of knowledge						
Earth, ocean and atmosphere n.e.c.	26	1,181	1,207	40	1,036	1,076
General advancement of knowledge	210	8,730	8,939	249	9,265	9,514
Total advancement of knowledge	*236*	*9,911*	*10,147*	*289*	*10,301*	*10,590*
Total	**1,529**	**21,690**	**23,218**	**1,963**	**22,939**	**24,902**

Source: Research and Experimental Development: Higher Education Organisations, Australia (8111.0).

Private non-profit sector

Private non-profit expenditure on R&D carried out in 1990–91 increased 32 per cent at current prices and 13 per cent at average 1984–85 prices over 1988–89 (table 24.1).

Health is the leading socio-economic objective in terms of R&D expenditure, accounting for 81 per cent or $55 million of total R&D expenditure in 1990–91 in the private non-profit sector. The same applies in terms of human resource usage. Labour costs continue to be the main component of R&D expenditure (58%) (tables 24.11 and 24.12).

24.11 EXPENDITURE ON RESEARCH AND DEVELOPMENT BY NON-PROFIT ORGANISATIONS, 1990–91
($'000)

			Type of expenditure		
Socio-economic objective	*Land and buildings*	*Other capital expend-iture*	*Labour costs*	*Other current expend-iture*	*Total*
Defence	—	—	—	—	—
Economic development					
Agriculture	—	4	113	25	142
Forestry	—	—	—	—	—
Fishing	—	—	—	—	—
Other agriculture, forestry and fishing	—	—	11	—	11
Mineral	—	—	—	—	—
Energy	—	9	110	146	265
Manufacturing	—	343	726	239	1,308
Construction	—	2	62	137	201
Transport	—	2	49	131	181
Information and communication services	—	—	—	—	—
Commercial services	12	66	180	70	328
Economy	—	—	597	545	1,142
Environmental aspects	—	8	50	50	108
Total economic development	*12*	*435*	*1,897*	*1,343*	*3,687*

... *continued*

24.11 EXPENDITURE ON RESEARCH AND DEVELOPMENT BY NON-PROFIT ORGANISATIONS, 1990–91 — *continued*
($'000)

	Type of expenditure				
Socio-economic objective	*Land and buildings*	*Other capital expend-iture*	*Labour costs*	*Other current expend-iture*	*Total*
National welfare					
Environment	—	5	274	159	438
Health	2,563	5,234	32,498	15,056	55,351
Education and training	—	48	2,006	1,403	3,456
Social and community development	6	32	238	23	299
Total national welfare	*2,569*	*5,319*	*35,015*	*16,640*	*59,543*
Advancement of knowledge					
Natural sciences, technologies and engineering	113	351	2,893	1,655	5,012
Humanities and social sciences	—	7	92	4	102
Total advancement of knowledge	*113*	*358*	*2,985*	*1,659*	*5,114*
Total	**2,694**	**6,112**	**39,898**	**19,642**	**68,344**

Source: Research and Experimental Development, General Government and Private Non-profit Organisations, Australia (8109.0).

24.12 HUMAN RESOURCES DEVOTED TO RESEARCH AND DEVELOPMENT BY PRIVATE NON-PROFIT ORGANISATIONS, 1990–91
(person years)

	Type of employee			
Socio-economic objective	*Researchers*	*Technicians*	*Other supporting staff*	*Total*
Defence	—	—	—	—
Economic development				
Agriculture	2	—	—	2
Forestry	—	—	—	—
Fishing	—	—	—	—
Other agriculture, forestry and fishing	—	—	—	—
Mineral	—	—	—	—
Energy	2	—	—	2
Manufacturing	12	—	1	14
Construction	—	—	2	2
Transport	—	—	1	2
Information and communication services	—	—	—	—
Commercial services	3	1	2	5
Economy	9	3	5	17
Environmental aspects	1	—	—	1
Total economic development	*30*	*4*	*12*	*45*
National welfare				
Environment	5	1	1	6
Health	429	301	147	877
Education and training	26	4	10	39
Social and community development	5	1	1	6
Total national welfare	*464*	*307*	*158*	*929*
Advancement of knowledge				
Natural sciences, technologies and engineering	35	31	6	72
Humanities and social sciences	2	—	—	2
Total advancement of knowledge	*36*	*31*	*7*	*74*
Total	**530**	**342**	**177**	**1,049**

Source: Research and Experimental Development, General Government and Private Non-profit Organisations, Australia (8109.0).

USE OF ADVANCED TECHNOLOGIES IN THE MANUFACTURING AND MINING INDUSTRIES

The ABS has undertaken Surveys of Advanced Technologies in the manufacturing industry as at 30 June 1988 and 31 December 1991, and in the mining industry as at 30 June 1991. These surveys collected information on the current and planned technological status. In particular, information was collected on the current and future use of selected technologies, on management techniques and on technology related issues such as staff resources. Some of the main findings from the surveys are outlined below.

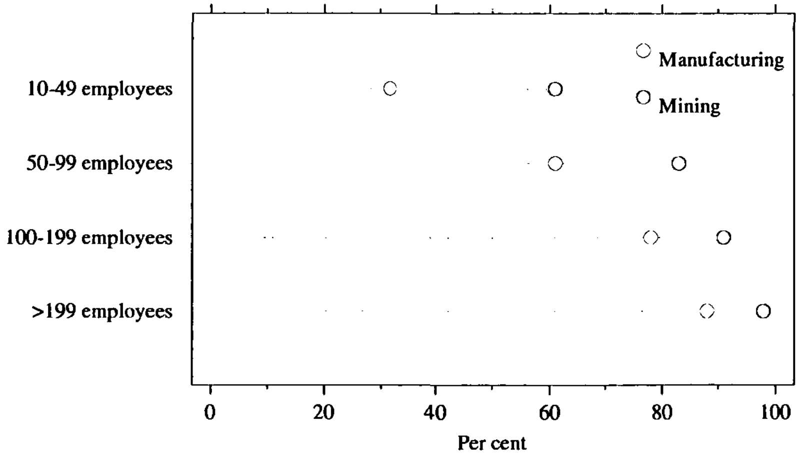
Of some 14,200 manufacturing establishments with 10 or more employees at 31 December 1991, 41 per cent had acquired at least one of the surveyed advanced manufacturing technologies. Corresponding figures from 1988 were 16,000 establishments of which 33 per cent were using advanced technology. In contrast, of the 486 mining establishments with 10 or more employees at 30 June 1991, 75 per cent had acquired one or more surveyed technologies.

The most common advanced manufacturing technologies were computer aided design and/or engineering followed by stand-alone numerically controlled machines and programmable logic controllers with 18 per cent and 17 per cent of establishments having each technology respectively. The most common mining technologies were non-core drilling followed by rehabilitation design with 52 per cent and 50 per cent of establishments having each technology respectively.

In the manufacturing sector the Other machinery and equipment industry (ASIC subdivision 33) continued to have the highest proportion (64%) of establishments having one or more technologies. In the mining sector the coal industry has the highest proportion (95% of the 88 establishments) having at least one of the advanced mining technologies.

These surveys show a strong relationship between the employment size of an establishment and the acquisition of advanced technologies. Larger establishments were more likely to be using advanced technologies.

24.13 USE OF TECHNOLOGY IN MANUFACTURING AND MINING, BY EMPLOYMENT SIZE, 1991



Source: Manufacturing Technology Statistics, Australia (8123.0) and Mining Technology Statistics, Australia (8413.0).

More than half of manufacturing establishments with advanced technologies acquired them primarily from overseas sources. This is in contrast to mining technologies where most were acquired primarily from Australian sources.

Manufacturers continue to have difficulty in obtaining staff skilled in the normal operation or maintenance of advanced technologies (30% reported difficulties in 1991 down slightly from 35% in 1988). In contrast, 81 per cent of mining establishments with advanced technologies reported no difficulty getting staff skilled in the normal operation, maintenance or programming associated with the surveyed technologies.

Further information on the use of advanced technology in the manufacturing industry is contained in the chapter Manufacturing, Retail and Service Industries.

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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 Industry, Technology and Commerce, the CSIRO, and in the annual Science and Technology Statements. Statistical information on R&D for the years 1968–69, 1973–74 and 1976–77 may be found in the reports on Project SCORE published by the (then) Department of Science. Statistical information on R&D relating to 1978–79, 1981–82, and 1984–85 to 1990–91 may be obtained from the Australian Bureau of Statistics (ABS). Further statistical information on higher education is obtainable from the Department of Employment, Education and Training.

The Department of Industry, Technology and Commerce's *Australian Science and Innovation Resources Brief 1992*, published in 1992, uses Science and Technology (S&T) indicators to give a good overview and analysis of science and technology information in Australia. It presents information on R&D effort and expenditure; science and technology workforce; S&T information resources; scientific equipment and facilities; patent activity; technology training; financial support for technological development; and transfer of technical knowledge.

FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Twenty-five

Financial Institutions

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Contents

FINANCIAL SECTOR

This chapter provides information about Australia's financial sector, the institutions that comprise it and their role as financial 'intermediaries'. The financial sector comprises institutions engaged in the acquisition of financial assets and the incurring of liabilities, for example, borrowing and lending, providing superannuation, supplying all types of insurance cover, leasing, and investing in financial assets. These financial institutions are for the most part incorporated businesses owned by the private sector, but public sector institutions (for example, Reserve Bank of Australia) and large unincorporated enterprises (for example, unit trusts, superannuation funds) are also included, provided they operate in the capital market.

Financial 'intermediation' is the process whereby the nation's savings, or the savings of overseas investors, are directed to individuals, companies, governments and others that require funds to produce or acquire goods and/or services, or to invest in capital equipment. Financial 'intermediation' is conducted in the capital market. Savings that are not directly invested in capital equipment find their way to the capital markets through the stock market or financial intermediaries.

The main types of financial institutions in Australia are banks, building societies, credit cooperatives, money market corporations, finance companies, cooperative housing societies, superannuation funds, unit trusts, common funds, friendly societies and insurance companies. These institutions intermediate in a variety of ways, mainly through accepting deposits, making loans or managing the funds of their customers. Intermediation is conducted using financial assets which are either non-marketable (for example, deposits, loans) or marketable (for example, bills of exchange, promissory notes) which are traded on secondary markets. The type of intermediation used by a financial institution is usually governed by the credit worthiness of the borrower or the financial knowledge and resources available to the lender.

In the early stages of development, Australian financial institutions tended to specialise in intermediation for particular types of customers or types of finance (for example, housing finance for home buyers; seasonal finance for farmers). However, with deregulation of the financial markets in the 1980s most institutions have increased their range of products and services so that both savers and borrowers have a wide choice of markets in which to invest or borrow funds, be they domestic or international markets.

BANKS

In Australia the regulation of banks is provided for under both Commonwealth and State legislation. Banks are the largest deposit taking institutions in Australia and each bank is authorised to operate by this legislation.

Commonwealth legislation

The major acts of Federal Parliament relating to the management and operations of banks in Australia are as follows:

- *The Banking Act 1959*, which applies to all banks operating in Australia, except the so-called State banks owned by State governments and trading mainly in their own State. Originally the objectives of the Act were to provide a uniform legal framework for regulating the banking system; to safeguard depositors of the banks from loss; to provide for the coordination of banking policy under the direction of the Reserve Bank; to control the volume of credit in circulation and bank interest rates; and to provide the machinery for the control of foreign exchange. In recent years successive Federal Governments have sought to decrease the degree of regulation imposed on the financial sector and the banks in particular, such that controls on most bank interest rates and foreign exchange have been relaxed. Significant amendments were made to the Act in January 1990, which formalised supervision requirements and restructured the banking industry (for example, by abolishing the distinction between trading and savings banks).
- *The Reserve Bank Act 1959* which establishes Australia's central bank, the Reserve Bank of Australia, provides for the management of the Bank, the administration of the *Banking Act 1959* and the management of Australian note issue. Prior to 1959 central banking business was the responsibility of the Commonwealth Bank.
- *The Commonwealth Banks Act 1959* which establishes and provides for the management of the Commonwealth Banking Corporation, Commonwealth Bank of Australia, Commonwealth Savings Bank of Australia and the Commonwealth Development Bank of

Australia. This group of banks was until 1991 the only commercial banking group wholly owned and controlled by the Australian Government. In 1991 30 per cent of its shares were sold to the general public.

The general functions of the Reserve Bank are set out in Section 10 of the Act, 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.'

25.1 RESERVE BANK OF AUSTRALIA: LIABILITIES AND ASSETS
($ million)

LIABILITIES

30 June	Capital and reserve funds	Special reserve-IMF special drawing right	Deposits by banks(a): Australian notes on issue	Deposits by banks(a): Non-callable deposits/ Statutory Reserve Deposit accounts	Other	All other liabilities	Total
1990	248	265	12,837	2,733	921	8,719	25,723
1991	248	238	14,621	2,541	24	10,457	28,129
1992	333	206	15,243	2,608	16	12,553	30,959

ASSETS

30 June	Gold and foreign exchange(b)	Commonwealth government securities(c)	Loans, advances and bills discounted	All other assets	Total
1990	22,086	2,874	85	678	25,723
1991	24,308	2,960	89	772	28,129
1992	21,121	8,839	87	912	30,959

(a) The Statutory Reserve Deposit ratio was set at zero on 27 September 1988 and the balances transferred to non-callable deposit accounts. Further details are provided in the Reserve Bank press release of 23 September 1988 which was reprinted in the October 1988 *Reserve Bank Bulletin*. (b) Includes currency at short call and International Monetary Fund drawing rights. (c) Includes Treasury bills and Treasury notes.
Source: Reserve Bank of Australia.

State legislation

In some States there is also legislation for the incorporation of State government bodies which operate as banks. These banks operate in New South Wales, South Australia and Western Australia and are the State Bank of New South Wales Limited (incorporated in 1990), the State Bank of South Australia and the Rural and Industries Bank of Western Australia Ltd (incorporated in 1991).

Commercial banks

Commercial banking in Australia is conducted by 44 banks, including the development banks and 19 foreign owned banks. Of these, Australia and New Zealand Banking Group, National Australia Bank, Westpac Banking Corporation and the Commonwealth Bank of Australia account for over half the total assets of all banks. These banks provide widespread banking services and an extensive retail branch network throughout Australia. The remaining banks, all privately-owned except for three State banks, provide similar banking services through limited branch networks. As well, there are 'development banks' which are special purpose banks set up to finance specific sectors of the economy.

At 30 June 1992, banks operated 6,920 branches and 6,585 agencies. Of the total branches, 4,032 were located in metropolitan areas. Banking facilities were also available at 2,739 metropolitan agencies throughout Australia.

25.2 BANKS: LIABILITIES AND ASSETS
($ million)

			June
	1990	*1991*	*1992*
LIABILITIES			
Deposits repayable in Australia			
Residents	177,961	189,181	197,090
Non-residents	5,468	5,560	6,034
Total	*183,430*	*194,741*	*203,124*
Other borrowings			
Banks(a)	6,860	11,857	12,420
Other	10,400	12,806	14,446
Bill acceptance liabilities	56,184	55,071	49,372
All other $A liabilities	10,320	12,701	14,522
Total resident $A liabilities	252,939	272,188	276,460
Total non-resident $A liabilities	14,255	14,988	17,424
Total $A liabilities	*267,194*	*287,176*	*293,884*
Foreign currency liabilities	28,581	33,615	38,129
Total liabilities(b)	**295,776**	**320,791**	**332,013**
ASSETS			
Coin, Australian notes and cash with Reserve Bank	2,114	1,244	1,283
Non-callable deposits with Reserve Bank	2,733	2,541	2,608
Public sector securities	22,098	23,437	25,157
Loans, advances and bills held	201,496	226,757	239,260
Bills receivable	54,293	53,573	48,474
Premises	5,824	6,657	6,527
All other $A assets	17,640	22,465	24,671
Total resident $A assets	304,697	335,469	345,597
Total non-resident $A assets	1,501	1,203	2,382
Total $A assets	*306,199*	*336,672*	*347,979*
Foreign currency assets	19,648	17,062	14,536
Total assets	**325,847**	**353,733**	**362,515**

(a) Includes issues of term subordinated debt, loan capital and similar instruments. (b) Excludes shareholders' funds.
Source: Reserve Bank of Australia Bulletin.

NON-BANK FINANCIAL INSTITUTIONS

In addition to banks, there are a number of other categories of financial institution such as building societies, credit cooperatives and money market corporations which play an important part in financial activities in Australia. Like the banks, regulation of these institutions is provided for by both Commonwealth and State legislation.

Commonwealth legislation

Part of the regulatory framework is provided by the *Financial Corporations Act 1974* under which non-bank financial institutions (NBFIs) with assets in excess of one million dollars are registered. Under the Act information and statistics on NBFI operations are provided to the Reserve Bank of Australia.

State legislation

In each State and Territory there is legislation designed to regulate the activities and monitor the solvency position of particular types of financial institutions, such as permanent building societies, credit cooperatives and cooperative housing societies, which operate on a cooperative basis and lend predominantly to members or consumers. In July 1992 the Australian Financial Institutions Commission was established to coordinate standards for the prudential supervision of building societies and credit unions. Responsibility for day to day supervision of these financial institutions remains with individual State Supervisory Authorities replacing the State Registrars which operated under the previous legislation.

The following table contains summary data on the assets and liabilities of each type of financial corporation covered by the *Financial Corporations Act 1974*, plus cooperative housing societies which are covered only by State legislation. It is followed by an outline of the definitions, assets, liabilities, income and expenditure of each category.

25.3 FINANCIAL CORPORATIONS: ASSETS AND LIABILITIES(a), 1991–92
($ million)

LIABILITIES

Category	*Share capital and reserves*	*Borrowings liabilities*	*Other liabilities*	*Total*
Permanent building societies	4,897.8	17,132.8	382.2	22,412.8
Cooperative housing societies	49.0	2,478.5	16.2	2,543.7
Credit cooperatives	824.0	8,804.0	110.0	9,738.0
Authorised money market dealers	119.0	3,810.0	27.5	3,956.6
Money market corporations	–1,046.7	45,208.0	2,994.3	47,155.6
Finance companies	3,057.7	28,667.3	1,235.7	32,960.7
General financiers	849.9	8,608.6	440.0	9,898.5
Other financial corporations	223.1	4,538.9	30.7	4,792.6
Total	**8,973.8**	**119,248.1**	**5,236.6**	**133,458.5**

ASSETS

Category	*Amount owing on loans*	*Cash placements and deposits*	*Bills, bonds and other securities*	*Other assets*	*Total*
Permanent building societies	17,209.9	1,265.8	3,115.3	821.8	22,412.8
Cooperative housing societies	2,480.0	56.3	0.9	6.5	2,543.7
Credit cooperatives	7,522.0	1,446.0	358.0	412.0	9,738.0
Authorised money market dealers	14.1	116.0	3,801.8	24.7	3,956.6
Money market corporations	25,569.6	6,244.2	9,842.8	5,499.0	47,155.6
Finance companies	20,392.2	858.8	1,037.3	10,672.4	32,960.7
General financiers	4,799.6	669.9	689.8	3,739.2	9,898.5
Other financial corporations	1,320.6	667.8	2,626.8	177.4	4,792.6
Total	**79,308.0**	**11,324.8**	**21,472.7**	**21,353.0**	**133,458.5**

(a) At the balance date of corporations within the year shown.
Source: See the tables which follow for each category.

Permanent building societies

A permanent building society is an organisation that is registered under relevant State or Territory legislation. Permanent building societies as such are distinguished from terminating building societies in that their rules do not set any fixed date, certain event or result following which they are to terminate.

The societies are authorised to accept money on deposit and operate on a cooperative basis by borrowing predominantly from members and providing finance to members, principally in the form of housing loans.

The statistics below provide information on the 45 permanent building societies balancing in the 1991–92 financial year.

Information relating to the housing finance operations of permanent building societies is provided in the chapter, Construction and Housing.

25.4 PERMANENT BUILDING SOCIETIES: ASSETS, LIABILITIES, INCOME AND EXPENDITURE(a)
($ million)

	1989–90	*1990–91*	*1991–92*
Liabilities			
Share capital	6,299.1	5,587.1	4,445.2
Reserves	565.3	518.1	452.6
Deposits	13,264.6	13,821.2	15,273.0
Loans	1,881.0	1,699.8	1,859.8
Other liabilities	418.4	539.3	382.2
Total liabilities	**22,428.4**	**22,165.5**	**22,412.8**
Assets			
Amount owing on loans	16,374.4	16,569.8	17,209.9
Cash on hand	86.3	89.1	117.7
Deposits with			
Banks	989.4	948.4	985.7
Other	367.8	281.3	162.6
Bills, bonds, etc.	3,663.5	3,382.5	3,115.2
Physical assets	519.3	499.9	446.9
Other assets	427.5	394.5	374.8
Total assets	**22,428.4**	**22,165.5**	**22,412.8**
Expenditure			
Interest on			
Shares	682.4	566.4	339.7
Deposits	1,896.9	1,450.2	1,151.8
Interest on loans	296.9	270.4	175.6
Wages and salaries	225.6	231.4	232.3
Administrative expenses	191.3	207.2	190.8
Other expenditure	591.2	422.1	244.5
Total expenditure	**3,884.3**	**3,147.7**	**2,334.7**
Income			
Interest from			
Loans	2,686.2	2,412.7	1,935.5
Deposits	221.4	145.9	109.2
Income from bills, bonds, etc.	518.6	396.7	327.3
Other income	237.9	133.6	164.2
Total income	**3,664.0**	**3,088.9**	**2,536.2**

(a) At the balance dates of societies within the financial year shown.
Source: Unpublished ABS data available under the title Annual Statistics on Financial Institutions (5661.0).

Cooperative housing societies

A cooperative housing society is defined as an organisation registered under the relevant State or Territory legislation. Cooperative housing societies are not authorised to accept money on deposit and are only allowed to raise money by way of loans. They can only provide finance to members in the form of housing loans.

The statistics below summarise information on the 1,626 cooperative housing societies balancing within the 1991-92 financial year.

25.5 COOPERATIVE HOUSING SOCIETIES: ASSETS, LIABILITIES, INCOME AND EXPENDITURE(a)
($ million)

	1989–90	*1990–91*	*1991–92*
Liabilities			
Share capital and reserves	39.6	42.8	49.1
Borrowings	2,529.0	2,625.4	2,478.5
Other liabilities	16.6	16.9	16.2
Total liabilities	**2,585.2**	**2,685.1**	**2,543.8**
Assets			
Loan outstanding	2,507.5	2,600.3	2,480.0
Placements and deposits	70.3	77.8	56.3
Physical assets	0.8	0.6	0.9
Other assets	6.7	6.4	6.5
Total assets	**2,585.2**	**2,685.1**	**2,543.8**
Expenditure			
Interest paid	305.9	324.8	288.1
Administrative expenses	25.7	30.9	31.4
Other expenditure	9.8	12.5	12.8
Total expenditure	**341.4**	**368.2**	**332.3**
Income			
Interest on loans	316.2	334.0	297.5
Other income	36.0	42.2	43.0
Total income	**352.2**	**376.2**	**340.5**

(a) At the balance dates of cooperative housing societies within the financial year shown.
Source: Unpublished ABS data available under the title Annual Statistics on Financial Institutions (5661.0).

Credit cooperatives

A credit cooperative (or credit union) is defined as an organisation registered under relevant State or Territory legislation and operates on a cooperative basis by predominantly borrowing from and providing finance to its own members.

Credit cooperative annual financial account statistics were first collected on a national basis from all registered credit cooperatives for the year 1974–75 when there were 738 credit cooperatives with a total of 909,547 members. By comparison the number of credit cooperatives operating in 1991–92 was 344 with 2,549,572 members.

25.6 CREDIT COOPERATIVES: ASSETS, LIABILITIES, INCOME AND EXPENDITURE(a)
($ million)

	1989–90	*1990–91*	*1991–92*
Liabilities			
Share capital	28.5	26.8	27.0
Reserves	576.8	662.3	797.0
Deposits	7,884.3	7,943.8	8,699.0
Loans	128.9	107.5	105.0
Other liabilities	90.2	95.1	110.0
Total liabilities	**8,708.7**	**8,835.5**	**9,738.0**
Assets			
Amount owing on loans(b)	6,977.9	6,945.4	7,522.0
Cash on hand	47.7	51.3	60.0
Deposits with			
Banks	145.9	237.3	263.0
Other	816.1	905.2	1,123.0
Bills, bonds, etc.	344.5	317.1	358.0
Physical assets	268.5	255.1	132.0
Other assets	108.1	124.1	280.0
Total assets	**8,708.7**	**8,835.5**	**9,738.0**
Expenditure			
Interest on			
Deposits	909.8	834.9	670.0
Loans	15.6	19.0	8.0
Wages and salaries	178.9	187.7	184.0
Administrative expenses	159.0	165.6	171.0
Other expenditure	174.4	201.6	228.0
Total expenditure	**1,437.7**	**1,408.8**	**1,261.0**
Income			
Interest from			
Loans	1,260.7	1,262.7	1,145.0
Deposits	131.4	132.8	130.0
Income from bills, bonds, etc.	42.8	35.8	30.0
Other income	67.4	69.8	81.0
Total income	**1,502.3**	**1,501.1**	**1,386.0**

(a) At the balance of credit cooperatives within the financial year shown. (b) Net of unearned interest and allowance for doubtful debts.

Source: Unpublished ABS data available under the title Annual Statistics on Financial Institutions (5661.0).

Authorised money market dealers

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 Reserve Bank established the Official Short-Term Money Market by making available 'lender of last resort' facilities to selected dealers. In May 1989 this arrangement was changed to an 'end-of-day repurchase facility'. Dealers are expected to use this facility only after reasonable effort has been made to raise the funds in the market. The terms of the repurchase agreements set by the Bank usually are aimed at discouraging excessive use of the facility.

25.7 AUTHORISED MONEY MARKET DEALERS: ASSETS, LIABILITIES, INCOME AND EXPENDITURE(a)
($ million)

	1989–90	*1990–91*	*1991–92*
Liabilities			
Paid up capital	64.5	74.5	66.9
Reserves	18.3	23.3	23.3
Accumulated surplus (net)	12.9	20.5	28.8
Subordinated loans	—	—	—
Borrowings from residents			
Banks	4,533.3	2,526.7	2,449.9
Other financial institutions	340.3	61.8	278.0
Government and public authorities	36.6	80.4	778.3
Other	966.3	376.2	303.8
Borrowings from non-residents	1.7	0.3	0.3
Other liabilities	51.4	171.1	27.2
Total liabilities	**6,025.4**	**3,334.8**	**3,956.6**
Assets			
Amount owing on loans	1.0	0.1	14.1
Cash and bank deposits	202.4	398.5	115.6
Other placements and deposits	40.7	16.1	0.4
Bills, bonds and other securities	5,763.6	2,908.5	3,801.8
Other financial assets	17.1	11.0	24.3
Other assets	0.5	0.5	0.4
Total assets	**6,025.4**	**3,334.8**	**3,956.6**
Expenditure			
Interest on borrowings	680.6	642.5	508.0
Wages and salaries	4.7	2.0	1.6
Administrative expenses	15.7	23.9	14.4
Other expenditure	3.1	6.0	4.8
Total expenditure	**704.0**	**674.5**	**528.8**
Income			
Interest on loans	62.8	81.7	0.6
Income from placements and other deposits	232.8	160.6	55.2
Income from holdings of			
Government and public authority securities	306.3	287.4	306.8
Other securities	83.3	132.4	170.5
Other income	32.0	30.8	12.7
Total income	**717.2**	**692.9**	**545.7**

(a) At the balance dates of companies within the financial year shown. Included are only those corporations registered under the *Financial Corporations Act 1974* and categorised as authorised money market dealers during the reference periods.
Source: Unpublished ABS data available under the title Annual Statistics on Financial Institutions (5661.0).

The nine authorised dealers are required by the Reserve Bank to accept loans overnight, at call or for fixed periods, in minimum amounts of $50,000 and invest these funds in Commonwealth government and other approved securities. They must at all times be willing traders in the buying and selling of approved securities; have a minimum capital (that is, paid-up capital, share premium reserves and retained earnings) level of $10 million; adhere to a gearing limit whereby the aggregate risk weighted assets cannot exceed 33 times shareholders' funds; consult regularly with the Reserve Bank on all money market matters; and furnish detailed information about their portfolios, operations, interest rates, balance sheets and profit and loss accounts.

Money market corporations

This category consists 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.

25.8 MONEY MARKET CORPORATIONS: ASSETS, LIABILITIES, INCOME AND EXPENDITURE(a)
($ million)

	1989–90	*1990–91*	*1991–92*
Liabilities			
Paid up capital	2,539.0	2,539.0	2,682.7
Reserves	667.6	851.4	814.6
Accumulated surplus (net)	−924.2	−4,202.1	−4,544.0
Subordinated loans	211.8	230.4	133.1
Borrowings from residents			
By issue of securities	3,704.4	2,759.3	2,448.3
Banks	6,153.0	8,565.5	8,526.3
Other financial institutions	3,637.4	3,156.8	3,318.4
Other	15,508.9	14,888.0	12,897.4
Borrowings from non-residents	16,552.4	16,757.0	17,884.5
Other liabilities	3,184.4	3,537.2	2,994.3
Total liabilities	**51,234.8**	**49,082.5**	**47,155.6**
Assets			
Amount owing on loans	26,044.7	26,428.9	25,569.6
Finance lease receivables	2,025.5	1,960.0	1,575.0
Cash and bank deposits	2,120.2	2,705.1	1,985.1
Other placements and deposits	7,008.6	4,526.4	4,259.1
Bills, bonds and other securities	10,987.3	10,124.6	9,842.8
Other financial assets	1,809.1	1,420.1	1,751.2
Other assets	1,239.4	1,917.4	2,172.8
Total assets	**51,234.8**	**49,082.5**	**47,155.6**
Expenditure			
Interest on borrowings	8,103.4	7,689.8	5,816.4
Wages and salaries	(b)502.6	502.6	270.0
Administrative expenses	488.4	677.5	29'3.9
Other expenditure	2,290.5	3,336.1	1,425.6
Total expenditure	**11,384.8**	**12,206.0**	**7,805.9**
Income			
Interest on loans	4,031.5	3,945.9	3,392.1
Income from finance leasing	677.4	283.0	211.7
Income from placements and other deposits	1,844.9	1,657.7	1,194.5
Income from bills, bonds, etc.	2,081.3	1,828.3	1,194.8
Other income	1,747.1	1,450.9	1,305.3
Total income	**10,382.2**	**9,165.8**	**7,298.4**

(a) At the balance dates of companies within the financial year shown. Included are only those corporations registered under the *Financial Corporations Act 1974* and categorised as money market corporations during the reference periods. (b) Includes director's fees.
Source: Unpublished ABS data available under the title Annual Statistics on Financial Institutions (5661.0).

Money market corporations also include 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.

Finance companies

Finance companies are corporations which rely substantially on borrowing in financial markets (for example, by the issue of securities) 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.

25.9 FINANCE COMPANIES: ASSETS, LIABILITIES, INCOME AND EXPENDITURE(a)
($ million)

	1989–90	*1990–91*	*1991–92*
Liabilities			
Paid up capital	1,394.1	1,343.1	1,361.8
Reserves	731.0	758.5	1,129.2
Accumulated surplus (net)	1,157.1	992.5	566.7
Subordinated loans	84.4	70.0	209.4
Borrowings from residents			
By issue of securities	20,362.4	20,495.3	17,286.6
Banks	2,684.3	3,495.8	4,901.1
Other	7,474.7	4,041.3	2,926.8
Borrowings from non-residents	3,427.1	4,867.6	3,343.4
Other liabilities	1,830.6	1,966.4	1,235.7
Total liabilities	**39,145.8**	**38,031.0**	**32,960.7**
Assets			
Amount owing on loans	26,120.0	24,727.0	20,392.2
Finance lease receivables	9,540.4	10,530.3	9,720.2
Cash and bank deposits	462.8	290.7	381.8
Other placements and deposits	1,123.3	801.5	477.0
Bills, bonds and other securities	952.2	784.2	1,037.3
Other financial assets	453.9	467.4	511.4
Other assets	493.2	429.9	440.8
Total assets	**39,145.8**	**38,031.0**	**32,960.7**
Expenditure			
Interest on borrowings	4,182.7	4,797.9	3,725.2
Wages and salaries	374.0	370.8	375.5
Administrative expenses	430.0	476.6	521.5
Other expenditure	658.7	936.5	1,396.2
Total expenditure	**5,645.4**	**6,581.8**	**6,018.4**
Income			
Interest on loans	4,047.7	4,614.3	3,802.3
Income from finance leasing	1,439.5	1,333.9	1,343.4
Income from placements and deposits	168.2	132.7	107.5
Income from bills, bonds, etc.	112.2	328.5	49.3
Other income	398.0	404.0	449.3
Total income	**6,165.6**	**6,813.4**	**5,751.9**

(a) At the balance dates of companies within the financial year shown. Included are only those corporations registered under the *Financial Corporations Act 1974* and categorised as finance companies during the reference periods.
Source: Unpublished ABS data available under the title Annual Statistics on Financial Institutions (5661.0).

General financiers

General financiers are corporations which lend predominantly for business and commercial purposes, provide instalment credit finance for retail sales of others, and/or provide other loans to individuals. They do not rely substantially on borrowings (such as the issue of securities) in financial markets in Australia and from abroad.

25.10 GENERAL FINANCIERS: ASSETS, LIABILITIES, INCOME AND EXPENDITURE(a)
($ million)

	1989–90	*1990–91*	*1991–92*
Liabilities			
Paid up capital	490.5	573.7	516.6
Reserves	131.7	99.0	404.8
Accumulated surplus (net)	−0.5	2.5	−71.5
Subordinated loans	198.3	289.5	212.4
Borrowings from residents			
By issue of securities	919.0	693.0	1,011.2
Banks	1,888.5	2,259.9	2,541.9
Other financial institutions	1,347.9	4,243.5	2,936.6
Other	3,659.8	1,550.6	731.9
Borrowings from non-residents	1,271.4	1,293.8	1,174.6
Other liabilities	688.1	563.3	440.0
Total liabilities	**10,594.5**	**11,568.8**	**9,898.5**
Assets			
Amount owing on loans	4,707.4	5,274.2	4,799.6
Finance lease receivables	2,998.3	2,883.4	2,483.1
Cash and bank deposits	507.6	558.9	505.4
Other placements and deposits	203.9	95.6	164.5
Bills, bonds and other securities	1,300.3	1,683.2	689.8
Other financial assets	236.9	297.5	267.3
Other assets	640.2	776.0	988.8
Total assets	**10,594.5**	**11,568.8**	**9,898.5**
Expenditure			
Interest on borrowings	1,400.7	1,555.8	1,194.5
Wages and salaries	68.5	77.5	63.6
Administrative expenses	91.8	171.2	155.8
Other expenditure	437.4	402.7	405.0
Total expenditure	**1,998.4**	**2,207.2**	**1,818.9**
Income			
Interest on loans	778.4	921.2	724.6
Income from finance leasing	525.4	615.6	569.3
Income from placements and deposits	143.4	108.7	46.4
Income from bills, bonds, etc.	241.0	271.7	174.3
Other income	291.1	322.7	312.2
Total income	**1,979.3**	**2,239.9**	**1,826.7**

(a) At the balance dates of companies within the financial year shown. Included are only those corporations registered under the *Financial Corporations Act 1974* and categorised as general financiers during the reference periods.
Source: Unpublished ABS data available under the title Annual Statistics on Financial Institutions (5661.0).

Other financial corporations

Other financial corporations are corporations registered under the *Financial Corporations Act 1974* that are not categorised as building societies, authorised money market dealers, money market dealers, finance companies, credit cooperatives, pastoral finance companies, general financiers or intra-group financiers.

25.11 OTHER FINANCIAL CORPORATIONS: ASSETS, LIABILITIES, INCOME AND EXPENDITURE(a) ($ million)

	1989–90	*1990–910*	*1991–92*
Liabilities			
Paid up capital	75.4	74.6	74.7
Reserves	207.9	208.6	250.2
Accumulated surplus (net)	9.1	–2.4	–101.8
Borrowings from residents			
Banks	18.5	6.3	8.7
Other	4,047.9	4,568.2	4,530.2
Borrowings from non-residents	—	—	—
Other liabilities	35.3	35.9	30.7
Total liabilities	**4,394.0**	**4,891.2**	**4,792.6**
Assets			
Amount owing on loans	1,490.3	1,921.2	1,320.6
Finance lease receivables	24.8	26.0	20.3
Cash and bank deposits	99.0	85.5	102.1
Other placements and deposits	223.6	190.5	565.7
Bills, bonds and other securities	2,435.3	2,522.9	2,626.8
Other financial assets	97.2	127.1	141.4
Other assets	23.8	18.0	15.7
Total assets	**4,394.0**	**4,891.2**	**4,792.6**
Expenditure			
Interest on borrowings	587.2	533.4	445.5
Wages and salaries	20.4	23.0	24.8
Administrative expenses	58.2	93.8	185.7
Other expenditure	10.8	20.2	17.8
Total expenditure	**676.6**	**670.4**	**673.8**
Income			
Interest on loans	166.2	153.9	104.5
Income from finance leasing	2.4	2.7	1.3
Income from placements and deposits	57.4	87.2	77.6
Income from bills, bonds, etc.	435.1	349.0	325.6
Other income	39.4	46.8	66.0
Total income	**700.4**	**639.6**	**575.0**

(a) At the balance dates of companies within the financial year shown. Included are only those corporations registered under the *Financial Corporations Act 1974* and categorised as other financial corporations during the reference periods.

Source: Unpublished ABS data available under the title Annual Statistics on Financial Institutions (5661.0).

LIFE INSURANCE

The major acts of Parliament relating to the management and operations of life insurance offices are as follows:

- *The Insurance and Superannuation Commissioner Act 1987* which created the statutory office of Insurance and Superannuation Commissioner. The Act provides for the Commissioner to assume overall responsibility (subject to the Treasurer's direction) for the supervision of the insurance industry and for the occupational superannuation standards.
- *The Life Insurance Act 1945* (amended in 1987) which regulates life insurance business in Australia. This Act replaced all State legislation on the subject of life insurance except that relating to life insurance operations of State government insurance offices within the State concerned. It thereby provided uniform legislation for the whole of Australia. It provides for the Insurance and Superannuation 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 to set up adequate machinery for dealing with any company that fails to maintain a required minimum standard of solvency.

Life insurance offices' major activity is to accumulate public savings to provide funding for life insurance and superannuation funds. They are large institutions, many with Australia-wide branch networks, which are active in both the money and share markets.

25.12 LIFE INSURANCE

	Insurance and endowment policies			
	Number of policies ('000)	*Sum insured ($ million)*	*Business issued by single premiums ($ million)*	*Annual premiums ($ million)*
	ORDINARY AND INDUSTRIAL BUSINESS			
New policies issued				
1990	839	49,583	1,966.1	707.3
1991	838	46,853	1,617.5	544.0
1992	714	41,259	1,494.7	469.6
Policies discounted or reduced(a)				
1990	647	27,425	. .	295.0
1991	841	44,500	. .	569.3
1992	837	38,998	. .	597.6
Policies existing at end of				
1990	6,613	195,297	. .	2,618.4
1991	6,610	197,650	. .	2,592.1
1992	6,492	197,855	. .	2,513.8
	SUPERANNUATION BUSINESS			
New policies issued				
1990	514	87,600	4,319.1	2,083.0
1991	423	81,060	3,532.0	1,713.5
1992	375	72,587	4,073.3	1,529.3
Policies discontinued or reduced(a)				
1990	160	34,046	. .	1,475.9
1991	204	51,043	. .	1,303.0
1992	203	53,069	. .	1,531.9
Policies existing at end of				
1990	2,648	260,332	. .	5,961.0
1991	2,687	290,349	. .	6,371.4
1992	2,922	304,079	. .	6,349.4

(a) Includes transfers.

Source: Insurance and Superannuation Commission, Life Insurance Group, June Quarterly Statistical Bulletin on Life Insurance.

A feature of life insurance offices in recent years has been the growth of superannuation business.

The statistics in table 25.12 relate to life insurance and superannuation business conducted through statutory funds of life companies with head offices in Australia and the Australian business of life companies with head offices overseas. Also included are the life business operations reported by four State Government Insurance Offices. Information contained in the table does not relate to uniform accounting periods but to the balance dates of organisations falling within the calendar year shown.

SUPERANNUATION FUNDS AND APPROVED DEPOSIT FUNDS

The major acts of Parliament relating to the management of Superannuation Funds and Approved Deposit Funds are the *Occupational Superannuation Standards Act 1987* (OSSA) and the *Insurance and Superannuation Commission Act 1987*. The latter Act provides for the statutory office of the Insurance and Superannuation Commissioner who is responsible for administering OSSA.

Superannuation funds are funds which have been constituted to provide retirement benefits for their members. They can be either employer sponsored (that is, with the employer paying some or all of the contributions on behalf of employees) or employee operated funds (that is, employees paying some or all of the contributions). Most superannuation arrangements involve both the employer and employee making contributions with the employer either contributing regularly to the fund or, as is the case with many public sector funds, when the benefit falls due. The contributions made regularly are used by fund managers to purchase investments and the resulting assets finance the payment of benefits to fund members.

Approved deposit funds were established in 1984 to enable employees who terminate their employment with a particular employer to preserve their superannuation benefits until retirement age.

25.13 SUPERANNUATION FUNDS AND APPROVED DEPOSIT FUNDS, ASSETS
($ million)

			June quarter
	1990	*1991*	*1992*
Assets in Australia			
Financial assets			
Cash and deposits	7,903	7,950	8,702
Loan and placements	10,430	9,730	9,593
Short-term assets	9,550	9,619	12,977
Long-term assets	23,431	30,249	34,590
Shares	28,755	32,488	42,379
Unit and other	7,823	8,504	8,992
Non-financial assets			
Land and buildings	18,809	17,928	15,681
Other	2,593	1,680	1,516
Assets overseas	14,269	16,495	18,996
Total	**123,563**	**134,643**	**153,426**
Of which			
Superannuation funds	116,256	126,417	143,761
Approved deposit funds	7,307	8,226	9,665

Source: Assets of Superannuation Funds and Approved Deposit Funds (5656.0).

CASH MANAGEMENT TRUSTS

A cash management trust is a unit trust which is governed by a trust deed, is open to the public, generally confines its investments to financial securities available through the short-term money market and issues units that are redeemable by the trustee to the unit holder on demand.

25.14 CASH MANAGEMENT TRUSTS

June	*Number of trusts*	*Units in issue at end of period ($ million)*	*Weighted average net yield at end of period (% per annum)*	*Assets ($ million)*					
				Cash and deposits with banks	*All other deposits and loans*	*Bills of exchange purchased and held*	*Promissory notes purchased and held*	*Other assets*	*Total*
1990	19	4,561.0	14.1	1,764.9	473.8	2,187.0	215.1	38.6	4,679.4
1991	15	5,659.8	9.8	1,599.0	354.1	2,727.5	1,059.7	14.7	5,755.0
1992	18	5,286.1	5.9	1,246.2	290.8	2,197.9	1,433.3	175.7	5,343.9

Source: Cash Management Trusts, Australia (5635.0).

PUBLIC UNIT TRUSTS

A public unit trust is defined as an arrangement (fund) which is governed by a trust deed between a management company and a trustee company; is open to the public within Australia for the purpose of investing the pooled funds of unit holders to yield returns in the form of income and/or capital gains; and allows unit holders to dispose of their units within a relatively short period of time. They are categorised as either property, equity, mortgage, trading, public security or gold trusts. They exclude cash management trusts, private trusts and trusts exempted from providing redemption facilities (for example, film and agricultural trusts).

Public unit trusts may be listed or unlisted unit trusts. A listed unit trust's units must be listed on Australian Stock Exchanges and the trust must adhere to listing requirements similar to those for companies.

25.15 PUBLIC UNIT TRUSTS

June quarter	*Number of trusts*	*Units in issue at end of the period ($ million)*	*Assets ($ million)*					
			Cash and deposits	*Shares*	*Property at the end of the quarter*	*Loan out-standings secured by mortgages on land and buildings*	*Other assets*	*Total*
			UNLISTED					
1990	374	14,864.5	896.1	3,535.6	6,909.6	1,456.4	3,945.3	16,743.0
1991	368	13,823.1	1,080.8	3,773.1	5,471.1	1,379.8	3,638.2	15,343.0
1992	326	12,427.1	784.1	5,395.1	2,103.2	1,013.0	4,352.9	13,648.3
			LISTED					
1990	41	7,531.3	336.7	306.9	6,384.5	33.0	3,926.3	10,987.4
1991	39	7,230.4	343.7	417.1	6,264.4	90.3	3,319.7	10,435.2
1992	40	9,088.0	475.6	611.7	7,621.8	99.6	3,141.7	11,950.4
			TOTAL					
1990	415	22,395.8	1,232.8	3,842.5	13,294.1	1,489.4	7,871.6	27,730.4
1991	407	21,053.5	1,424.5	4,190.2	11,735.5	1,470.1	6,957.9	25,778.2
1992	366	21,515.1	1,259.7	6,006.8	9,725.0	1,112.6	7,494.7	25,598.8

Source: Public Unit Trusts, Australia (5645.0).

COMMON FUNDS

Common funds are categorised as either cash funds, equity funds, mortgage funds, property funds or other funds (funds where the primary asset is other than those listed above, for example, interest bearing securities). Common funds are set up to enable trustee companies (the managers of common funds) to combine depositors' funds and other funds held in trust in an investment pool with the intention of investing in specific types of securities and/or assets.

25.16 COMMON FUNDS, ASSETS
($ million)

	June		
	1990	*1991*	*1992(a)*
Assets in Australia			
Financial assets			
Cash and deposits	1,273	1,144	532
Loans and placements	859	824	872
Short-term assets	4,149	4,055	2,076
Long-term assets	48	38	49
Equities	375	434	655
Other	12	57	17
Non-financial assets			
Land and buildings	216	174	143
Other	5	1	—
Assets overseas	21	25	39
Total assets	**6,958**	**6,752**	**4,383**

(a) Caution should be used when comparing June 1992 data with previous years due to a significant change in the population of Common Funds.

Source: Common Funds, Assets and Liabilities, Australia (5657.0).

FRIENDLY SOCIETIES

When founded in 1840 friendly societies were formed on the basis of group interests such as craft or religion. They have since evolved to offer a full range of financial services to the public at large, including investment services. Friendly societies are registered under relevant State legislation and operate in all States.

Table 25.17 summarises the assets of the 27 largest friendly societies which represent approximately 93 per cent of the assets of all societies in Australia.

25.17 FRIENDLY SOCIETIES, ASSETS
($ million)

	June		
	1990	*1991*	*1992*
Financial assets			
Cash and deposits	1,875	2,494	1,939
Loans and placements	1,208	942	856
Short-term assets	2,322	1,992	2,914
Long-term assets	1,980	2,144	2,633
Equities	30	42	118
Other	394	330	123
Non-financial assets			
Land and buildings	208	311	333
Other	67	27	72
Total assets	**8,084**	**8,282**	**8,988**

Source: Friendly Societies, Assets and Liabilities, Australia (5660.0).

GENERAL INSURANCE COMPANIES

The major acts of Parliament relating to the management and operations of general insurers are as follows:

- The *Insurance and Superannuation Commission Act 1987,* which created the statutory office of Insurance and Superannuation Commissioner. The Act provides for the Commissioner to have overall responsibility (subject to the Treasurer's direction) for the supervision of the general insurance industry.
- *The Insurance Act 1973* which provides for the Commissioner to exercise active supervision with a view to ensuring the solvency of companies carrying on general insurance business, and therefore their ability to meet claims as they arise. The Act does not apply to State government insurance offices or to insurance business carried on by specified bodies such as registered medical benefits of hospital benefits organisations.

General insurance statistics cover those institutions whose primary activity is the provision of insurance, except life and health insurance.

The statistics in table 25.18 relate to the operations of bodies corporate authorised to carry on insurance business under the *Insurance Act 1973* and government instrumentalities, that is, State government insurance offices and Commonwealth and State government instrumentalities in respect of their general insurance business.

The statistics employ the following definitions:

- Premiums comprise the full amount receivable in respect of direct insurance and reinsurance business written or renewed within Australia during the year. Premiums are not adjusted to provide for premiums unearned at the end of the year and consequently the amounts differ from 'earned premium income' appropriate to the year.
- Claims comprise, for direct insurance and reinsurance business, payments made during the year. Salvage and other amounts recoverable, other than reinsurance recoveries, have been deducted.

The statistics do not relate to uniform accounting periods but to the financial years of the organisations which ended during the years shown.

25.18 GENERAL INSURANCE: PREMIUMS AND CLAIMS BY PRINCIPAL CLASS OF BUSINESS
($ million)

Class of business	*1988–89*	*1989–90*	*1990–91*
	PREMIUMS		
Fire(a)	901.6	914.9	874.2
House Owners' and House-holders'	940.0	1,039.3	1,094.2
Contractors' All Risks	95.9	93.4	70.2
Marine and Aviation	268.9	286.6	278.0
Motor Vehicle Comprehensive	2,054.8	2,304.3	2,392.4
Compulsory Third Party (Motor Vehicle)	435.1	1,031.5	1,049.2
Employers Liability(b)	281.1	304.5	262.7
Public Liability(c)	630.9	635.0	637.7
All other	866.2	984.7	902.2
Total	**6,474.5**	**7,594.2**	**7,560.8**
	CLAIMS		
Fire(a)	458.0	533.5	795.2
House Owners' and House-holders'	465.7	593.3	906.3
Contractors' All Risks	37.7	57.3	50.3
Marine and Aviation	126.0	171.8	196.2
Motor Vehicle Comprehensive	1,549.9	1,826.3	2,084.1
Compulsory Third Party (Motor Vehicle)	68.6	116.5	137.1
Employers Liability(b)	918.8	747.8	508.9
Public Liability(c)	239.9	217.6	254.3
All other	359.3	431.3	519.1
Total	**4,223.0**	**4,695.4**	**5,451.5**

(a) Includes sprinkler leakage, loss of profits, and crop and hailstone insurance. (b) Excludes workers' compensation insurance in the coal mining industry in NSW. (c) Includes product liability and professional indemnity insurance.

Source: Insurance and Superannuation Commission, General Insurance Group, Selected Statistics on the General Insurance Industry.

STOCK MARKET

The Australian stock market is where equity (shares), units in listed trusts, options, government bonds and other fixed-interest securities are traded. It is operated on a national basis by the Australian Stock Exchange Ltd (ASX) which is responsible for the day-to-day running and surveillance of stockmarket trading.

The sharemarket comprises two different markets — the primary market where new issues and additional issues are raised, and the secondary market where previously issued shares are traded. The companies listed on the exchange are classified according to size and type of activity, for example, large companies (over $300,000 issued capital) are listed on the Main Board while newer or smaller companies (over $200,000 issued capital) are listed on the Second Board. Companies are classified according to their major type of activity and the ASX publishes various indexes (for example, All Ordinaries, All Industrials, All Resources), which represent the price performance of the shares in particular types of categories.

Trading of shares on the stockmarket is generally conducted through stockbrokers who act as agents for buyers and sellers of shares. In addition they provide advisory and underwriting services and in some cases buy and sell shares on their own account.

The stockmarket is controlled and regulated using a cooperative system drawn up between the Commonwealth Government and State Governments, which allows for a uniform companies' and securities' law. The major legislation involved are the *Trade Practices Act 1974*, the *Companies Act 1981*, the *Securities Industry Act 1980*, and the *Australian Securities Commission Act 1989*. The Australian Securities Commission is responsible for the administration of company law and the regulation of the securities industry. It oversees the operation of stock exchanges to prevent fraudulent practices such as insider trading. The Trade Practices Commission administers trade practices legislation on behalf of both private enterprise and consumers, authorises certain restrictive trade practices, deals with consumer protection and provides guidance on the operation of Trade Practices legislation. The ASX oversees market trading and sets uniform standards in regards to business rules and listing requirements.

25.19 AUSTRALIAN STOCK MARKET INDEXES
(Base: 31 December 1979 = 500)

	1989–90	*1990–91*	*1991–92*
All ordinaries			
Index(a)	1,508.8	1,504.9	1,652.7
High	1,528.8	1,523.9	1,672.3
Low	1,494.6	1,478.0	1,547.4
All industrials			
Index(a)	2,367.9	2,330.7	2,550.0
High	2,388.2	2,389.2	2,610.2
Low	2,388.2	2,297.0	2,364.9
All resources			
Index(a)	855.3	873.5	965.7
High	873.9	892.0	965.7
Low	840.6	851.3	894.2

(a) Share prices on joint trading floors; average of daily figures for the last month of the year.
Source: Australian Stock Exchange, Monthly Index Analysis.

Table 25.20 shows the value of Australian shares and units in trusts on issue classified by sector of holder at market value or, in the case of the public sector, at book value. The estimates are partially consolidated, with intra-group claims (that is, shares issued by a company in a group and held by another member of the same group) being eliminated from the aggregates.

Total equities and units in trusts represent the value level of outstanding equities issued by residents. This total is dissected into the sectors which issue these instruments (in italics), followed by the sectors that hold the equities as assets.

25.20 THE SHARE MARKET(a)
($ billion)

	Value at end of June quarter		
	1990	*1991*	*1992*
Total equities & units in trusts	*290.8*	*302.4*	*334.8*
Issued by			
Commonwealth public trading enterprises(b) & held by	*2.9*	*3.5*	*6.7*
Commonwealth public trading enterprises	0.3	0.2	—
Commonwealth general government	2.6	3.3	6.7
State & local public trading enterprises(b) & held by	*7.4*	*7.9*	*8.2*
State & local public trading enterprises	0.1	0.1	0.1
State & local general government	7.2	7.7	8.1
Private corporate trading enterprises(c) & held by	*210.3*	*211.6*	*234.2*
Commonwealth public trading enterprises	0.1	0.1	0.3
Private corporate trading enterprises(d)	27.2	25.4	26.9
Banks	2.4	3.0	3.0
Non-bank deposit taking institutions	3.2	2.7	2.6
Life offices & superannuation funds	36.2	40.3	49.1
Other financial institutions	9.4	10.6	11.0
Households & unincorporated businesses(c)	51.1	42.2	48.0
Rest of world	80.8	87.3	93.2
Banks(c) & held by	*37.3*	*41.2*	*45.7*
Banks(d)	4.6	5.5	4.4
Life offices & superannuation funds	4.7	5.1	6.2
Other financial institutions	1.2	1.4	1.5
Commonwealth general government	5.6	6.1	6.3
State & local general government	5.1	4.4	4.9
Households & unincorporated businesses(c)	10.3	11.2	15.2
Rest of world	5.9	7.4	7.2
Non-bank deposit taking institutions(c) & held by	*13.4*	*11.5*	*12.6*
Private corporate trading enterprises	0.6	0.4	0.2
Banks	5.3	5.9	4.7
Life offices & superannuation funds	0.4	0.6	0.8
Other financial institutions	0.5	0.6	0.5
Households & unincorporated businesses(c)	4.2	1.3	3.6
Rest of world	2.4	2.7	2.7
Life offices & superannuation funds(c) & held by	*1.5*	*7.4*	*7.2*
Life offices & superannuation funds(e)	0.3	6.1	6.1
Rest of world	1.2	1.3	1.1
Other financial institutions(c) & held by	*15.7*	*16.9*	*17.6*
Life offices & superannuation funds	3.5	3.7	3.6
Other financial institutions	0.2	0.2	0.4
Commonwealth general government	—	—	0.2
State & local general government	0.6	0.6	0.6
Households & unincorporated businesses(c)	8.3	9.1	9.5
Rest of world	3.2	3.2	3.4
State & local general government(b) & held by	*2.2*	*2.5*	*2.5*
State & local general government	2.2	2.5	2.5

(a) Includes units in trusts. (b) Book values. (c) These estimated market values are considered to be of poor quality. They should be used cautiously. (d) Excludes holdings by related enterprises in this subsector. (e) Excludes holdings by related enterprises in this subsector. The discontinuity at September Quarter 1990 is caused by a structural change in this subsector.

Source: Australian National Accounts, Financial Accounts (5232.0).

FINANCIAL ACTIVITY

Money

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 $5, $10, $20, $50 and $100 and coins in the denominations of 5c, 10c, 20c, 50c, $1 and $2. $1 and $2 notes were replaced by coins in 1984 and 1988 respectively, and 1c and 2c coins ceased to be issued from 1 February 1992.

25.21 VALUE OF AUSTRALIAN NOTES ON ISSUE
($ million)

	Last Wednesday in June		
	1990	*1991*	*1992*
$1	43	43	43
$2	75	73	71
$5	233	249	261
$10	691	679	589
$20	2,289	2,048	1,857
$50	4,425	5,345	5,763
$100	5,225	6,356	6,672
Total	**12,981**	**14,793**	**15,256**
Increase %	5.1	14.0	3.1

Source: Reserve Bank of Australia.

25.22 AUSTRALIAN DECIMAL COIN ON ISSUE
($ million)

	Last Wednesday in June		
	1990	*1991*	*1992*
1c	30.7	29.2	26.0
2c	48.0	44.0	37.2
5c	79.4	79.8	82.5
10c	88.0	87.6	90.2
20c	136.2	132.9	130.0
50c	181.0	179.3	180.6
$1	222.8	220.2	221.6
$2	335.1	352.1	362.5
Total	**1,121.2**	**1,125.1**	**1,130.6**

Source: Reserve Bank of Australia.

Money supply measures

The supply of money in the market is an important measure reflecting interest rates and the inflation rate. Basically the money supply, as measured and published by the Reserve Bank of Australia, refers to the amount of cash held by the public plus deposits with banks. The measures range from the narrowest category, money base, through to the widest category, broad money, with other measures in-between. The measures mainly used are as follows:

- money (cash) base, which refers to currency in circulation plus bank deposits with the Reserve Bank of Australia.
- M3, which refers to currency plus bank deposits of the private non-bank sector.
- broad money, which is M3 plus borrowings from the private sector by non-bank financial institutions (including cash management trusts) less their holdings of currency and bank deposits.

In the past Australian monetary authorities have mainly used M3 as the major measure of money supply. However, with deregulation of the financial system and increasing movements in deposits between banks and non-banks, authorities now tend to use all three major measures.

25.23 LEVELS OF MONEY SUPPLY MEASURES
($ million)

Year	*Money banks(a)*	*M3(b)*	*Broad money(c)*
1989–90	17,706	190,410	261,917
1990–91	18,717	202,650	266,402
1991–92	19,135	208,175	270,365

(a) Holdings of notes and coins by the private sector, plus deposits of banks with the Reserve Bank and Reserve Bank liabilities to the private non-bank sector. (b) Currency plus bank deposits (including certificates of deposit with banks) of the non-bank sector. (c) M3 plus borrowings from private sector by non-bank financial institutions less the latter's holdings of currency and bank deposits.
Source: Reserve Bank of Australia.

Interest rates

Interest rates, as the price for money and credit, fluctuate with the supply of and demand for money or credit. They are also affected by other factors such as government monetary policy, government regulation, borrower credit risk, and the maturity and marketability of the particular investment or asset involved. Table 25.24 shows the fluctuations in but a few of the key rates offered to individuals and businesses in the market.

25.24 KEY INTEREST RATES

			At end of June
	1990	1991	1992
Private			
Authorised dealers weighted average rate(a)	14.98	10.39	6.41
90-day bank bills(b)	15.10	10.50	6.40
Fixed bank deposits $50,000 and over 12 months	14.25	10.00	6.00
Unofficial market rate(c)	15.05	10.55	6.55
Prime rate(d)	18.75	14.25	10.75
Small overdraft rate(e)	21.50	16.50	11.25
New bank housing loans	16.50	13.00	10.50
Commonwealth government securities 13 week Treasury notes	14.75	10.11	6.17
Treasury bonds			
2 year	14.05	10.55	6.35
5 year	13.80	11.05	7.85
10 year	13.40	11.15	8.90

(a) Official cash rate. Data are the weighted average for the last month of the year. (b) Data are the weighted average of the last week of the period. (c) The 11 a.m. call rate. Data are the average of daily figures. (d) Bank overdraft for $100,000 and over. (e) Bank overdraft for less than $100,000.

Source: Reserve Bank of Australia Bulletin.

FOREIGN EXCHANGE

The foreign exchange market is the means whereby currencies of different countries can be bought and sold. In October 1983 the Australian Government decided to float the Australian dollar allowing its value to be determined by market forces with few exchange controls and little Reserve Bank intervention. Prior to 1983 the Australian dollar was pegged to a basket of currencies which were weighted according to their trading significance to Australia.

Currencies are traded for many reasons, including to facilitate overseas trade (exports, imports), for financing overseas borrowing and investments, for arbitrage (that is, taking advantage of short-term discrepancies in rates with minimal risk) and for speculation on possible exchange rate movements with a view to making a significant profit.

These activities are conducted in three markets — the foreign exchange market, the currency hedge market, and the currency futures market. The foreign exchange market deals with the actual trading of foreign currency for all types of customers, ranging from tourists to large corporations and governments. This market is operated by authorised traders (all licensed banks and 44 non-bank financial institutions). The currency hedge market is used as a means of insurance against future exchange rate fluctuations and is especially useful for long-term contracts. It is operated by licensed banks and money market corporations. The currency futures market operates from the Sydney Futures Exchange and involves contracts to buy and sell a specific currency for a set price at a specified future date. The contracts are arranged by brokers who are members of the exchange.

25.25 EXCHANGE RATES FOR THE AUSTRALIAN DOLLAR

	At end of June		
	1990	1991	1992
United States dollar	0.7890	0.7681	0.7448
United Kingdom pound	0.4536	0.4712	0.3945
German Deutschemark	1.3180	1.3818	1.1438
Japanese yen	120.4100	106.1900	94.0500
New Zealand dollar	1.3439	1.3303	1.3752

Source: Reserve Bank of Australia Bulletin.

MAJOR LENDING BY FINANCIAL INSTITUTIONS

The lending activities of financial institutions are grouped for statistical purposes into four major types of lending — housing, personal, commercial and leasing. Information regarding housing finance is presented in the chapter, Construction and Housing.

25.26 LENDING COMMITMENTS BY FINANCIAL INSTITUTIONS
($ million)

Type of lending activity	1989–90	1990–91	1991–92
Housing finance	18,959.9	20,775.7	28,538.4
Personal finance	22,309.4	20,205.0	19,598.4
Commercial finance	94,872.9	87,294.0	76,644.9
Lease finance	8,217.9	5,209.4	4,476.7
Total	**144,360.1**	**133,484.1**	**129,258.4**

Source: See the tables which follow for each type of lending.

Personal finance

The following tables present statistics of commitments made by significant lenders (that is, banks, credit cooperatives, finance companies, etc.) to lend to individuals for their own personal (non-business) use.

25.27 PERSONAL FINANCE COMMITMENTS(a), BY TYPE OF LENDER
($ million)

Year	All banks	Finance companies	Credit cooperatives	Other lenders(b)	Total
1989–90	14,815.0	4,800.4	2,224.7	469.3	22,309.4
1990–91	13,288.4	4,154.4	2,183.8	578.5	20,205.0
1991–92	12,211.8	3,691.4	2,532.1	1,163.0	19,598.4

(a) Includes both fixed loan facilities and new and increased lending commitments under revolving credit facilities. (b) Includes permanent building societies, general financiers and retailers.
Source: Personal Finance, Australia (5642.0).

25.28 PERSONAL FINANCE COMMITMENTS, BY TYPE OF FACILITY
($ million)

		Revolving credit commitments			
Year	*Fixed loan commitments*	*New and increased credit limits*	*Cancellations and reductions in credit limits*	*Credit limits — Total*	*Credit limits — Used*
1989–90	13,761.8	8,547.6	6,107.3	26,871.3	12,213.9
1990–91	12,622.6	7,582.4	7,042.2	28,056.4	12,905.1
1991–92	12,711.8	6,886.5	5,972.9	32,516.9	14,099.3

Source: Personal Finance, Australia (5642.0).

Commercial finance

The statistics in the following tables measure commitments, made by significant lenders (that is, banks, finance companies, money market corporations, etc.), to lend to government, private and public enterprises, non-profit organisations and to individuals for investment and business purposes.

25.29 COMMERCIAL FINANCE COMMITMENTS(a), BY TYPE OF LENDER
($ million)

Year	*Banks*	*Finance companies*	*Money market corporations*	*Other lenders(b)*	*Total*
1989–90	74,884.7	10,474.3	8,230.6	1,283.3	94,872.9
1990–91	68,797.7	6,283.9	10,266.3	1,946.2	87,294.0
1991–92	59,936.8	5,383.8	9,257.0	2,067.2	76,644.9

(a) Includes both fixed loan facilities and new and increased lending commitments under revolving credit facilities. (b) Includes permanent building societies, general financiers and pastoral finance companies.
Source: Commercial Finance, Australia (5643.0).

25.30 FIXED COMMERCIAL FINANCE COMMITMENTS, BY PURPOSE
($ million)

Year	*Construction*	*Purchase of real property*	*Purchase of plant and equipment*	*Re-financing*	*Other purposes*	*Total*
1989–90	6,062.9	10,350.5	3,410.2	3,577.9	14,106.7	37,508.2
1990–91	3,208.4	7,533.1	2,948.2	8,225.5	13,070.6	34,985.7
1991-92	2,319.1	5,803.2	3,218.7	5,883.1	14,405.1	31,629.2

Source: Commercial Finance, Australia (5643.0).

Lease finance

The statistics in the following tables measure lease finance commitments made by significant lenders (that is, banks, money market corporations, finance companies, general financiers, etc.) to trading and financial enterprises, non-profit organisations, governments, public authorities and individuals.

25.31 LEASE FINANCE COMMITMENTS, BY TYPE OF LESSOR
($ million)

Year	All banks	Money market corporations	Finance companies	General financiers	Total
1989–90	2,789.8	411.3	4,064.8	950.9	8,216.7
1990–91	1,304.8	278.7	2,912.5	713.4	5,209.4
1991–92	1,275.4	328.1	2,559.3	313.8	4,476.7

Source: Lease Finance, Australia (5644.0).

25.32 LEASE FINANCE COMMITMENTS, BY TYPE OF GOODS LEASED
($ million)

Types of goods	1989–90	1990–91	1991–92
Motor vehicles and other transport equipment	4,041.7	2,933.5	2,733.7
Construction and earth moving equipment	402.4	260.5	205.9
Agricultural machinery and equipment	223.9	125.9	131.3
Automatic data processing equipment and office machinery	1,369.9	884.1	643.2
Shop and office furniture, fittings and equipment	572.7	400.4	251.1
Other goods	1,607.3	605.0	511.6
Total	**8,217.9**	**5,209.4**	**4,476.7**

Source: Lease Finance, Australia (5644.0).

MANAGED FUNDS — THE CONSOLIDATED POSITION

Certain types of financial institutions can be collectively described as 'managed funds' and it is useful to present consolidated statistics for them as a group.

The significant growth in managed funds has been a major development in the financial sector over the last decade. A managed fund is an arrangement whereby the funds of a number of investors are 'pooled' together to invest in a particular type or mix of financial and non-financial assets, with a view to receiving an on-going return, or a capital gain. Managed funds exclude funds of a speculative nature that do not offer redemption facilities (for example, agriculture and film trusts), and funds not established for investment purposes (for example, health funds, general insurance funds).

The development of managed funds has occurred in parallel with changes resulting from the deregulation of the financial system. They offer a wide range of investment alternatives to small and institutional investors based on the underlying asset, specialist managers, income returns, taxation benefits and investment strategy. The funds' products can be structured to satisfy individual investor requirements such as the degree of risk, the mix of capital and income growth and the degree of asset diversification.

The major types of managed funds are cash management trusts, public unit trusts, common funds, superannuation funds and approved deposit funds, friendly societies, and statutory funds of life offices.

To arrive at a figure for the total assets of managed funds in Australia, it is necessary to eliminate the cross investment between the various types of funds. For example, investments by superannuation funds in public unit trusts are excluded from the assets of superannuation funds in a consolidated presentation.

While statistics for each of these institutions has been presented previously in this chapter, the following tables summarise their consolidated position (that is, after the cross investment between the institutions have been eliminated), by type of fund and by type of investment.

25.33 ASSETS OF MANAGED FUNDS BY TYPE OF FUND AS AT 30 JUNE 1992
($ million)

			Assets
Type of fund	*Cross invested*	*Consolidated*	*Total*
Statutory funds of life offices	3,277	98,109	101,385
Superannuation and approved deposit funds	6,936	81,226	88,162
Public unit trusts	2,011	23,587	25,598
Friendly societies	25	8,963	8,988
Common funds	55	4,319	4,373
Cash management trusts	—	5,344	5,344
Total	**12,303**	**221,548**	**233,850**

(a) Source: Insurance & Superannuation Commission.
Source: Managed Funds: Australia (5655.0).

25.34 CONSOLIDATED ASSETS OF MANAGED FUNDS, BY TYPE OF INVESTMENT
($ million)

Type of investment	*30 June 1990*	*30 June 1991*	*30 June 1992*
Deposits, loans and placements	32,847	31,701	28,558
Short-term assets	23,478	24,053	27,530
Long-term assets	30,912	39,306	45,287
Equities and units in trusts	34,822	38,671	56,050
Land and buildings	38,244	35,391	30,175
Overseas assets	20,769	22,598	26,067
Other assets	11,365	11,981	7,881
Total	**192,439**	**203,703**	**221,548**

Source: Managed Funds: Australia (5655.0).

A further development within the managed funds industry is the emergence of the professional or wholesale fund manager. These entities act on a fee for service basis as managers for smaller funds and agents for other funds, including unit trusts and superannuation funds. While they accept individual portfolios to manage, for example, for charities, their existence is generally not visible to the small investor. The professional fund managers fall into two groups — those attached to insurance agencies, who also act as agents for outside institutions as well as their own company's clients, and those attached to other institutions. Professional fund managers provide a sophisticated level of service matching assets and liabilities. They act in the main as the managers of pooled funds, but also manage clients' investments on an individual portfolio basis.

A considerable proportion of the assets of managed funds, particularly statutory funds of life offices and assets of superannuation funds, is invested through professional fund managers. At 30 June 1992, $174.3 billion, or 78.9 per cent of consolidated assets of managed funds, were invested through professional fund managers. Table 25.35 shows the total unconsolidated assets of each type of managed fund and the amount of these assets invested through professional fund managers.

25.35 ASSETS OF MANAGED FUNDS MANAGED BY PROFESSIONAL FUND MANAGERS AT 30 JUNE 1992
($ million)

Type of fund	*Unconsolidated assets of managed funds*	*Assets invested with professional fund managers*
Statutory funds of life offices(a)	101,385	94,786
Superannuation and approved deposit funds	88,162	53,605
Public unit trusts	25,598	18,387
Friendly societies	8,988	3,285
Common funds	4,373	213
Cash management trusts	5,344	4,069
Total	**233,850**	**174,345**

(a) Includes both superannuation and ordinary business.
Source: Managed Funds: Australia (5655.0).

Professional fund managers also manage money from investors other than managed funds. At 30 June 1992, professional fund managers also invested $27.3 billion on behalf of government, general insurance and other sources.

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Housing Finance for Owner Occupation, Australia (5609.0)

Lease Finance, Australia (5644.0)

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Other publications

AUSTRALIAN STOCK EXCHANGE. Monthly Index Analysis

INSURANCE AND SUPERANNUATION COMMISSION GENERAL INSURANCE GROUP. Selected Statistics on the General Insurance Industry,

INSURANCE AND SUPERANNUATION COMMISSION LIFE INSURANCE GROUP. June Quarterly Statistical Bulletin on Life Insurance

RESERVE BANK OF AUSTRALIA. The Reserve Bank of Australia Bulletin

FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Twenty-six

Public Finance

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This chapter deals with the financial activities of the organisations which make up the three levels of government in the Australian political system — Commonwealth, 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 the Commonwealth Government. Tables are then presented which bring together the transactions of all public non-financial enterprises to highlight the role in the Australian economy of the public sector as a whole. This is followed by a section on government borrowing activities at all levels.

Concepts and definitions used in public finance statistics

Except for those explicitly sourced to Budget Papers, the statistics in this chapter are provided from the system of government finance statistics (GFS). A separate publication *Classification Manual for Government Finance Statistics, Australia* (1217.0) assists in understanding these statistics. It outlines the major concepts used, provides definitions of the enterprise unit used for GFS collections and of transactions classifications employed. The GFS classifications used in the tables are:

- the *Economic Transactions Framework* (ETF) which categorises outlays, revenue, grants received and financing transactions according to their economic character to facilitate study of the macroeconomic effect of government activity on the economy and to provide the basic building blocks for grouping transactions to be incorporated into the Australian National Accounts;
- the *Taxes, Fees and Fines Classification* (TFFC) which dissects this major form of government revenue according to the type of tax, fee or fine collected; and
- the *Government Purpose Classification* (GPC) which is used to group outlays with similar functions to facilitate study of the broad purposes of public sector spending and assessment of the effectiveness of outlays in meeting government policy objectives.

Revisions

Government finance statistics are revised progressively as new or improved data become available. For this reason differences can occur between equivalent aggregates published at different times.

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.

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.

Details of current provisions for financial assistance to the States are contained in *Commonwealth Budget Paper No. 4, Commonwealth Financial Relations with Other Levels of Government, 1992–93*.

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 enterprises of the Commonwealth Government whose receipts and payments are summarised in the statements of Public Account balances.

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 estimated outlay, revenue and deficit of the Budget for 1991–92 are set out in the table which follows, together with figures for the years 1986–87 to 1991–92. 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 enterprises 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.

26.1 COMMONWEALTH GENERAL GOVERNMENT BUDGET SECTOR TRANSACTIONS BY ECONOMIC TYPE
($ million)

	1986–87	*1987–88*	*1988–89*	*1989–90*	*1990–91*	*1991–92*
Current outlays						
Final consumption expenditure	13,605	14,108	14,836	15,657	17,396	18,417
Current transfer payments						
Interest	7,940	7,913	7,483	7,344	6,147	5,706
Subsidies(a)	1,629	1,735	1,581	1,951	2,677	2,393
Personal benefit payments	24,081	26,815	25,011	26,320	30,566	35,114
Grants to non-profit institutions	1,123	960	1,105	1,174	1,168	1,542
Grants to non-budget sector(a)	2,057	2,427	6,171	7,937	8,762	9,314
Grants to other governments	19,486	20,890	21,582	22,934	24,244	25,901
Grants overseas	810	843	916	1,070	1,036	1,124
Other transfers	3	4	5	7	5	17
Total current transfer payments	57,129	61,587	63,854	68,737	74,606	81,110
Total current outlays	*70,734*	*75,695*	*78,690*	*84,394*	*92,002*	*99,527*
Capital outlays						
Gross capital formation(b)	550	607	533	686	970	1,089
Net land and intangible assets	- 87	- 378	- 121	24	- 65	10
Capital transfer payments						
Grants to non-budget sector	678	664	321	103	100	174
Grants to other governments	3,250	3,038	3,062	3,506	4,308	3,676
Grants to other sector(c)	304	349	353	320	255	301
Total capital transfer payments	4,232	4,051	3,736	3,928	4,663	4,150
Net advances						
To non-budget sector	- 123	- 46	29	- 136	- 260	320
To other governments	546	- 46	- 124	- 485	- 1,858	- 2,753
To other sector(d)	106	- 573	- 110	- 575	578	295
Total net advances	529	- 665	- 205	- 1,197	- 1,540	- 2,138
Total capital outlays	*5,224*	*3,615*	*3,943*	*3,441*	*4,028*	*3,111*
Total outlays	**75,958**	**79,310**	**82,633**	**87,635**	**96,030**	**102,638**

For footnotes *see* end of table.

26.1 COMMONWEALTH GENERAL GOVERNMENT BUDGET SECTOR TRANSACTIONS BY ECONOMIC TYPE — *continued*
($ million)

	1986–87	*1987–88*	*1988–89*	*1989–90*	*1990–91*	*1991–92*
Revenue						
Taxation						
Income tax on companies	7,888	10,348	11,992	15,051	16,622	16,563
Income tax on persons	38,074	41,885	47,543	50,395	51,221	47,680
Sales tax, customs and excise duties	19,397	21,414	22,424	23,982	23,050	21,890
Tax on certain bank transactions	261	330	358	378	229	3
ACT taxes and charges	177	239	233	—	—	—
Other taxes, fees and fines						
Primary industry charges	55	59	63	67	80	101
Primary industry levy	577	691	778	789	1,233	728
Broadcasting and television licence fees	77	86	110	175	124	134
Other taxes, fees and fines	296	331	331	407	527	677
Total	*66,803*	*75,383*	*83,833*	*91,244*	*93,086*	*87,776*
Non-taxation revenue						
Interest, rent, dividends, royalties, etc.	6,663	6,083	4,880	4,627	4,852	5,522
Total revenue	**73,466**	**81,465**	**88,713**	**95,871**	**97,937**	**93,298**

(a) Current grants to PTE's are classified as subsidies and are not included in grants to non-budget sector. (b) Gross Capital Formation covers the purchase of new fixed assets purchased less sales of second-hand fixed assets and increase in stocks. (c) Capital grants to public financial enterprises, private enterprises, persons and non-profit organisations. (d) Net advances to public financial enterprises, private enterprises, persons, non-profit organisations and overseas.

Source: Budget Paper No.1, Budget Statements, 1992–93 and Public Finance Section ABS.

Net Financing Requirement is financing transactions less net intra-sector advances received and increases in provisions. It is a measure which encompasses governments' net borrowing, their call on cash reserves and the net change in their other financial assets and liabilities. It excludes net advances received from other parts of the non-financial public sector in order to provide an unduplicated measure of this sector's demand for financing from the rest of the economy and overseas.

Commonwealth non-budget enterprises

In addition to the group of Commonwealth government enterprises whose transactions are covered by the Budget (that is, itemised in the Consolidated Revenue Fund, the Loan Fund, or recorded in a Trust Fund), there are a number of organisations owned and/or controlled by the Commonwealth Government whose transactions do not, for the most part, pass through the Public Account. This category includes public trading enterprises such as the Australian Postal Commission, Australian Telecommunications Commission, Overseas Telecommunications Commission, Qantas Airways Ltd, Australian Airlines Limited, the Australian Shipping Commission, the Snowy Mountains Hydro-Electric Authority, and public financial enterprises such as the Reserve Bank of Australia and the Commonwealth Bank of Australia. These public trading and financial enterprises 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 government enterprises 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 enterprises are treated as final expenditure in the Budget. Enterprises in this category include the Australian Broadcasting Corporation, Australian National University and the Australian Nuclear Science and Technology Organisation.

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 Commonwealth public sector enterprises which are owned and/or controlled by the

Commonwealth Government. The remaining tables in this section have been prepared on that basis.

Public financial enterprises have been omitted from the consolidated accounts presented. Their omission is on the basis 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 enterprises 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.

Summary of outlay, revenue and net public sector borrowing requirement

The outlay and revenue, and net financing requirement, of all non-financial enterprises of the Commonwealth Government for the six-year period ending 1991–92 are given in the following table.

26.2 FINANCIAL TRANSACTIONS OF COMMONWEALTH GOVERNMENT
($ million)

	1986–87	*1987–88*	*1988–89*	*1989–90*	*1990–91*	*1991–92*
Current outlays	77,106	77,224	79,945	86,108	94,540	102,400
General government final consumption expenditure	15,880	16,464	17,538	18,453	20,923	22,277
Requited current transfer payments(a)	8,896	9,125	8,839	9,151	8,272	8,003
Unrequited current transfer payments	47,330	51,634	53,568	58,503	65,344	72,119
Subsidies paid to enterprises	1,762	1,971	1,819	1,923	2,860	2,567
Personal benefit payments	24,176	26,923	28,409	31,358	36,007	40,942
Current grants	21,391	22,741	23,335	25,215	26,473	28,593
To non-profit institutions	1,090	1,014	1,175	1,210	1,191	1,566
To foreign governments and organisations	824	849	918	1,071	1,038	1,125
To State and local governments	19,477	20,878	21,243	22,934	24,244	25,901
Other current transfer payments	—	—	5	7	5	17
Capital outlays	8,058	6,152	7,775	11,807	9,717	6,949
Gross fixed capital expenditure	4,469	3,917	4,265	6,150	6,031	5,695
Expenditure on new fixed assets	4,768	4,363	5,073	6,529	6,913	6,111
Expenditure on second-hand fixed assets (net)	-299	-447	-807	-379	-882	-416
Increase in stocks	-612	-395	177	2,708	344	-241
Expenditure on land and intangible assets (net)	-52	-369	89	146	66	-13
Capital transfer payments	3,600	3,430	3,457	3,861	4,561	3,969
Capital grants	3,600	3,430	3,457	3,861	4,561	3,969
To State and local governments	3,249	3,038	3,042	3,506	4,308	3,676
To other sectors	351	393	414	356	253	294
Advances paid (net)	653	-431	-214	-1,058	-1,286	-2,462
To State and local government	546	-46	-111	-485	-1,858	-2,753
To other sectors	107	-386	-103	-573	572	n.y.a.

For footnotes *see* end of table.

26.2 FINANCIAL TRANSACTIONS OF COMMONWEALTH GOVERNMENT — *continued*
($ million)

	1986–87	*1987–88*	*1988–89*	*1989–90*	*1990–91*	*1991–92*
Revenue and grants received	74,464	84,606	92,542	98,481	100,821	97,402
Taxes, fees and fines	66,789	75,396	83,935	91,210	93,320	88,049
Net operating surpluses of public trading enterprises	1,450	3,322	3,769	2,598	2,884	3,993
Property income and other revenue	6,225	5,888	4,837	4,672	4,616	5,360
Income from Commonwealth public financial enterprises	2,725	1,981	633	567	687	2,005
Interest received from	3,153	3,387	3,624	3,567	3,255	2,976
State government and local governments on advances	2,431	2,482	2,468	2,534	2,466	2,216
Other	719	902	1,156	1,033	788	760
Other income	348	520	581	538	675	379
Financing transactions(b)	5,699	- 1,230	- 4,823	- 566	3,436	11,946
Net advances received	—	—	—	—	—	—
Net domestic borrowing	4,306	- 2,201	- 1,954	- 3,427	5,673	11,335
Net borrowing from abroad	1,746	- 1,352	- 2,142	- 1,962	- 1,795	- 762
Increase in provisions	1,684	1,835	2,013	2,052	1,534	1,660
Other financing transactions(b)	- 2,075	460	- 2,677	2,784	- 1,955	- 309

(a) Interest, land rent, royalties and dividends paid. (b) Calculated as a residual.
Source: Government Finance Statistics, Australia (5512.0).

Commonwealth government financial assistance to the States and the Territories

This takes two main forms, grants for general and specific purposes; and assistance for developmental and other specific purposes in the form of repayable advances.

Some information about these forms of financial assistance is contained in the *Commonwealth Government Budget Paper No. 4, Commonwealth Financial Relations with Other Levels of Government.* 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 and the Territories. The following table shows details of grants to the States and the Territories (including local government) classified by purpose.

26.3 GRANTS TO STATES AND TERRITORIES BY GOVERNMENT PURPOSE CLASSIFICATION AND STATE, 1991–92
($ million)

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Total*
Current grants	*7,533*	*5,944*	*4,540*	*2,536*	*2,691*	*943*	*955*	*605*	*25,746*
General public services, defence, public order and safety	120	88	51	36	35	12	3	3	347
Education	1,686	1,426	808	450	487	138	54	56	5,104
Health	1,388	1,015	674	361	357	110	26	79	4,009
Social security and welfare	167	137	66	56	43	14	5	7	495
Housing and community amenities	10	8	6	3	3	8	3	8	49
Recreation and culture	—	—	11	—	—	—	—	—	11
Fuel and energy	19	131	5	—	21	30	22	—	228
Agriculture, forestry, fishing and hunting	55	101	43	24	27	12	18	—	280
Mining, manufacturing and construction	—	—	—	—	—	—	—	—	—
Transport and communications	8	4	2	2	1	1	—	—	17
Other purposes	4,080	3,033	2,874	1,603	1,717	618	824	453	15,201

... *continued*

26.3 GRANTS TO STATES AND TERRITORIES BY GOVERNMENT PURPOSE CLASSIFICATION AND STATE, 1991–92 — *continued*
($ million)

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Total*
Capital grants	*1,173*	*825*	*650*	*277*	*383*	*145*	*137*	*63*	*3,653*
General public services, defence, public order and safety	—	—	—	—	—	—	—	—	—
Education	245	203	131	51	76	14	9	6	734
Health	10	4	6	6	4	1	—	1	32
Social security and welfare	14	16	9	5	6	7	1	1	58
Housing and community amenities	311	218	163	86	96	34	47	17	972
Recreation and culture	7	6	6	2	3	1	—	—	27
Agriculture, forestry, fishing and hunting	5	5	—	1	1	—	—	—	12
Transport and communications	488	288	267	86	168	44	36	5	1,383
Other economic affairs	—	—	—	—	—	—	—	—	—
Other purposes	92	85	68	39	30	44	44	33	435
Total current and capital grants	**8,706**	**6,769**	**5,190**	**2,813**	**3,074**	**1,088**	**1,092**	**667**	**29,400**

Source: Government Finance Statistics, Australia (5512.0).

Advances to the States and the Territories. The Commonwealth provides 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 *Commonwealth Budget Paper No. 4, Commonwealth Financial Relations with Other Levels of Government.*

The following table shows figures of net advances to the States and the Territories by purpose.

26.4 NET ADVANCES TO STATES AND THE TERRITORIES BY GOVERNMENT PURPOSE CLASSIFICATION, 1991–92
($ million)

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Total*
Net advances	*–910*	*–689*	*–275*	*–250*	*–252*	*–185*	*–92*	*–99*	*–2,753*
Defence	—	—	—	—	—	—	—	—	–1
Housing and community amenities	–31	–21	–7	–3	–8	–4	–3	–4	–80
Recreation and culture	—	—	—	—	—	—	—	—	—
Fuel and energy	—	—	–5	—	—	—	—	—	–5
Agriculture, forestry, fishing and hunting	–7	–7	–6	—	–5	—	—	—	–25
Mining, manufacturing and construction	—	—	—	—	—	—	—	—	—
Transport and communications	–2	–2	–2	—	–1	—	—	—	–6
Other purposes	–870	–660	–256	–246	–239	–181	–89	–95	–2,636

NOTE: Minus sign (–) denotes excess of repayments.
Source: Government Finance Statistics, Australia (5512.0).

Main sources of finance

The main sources of Commonwealth government finance are taxation, income of public trading and financial enterprises, other factor income transfers, borrowing, and other financing transactions. Taxation constitutes by far the major source of revenue.

In what follows, an account is given of the components of Commonwealth government taxation. Borrowings and other financing activities of Commonwealth enterprises are dealt with for convenience in a later section relating to the debt of all public sector enterprises.

Commonwealth government taxation — summary

The following table shows Commonwealth government taxation revenue classified by type of tax for the six years ending 1991–92.

26.5 COMMONWEALTH GOVERNMENT: TAXES, FEES AND FINES BY TYPE
($ million)

Type of tax	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*	*1991–92*
Taxes, fees and fines	66,789	75,396	83,935	91,210	93,320	88,049
Taxes on income	45,386	51,279	58,433	64,122	66,376	62,712
Income taxes levied on individuals	38,062	41,887	47,537	50,020	50,170	46,544
Personal income tax	38,061	41,886	47,536	50,019	50,168	46,541
Mining withholding tax	1	1	1	1	2	2
Income taxes levied on enterprises	6,539	8,573	9,998	13,005	15,111	15,027
Company income tax	6,526	8,562	9,990	12,629	14,058	13,888
Income tax paid by superannuation funds	13	11	7	376	1,053	1,139
Income taxes levied on non-residents	785	818	898	1,097	1,095	1,141
Dividend withholding tax	172	125	97	115	109	50
Interest withholding tax	466	541	638	799	790	889
Other income tax levied on non-residents	147	153	162	183	196	202
Employers' payroll taxes	570	919	1,069	1,204	1,312	1,385
General taxes (payroll tax)	34	41	51	—	—	—
Selective taxes (stevedoring industry charges)	24	26	28	35	51	54
Fringe benefits tax	512	852	990	1,168	1,262	1,330
Taxes on property	342	464	486	387	247	15
Taxes on immovable property	37	52	58	—	—	—
Estate, inheritance and gift duties	1	1	1	—	—	—
Taxes on financial and capital transactions	304	411	427	387	247	15
Stamp duties	40	61	60	—	—	—
Financial institutions' transaction taxes	261	342	358	378	229	3
Government borrowing guarantee levies	4	9	9	9	18	12
Taxes on provision of goods and services	19,881	22,071	23,085	24,571	24,288	22,619
General taxes (sales tax)	6,348	7,547	9,402	10,132	9,365	9,113
Excises and levies	10,202	10,793	9,826	10,413	11,547	10,156
Excises on crude oil and LPG	2,062	2,056	1,188	1,232	1,354	64
Other Excise Act duties	7,699	8,128	8,032	8,606	8,965	9,369
Agricultural production taxes	441	609	606	575	1,228	723
Taxes on international trade	3,314	3,711	3,831	4,026	3,377	3,350
Customs duties on imports	3,237	3,632	3,752	3,954	3,319	3,299
Customs duties on exports	55	55	54	61	54	49
Agricultural produce export taxes	22	24	24	11	3	2
Taxes on gambling	11	13	21	—	—	—
Taxes on insurance	7	7	5	—	—	—
Taxes on use of goods and performance of activities	217	227	208	238	183	238
Motor vehicle taxes	24	30	38	21	18	19
Franchise taxes	14	21	21	—	—	—
Other taxes on use of goods etc.	179	176	149	217	165	219
Broadcast and TV station licences	77	86	108	177	125	135
Departure tax	56	66	38	39	38	82
Other taxes on use of goods etc. n.e.c.	45	25	2	2	2	2
Fees and fines	394	436	655	688	913	1,082
Compulsory fees, of which	386	425	650	680	886	1,067
Aviation en route charges	189	188	320	314	409	463
Light dues and navigation Act charges	36	39	40	41	42	43
Tertiary education charges	4	3	8	17	22	24
Fines	9	11	5	8	27	15

Source: Taxation Revenue, Australia (5506.0).

STATE GOVERNMENT FINANCE

The State government enterprises 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 government enterprises are itemised in State Consolidated Revenue Funds or in Trust Funds, so that a satisfactory description 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. However 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 government enterprises — 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 enterprises on certain institutions, whether direct (for example, 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 Government; 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 government enterprises 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 trading 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. Often similar activities are carried out, or services are provided, by central government or local governments in other States. Details of the activities of autonomous or semi-autonomous State government enterprises 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*.

The total transactions of State Governments are given in the table which follows. Details for individual State Governments may also be found in the respective State *Year Books*.

Outlays, revenue, grants received and deficit

The outlays, revenue, grants received and deficit of State Governments for the six year period ended 1991–92 are given in the following table.

26.6 FINANCIAL TRANSACTIONS OF STATE GOVERNMENTS
($ million)

	1986–87	*1987–88*	*1988–89*	*1989–90*	*1990–91*	*1991–92*
Current outlays	39,568	43,319	47,348	52,749	56,750	60,270
General government final consumption expenditure	24,946	27,318	29,683	33,004	35,655	38,558
Requited current transfer payments	8,067	9,063	10,167	11,792	12,183	11,547
Interest payments	8,047	9,038	10,128	11,748	12,132	11,475
To Commonwealth Government on advances	2,426	2,479	2,459	2,538	2,438	2,214
Other	5,621	6,560	7,668	9,210	9,694	9,262
Land rent, royalties and dividends paid	20	24	40	44	52	72
Unrequited current transfer payments	6,555	6,938	7,497	7,952	8,911	10,164
Subsidies paid to enterprises	2,658	2,657	2,830	2,637	2,898	3,396
Personal benefits payments	810	924	1,023	1,156	1,351	1,404
Current grants	3,064	3,328	3,614	4,103	4,599	5,316
To non-profit institutions	2,222	2,404	2,704	3,145	3,551	4,030
To local governments	842	924	910	957	1,047	1,285
Other current transfer payments	23	30	31	58	64	49
Capital outlays	12,543	11,293	10,385	11,967	11,490	13,946
Gross fixed capital expenditure	11,221	10,044	9,951	11,143	11,048	11,161
Expenditure on new fixed assets	11,475	10,617	10,783	12,226	11,963	11,851
Expenditure on second hand fixed assets (net)	-254	-573	-832	-1,083	-914	-690
Increase in stocks	232	168	-20	43	-122	109
Expenditure on land and intangible assets (net)	-47	108	-650	-201	-33	-26
Capital transfer payments	584	734	882	883	875	786
Capital grants	584	734	882	883	875	786
To local governments	446	500	550	589	666	430
To other sectors	128	228	330	291	208	355
Other capital transfer payments	10	6	1	3	1	2
Advances paid (net)	552	238	222	99	-278	1,917
To local governments	16	7	12	7	-7	-40
To other sectors	536	231	210	92	-270	1,957
Revenue	44,164	48,933	53,891	59,078	62,696	65,636
Taxes, fees and fines	13,202	15,747	18,625	20,320	21,593	23,182
Net operating surpluses of PTEs	4,582	5,276	5,492	5,991	6,379	6,978
Property income and other revenue	3,729	4,120	5,593	6,351	6,279	5,885
Income from public financial enterprises	246	268	439	380	388	489
Interest received	2,211	2,359	3,435	3,973	3,857	3,268
Other property income and other revenue	1,273	1,494	1,719	1,998	2,034	2,128
Grants received	22,650	23,789	24,181	26,416	28,445	29,591
Financing transactions(a)	7,947	5,679	3,841	5,637	5,544	8,580
Net advances received	552	-49	-115	-487	-1,857	-2,772
Net borrowing	6,063	5,103	3,598	2,795	6,534	12,017
Increase in provisions	2,101	2,274	3,056	3,062	3,040	3,474
Other financing transactions(a)	-769	-1,649	-2,698	267	-2,173	-4,139

(a) Calculated as a residual.
Source: Government Finance Statistics, Australia (5512.0).

LOCAL GOVERNMENT FINANCE

In each State of Australia and in the Northern Territory 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 provision of 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 and Northern Territory legislatures to the local government bodies, 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.

26.7 FINANCIAL TRANSACTIONS OF LOCAL GOVERNMENTS
($ million)

	1986–87	*1987–88*	*1988–89*	*1989–90*	*1990–91*	*1991–92*
Current outlays	3,709	4,026	4,365	4,958	5,408	5,550
Final consumption expenditure	2,745	2,974	3,241	3,725	4,155	4,395
Requited current transfer payments	812	886	942	1,062	1,096	1,035
Unrequited current transfer payments	152	165	182	171	156	120
Capital outlays	2,381	2,470	2,662	3,136	2,820	2,661
Gross fixed capital expenditure	2,389	2,515	2,653	2,948	2,728	2,700
Expenditure on new fixed assets	2,454	2,634	2,677	2,854	3,039	2,700
Expenditure on second-hand fixed assets (net)	-66	-118	-24	94	-311	—
Increase in stocks	9	1	—	10	4	10
Expenditure on land and intangible assets (net)	-25	-37	-55	175	88	-58
Capital transfer payments	2	6	76	11	7	6
Advances paid (net)	6	-15	-11	-9	-7	2
Revenue and grants received	5,676	6,120	6,834	7,253	7,891	8038
Taxes, fees and fines	3,033	3,333	3,677	4,033	4,476	4,735
Net operating surpluses of public trading enterprises	452	469	654	386	487	395
Property income and other revenue	824	791	926	1,179	1,105	1,017
Grants received	1,367	1,527	1,577	1,656	1,823	1,891
From Commonwealth Government	103	104	116	110	110	178
From State Governments	1,264	1,424	1,460	1,546	1,713	1,713
Financing transactions(a)	414	375	193	841	337	172
Net advances received	29	7	12	7	-7	-40
Net borrowing	329	249	232	783	217	216
Increase in provisions	243	269	243	208	280	406
Other financing transactions(a)	-187	-150	-294	-157	-153	-410

(a) Calculated as a residual.
Source: Government Finance Statistics, Australia (5512.0).

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 and the Northern Territory 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 Australian Capital Territory and the more sparsely populated parts of New South Wales, South Australia and the Northern Territory, practically the whole of Australia comes within local government jurisdiction. For further details *see* State *Year Books*.

FINANCE OF ALL LEVELS OF GOVERNMENT

In the following table the transactions of the Commonwealth, State and local governments have been brought together and consolidated to provide details of the outlays and revenue of the public non-financial sector as a whole.

Summary of outlays, revenue and financing transactions

The outlays, revenue and financing transactions of all governments for the years 1986–87 to 1991–92 are set out in the following table.

26.8 FINANCIAL TRANSACTIONS OF COMMONWEALTH, STATE AND LOCAL GOVERNMENTS
($ million)

	1986–87	*1987–88*	*1988–89*	*1989–90*	*1990–91*	*1991–92*
Current outlays	92,375	99,975	106,750	117,112	128,722	138,602
General government final consumption expenditure	43,571	46,757	50,462	55,183	60,734	65,231
Requited current transfer payments	15,213	16,452	17,378	19,399	19,065	18,302
Interest payments	15,193	16,428	17,338	19,355	19,014	18,232
Land, royalties and dividends paid	20	24	40	44	52	72
Unrequited current transfer payments	33,592	36,766	38,910	42,531	48,922	55,069
Subsidies paid to enterprises	4,447	4,631	4,653	4,563	5,761	5,963
Personal benefit payments	24,987	27,847	29,431	32,514	37,358	42,346
Current grants	4,158	4,288	4,821	5,444	5,797	6,742
Other current transfer payments	—	—	5	10	6	18
Capital outlays	18,728	16,416	17,262	23,296	20,912	22,239
Gross fixed capital expenditure	18,079	16,476	16,869	20,241	19,807	19,556
Expenditure on new fixed assets	18,698	17,614	18,532	21,609	21,914	20,662
Expenditure on second-hand fixed assets (net)	-618	-1,138	-1,663	-1,368	-2,107	-1,107
Increase in stocks	-371	-225	157	2,761	226	-123
Expenditure on land and intangible assets (net)	-124	-298	-616	121	121	-97
Capital transfer payments	490	627	751	661	463	650
Capital grants	480	621	750	658	461	649
Other capital transfer payments	10	6	1	3	1	2
Advances paid (net)	654	-164	100	-487	296	2,252
Revenue	97,597	111,545	124,750	133,935	138,420	137,144
Taxes, fees and fines	83,025	94,476	106,221	115,542	119,366	115,958
Net operating surpluses of PTEs	6,485	9,068	9,915	8,975	9,750	11,366
Property income and other revenue	8,088	8,001	8,613	9,417	9,303	9,819
Financing transactions(a)	13,507	4,847	-738	6,473	11,214	23,697
Net domestic borrowing	10,321	3,148	1,100	-804	9,192	19,575
Net borrowing from abroad	2,124	-1,334	-1,445	-978	1,441	3,236
Increase in provisions	4,027	4,378	5,311	5,322	4,854	5,540
Other financing transactions(a)	-2,965	-1,345	-5,704	2,933	-4,273	-4,654

(a) Calculated as residual.
Source: Government Finance Statistics, Australia (5512.0).

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, the States and the Territories together with some details of the amounts borrowed by State, Territory and local governments 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 sector enterprises. There are forms of debt not evidenced by the issue of securities, such as Commonwealth government advances to the States and Territories 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 and the Territories. 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 and Territories works programs. A number of State and Territory public corporations and local governments 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, States and Territories government securities on issue

Under the 1927 Financial Agreement between the Commonwealth Government and the States (as amended to 1976), 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.

During 1985–86, an agreement was reached with the Northern Territory Government for the formal allocation of securities relating to the Northern Territory Government's Borrowing Program and associated (nominal) debt allocations.

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 and the Territories for interest, exchange, etc. paid on their behalf, and the securities are redeemed from the Fund to which both the Commonwealth Government, the State and Territory Governments (from 1985–86) 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 and Territory.

For further information relating to operations of the National Debt Sinking Fund reference should be made to the annual report of the National Debt Commission.

In the tables which follow, details are given of transactions in Commonwealth government securities issued on account of the Commonwealth Government, the States and the Territories. 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 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 Related Paper No. 1, 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 1986–87 to 1991–92, are given in the following group of tables.

26.9 NET MOVEMENT IN GOVERNMENT SECURITIES ON ISSUE
($ million)

	1986–87	*1987–88*	*1988–89*	*1989–90*	*1990–91*	*1991–92*
	NEW SECURITIES ISSUED					
Securities repayable in Australian currency						
Treasury bonds	5,402.7	2,901.2	2,500.0	2,875.0	4,762.0	12,895.3
Treasury indexed bonds	303.7	202.7	—	—	—	—
Australian savings bonds	138.7	321.2	—	—	—	—
Special bonds	—	—	—	—	—	—
Income equalization deposits	0.4	0.7	0.5	36.7	28.6	30.6
Drought bonds	—	—	—	—	—	—
Overdue securities	—	—	—	—	—	—
Tax-free stock	—	—	—	—	—	—
Debentures	—	—	—	—	—	—
Stock issued to Government savings banks under special agreements(a)	—	—	—	—	—	—
Treasury notes	—	—	—	—	—	—
Treasury bills						
Internal	—	71.7	1,995.7	1,897.1	—	728.6
Public	—	—	—	—	—	—
Other(b)	—	—	—	—	—	—
Total	*5,845.5*	*3,497.5*	*4,496.2*	*4,808.8*	*4,790.6*	*13,654.5*
Securities repayable in overseas currencies(c)	2,886.1	—	—	—	—	—
Total new securities issued	**8,731.6**	**3,497.5**	**4,496.2**	**4,808.8**	**4,790.6**	**13,654.5**
	REDEMPTIONS, REPURCHASES, CANCELLATIONS(d)					
Securities repayable in Australian currency						
Treasury bonds	3,587.2	5,072.8	6,103.6	4,247.2	6,236.0	4,714.7
Treasury indexed bonds	0.6	0.5	0.7	0.6	0.4	0.9
Australian savings bonds	650.5	285.6	747.7	1,869.8	333.1	154.5
Special bonds	—	—	—	—	—	—
Income equalization deposits	19.1	14.2	5.4	4.4	5.0	22.4
Drought bonds	—	—	—	—	—	—
Overdue securities	1.4	1.1	3.3	1.3	6.3	1.6
Tax-free stock	—	0.1	0.2	0.1	0.4	0.2
Debentures	—	—	—	—	—	—
Stock issued to Government savings banks under special agreements(a)	31.8	35.3	37.9	41.9	26.2	26.5
Treasury notes	-1,286.9	290.8	-1,683.5	1,326.0	-3,689.4	-1,977.5
Treasury bills						
Internal	627.1	—	71.7	1,995.7	1,897.1	—
Public	—	—	—	—	—	—
Other(b)	5.4	3.3	9.3	1.3	4.3	3.1
Total	*3,636.1*	*5,703.6*	*5,296.5*	*9,488.3*	*4,819.5*	*2,946.4*
Securities repayable in overseas currencies(c)	2,533.5	1,566.1	3,181.9	2,647.9	1,971.4	562.3
Total redemptions, etc.	**6,169.6**	**7,269.7**	**8,478.4**	**12,136.2**	**6,790.9**	**3,508.7**

For footnotes *see* end of table.

26.9 NET MOVEMENT IN GOVERNMENT SECURITIES ON ISSUE — *continued*
($ million)

	1986–87	1987–88	1988–89	1989–90	1990–91	1991–92
	NET MOVEMENT					
Securities repayable in Australian currency						
Treasury bonds	1,813.1	-2,172.6	-3,604.0	-1,372.7	-1,474.4	8,180.4
Treasury indexed bonds	303.1	202.2	-0.7	-0.6	-0.4	-0.9
Australian savings bonds	-509.3	34.1	-748.7	-1,876.4	-335.0	-155.8
Special bonds	—	—	—	—	—	—
Income equalization deposits	-18.6	-13.5	-4.9	32.4	23.6	8.2
Drought bonds	—	—	—	—	—	—
Overdue securities	-1.4	1.4	-1.9	6.2	-3.9	-0.1
Tax-free stock	—	—	-0.2	-0.1	-0.4	-0.2
Debentures	—	—	—	—	—	—
Stock issued to Government savings banks under special agreements(a)	-31.8	-35.3	-37.9	-41.9	-26.2	-26.5
Treasury notes	1,286.9	-290.8	1,683.5	-1,326.0	3,689.4	1,977.5
Treasury bills						
Internal	-627.1	71.7	1,924.0	-98.6	-1,897.1	728.6
Public	—	—	—	—	—	—
Other(b)	-5.4	-3.3	-9.3	-1.3	-4.3	-3.1
Total	*2,209.4*	*-2,206.1*	*-800.3*	*-4,679.0*	*-28.9*	*10,708.1*
Securities repayable in overseas currencies(c)	352.6	-2,372.7	-3,303.6	-2,434.8	-1,995.7	80.6
Net movement in securities on issue	**2,562.0**	**-4,578.8**	**-4,103.9**	**-7,113.8**	**-2,024.6**	**10,788.7**

(a) Recorded in Commonwealth Government Loan Fund as State domestic raisings. (b) Loans taken over from the previous Canberra Commercial Development Authority. (c) Australian currency equivalent at rates of exchange ruling at 30 June in each of the years shown. (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.

Source: Commonwealth Budget Related Paper No.1, Government Securities on Issue, 1992 and Public Finance Section ABS.

Government securities on issue

The following table provides details of government securities on issue on account of the Commonwealth Government, the States and the Northern Territory, repayable in Australian and in overseas currencies.

26.10 GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH GOVERNMENT AND STATES AND TERRITORIES AS AT 30 JUNE
($ million)

	1987	1988	1989	1990	1991	1992
For Commonwealth Government purposes						
Repayable in Australian currency						
Treasury bonds	23,083.0	21,472.6	17,913.5	14,397.9	14,842.2	25,529.4
Treasury indexed bonds	634.5	836.7	836.0	835.4	835.0	834.1
Australian savings bonds	1,682.8	1,784.3	1,425.1	442.7	168.2	65.7
Special bonds	—	—	—	—	—	—
Income equalization deposit	48.4	34.9	30.0	62.4	86.0	94.2
Drought bonds	—	—	—	—	—	—
Advance loan subscriptions	—	—	—	—	—	—
Overdue securities	4.7	4.1	3.3	9.5	7.7	7.7
Treasury notes	8,140.4	7,849.6	9,533.1	8,207.1	11,896.5	13,874.1

For footnotes *see* end of table.

26.10 GOVERNMENT SECURITIES ON ISSUE: COMMONWEALTH GOVERNMENT AND STATES AND TERRITORIES AS AT 30 JUNE — *continued*
($ million)

	1987	*1988*	*1989*	*1990*	*1991*	*1992*
Treasury bills						
Internal	—	71.7	1,995.7	1,897.1	—	728.6
Treasury bonds held by LCIR	743.0	450.5	255.1	1,667.8	1,221.3	1,152.9
Public	—	—	—	—	—	—
Other(a)	25.3	22.0	12.6	11.3	7.0	3.8
Total	*34,362.0*	*32,526.4*	*32,004.4*	*27,531.2*	*29,063.8*	*42,290.5*
Repayable in overseas currencies(b)	15,058.8	12,686.2	9,382.9	6,947.7	4,956.3	5,036.6
Total Commonwealth Government	**49,420.9**	**45,212.7**	**41,387.3**	**34,478.9**	**34,020.1**	**47,327.1**
On account of States						
Repayable in Australian currency						
Treasury bonds	15,867.5	15,597.7	15,748.2	16,478.4	15,006.2	12,567.7
Australian savings bonds	1,776.3	1,708.9	1,319.4	425.4	364.8	311.6
Special bonds	—	—	—	—	—	—
Tax-free stock	13.5	13.4	13.2	13.1	12.6	12.4
Stock issued to Government savings banks under special agreements	830.5	795.3	757.3	715.4	689.2	662.7
Debentures	—	—	—	—	—	—
Overdue securities	0.6	2.7	1.5	1.0	0.5	0.4
Total	*18,488.4*	*18,117.9*	*17,839.6*	*17,633.3*	*16,073.3*	*13,554.7*
Repayable in overseas currencies(b)	5.3	5.2	4.9	5.3	1.1	1.3
Total States of which	*18,493.7*	*18,123.1*	*17,844.5*	*17,638.6*	*16,074.4*	*13,556.0*
New South Wales	6,042.6	5,962.7	5,888.0	5,855.1	5,485.2	4,618.1
Victoria	4,587.2	4,525.6	4,473.7	4,448.2	3,770.9	3,114.6
Queensland	2,477.5	2,444.9	2,420.3	2,406.1	2,259.4	2,016.6
South Australia	1,577.3	1,555.7	1,538.1	1,529.2	1,414.4	1,177.0
Western Australia	1,965.4	1,816.3	1,726.7	1,614.1	1,461.0	1,215.1
Tasmania	1,256.4	1,239.7	1,226.6	1,218.2	1,145.5	965.4
Northern Territory	587.4	578.2	571.1	567.7	538.0	449.2
Total Commonwealth Government and States	**67,914.6**	**63,335.8**	**59,231.8**	**52,117.5**	**50,094.5**	**60,883.1**

(a) Includes loans taken over from the previous Canberra Commercial Development Authority. (b) Australian currency equivalent.
Source: Commonwealth Budget Related Paper No. 1, Government Securities on Issue, 1993 (Tables 2, 15) and Public Finance Section ABS.

State and local authorities' borrowings

The borrowings of Commonwealth, State and local authorities first came within the purview of the Loan Council under a 'gentlemen's agreement' originating in 1936. Since 1984–85, the 'gentlemen's agreement' has been replaced by the Global Approach whereby the Loan Council determines a voluntary global limit to apply to all new money borrowings by all public trading enterprises (except statutory marketing boards) and local governments. Details of the Global Approach are contained in *Commonwealth Budget Paper No. 4, Commonwealth Financial Relations with Other Levels of Government*.

The following table shows the aggregate borrowings by the State and local authorities in each of the years 1988–89 to 1992–93.

26.11 'GLOBAL' NEW MONEY BORROWINGS BY COMMONWEALTH, STATE AND TERRITORY SEMI-GOVERNMENT AND LOCAL AUTHORITIES(a), 1988–89 TO 1992–93

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*States & Terr-itories*	*Common-wealth(b)*	*Total*
GLOBAL BORROWINGS ($ million)											
1988–89	1,152.7	1,552.4	792.8	258.3	657.8	201.0	85.0	. .	4,700.0	1,880.7	6,580.7
1989–90	1,134.0	1,173.6	624.2	223.5	448.4	184.9	81.0	23.7	3,893.3	(c)1,591.1	5,484.4
1990–91	1,177.9	1,137.1	630.8	243.4	632.3	178.6	80.3	65.7	4,146.1	1,397.6	5,543.7
1991–92	1,504.2	1,394.3	635.0	1,961.8	603.2	121.6	326.2	41.5	6,587.8	184.0	6,771.8
1992–93(d)	1,718.9	1,151.3	709.9	306.4	526.9	126.6	80.7	71.1	4,691.9	919.6	5,611.5
GLOBAL BORROWINGS ($ per capita)											
1988–89	200.7	361.5	284.3	182.3	418.6	447.1	543.5	. .	281.5	112.6	394.1
1989–90	195.6	269.8	217.3	156.1	277.6	407.5	517.6	84.1	229.6	93.8	323.4
1990–91	200.9	258.0	214.7	168.1	383.2	389.4	506.9	227.6	240.9	81.2	322.1
1991–92	253.2	314.1	211.7	1,349.3	365.4	259.2	1,943.8	142.1	378.3	10.6	388.9
1992–93	286.7	257.4	231.7	208.8	314.9	267.3	474.0	239.1	266.4	52.2	318.6
GLOBAL BORROWINGS (percentage of GSP)(e)											
1988–89	1.0	1.6	1.6	1.0	2.0	2.7	1.3	. .	1.4	0.6	2.0
1989–90	0.9	1.1	1.1	0.8	1.2	2.3	1.2	0.3	1.0	0.4	1.5
1990–91	0.9	1.1	1.1	0.8	1.7	2.1	1.1	0.9	1.1	0.4	1.5
1991–92	1.1	1.3	1.1	6.9	1.6	1.5	7.6	0.5	1.7	0.1	1.8
1992–93	1.2	1.0	1.1	1.0	1.3	1.4	1.8	0.9	1.1	0.2	1.4

(a) Includes borrowings by all Commonwealth, State and Territory semi-government and local authorities, government-owned companies and trusts. (b) Includes 'implicit' borrowings associated with the Commonwealth's instalment purchase of Commonwealth Government offices. (c) Figures include movement in short-term debt for one Commonwealth authority not previously recorded in borrowings against global limits. By inclusion of this debt, borrowings exceeded the global limit by $103 million in 1989–90, with offsetting reductions in earlier years. (d) 'Global' new money limits agreed at the June 1992 Loan Council meeting. (e) Commonwealth and Total figures are given as a proportion of GDP.

Source: Commonwealth Budget Paper (1990–91) No. 4 (Table 25), Commonwealth Financial Relations with Other Levels of Government and Public Finance Section ABS.

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.

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Other Publications

Budget Paper No. 1, Budget Statements

Commonwealth Budget Paper No. 4, Commonwealth Financial Relations with Other Levels of Government

Commonwealth Budget Related Paper No. 1, Government Securities on Issue

FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

Chapter Twenty-seven

National Accounts

Contents **Page**

DESCRIPTION OF NATIONAL INCOME AND EXPENDITURE ACCOUNTS

National accounting aims to provide a systematic summary of the transactions taking place in the economy, especially those that relate to the production and use of goods and services, and to transfers of income or capital between sectors of the economy.

This chapter provides a brief description of the conceptual basis of the national accounts system and of the main individual accounts, followed by main tables from the national accounts. For a more detailed treatment of the concepts and structure of the Australian national accounts reference should be made to *Australian National Accounts: Concepts, Sources and Methods* (5216.0).

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 deducting the cost of goods and services used up in the process of production (intermediate consumption), but before deducting consumption of fixed capital (depreciation). 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 agriculture and services to agriculture.

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 net indirect taxes.

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 consumption of fixed capital. It is equivalent to gross domestic product at factor cost less consumption of fixed capital.

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.

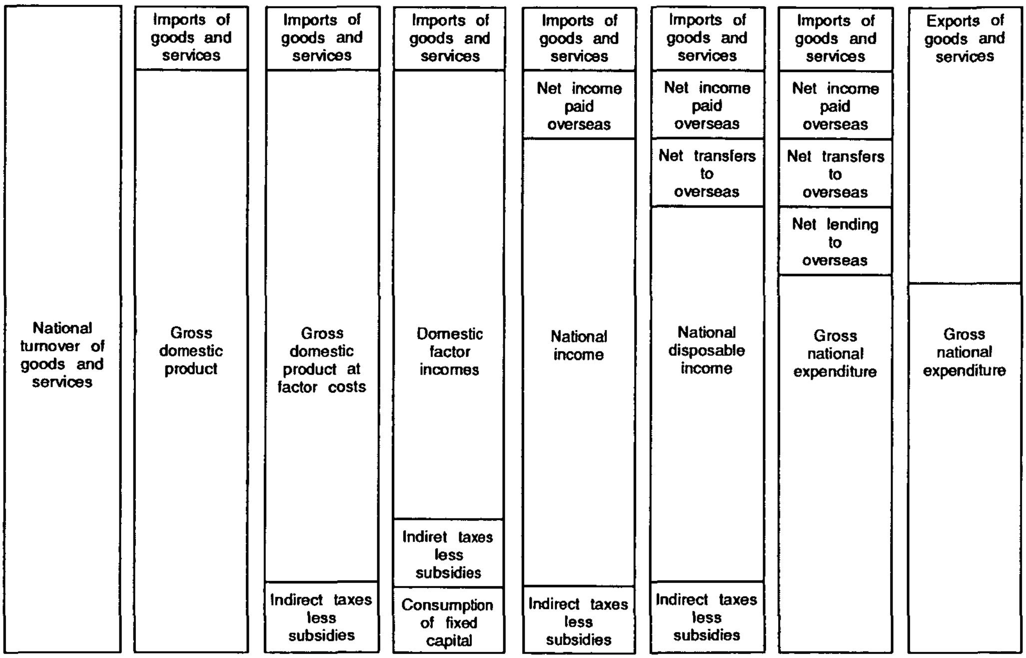
National disposable income is the net income accruing within a given period to Australian residents from their services in supplying factors of production, from net indirect taxes and from net transfers from overseas. It is equivalent to national income less net unrequited transfers to overseas.

Gross national expenditure is the total expenditure within a given period on final goods and services (that is, 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 age and invalid pensions, unemployment 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 and charitable organisations.

The relationships between these aggregates (other than household income) are illustrated in the following diagram. No conclusions concerning the relative magnitude of various aggregates can be drawn from the diagram, especially as some of the boxes may represent negative values.

27.1 RELATIONSHIP OF MAIN COMPONENTS OF THE NATIONAL ACCOUNTS

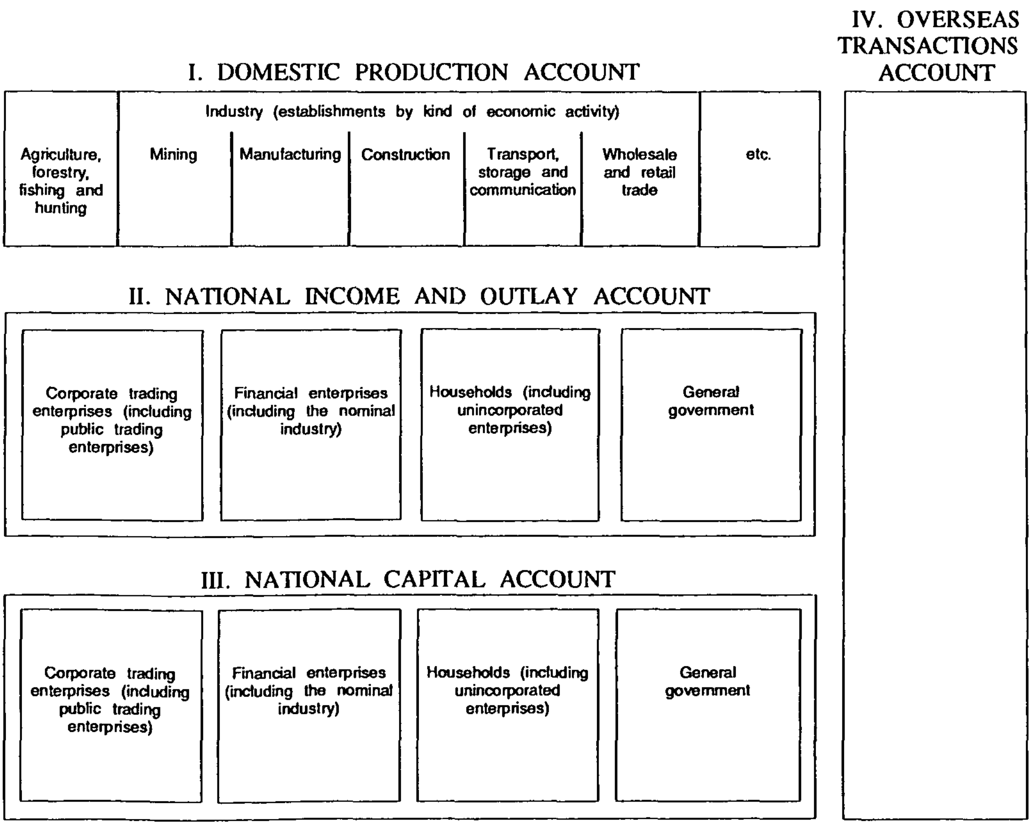


Framework of accounts and sectors

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 individual internal sectors. The transactions of the internal sectors are summarised in three accounts: a domestic production account, a national income and outlay account and a national capital account. In addition, there is an overseas sector having an account 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 followed by a description of the accounts. The large rectangles depict the minimum system of the four 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, Expenditure and Product* (5204.0). Input–output tables are produced by developing such production accounts in detail.

27.2 ARTICULATION OF AUSTRALIAN NATIONAL ACCOUNTS



Description of the accounts

The domestic production account is a consolidation of the production accounts of all producers regardless of sector. The production account measures the total market value of goods and services produced in Australia (that is, gross domestic product or GDP) in two ways. The first way is by summing the expenditure on goods and services by final consumers (including exports less imports) and increase in stocks. The sum of final expenditures results in a measure of unduplicated production because all intermediate goods and services cancel out as the revenue of one producer is offset as the cost to another. The second way is by summing the incomes accruing to the factors of production (labour and capital), namely wages, salaries and supplements, gross operating surplus and indirect taxes less subsidies. The aggregation of GDP measured from the expenditure side is conceptually equivalent to that calculated as an aggregation of the income side. However, in practice a statistical discrepancy, reflecting net errors and omissions, is required to balance the account and this is shown by convention on the expenditure side. 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 records (on the income side) wages, salaries and supplements, net operating surplus and indirect taxes less subsidies (all from the domestic production account). From this income, national disposable income is obtained by deducting net payments of income and miscellaneous transfers to overseas. The disbursements side of the account shows this disposable income as being used for final consumption expenditure with the balance being 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) consumption of fixed capital (depreciation) 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 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. Net lending to overseas is also the balance on current transactions in the overseas transactions account.

The overseas transactions account records all current transactions between Australian and overseas residents. Although this current account represents 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 and labour income received from overseas and unrequited transfers from overseas. These receipts are used for Australia's imports of goods and services and payments of property and labour income and unrequited 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. Net lending to overseas also differs from the balance on current account shown in balance of payments statistics because of the differing treatments adopted for undistributed company income (which is described as 'reinvested earnings' in balance of payments publications).

Estimates at constant prices

In addition to providing an overview of total economic activity, the national accounts provide information on the relationships between different parts of the economy and also on changes in individual components and their relationships with each other over time. One of the difficulties involved in interpreting the impact of changes from one period to another is that any observed movement is generally a combination of a change in price and a change in quantity. In many cases, interest lies in the changes in physical quantity underlying the dollar value of transactions.

Consequently, the development of series adjusted to remove the effect of price changes is an important extension to a national accounting system. Estimates adjusted in this way are said to be at **constant prices**, whereas national accounting aggregates expressed in terms of the actual dollar values used in transactions are said to be at **current prices**.

An estimate of the change over time in the quantity of an individual commodity produced can be made simply by collecting data on the number of units produced, but the only practicable way in which quantities of diverse goods and services produced (or used) can be aggregated is in terms of money values, such as the value of output or the value of materials used. However, changes in money values may reflect nothing more than changes in the underlying prices. Making estimates at constant (or fixed) prices is the best way of having a common unit of measurement, while avoiding the direct effects of changing prices.

The current price value of a transaction may be expressed conceptually as the product of a price and a quantity. The value of the transaction at constant prices may then be thought of as being derived by substituting, for the current price, the corresponding price in the chosen base year. Aggregates at constant prices for each period are obtained by summing constant price values for individual transactions. In effect, quantities of the commodities involved in the transactions are combined using their prices in the base year as weights. Constant price estimates are presented for gross domestic product and its principal components on the following pages.

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 statistics are closely related to the desired national accounting concepts, but some are not completely satisfactory in various respects, including coverage, concepts and timing. Estimates 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 private gross fixed capital expenditure — which are subject to substantial revisions for the last couple of years because tabulations of income tax statistics become available progressively one to two years after the end of each financial year.

NATIONAL INCOME AND EXPENDITURE TABLES

The figures shown in the following tables are consistent with data published in *Australian National Accounts: National Income, Expenditure and Product, 1991–92* (5204.0).

27.3 DOMESTIC PRODUCTION ACCOUNT
($ million)

	1989–90	*1990–91*	*1991–92*
Final consumption expenditure			
Private	215,157	227,261	238,316
Government	61,982	67,169	72,252
Gross fixed capital expenditure			
Private	68,267	61,641	55,059
Public enterprises	12,894	11,998	11,537
General government	8,335	8,680	8,993
Increase in stocks(a)	4,472	- 1,765	- 2,269
Gross national expenditure	*371,107*	*374,984*	*383,888*
Exports of goods and services	60,182	65,153	68,816
Less Imports of goods and services	67,399	65,593	67,627
Gross domestic product (GDP(E))	**363,890**	**374,544**	**385,077**
Statistical discrepancy	6,007	4,718	1,206
Gross domestic product (GDP(I))	**369,897**	**379,262**	**386,283**
Wages, salaries and supplements	184,262	192,447	196,248
Gross operating surplus			
Private trading enterprises			
Corporate(a)	55,674	54,855	55,483
Unincorporated(a)	42,377	40,055	40,368
Dwellings owned by persons	29,243	31,404	32,292
Public trading enterprises(a)	14,145	16,389	17,792
General government	6,492	6,825	6,974
Financial enterprises	870	2,097	2,210
Less Imputed bank service charge	7,454	9,315	9,287
Gross domestic product at factor cost	*325,609*	*334,757*	*342,080*
Indirect taxes less subsidies	44,288	44,505	44,203
Gross domestic product (GDP(I))	**369,897**	**379,262**	**386,283**
Less Gross farm product	13,751	11,163	10,402
Gross non-farm product (GNFP(I))	*356,146*	*368,099*	*375,881*

(a) The national accounts concept of production does not include any holding gains associated with the effects of inflation on the value of stocks held. The estimates of Increase in stocks and Gross operating surplus — trading enterprises shown above are after deduction of the following stock valuation adjustments:

	1989–90	*1990–91*	*1991–92*
Private corporate	2,053	1,219	353
Private unincorporated	183	194	92
Public	- 497	- 953	40
Total	1,739	460	485

Source: Australian National Accounts: National Income, Expenditure and Product (5204.0).

27.4 GROSS DOMESTIC PRODUCT AT AVERAGE 1989–90 PRICES
($ million)

	1989–90	1990–91	1991–92
Final consumption expenditure			
Private	215,157	216,510	221,985
Government	61,982	64,041	67,085
Gross fixed capital expenditure			
Private			
Dwellings	18,546	16,527	16,378
Non-dwelling construction	16,748	14,047	11,357
Equipment	27,674	24,857	20,732
Real estate transfer expenses	5,299	5,496	6,048
Public enterprises	12,894	11,755	11,254
General government	8,335	8,536	8,924
Increase in stocks			
Private non-farm	1,340	-2,769	-1,748
Farm	-224	-47	79
Public marketing authorities	3,120	1,731	-780
Other public authorities	236	-178	-41
Gross national expenditure	*371,107*	*360,506*	*361,273*
Exports of goods and services	60,182	66,772	72,876
Less Imports of goods and services	67,399	63,868	66,005
Gross domestic product (GDP(E))	**363,890**	**363,410**	**368,144**
Statistical discrepancy	6,007	4,581	1,147
Gross domestic product (GDP(I))	369,897	367,991	369,291
Gross domestic product (GDP(P))	369,897	363,567	361,022
Gross domestic product (GDP(A))	367,895	364,989	366,152

Source: Australian National Accounts: National Income, Expenditure and Product (5204.0).

27.5 NATIONAL INCOME AND OUTLAY ACCOUNT
($ million)

	1989–90	1990–91	1991–92
Wages, salaries and supplements	184,262	192,447	196,248
Net operating surplus	85,520	84,118	86,118
Domestic factor incomes	*269,782*	*276,565*	*282,366*
Less Net income paid overseas(a)	17,438	17,714	15,695
Indirect taxes	48,851	50,266	50,166
Less Subsidies	4,563	5,761	5,963
National income	*296,632*	*303,356*	*310,874*
Less Net unrequited transfers to overseas	-2,348	-2,478	-2,288
National disposable income	**298,980**	**305,834**	**313,162**
Final consumption expenditure			
Private	215,157	227,261	238,316
Government	61,982	67,169	72,252
Saving	21,841	11,404	2,594
Disposal of income	**298,980**	**305,834**	**313,162**

(a) Includes property and labour income, and extraordinary insurance claims.

Source: Australian National Accounts: National Income, Expenditure and Product (5204.0).

27.6 NATIONAL CAPITAL ACCOUNT
($ million)

	1989–90	1990–91	1991–92
Consumption of fixed capital	55,827	58,192	59,714
Saving			
Increase in income tax provisions	– 369	– 2,100	– 2,291
Undistributed income			
Trading enterprises	– 5,350	– 8,788	– 4,277
Financial enterprises	1,834	3,276	385
Household saving	17,119	17,141	20,016
Extraordinary insurance claims paid	654	. .	. .
General government surplus on current transactions	7,953	1,875	– 11,239
Finance of gross accumulation	**77,668**	**69,596**	**62,308**
Gross fixed capital expenditure			
Private			
Dwellings	18,546	17,121	17,036
Non-dwelling construction	16,748	14,355	11,276
Equipment	27,674	25,397	21,563
Real estate transfer expenses	5,299	4,768	5,184
Public enterprises	12,894	11,998	11,537
General government	8,335	8,680	8,993
Total gross fixed capital expenditure	*89,496*	*82,319*	*75,589*
Increase in stocks			
Private non-farm	1,340	– 2,912	– 1,830
Farm	– 224	– 120	84
Public marketing authorities	3,120	1,455	– 481
Other public authorities	236	– 188	– 42
Total increase in stocks	*4,472*	*– 1,765*	*– 2,269*
Statistical discrepancy	6,007	4,718	1,206
Net lending to overseas	– 22,307	– 15,676	– 12,218
Gross accumulation	**77,668**	**69,596**	**62,308**

Source: Australian National Accounts: National Income, Expenditure and Product (5204.0).

27.7 OVERSEAS TRANSACTIONS ACCOUNT
($ million)

	1989–90	1990–91	1991–92
Imports of goods and services	67,399	65,593	67,627
Interest, etc., to overseas	16,258	16,520	14,932
Dividends to overseas	4,086	4,483	3,948
Labour income to overseas	406	429	326
Unrequited transfers to overseas			
Personal	892	1,006	1,009
General government	1,278	1,244	1,287
Net lending to overseas	– 22,307	– 15,676	– 12,218
Use of current receipts	**68,012**	**73,599**	**76,911**
Exports of goods and services	60,182	65,153	68,816
Interest, etc., from overseas	2,205	2,556	2,622
Dividends from overseas	570	609	605
Labour income from overseas	387	403	284
Extraordinary insurance claims	150	150	. .
Unrequited transfers from overseas			
Personal	3,410	3,606	3,680
Income taxes	1,108	1,122	904
Current receipts from overseas	**68,012**	**73,599**	**76,911**

Source: Australian National Accounts: National Income, Expenditure and Product (5204.0).

27.8 MAIN AGGREGATES AT CURRENT PRICES
($ million)

Year	1 Final consumption expenditure — Private	2 Final consumption expenditure — Government	3 Private gross fixed capital expenditure	4 Public gross fixed capital expenditure	5 Increase in stocks	6 (1 to 5) Gross national expenditure	7 Exports of goods and services	8 Imports of goods and services
1950–51	4,320	701	999	555	125	6,700	2,087	1,726
1951–52	5,164	944	1,215	742	377	8,442	1,481	2,437
1952–53	5,475	1,096	1,228	723	- 294	8,228	1,850	1,312
1953–54	6,013	1,054	1,421	735	109	9,332	1,787	1,601
1954–55	6,540	1,130	1,595	787	166	10,218	1,702	1,983
1955–56	7,023	1,253	1,758	835	229	11,098	1,734	1,953
1956–57	7,500	1,322	1,839	846	- 45	11,462	2,184	1,736
1957–58	7,866	1,379	1,998	886	56	12,185	1,840	1,925
1958–59	8,271	1,497	2,072	978	253	13,071	1,850	1,960
1959–60	9,084	1,609	2,364	1,078	168	14,303	2,144	2,284
1960–61	9,634	1,747	2,608	1,110	478	15,577	2,165	2,590
1961–62	9,936	1,899	2,509	1,317	- 219	15,442	2,462	2,188
1962–63	10,658	1,995	2,800	1,331	253	17,037	2,483	2,596
1963–64	11,527	2,175	3,175	1,480	120	18,477	3,149	2,846
1964–65	12,473	2,483	3,687	1,725	561	20,929	3,041	3,447
1965–66	13,268	2,832	3,957	1,898	109	22,064	3,125	3,588
1966–67	14,343	3,210	4,150	2,014	360	24,077	3,472	3,673
1967–68	15,677	3,711	4,496	2,178	113	26,175	3,559	4,115
1968–69	17,070	3,891	5,213	2,321	682	29,177	3,882	4,250
1969–70	18,830	4,296	5,663	2,546	440	31,775	4,749	4,728
1970–71	20,830	4,899	6,397	2,734	441	35,301	5,066	5,083
1971–72	23,158	5,591	6,963	3,150	17	38,879	5,673	5,232
1972–73	25,987	6,357	7,726	3,270	- 270	43,070	7,007	5,382
1973–74	30,711	7,954	9,125	3,805	1,166	52,761	7,880	7,883
1974–75	37,420	10,780	9,671	5,467	1,025	64,363	10,087	10,359
1975–76	44,790	13,333	12,174	6,266	159	76,722	11,197	10,901
1976–77	51,171	15,395	14,397	6,612	1,129	88,704	13,382	13,924
1977–78	56,933	17,272	15,455	7,194	- 430	96,424	14,213	15,176
1978–79	64,228	19,099	18,377	7,607	1,343	110,654	16,859	17,964
1979–80	72,533	21,394	20,366	8,472	845	123,610	21,959	21,091
1980–81	82,871	25,075	25,854	9,338	465	143,603	22,505	25,071
1981–82	94,412	28,639	30,170	11,286	1,559	166,066	23,596	28,997
1982–83	105,966	32,474	27,985	13,120	- 2,437	177,108	25,430	28,967
1983–84	116,748	35,860	30,173	14,150	1,376	198,307	28,574	31,192
1984–85	128,216	40,188	35,913	15,105	1,013	220,435	35,273	39,505
1985–86	143,747	44,716	41,255	17,957	1,387	249,062	38,539	46,111
1986–87	157,499	48,899	45,323	19,059	- 1,526	269,254	43,603	48,069
1987–88	175,586	52,400	54,325	17,271	- 463	299,119	51,079	52,803
1988–89	194,538	56,768	67,570	17,867	3,864	340,607	54,749	61,218
1989–90	215,157	61,982	68,267	21,229	4,472	371,107	60,182	67,399
1990–91	227,261	67,169	61,641	20,678	- 1,765	374,984	65,153	65,593
1991–92	238,316	72,252	55,059	20,530	- 2,269	383,888	68,816	67,627

... continued

27.8 MAIN AGGREGATES AT CURRENT PRICES — *continued*
($ million)

Year	9 (6+7–8) Gross domestic product(E)	10 Statis-tical discrep-ancy	11 Wages, salaries and supple-ments	12 Gross operating surplus: Trading enterprises	13 Gross operating surplus: Total	14 Indirect taxes less subsidies	15 (11+13+14) Gross domestic product(I)	16 National income	17 House-hold income
1950–51	7,061	– 27	3,163	3,223	3,300	571	7,034	6,316	6,140
1951–52	7,486	104	4,003	2,689	2,775	812	7,590	6,686	6,285
1952–53	8,766	– 165	4,329	3,376	3,484	788	8,601	7,547	7,036
1953–54	9,518	– 125	4,612	3,775	3,889	892	9,393	8,279	7,395
1954–55	9,937	67	5,050	3,861	3,977	977	10,004	8,778	7,929
1955–56	10,879	– 50	5,538	4,123	4,231	1,060	10,829	9,477	8,598
1956–57	11,910	– 125	5,858	4,621	4,734	1,193	11,785	10,334	9,171
1957–58	12,100	– 41	6,085	4,541	4,681	1,293	12,059	10,478	9,187
1958–59	12,961	– 9	6,381	5,088	5,227	1,344	12,952	11,256	9,889
1959–60	14,163	145	7,085	5,629	5,753	1,470	14,308	12,402	10,957
1960–61	15,152	56	7,634	5,890	6,012	1,562	15,208	13,144	11,762
1961–62	15,716	– 123	7,887	6,057	6,199	1,507	15,593	13,378	12,205
1962–63	16,924	– 83	8,361	6,687	6,850	1,630	16,841	14,467	13,016
1963–64	18,780	– 78	9,140	7,638	7,806	1,756	18,702	16,165	14,501
1964–65	20,523	56	10,253	8,210	8,387	1,939	20,579	17,802	15,854
1965–66	21,601	29	11,086	8,183	8,421	2,123	21,630	18,580	16,646
1966–67	23,876	– 38	12,118	9,198	9,467	2,253	23,838	20,482	18,446
1967–68	25,619	– 136	13,212	9,527	9,812	2,459	25,483	21,821	19,410
1968–69	28,809	– 88	14,627	11,050	11,377	2,717	28,721	24,667	21,774
1969–70	31,796	17	16,452	12,035	12,373	2,988	31,813	27,250	24,043
1970–71	35,284	– 173	18,884	12,569	12,994	3,233	35,111	30,055	26,847
1971–72	39,320	– 32	21,077	14,070	14,545	3,666	39,288	33,610	30,336
1972–73	44,695	98	23,562	16,586	17,125	4,106	44,793	38,394	34,820
1973–74	52,758	852	28,894	19,133	19,613	5,103	53,610	46,243	42,603
1974–75	64,091	695	37,160	20,768	21,417	6,209	64,786	55,110	52,878
1975–76	77,018	– 241	42,830	24,826	25,924	8,023	76,777	65,018	61,890
1976–77	88,162	– 439	48,316	29,333	30,379	9,028	87,723	74,042	71,104
1977–78	95,461	– 67	53,066	31,859	32,772	9,556	95,394	79,843	78,327
1978–79	109,549	– 1,005	57,085	39,016	40,371	11,088	108,544	90,952	87,745
1979–80	124,478	– 1,490	63,616	44,960	46,236	13,136	122,988	102,618	97,934
1980–81	141,037	– 757	74,054	50,103	51,164	15,062	140,280	116,939	111,985
1981–82	160,665	– 2,404	85,566	54,745	55,553	17,142	158,261	131,005	128,568
1982–83	173,571	– 1,722	94,949	56,259	57,394	19,506	171,849	140,469	141,640
1983–84	195,689	– 806	100,621	70,925	71,784	22,478	194,883	160,304	158,035
1984–85	216,203	54	110,983	79,813	79,434	25,840	216,257	177,205	174,220
1985–86	241,490	– 1,266	122,480	89,626	89,210	28,534	240,224	195,097	193,585
1986–87	264,788	– 300	133,711	99,234	99,077	31,700	264,488	213,086	212,713
1987–88	297,395	871	146,937	114,348	114,293	37,036	298,266	241,270	235,200
1988–89	334,138	5,444	165,355	132,456	133,143	41,084	339,582	274,764	266,020
1989–90	363,890	6,007	184,262	141,439	141,347	44,288	369,897	296,632	293,836
1990–91	374,544	4,718	192,447	142,703	142,310	44,505	379,262	303,356	305,935
1991–92	385,077	1,206	196,248	145,935	145,832	44,203	386,283	310,874	315,175

Source: Australian National Accounts: National Income, Expenditure and Product (5204.0).

27.9 GROSS DOMESTIC PRODUCT AT AVERAGE 1989–90 PRICES
($ million)

	Final consumption expenditure		*Gross fixed capital expenditure*									
				Public								
Year	*Private*	*Govern-ment*	*Private*	*Public enter-prises*	*General govern-ment*	*Increase in stocks*	*Gross national expendi-ture*	*Plus exports of goods and services*	*Less imports of goods and services*	*Gross domestic product (E)*	*Statist-ical discrep-ancy*	*Gross domestic product (I)*
1950–51	53,071	12,023	12,709	7,488		1,003	87,463	7,594	12,256	80,495	−275	80,220
1951–52	52,778	13,598	12,889	8,532		2,708	92,137	6,910	13,918	81,253	1,159	82,412
1952–53	51,530	14,232	11,810	7,488		−1,968	82,107	8,543	8,031	83,232	−1,532	81,700
1953–54	55,182	13,331	13,447	7,309		701	90,832	8,481	10,471	87,946	−1,123	86,823
1954–55	58,818	13,796	14,643	7,561		963	96,923	8,689	12,730	91,256	658	91,914
1955–56	60,675	14,125	15,339	7,688		1,281	100,483	9,433	12,047	96,750	−404	96,346
1956–57	61,212	14,406	15,530	7,494		−217	98,888	10,636	10,297	99,243	−999	98,244
1957–58	63,253	14,648	16,377	7,755		378	103,303	9,498	11,316	100,592	−299	100,293
1958–59	65,216	15,790	16,773	8,445		1,381	108,983	10,822	11,645	107,674	−26	107,648
1959–60	69,689	15,577	18,721	9,067		847	115,226	11,724	13,682	112,437	1,199	113,636
1960–61	70,960	16,230	20,184	9,103		2,570	121,042	12,304	15,428	116,890	410	117,300
1961–62	72,780	17,098	19,282	10,486		−1,111	118,997	13,958	13,144	119,637	−944	118,693
1962–63	77,247	17,750	21,375	10,501		1,439	129,916	13,661	15,438	127,327	−618	126,709
1963–64	82,184	18,567	23,861	11,386		685	138,040	15,885	17,126	136,233	−552	135,681
1964–65	85,998	20,208	26,930	12,769		2,735	150,760	15,843	20,431	144,867	403	145,270
1965–66	88,608	22,375	28,190	13,685		569	154,504	16,049	20,947	148,210	218	148,428
1966–67	92,964	24,112	28,744	13,940		2,428	162,993	17,831	21,295	158,437	−248	158,189
1967–68	98,085	26,528	30,575	14,479		525	170,916	18,692	23,405	164,979	−888	164,091
1968–69	103,233	26,767	34,085	14,888		4,707	184,688	19,916	24,262	179,025	−499	178,526
1969–70	109,358	27,890	35,890	15,624		2,625	192,197	23,194	26,167	188,384	159	188,543
1970–71	113,916	28,968	38,586	15,846		1,490	199,477	25,463	25,978	198,516	−939	197,577
1971–72	118,585	30,118	39,266	16,947		−1,978	203,322	27,394	25,149	205,558	−131	205,427
1972–73	125,198	31,174	40,472	16,518		−1,670	212,103	27,960	25,452	214,507	597	215,104
1973–74	132,018	33,408	41,883	16,848		4,795	230,082	26,243	33,411	221,388	3,667	225,055
1974–75	136,679	35,951	36,308	9,534	10,021	3,178	233,274	28,769	34,216	226,779	2,572	229,351
1975–76	141,196	38,619	39,254	8,911	10,479	227	239,287	29,971	32,252	236,743	−654	236,089
1976–77	144,727	39,829	41,514	8,983	9,315	2,439	248,149	32,068	35,644	244,022	−1,095	242,927
1977–78	147,287	41,254	40,704	9,436	8,962	−1,140	246,683	32,817	34,032	245,505	−77	245,428
1978–79	152,486	42,819	44,978	9,758	8,420	2,873	262,847	35,124	36,621	261,341	−2,243	259,098
1979–80	156,589	43,637	45,429	10,286	7,726	2,043	266,005	37,607	36,636	267,606	−3,123	264,483
1980–81	162,988	45,668	51,935	10,834	7,099	933	279,435	35,741	40,024	275,222	−1,415	273,807
1981–82	169,698	46,052	55,039	12,443	6,937	2,477	292,447	36,623	44,538	284,179	−4,134	280,045
1982–83	171,813	47,265	46,448	12,763	6,805	−3,624	281,964	36,652	40,735	277,970	−2,716	275,254
1983–84	176,226	49,290	47,886	12,768	7,355	2,408	296,464	39,345	42,846	293,136	−1,166	291,970
1984–85	182,501	52,069	54,167	12,107	8,185	1,771	310,800	45,343	49,509	306,634	178	306,812
1985–86	189,405	54,510	55,452	13,428	8,664	1,763	323,222	47,172	50,012	320,382	−1,616	318,766
1986–87	191,125	56,399	54,495	13,071	8,900	−1,878	322,112	51,884	47,220	326,776	−335	326,441
1987–88	199,151	58,089	61,522	10,933	8,138	−368	337,465	56,261	51,973	341,753	1,040	342,793
1988–89	206,811	59,547	71,433	10,913	7,926	4,104	360,734	57,011	64,253	353,492	5,808	359,300
1989–90	215,157	61,982	68,267	12,894	8,335	4,472	371,107	60,182	67,399	363,890	6,006	369,897
1990–91	216,510	64,041	60,927	11,755	8,536	−1,263	360,506	66,772	63,868	363,410	4,581	367,991
1991–92	221,985	67,085	54,515	11,254	8,924	−2,490	361,273	72,876	66,005	368,144	1,147	369,291

NOTE: Estimates prior to 1984–85 have been derived from estimates valued at the average prices of earlier base years. Both components and totals have been linked separately, hence, additivity is not maintained in the estimates prior to 1984–85.

Source: Australian National Accounts: National Income, Expenditure and Product (5204.0).

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FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book.* Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book.*

Chapter Twenty-eight

International Accounts and Trade

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BALANCE OF PAYMENTS

The Australian balance of payments is a systematic record of Australia's economic transactions with the rest of the world. Balance of payments statistics are essential for the examination of external influences on the domestic economy.

Conceptual framework

Balance of payments transactions can be broadly divided into three categories. The first comprises transactions in goods, services and income between residents of Australia and non-residents. The second covers financial transactions involving claims on and liabilities to the rest of the world. The third category, described as unrequited transfers, records only the offsetting entries for one sided balance of payments transactions, such as gifts in cash and kind which have no 'quid pro quo'. Two changes not arising from transactions — specifically changes in Australia's official reserve assets arising from the allocation (or cancellation) of Special Drawing Rights (SDRs) by the International Monetary Fund (IMF) and the monetisation (or demonetisation) of gold — are included by convention, to make the accounts more analytically useful.

By convention, the first and third of the above categories are combined to form the current account while the second, together with the two changes not arising from transactions, are shown separately in what is known as the capital account.

The double entry accounting system is used for recording balance of payments transactions. Under this system, credit entries, which are shown with no arithmetic sign, are used to record exports of goods and services, income receivable and financial transactions involving either a reduction in the country's foreign financial assets or an increase in its foreign liabilities. Conversely, debit entries, which are identified by a minus sign (–), are used to record imports of goods and services, income payable and financial transactions involving either an increase in foreign financial assets or a decrease in foreign liabilities. Transactions in a double entry accounting system are reflected in pairs of equal credit and debit entries. For example, an export transaction for which payment is received through the banking system involves a credit entry for the export to a non-resident and a debit entry for the increase in foreign exchange assets due to the receipt of foreign exchange in payment of the export. Any entries that are not automatically paired are matched by special offsetting entries. Such offsetting entries are required for the category of unrequited transfers, for which there is no 'quid pro quo', and for the other changes not arising from transactions referred to in the previous paragraph, namely the allocation (or cancellation) of SDRs and the monetisation (or demonetisation) of gold.

In principle, the net sum of all credit and debit entries is zero. In practice, some transactions are not measured accurately (errors), while others are not measured at all (omissions). Equality between the sum of the credit and debit entries is then brought about by the inclusion of a balancing item which reflects net errors and omissions. The balancing item is shown separately after both the current and capital accounts, since it reflects the net effects of errors and omissions in both accounts.

In principle, transactions and other changes should be valued in the balance of payments at market prices. However, for practical reasons, transactions are generally valued in the statistics at transaction prices as this basis provides the closest practical approximation to the market price principle.

Transactions and other changes recorded in the balance of payments should, in principle, be recorded at the time of change of ownership (either actual or imputed). For current account transactions, this occurs when ownership of goods changes, services are rendered, reinvested earnings attributable to direct investors are earned, and when interest and dividends become due for payment. In the case of unrequited transfers, these should be recorded when the goods, services, cash, etc. to which they are offsets change ownership. Those, such as taxes and fines, which are imposed by one party on another, should ideally be recorded at the time they become due for payment without penalty. For capital account transactions the time of change of ownership is, by convention, the time at which transactions are entered in the books of the transactors.

In practice, the nature of the available data sources is such that the time of recording of transactions will often differ from the time of change of ownership. Where practical, timing adjustments are made for transactions in certain goods to ensure that they are recorded in the time period in which change of ownership occurs.

Classification

In the tables that follow, global estimates of the current and capital accounts of the Australian balance of payments are presented. Current transactions are recorded gross and capital transactions net. This means that for each item in the current account the credit entries are recorded separately from the debit entries. For example, travel credits is shown separately from travel debits. For each item in the capital account, however, debit and credit transactions are combined to produce a single result for the item which may be either a net credit or a net debit. For example, in a given period, foreign purchases of shares issued by companies in Australia (credit) are netted against foreign sales of similar shares (debit) and the net result is recorded in the appropriate item in the capital account.

The current account records transactions between Australian residents and non-residents in merchandise, other goods and services, income and unrequited transfers. Merchandise includes all movable goods, with a few exceptions, which change ownership from residents to non-residents (exports) and from non-residents to residents (imports). Services covers services rendered by Australian residents to non-residents (credits) and by non-residents to residents (debits), together with transactions in a few types of goods (for example, goods purchased by travellers). Income covers income earned by Australian residents from non-residents (credits) or by non-residents from residents (debits). It includes investment income (for example, dividends and interest), other property income (for example, royalties) and labour income. Unrequited transfers cover the offsetting entries required when resources are provided, without something of economic value being received in return, by non-residents to Australian residents (offsetting credits required) and by residents to non-residents (offsetting debits required). It includes foreign aid and migrants' transfers.

The capital account records transactions in Australia's foreign financial assets and liabilities, including the creation and extinction of claims on or by the rest of the world and a few specified other changes. Capital transactions are grouped into two broad institutional sectors called official and non-official. The official sector comprises general government and the Reserve Bank of Australia. Public business enterprises are excluded from this sector and included in the non-official sector. The non-official sector covers transactions of all other resident entities including banks, non-bank financial enterprises, trading enterprises and households.

Statistical overview

As shown in table 28.1, the balance on current account for 1991–92 was a deficit of $12,303 million, a reduction of $3,825 million (or 24%) on the deficit recorded for 1990–91 and even more below the deficit for 1989–90. This result was due to an increase of $977 million in the merchandise trade surplus; a decrease of $652 million in the net services deficit; and a decrease of $2,386 million in the net income deficit. A decrease of $190 million in the net unrequited transfers surplus partly offset these movements.

Tables 28.4 and 28.5 show details of exports and imports of goods and services at current and constant prices. Comments on these components are provided in the section on foreign trade.

The net income deficit for 1991–92 fell to $15,780 million. Income credits increased by $163 million to $4,085 million. Income debits fell by $2,223 million, (10%), to $19,865 million largely as a result of decreased interest payable on borrowing from unrelated enterprises; and decreased dividends and interest payable on direct investment.

As table 28.2 shows, the balance on capital account for 1991–92 recorded a net inflow of $16,082 million, down $1,339 million on the net inflow for the previous financial year. The change was mainly the result of a fall of $9,116 million, to $2,451 million, in the net inflow from net equity transactions, largely offset by an increase of $5,833 million, to $12,260 million, in the net debt transactions inflow and a turnaround of $1,945 million, to a net inflow of $1,366 million, in net 'other' capital transactions.

Values of exports and imports of goods and services (balance of payments basis)

Tables 28.4 and 28.5 show annual values of Australian exports and imports of goods and services at current and constant (average 1989–90) prices. These estimates are compiled quarterly on a balance of payments basis within the framework outlined below. *See* Relationship to Balance of Payments section under Foreign Trade later in this chapter regarding the difference between the balance of payments and the foreign trade bases for exports and imports.

The current price value of a transaction may be expressed conceptually as the product of a price and quantity. The value of the transaction at constant prices may then be thought of as being derived by substituting, for the current price, the corresponding price in the chosen base year. There are, however, many transactions recorded in statistics of overseas trade for which it is not possible to apply such an approach. In such cases it is necessary to make assumptions and approximations (for example, 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 this light.

A surplus was recorded on merchandise trade in 1991–92 at current prices. Merchandise exports rose five per cent with significant rises recorded in wool; 'other' manufactures; 'other' rural; gold; and coal, coke and briquettes. Falls occurred in metal ores and minerals; transport equipment; sugar; 'other' mineral fuels; and cereals. Merchandise imports rose four per cent. The most significant increases occurred in 'other' manufactures; machinery; chemicals; and 'other imports'. Falls were recorded in fuels and transport equipment.

The reduction in the net services deficit of $652 million at current prices was mainly due to improvements in the travel and net 'other' transportation balances.

In constant price terms, exports of goods and services rose $6,104 million (9%), while imports of goods and services rose $2,137 million (3%). The resulting improvement in the balance on goods and services made a positive contribution of 1.1 percentage point to the expenditure based estimates of GDP at average 1989–90 prices. The merchandise trade surplus was up $3,267 million (or 56%) while the net services deficit fell $700 million (or 24%).

Prior to 1988, merchandise exports and imports of goods f.o.b. (free-on-board) were compiled using the Australian Export Commodity Classification (AECC) and the Australian Import Commodity Classification (AICC) based on the second revision of the United Nations Standard International Trade Classification (SITC Rev. 2). From 1 January 1988, exports and imports of goods f.o.b. have been compiled using the Harmonized Commodity Description and Coding System (HS) based on the third revision of the SITC (SITC Rev. 3). This means that commodity data prior to 1988 are not strictly comparable with later data; however, the lack of comparability for the aggregates presented in the tables below is thought to be minor.

The published components of merchandise exports and imports of goods f.o.b. are classified according to the various SITC Rev. 3 divisions and/or sections.

Exogenous imports comprise a group of imported goods which it has been found useful to identify separately in economic analysis because the transactions in these goods are erratic, subject to government arrangements or significantly affected by factors other than the general level of economic activity in Australia. Exogenous imports include fuels, ships, aircraft and certain other large items of equipment acquired by selected public and private sector trading enterprises, defence goods and certain other government goods.

Endogenous imports comprise imports of all goods other than those regarded as exogenous.

Endogenous imports are classified into three classes — consumption goods, capital goods and other goods — according to the United Nations' classification by broad economic categories (BEC). Other goods covers the BEC class 'intermediate goods' and the residual BEC category 'goods not elsewhere specified'.

28.1 CURRENT ACCOUNT
($ million)

	1986–87	1987–88	1988–89	1989–90	1990–91	1991–92
Current transactions						
Goods and services						
Merchandise(a)						
Exports f.o.b.	36,038	41,515	43,894	48,564	52,155	54,930
Imports f.o.b.	-37,159	-40,386	-47,032	-50,991	-49,256	-51,054
Balance on merchandise trade	*-1,121*	*1,129*	*-3,138*	*-2,427*	*2,899*	*3,876*
Services						
Credits						
Shipment	446	515	530	508	570	564
Other transportation	2,590	2,965	3,090	3,288	3,687	3,913
Travel	2,546	3,565	4,330	4,368	4,983	5,437
Other services	1,983	2,519	2,905	3,454	3,758	3,972
Total services credits	*7,565*	*9,564*	*10,855*	*11,618*	*12,998*	*13,886*
Debits						
Shipment	-2,808	-2,923	-3,250	-3,443	-3,188	-3,257
Other transportation	-2,114	-2,510	-2,912	-3,420	-3,444	-3,566
Travel	-3,108	-3,749	-4,363	-5,135	-5,231	-5,147
Other services	-2,880	-3,235	-3,661	-4,410	-4,474	-4,603
Total services debits	*-10,910*	*-12,417*	*-14,186*	*-16,408*	*-16,337*	*-16,573*
Net services	*-3,345*	*-2,853*	*-3,331*	*-4,790*	*-3,339*	*-2,687*
Balance on goods and services	*-4,466*	*-1,724*	*-6,469*	*-7,217*	*-440*	*1,189*
Income						
Credits						
Property income						
Reinvested earnings	1,177	2,163	2,166	1,364	204	574
Other	1,740	1,708	1,953	2,775	3,165	3,227
Labour and other income	159	171	239	537	553	284
Total income credits	*3,076*	*4,042*	*4,358*	*4,676*	*3,922*	*4,085*
Debits						
Property income						
Reinvested earnings	-1,244	-2,428	-2,132	-1,105	-656	-659
Other	-10,392	-11,915	-15,527	-20,344	-21,003	-18,880
Labour and other income	-179	-210	-279	-406	-429	-326
Total income debits	*-11,815*	*-14,553*	*-17,938*	*-21,855*	*-22,088*	*-19,865*
Net income	*-8,739*	*-10,511*	*-13,580*	*-17,179*	*-18,166*	*-15,780*
Unrequited transfers						
Credits	3,017	3,545	4,210	4,518	4,728	4,584
Debits	-1,804	-1,881	-2,001	-2,170	-2,250	-2,296
Net unrequited transfers	*1,213*	*1,664*	*2,209*	*2,348*	*2,478*	*2,288*
Balance on current account	**-11,992**	**-10,571**	**-17,840**	**-22,048**	**-16,128**	**-12,303**

(a) Balance of payments basis.
Source: Balance of Payments, Australia, December Quarter 1992 (5302.0).

28.2 CAPITAL ACCOUNT AND BALANCING ITEM
($ million)

	1986–87	1987–88	1988–89	1989–90	1990–91	1991–92
Net capital transactions						
Official						
General government						
Foreign investment in Australia						
Borrowing	6,451	3,935	3,170	3,748	742	2,112
Other	- 12	- 71	- 188	- 74	- 6	- 29
Total	*6,439*	*3,864*	*2,982*	*3,674*	*737*	*2,083*
Australian investment abroad	- 336	462	30	- 31	- 420	652
Total general government	*6,103*	*4,325*	*3,012*	*3,643*	*317*	*2,734*
Reserve Bank						
Foreign investment in Australia	18	- 8	—	24	- 22	21
Australian investment abroad						
Reserve assets	- 3,394	- 3,924	- 873	- 2,156	- 1,446	3,929
Other	—	—	—	—	—	—
Total	*- 3,394*	*- 3,924*	*- 873*	*- 2,156*	*- 1,446*	*3,929*
Total Reserve Bank	*- 3,376*	*- 3,932*	*- 873*	*- 2,132*	*- 1,468*	*3,950*
Total official	*2,727*	*393*	*2,139*	*1,511*	*- 1,151*	*6,684*
Non-official						
Foreign investment in Australia						
Direct investment						
Reinvestment of earnings	1,244	2,428	2,132	1,105	656	659
Other	3,498	5,627	9,924	6,025	7,532	6,542
Portfolio and other investment	11,641	16,552	17,666	12,957	12,509	5,808
Total foreign investment in Australia	*16,383*	*24,606*	*29,722*	*20,086*	*20,698*	*13,009*
Australian investment abroad						
Direct investment						
Reinvestment of earnings	- 1,178	- 2,163	- 2,166	- 1,365	- 205	- 574
Other	- 3,439	- 8,098	- 4,458	- 1,391	1,333	- 168
Portfolio and other investment	- 4,523	- 2,685	- 5,262	- 963	- 3,254	- 2,869
Total Australian investment abroad	*- 9,140*	*- 12,946*	*- 11,886*	*- 3,718*	*- 2,126*	*- 3,612*
Total non-official	*7,244*	*11,661*	*17,836*	*16,368*	*18,572*	*9,398*
Balance on capital account	**9,971**	**12,054**	**19,975**	**17,879**	**17,421**	**16,082**
Of which						
Net equity	- 1,601	- 1,942	1,636	3,836	11,567	2,451
Net debt	12,204	14,103	18,191	14,850	6,433	12,266
Net other	- 631	- 109	146	- 807	- 579	1,366
Balancing item	2,021	- 1,483	- 2,135	4,169	- 1,293	- 3,779

Source: Balance of Payments, Australia, December Quarter 1992 (5302.0).

28.3 OFFICIAL RESERVE ASSETS AND EXCHANGE RATES

	Financial year ending 30 June					
	1987	*1988*	*1989*	*1990*	*1991*	*1992*
			— $ million —			
Levels of official reserve assets(a)						
Foreign exchange						
United States dollars	6,571	8,015	6,813	8,464	8,537	5,553
Other	5,266	6,926	8,924	9,076	10,925	12,203
Special drawing rights	471	420	398	379	360	375
Reserve position in IMF	335	312	414	411	421	471
Gold	4,951	4,509	3,861	3,541	3,804	3,639
Total	**17,594**	**20,182**	**20,410**	**21,871**	**24,047**	**22,240**
		— Units of foreign currency per $A —				
Exchange rates						
End of year(b)						
United States dollar	0.7203	0.7940	0.7553	0.7890	0.7681	0.7488
United Kingdom pound	0.4494	0.4612	0.4882	0.4536	0.4712	0.3945
German mark	1.319	1.441	1.480	1.318	1.382	1.144
Japanese yen	105.79	105.17	108.79	120.41	106.19	94.05
Special drawing right	0.5634	0.6059	0.6051	0.5967	0.5825	0.5213
Period average(c)						
United States dollar	0.6636	0.7290	0.8160	0.7697	0.7853	0.7694
United Kingdom pound	0.4352	0.4167	0.4755	0.4733	0.4240	0.4381
German mark	1.280	1.262	1.512	1.367	1.248	1.274
Japanese yen	101.37	97.58	106.95	113.27	107.60	100.97
Special drawing right	0.5345	0.5448	0.6244	0.5958	0.5656	0.5580

(a) SDRs, and Australia's reserve position in the IMF 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 average London gold price for the month, converted to Australian dollars at the market rate of exchange applying on the last trading day of the month. The foreign currency value of all other overseas assets has been based, where applicable, on market quotations. Accrued interest is normally taken into account. Conversion to Australian dollar equivalent is based on end of period market rates of exchange. (b) These exchange rates relate to the last trading day of the reference period. (c) These exchange rates are derived by averaging figures for each trading day.

Source: Reserve Bank of Australia for official reserve assets and Balance of Payments, Australia, December Quarter 1992 (5302.0) for exchange rates.

28.4 EXPORTS OF GOODS AND SERVICES (BALANCE OF PAYMENTS BASIS) AT CURRENT AND AVERAGE 1989–90 PRICES
($ million)

	1986–87	*1987–88*	*1988–89*	*1989–90*	*1990–91*	*1991–92*
AT CURRENT PRICES						
Rural exports f.o.b.						
Meat and meat preparations	2,247	2,557	2,270	2,936	3,173	3,431
Cereal grains and cereal preparations(a)	2,759	2,298	2,828	3,288	2,436	2,352
Sugar, sugar preparations and honey	698	701	934	1,104	948	747
Wool and sheepskins	3,920	5,806	5,984	3,753	2,887	3,829
Other rural	3,570	3,979	4,053	4,263	4,578	5,237
Total rural	*13,194*	*15,341*	*16,069*	*15,344*	*14,022*	*15,596*
Non-rural exports f.o.b.						
Metal ores and minerals(a)	4,958	5,480	6,689	7,600	8,557	7,941
Mineral fuels						
Coal, coke and briquettes	5,361	4,866	4,805	5,932	6,480	6,947
Other mineral fuels	1,564	1,786	1,258	2,068	3,595	3,401
Metals						
Gold	2,047	3,107	3,021	3,764	4,136	4,605
Other metals	2,933	3,863	4,669	4,650	4,737	4,777
Machinery	1,629	1,836	1,917	2,468	3,123	3,470
Transport equipment	1,041	1,022	912	1,178	1,907	1,652
Other manufactures	2,371	3,006	3,299	4,061	4,355	5,260
Other non-rural(a)	940	1,208	1,225	1,499	1,243	1,281
Total non-rural	*22,844*	*26,174*	*27,825*	*33,220*	*38,133*	*39,334*
Total exports f.o.b.	*36,038*	*41,515*	*43,894*	*48,564*	*52,155*	*54,930*
Exports of services	7,565	9,564	10,855	11,618	12,998	13,886
Total exports of goods and services	**43,603**	**51,079**	**54,749**	**60,182**	**65,153**	**68,816**
AT AVERAGE 1989–90 PRICES						
Rural exports f.o.b.						
Meat and meat preparations	2,531	2,793	2,438	2,936	3,259	3,508
Cereal grains and cereal preparations(a)	4,041	3,346	3,078	3,288	3,466	2,713
Sugar, sugar preparations and honey	968	1,015	1,110	1,104	1,029	923
Wool and sheepskins	5,596	5,524	5,125	3,753	4,002	5,781
Other rural	4,116	4,081	4,174	4,263	4,683	5,226
Total rural	*17,252*	*16,759*	*15,925*	*15,344*	*16,439*	*18,151*
Non-rural exports f.o.b.						
Metal ores and minerals(a)	6,690	7,420	7,623	7,600	8,729	8,760
Mineral fuels						
Coal, coke and briquettes	5,388	5,814	5,588	5,932	6,401	6,921
Other mineral fuels	1,646	1,737	1,464	2,068	2,615	2,883
Metals						
Gold	1,860	2,577	3,055	3,764	4,394	5,300
Other metals	3,822	4,096	4,294	4,650	5,140	5,792
Machinery	1,765	1,877	1,925	2,468	3,193	3,642
Transport equipment	1,105	1,116	997	1,178	1,885	1,545
Other manufactures	2,673	3,053	3,347	4,061	4,384	5,477
Other non-rural(a)	1,101	1,459	1,381	1,499	1,302	1,383
Total non-rural	*26,050*	*29,149*	*29,674*	*33,220*	*38,043*	*41,703*
Total exports f.o.b.	*43,302*	*45,908*	*45,599*	*48,564*	*54,482*	*59,854*
Exports of services	8,582	10,353	11,412	11,618	12,290	13,022
Total exports of goods and services	**51,884**	**56,261**	**57,011**	**60,182**	**66,772**	**72,876**

(a) Entries from 1990–91 and 1991–92 are not strictly comparable with entries for earlier periods because of changed confidentiality embargo procedures applied in the compilation of certain merchandise trade statistics. *See* 'Changes in this issue' in the September quarter 1991 issue of *Balance of Payments, Australia* (5302.0).

Source: Balance of Payments, Australia, December Quarter 1992 (5302.0).

28.5 IMPORTS OF GOODS AND SERVICES (BALANCE OF PAYMENTS BASIS) AT CURRENT AND AVERAGE 1989–90 PRICES ($ million)

	1986–87	*1987–88*	*1988–89*	*1989–90*	*1990–91*	*1991–92*
AT CURRENT PRICES						
Food, beverages and tobacco	1,936	2,013	2,200	2,285	2,323	2,443
Fuels	1,751	2,036	2,014	2,520	3,147	2,824
Chemicals (incl. plastics)(a)	3,466	4,280	4,973	5,203	5,163	5,552
Textile, fabrics etc.	1,830	1,931	2,002	1,946	1,830	2,012
Metals and metal manufactures	1,845	2,205	2,625	2,764	2,484	2,476
Machinery	11,360	12,230	13,793	15,522	14,228	14,710
Transport equipment	4,502	4,152	6,849	7,759	7,684	7,372
Other manufactures	7,700	8,563	9,766	10,308	10,108	11,107
Other imports(a)	2,769	2,976	2,810	2,684	2,289	2,558
Total imports f.o.b.	*37,159*	*40,386*	*47,032*	*50,991*	*49,256*	*51,054*
of which						
Exogenous	4,459	3,829	4,186	4,770	5,648	5,206
Endogenous						
Consumption goods	8,296	9,348	11,432	12,125	12,207	13,579
Capital goods	8,031	8,578	10,583	11,743	10,588	10,260
Other goods	16,373	18,631	20,831	22,353	20,813	22,009
Total endogenous	*32,700*	*36,557*	*42,846*	*46,221*	*43,608*	*45,848*
Imports of services	10,910	12,417	14,186	16,408	16,337	16,573
Total imports of goods and services	**48,069**	**52,803**	**61,218**	**67,399**	**65,593**	**67,627**
AT AVERAGE 1989-90 PRICES						
Food, beverages and tobacco	1,790	1,912	2,260	2,285	2,310	2,381
Fuels	1,971	2,096	2,492	2,520	2,588	2,929
Chemicals (incl. plastics)(a)	3,420	4,171	5,083	5,203	5,161	5,457
Textiles, fabrics etc.	1,828	1,866	2,075	1,946	1,778	1,949
Metals and metal manufactures	2,034	2,297	2,689	2,764	2,470	2,400
Machinery	10,045	11,366	14,061	15,522	14,508	15,333
Transport equipment	4,212	3,910	7,045	7,759	7,476	6,649
Other manufactures	7,817	8,610	10,359	10,308	9,966	10,928
Other imports(a)	3,029	3,178	2,957	2,684	2,372	2,708
Total imports f.o.b.	*36,146*	*39,406*	*49,021*	*50,991*	*48,629*	*50,734*
of which						
Exogenous	4,497	3,834	4,844	4,770	5,074	5,227
Endogenous						
Consumption goods	6,009	6,884	9,315	12,125	9,277	9,807
Capital goods	7,487	8,488	11,758	11,743	11,498	11,200
Other goods	18,151	20,198	23,104	22,353	22,781	24,500
Total endogenous	*31,649*	*35,572*	*44,177*	*46,221*	*43,555*	*45,507*
Imports of services	11,074	12,567	15,232	16,408	15,239	15,271
Total imports of goods and services	**47,220**	**51,973**	**64,253**	**67,399**	**63,868**	**66,005**

(a) Entries from 1990-91 and 1991-92 are not strictly comparable with entries for earlier periods because of changed confidentiality embargo procedures applied in the compilation of certain merchandise trade statistics. *See* 'Changes in this issue' in the September quarter 1991 issue of *Balance of Payments, Australia* (5302.0).

Source: Balance of Payments, Australia, December Quarter 1992 (5302.0).

FOREIGN TRADE

Scope

The foreign trade statistics presented in this chapter relate to merchandise exports and imports. They are compiled in broad agreement with the United Nations' recommendations for the compilation of international trade statistics.

Merchandise trade covers all movable goods which add to (imports) or subtract from (exports) Australia's stock of material resources.

Excluded are:

- direct transit trade, that is, goods being transhipped or moved through Australia for purposes of transport only;
- ships and aircraft moving through Australia while engaged in the transport of passengers or goods between Australia and other countries; and
- non-merchandise trade, consisting primarily of goods moving on a temporary basis (for example, mobile equipment, goods under repair and goods for exhibition) and passengers' effects.

Coverage

Foreign trade statistics are compiled by the Australian Bureau of Statistics from information submitted by exporters and importers or their agents to the Australian Customs Service.

The United Nations recommendations for the compilation of merchandise trade statistics recognise that the basic sources used by most compiling countries — customs records — will not be able to capture certain transactions. In Australia the following types of goods, which fall within the scope of merchandise trade, are excluded because customs entries are *not required*:

- certain materials under intergovernmental agreements for defence and similar projects;
- migrants' and passengers' effects exported or imported and parcel post exports and imports of small value, for which Customs entries are not required;
- the sale or delivery of certain ships intended for use on overseas routes; and

For exports only:

- sales of aircraft (and parts or components) which were imported into Australia prior to 1 July 1987 for use on overseas routes. (Sales of aircraft (and parts or components) which were imported into Australia on or after 1 July 1987 for use on overseas routes are included in recorded export statistics);
- fish and other sea products landed abroad directly from the high seas by Australian ships; and
- export consignments where the value of the goods in each transaction is less than $500.

For imports only:

- bunkers, aviation fuel and stores supplied abroad to Australian ships and aircraft;
- the delivery of certain aircraft (and parts and components) prior to 1 July 1987 intended for use on overseas routes; and
- entries lodged on informal clearance documents (ICDs) for values not exceeding $250, and ICDs for postal articles valued up to $1,000.

Valuation

For exports, the *point of valuation* adopted is free-on-board (f.o.b.) at the Australian port of shipment while the *basis of valuation* is transactions values or the actual price at which the goods are sold.

For imports, from 1 July 1989 the *point of valuation* is the point of containerisation (in most cases), or f.o.b. at the customs frontier of the exporting country or the port of loading, whichever comes first. For prior periods a number of points of valuation, depending upon contractual arrangements for delivery, have applied. The *basis of valuation* is the customs value, which for transactions between independent buyers and sellers will generally be the price actually payable. Where traders are not independent, that is, they may be related or affiliated in some way, an appropriate customs value may be determined.

Relationship to balance of payments statistics

The basic source of balance of payments data on merchandise exports and imports is 'foreign trade statistics'. However, because of conceptual differences, various coverage, timing and (imports only) valuation adjustments are necessary before foreign trade statistics can be put on a balance of payments basis. Therefore, the merchandise exports and imports statistics, and the excess of exports (+) or imports (–), shown in this section will differ from those shown in the balance of payments section of this chapter. For more information on the relationship between merchandise trade measures in foreign trade and balance of payments statistics *see* either Appendix A of *Foreign Trade, Australia: Merchandise Exports and Imports* (5410.0) or chapter 9 of *Balance of Payments, Australia: Concepts, Sources and Methods* (5331.0).

Total merchandise exports and imports

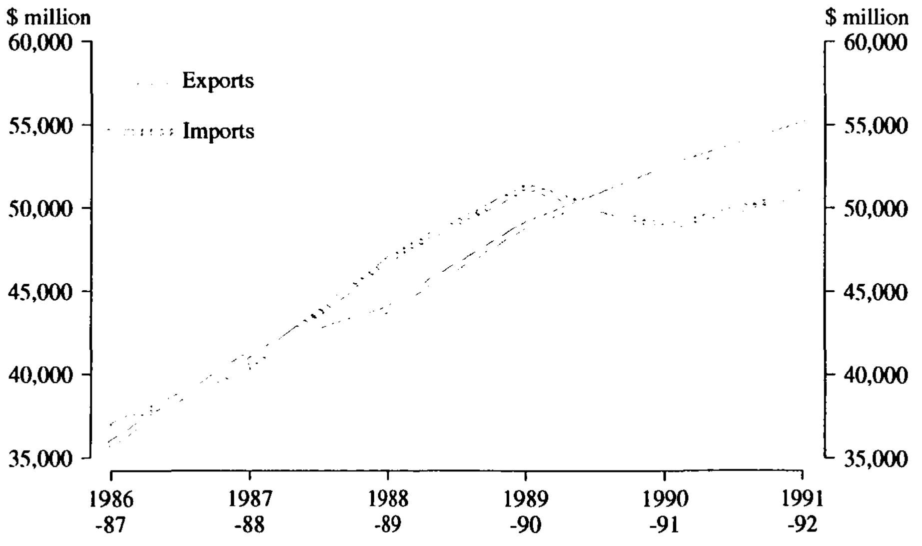
In the year ended June 1992 merchandise exports rose five per cent to reach $55,075 million while merchandise imports rose four per cent to $50,983 million. Exports exceeded imports by a record $4,092 million, representing a 17 per cent increase on the surplus of exports recorded in the previous year.

28.6 TOTAL MERCHANDISE EXPORTS AND IMPORTS
($ million)

	Exports	*Imports(a)*	*Excess of exports or imports*
1986–87	35,929	36,988	– 1,059
1987–88	41,307	40,597	710
1988–89	44,007	47,040	– 3,033
1989–90	49,078	51,333	– 2,255
1990–91	52,398	48,912	3,486
1991–92	55,075	50,983	4,092

(a) Due to changes in Customs' valuation, import data for periods prior to 1 July 1989 are not fully comparable with data for later periods. *See* the note 'Changes in the Valuation of Imports' in the explanatory notes of the 1989–90 issue of *Foreign Trade, Australia: Merchandise Exports and Imports* (5410.0).
Source: Foreign Trade, Australia: Merchandise Exports and Imports, 1991–92 (5410.0).

28.7 MERCHANDISE EXPORTS AND IMPORTS



Source: Foreign Trade, Australia: Merchandise Exports and Imports, 1991-92 (5410.0).

Merchandise exports and imports by State

The following table classifies merchandise trade by Australian States. For exports, State/Territory refers to where the final stage of production or manufacturing occurs. For imports, State/Territory refers to where the import entry was lodged with the Australian Customs Service. This is not necessarily the State/Territory in which the goods were discharged.

28.8 MERCHANDISE EXPORTS AND IMPORTS, BY STATE
($ million)

	Exports			*Imports*		
State/Territory	*1989–90*	*1990–91*	*1991–92*	*1989–90*	*1990–91*	*1991–92*
New South Wales	12,361	11,992	11,696	23,385	22,383	23,316
Victoria	8,470	8,802	9,540	16,790	14,902	15,353
Queensland	10,466	10,727	10,858	4,258	4,903	5,627
South Australia	2,828	3,007	3,505	2,050	2,194	2,397
Western Australia	10,139	12,659	14,050	3,985	3,636	3,548
Tasmania	1,423	1,341	1,439	353	299	287
Northern Territory	1,388	1,783	1,461	483	567	430
Australian Capital Territory	9	7	11	29	28	26
State not available	93	82	160	..	..	..
Re-exports	1,903	1,995	2,356	..	..	..
Total	**49,078**	**52,398**	**55,075**	**51,333**	**48,912**	**50,983**

Source: Foreign Trade, Australia: Merchandise Exports and Imports, 1991–92 (5410.0).

Merchandise exports and imports by country

For the purposes of foreign trade statistics, a country is defined as a geographical entity which trades, or has the potential to trade, with Australia in accordance with Australian Customs Service provisions. External territories under Australian administration are treated as separate countries while self-governing territories and dependent territories under the administration of other countries may be treated as individual countries in Australian foreign trade statistics.

For exports, country refers to the country to which the goods were consigned at the time of export. For imports, country refers to the country of origin of the goods, which is defined as the country of production for Customs purposes. Where the country of consignment or the country of origin is not known at the time of export or import, goods are recorded as *Destination unknown* (exports) or *Origin unknown* (imports).

Table 28.9 shows merchandise trade classified by country and the two country groups of ASEAN and the European Community. The main changes in 1991–92 from the previous year in the pattern of trade with other countries which contributed to the $606 million increase in the merchandise trade surplus were:

- a $494 million (60%) rise in the surplus with Hong Kong with an increase in exports of gold being most significant;
- a $391 million (26%) rise in the surplus with Singapore largely due to an increase in exports of oil;
- a $334 million (22%) fall in the deficit with the UK as a result of a rise in exports of $134 million (mainly wool and wine) and a fall in imports of $200 million (mainly machinery and aircraft); and
- a $349 million (166%) rise in the surplus with Taiwan as a result of a $575 million rise in exports (mainly gold, wool, iron and steel) partly offset by a $226 million rise in imports (mainly electrical and mechanical machinery).

These positive contributions to the increase in the overall surplus were partly offset by:

- a $825 million (14%) rise in the deficit with the USA as a result of a fall of $556 million in exports (mainly oil and motor vehicles) and a rise of $268 million in imports (mainly electrical and mechanical machinery); and

- a $230 million (4%) fall in the surplus with Japan as a result of a $441 million rise in imports (mainly motor vehicles) partly offset by a $211 million rise in exports (mainly oil).

28.9 MERCHANDISE EXPORTS AND IMPORTS, BY COUNTRY
($ million)

	1989–90		*1990–91*		*1991–92*	
Country	*Exports*	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*
Association of South-East Asian Nations (ASEAN)						
Brunei	14	24	15	41	19	82
Indonesia	1,030	441	1,462	784	1,635	995
Malaysia	925	658	985	732	1,106	867
Philippines	470	150	437	129	514	143
Singapore	1,985	1,213	2,769	1,271	3,189	1,301
Thailand	591	479	665	505	825	647
Total ASEAN	*5,015*	*2,965*	*6,334*	*3,461*	*7,288*	*4,035*
European Community (EC)						
Belgium–Luxembourg	482	433	448	380	594	387
Denmark	79	251	89	207	95	230
France	870	1,166	774	1,233	939	1,336
Germany	1,249	3,443	1,056	3,115	1,092	3,007
Greece	48	68	30	45	45	49
Ireland	16	186	16	199	19	193
Italy	1,038	1,635	923	1,390	979	1,229
Netherlands	1,042	520	1,016	550	855	588
Portugal	48	61	32	52	28	59
Spain	221	219	196	204	286	179
United Kingdom	1,736	3,356	1,796	3,302	1,930	3,102
Total EC	*6,829*	*11,336*	*6,375*	*10,678*	*6,861*	*10,359*
Algeria	41	12	69	—	36	—
Argentina	159	171	138	70	102	66
Austria	22	189	26	203	24	210
Bahrain(a)	169	16	156	11	88	17
Bangladesh	79	24	78	25	86	23
Brazil	128	352	138	316	225	316
Bulgaria	10	8	3	4	14	4
Cambodia	1	—	1	—	46	—
Canada	760	1,228	802	902	845	850
Chile	32	65	52	40	48	41
China	1,171	1,241	1,348	1,503	1,457	1,976
Colombia	23	10	4	8	9	10
Cyprus	2	1	3	1	11	1
Czech and Slovak Federal Republic	61	47	23	35	22	38
Egypt(a)	461	5	246	2	381	3
Ethiopia	5	1	2	—	13	—
Fiji	203	93	240	90	246	101
Finland	84	311	80	303	114	322
French Polynesia	63	—	88	—	66	1
Ghana	25	—	18	—	21	1
Guam	13	—	16	—	29	—
Hong Kong	1,342	847	1,560	741	2,104	792
Hungary	1	27	2	26	3	25

For footnotes *see* end of table.

28.9 MERCHANDISE EXPORTS AND IMPORTS, BY COUNTRY — *continued*
($ million)

Country	1989–90 Exports	1989–90 Imports	1990–91 Exports	1990–91 Imports	1991–92 Exports	1991–92 Imports
India	588	278	667	260	753	288
Iran	546	11	477	10	261	14
Iraq	405	—	6	—	187	—
Israel	78	149	45	145	71	139
Japan	12,781	9,872	14,378	8,849	14,589	9,290
Jordan	6	3	22	1	26	2
Kiribati	11	—	13	—	15	—
Korea, Republic of	2,700	1,254	3,237	1,254	3,374	1,213
Kuwait	72	123	7	42	57	29
Macau	3	43	3	34	20	19
Malawi	—	9	—	10	1	12
Marshall Islands	2	—	3	—	11	—
Mauritius	37	3	42	3	59	5
Mexico	116	94	64	94	90	89
Morocco	1	17	3	7	4	3
Mozambique	8	2	4	1	17	1
Myanmar	9	1	29	5	15	4
Nauru	25	58	21	17	24	20
New Caledonia	87	9	81	16	124	29
New Zealand	2,616	2,173	2,545	2,150	2,826	2,399
Norway(a)	36	225	24	148	39	106
Oman	70	38	70	37	63	14
Pakistan	217	82	153	76	206	96
Panama	1	—	25	1	2	16
Papua New Guinea	815	235	779	584	881	953
Peru	18	10	14	7	15	11
Poland	95	39	26	30	14	25
Puerto Rico	20	110	8	215	5	187
Qatar	17	27	26	13	35	4
Romania	177	23	44	6	80	7
Samoa (American)	17	1	27	2	18	2
Saudi Arabia	287	676	218	843	267	643
Slovenia(b)	—	—	—	—	—	11
Solomon Islands	46	6	38	4	50	2
South Africa	112	119	178	99	226	114
Sri Lanka	63	34	39	33	48	39
Sweden	148	896	127	767	145	793
Switzerland	712	567	1,256	664	655	580
Taiwan	1,821	1,946	1,962	1,752	2,537	1,978
Tonga	13	3	13	2	13	2
Turkey	88	55	169	32	171	46
United Arab Emirates	274	452	278	419	329	469
Uruguay	3	3	1	4	12	6
USA	5,426	12,373	5,777	11,475	5,221	11,743
US Virgin Islands	—	17	—	13	1	11
USSR(c)	639	37	431	52	203	14
Vanuatu	29	2	36	2	32	1
Venezuela	66	13	27	21	19	4
Vietnam	84	17	25	18	50	79
Western Samoa	14	1	18	2	25	16
Yemen	119	6	113	53	72	40
Yugoslavia(b)	96	59	61	50	35	33
Zimbabwe	12	9	19	14	8	13

For footnotes *see* end of table.

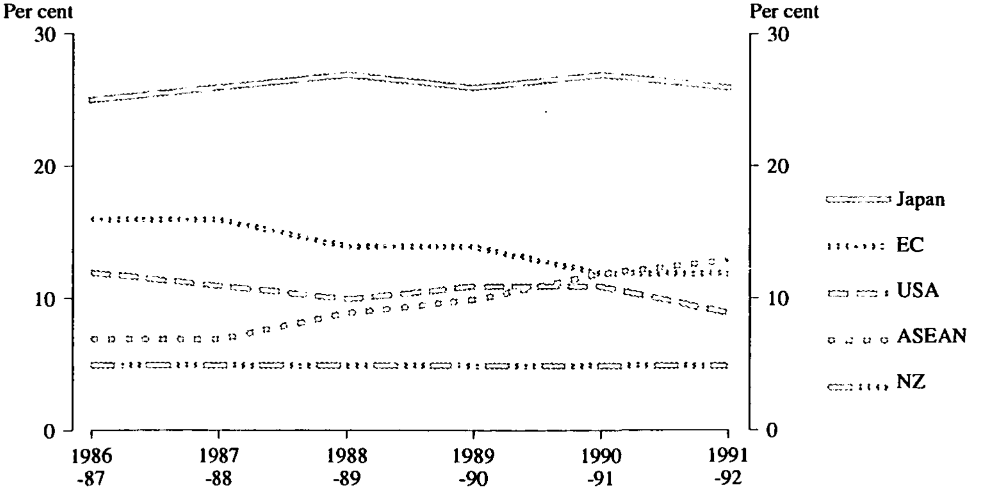
28.9 MERCHANDISE EXPORTS AND IMPORTS, BY COUNTRY — *continued*
($ million)

	1989–90		*1990–91*		*1991–92*	
Country	*Exports*	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*
International waters	—	—	—	—	58	—
Destination or Origin unknown	13	21	6	21	5	35
Ships' stores	486	. .	679	. .	563	. .
No country details(a)	93	. .	82	. .	160	. .
Other countries(a)(b)	161	86	200	93	149	68
Re-imports	. .	97	. .	43	. .	75
Total	**49,078**	**51,333**	**52,398**	**48,912**	**55,075**	**50,983**

(a) Exports of alumina to Egypt and Iceland are excluded from country totals and included in the 'No country details' category. This treatment also applies to exports of alumina to Norway up until February 1992 and to Bahrain from March 1992. (b) The scope of Yugoslavia has changed during the periods covered in this table and care should be taken when comparing data over time. Trade has been separately identified from January 1992 for Bosnia and Herzegovina, Croatia, the Former Yugoslav Republic of Macedonia and Slovenia. (c) The scope of the USSR has changed during the periods covered in this table and care should be taken when comparing data over time. Trade has been separately identified from October 1991 for each of the three Baltic Republics (Estonia, Latvia and Lithuania).

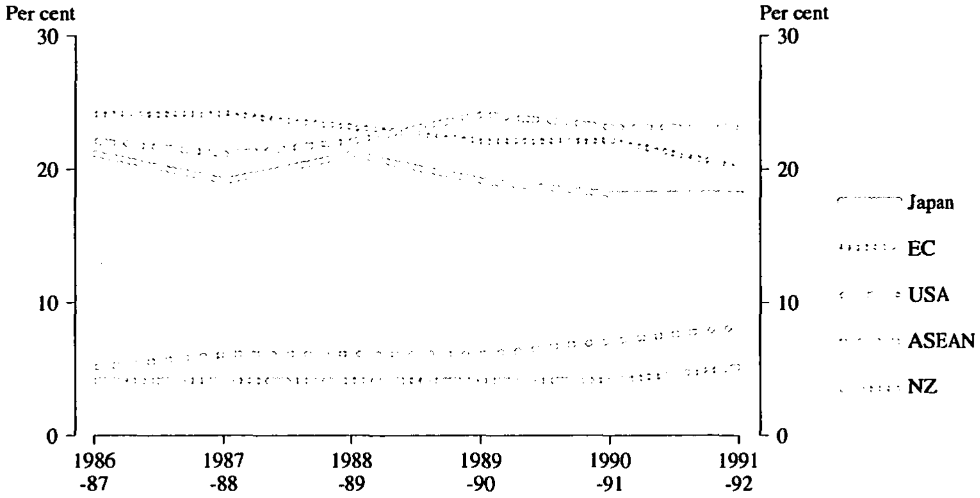
Source: Foreign Trade, Australia: Merchandise Exports and Imports, 1991–92 (5410.0).

28.10 PERCENTAGE OF AUSTRALIAN MERCHANDISE EXPORTS GOING TO SELECTED COUNTRIES AND COUNTRY GROUPS



Source: Foreign Trade, Australia: Merchandise Exports and Imports, 1991-92 (5410.0).

28.11 PERCENTAGE OF AUSTRALIAN MERCHANDISE IMPORTS COMING FROM SELECTED COUNTRIES AND COUNTRY GROUPS



Source: Foreign Trade, Australia: Merchandise Exports and Imports, 1991-92 (5410.0).

Maps 28.12, 28.13 and 28.14 show the main flows of Australia's exports and imports.

Merchandise exports and imports by commodity

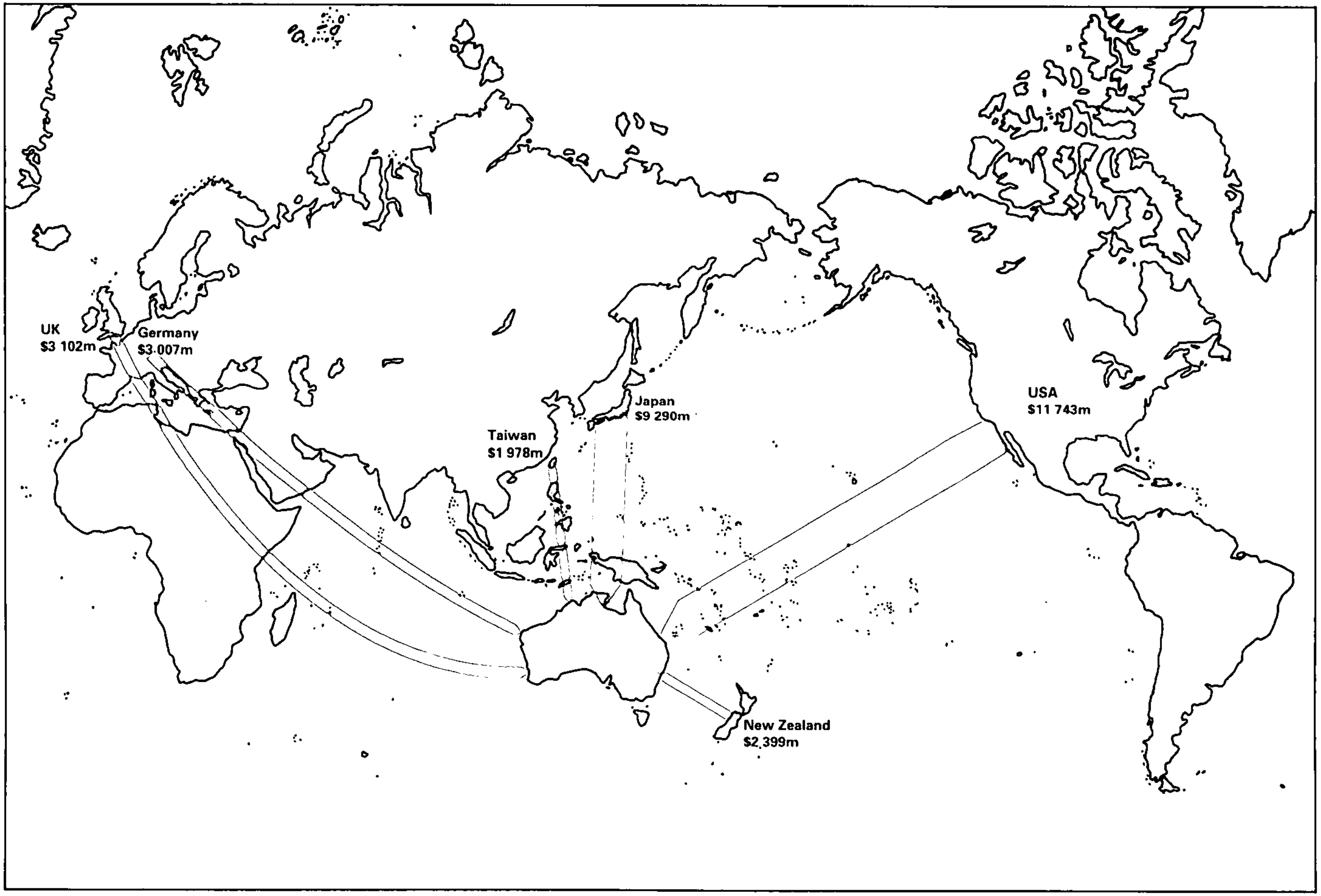
Commodity export and import statistics are presented according to the codes and descriptions of the third revision of the United Nations' Standard International Trade Classification (SITC Rev. 3). This classification groups commodities according to their stage of processing — from food and crude raw materials through to highly transformed manufactures.

Exports and imports of merchandise trade are also classified according to the 19 categories of the United Nations' classification Broad Economic Categories (BEC). The BEC classifies foreign trade statistics for the purposes of general economic analysis according to the main end use of the commodities traded.

Tables 28.15 and 28.16 show the values of major commodities exported and imported in 1991–92 and their percentage of the total value of exports and imports.

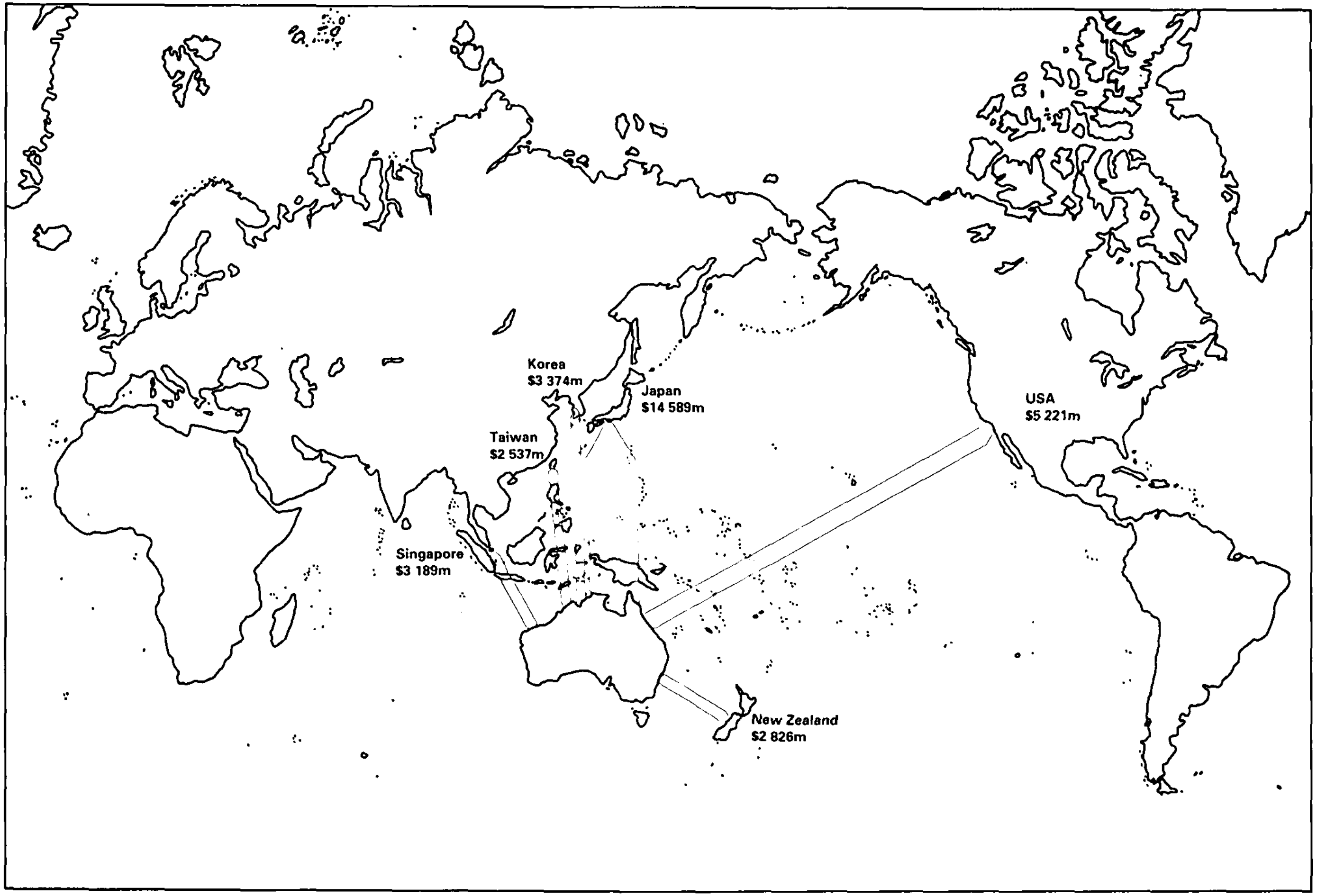
Table 28.17 shows the value of all exports and imports, at broad commodity level, for 1989–90 to 1991–92. For the year ended June 1992, exports were $55,075 million, up $2,677 million (5%) on the previous financial year. The most significant contributors to the rise were textile fibres and their wastes, up $864 millions (23%) to $4,609 million; coal, coke and briquettes, up $464 million (7%) to $6,945 million; and non-monetary gold, up $351 million (10%) to $4,023 million. The commodities recording the biggest falls were metalliferous ores and metal scraps, down $671 million (8%) to $7,625 million; petroleum, petroleum products and related materials, down $312 million (10%) to $2,908 million; and sugars, sugar preparations and honey, down $202 million (21%) to $746 million.

28.12 AUSTRALIAN MERCHANDISE IMPORTS: MAJOR SOURCE COUNTRIES, 1991–92



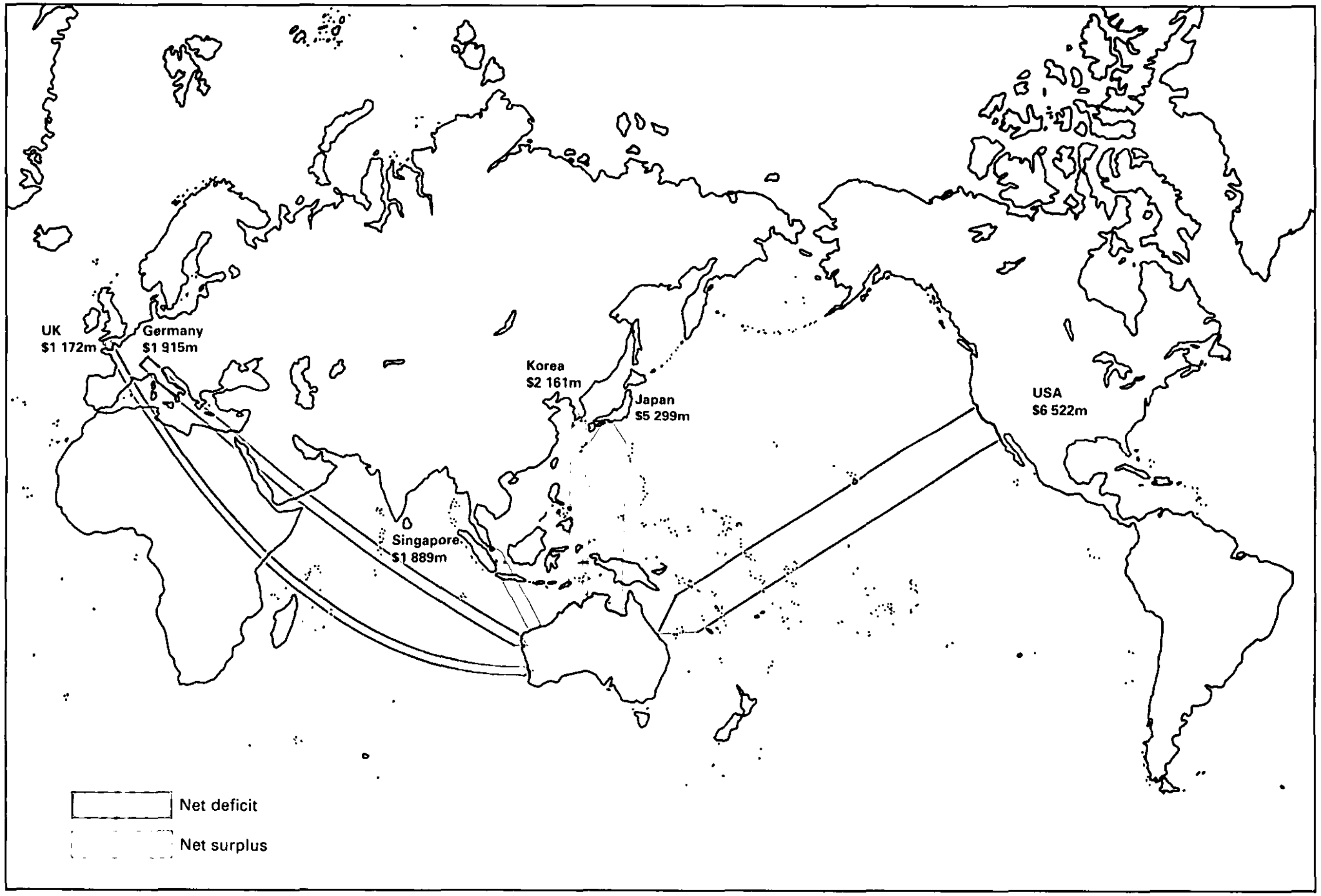
Source: Foreign Trade, Australia: Merchandise Exports and Imports, 1991–92 (5410.0).

28.13 AUSTRALIAN MERCHANDISE EXPORTS: MAJOR DESTINATIONS, 1991–92



Source: Foreign Trade, Australia: Merchandise Exports and Imports, 1991–92 (5410.0).

28.14 AUSTRALIA'S NET BALANCE OF TRADE: MAJOR PARTNER COUNTRIES (a), 1991–92



(a) Map shows the countries with which Australia has the largest net trade surpluses and deficits.

Source: Foreign Trade, Australia: Merchandise Exports and Imports, 1991–92 (5410.0).

Australia's major exports for 1991-92 and their principal markets were:

- coal, $6,848 million — 12 per cent of total exports: Japan (49%), Republic of Korea (10%) and Taiwan (5%);
- gold, $4,023 million — 7 per cent of total exports: Singapore (40%), Japan (25%) and Hong Kong (16%);
- iron ore, $2,850 million — 5 per cent of total exports: Japan (49%), China (14%) and Republic of Korea (13%);
- beef, $2,777 million — 5 per cent of total exports: USA (41%), Japan (34%) and Republic of Korea (9%);
- greasy wool, $2,571 million — 5 per cent of total exports: Italy (15%), Japan (15%) and China (10%); and
- alumina, $2,248 million — 4 per cent of total exports: no country details available.

For the year ended June 1992, imports were $50,983 million, up $2,071 million (4%) compared to the previous year. The most significant rises were recorded for: miscellaneous manufactures, up $813 million (12%) to $7,768 million; manufactures classified by material, up $488 million (7%) to $7,884 million; chemicals, up $457 million (9%) to $5,575 million; gold, up $417 million (67%) to $1,040 million. Offsetting these rises were falls in transport equipment (mainly aircraft) down $657 million (21%) to $2,499 million; and petroleum, down $404 million (13%) to $2,712 million.

Australia's major commodity imports for 1991-92 and their principal sources were:

- passenger motor vehicles, $2,556 million — 5 per cent of total imports: Japan (80%) and Germany (10%);
- aircraft and associated equipment, $2,168 million — 4 per cent of total imports: USA (83%), and UK (8%);
- ADP machines and associated equipment, $1,924 million — 4 per cent of total imports: USA (46%) and Japan (15%); and
- petroleum oils (crude), $1,577 million — 3 per cent of total imports: Indonesia (26%) and United Arab Emirates (23%).

28.15 MERCHANDISE EXPORTS OF MAJOR COMMODITIES, 1991-92

Commodity description and SITC Rev. 3 code	*$ million*	*Per cent*
Aircraft and associated equipment; spacecraft (incl. launch vehicles; and parts thereof) (792)	496	1
Alumina (aluminium oxide) (285.20)	2,248	4
Aluminium (684)	1,829	3
Barley, unmilled (043)	297	1
Cars and other road vehicles (incl. air-cushion vehicles) (78)	769	1
Cheese and curd (024)	230	—
Coal, whether or not pulverised but not agglomerated (321)	6,848	12
Copper ores and concentrates (283.10)	165	—
Copper and copper alloys, unwrought (excl. master alloys) (682.11,12,14)	557	1
Cotton (other than linters), not carded or combed (263.10)	944	2
Crustaceans molluscs and aquatic invertebrates (except canned or bottled) (036)	634	1
Fruit and nuts, fresh, dried or preserved and fruit preparations (incl. fruit juices) (057 — 059)	456	1
Gas, natural and manufactured (34)	1,017	2
Gold, non-monetary (excl. gold ores and concentrates) (971)	4,023	7
Hides and skins, bovine and equine, raw (211.11-13,20)	214	—
Iron and steel (67)	1,144	2
Iron ore concentrates and agglomerates (excl. roasted iron pyrites) (281.50,60)	2,850	5
Lead and lead alloys, unwrought (685.11,12)	383	1
Machinery specialised for particular industries (72)	534	1
Meat of bovine animals, fresh, chilled or frozen (011.11-22)	2,777	5
Meat of sheep and goats, fresh, chilled or frozen (012.11-13)	417	1
Milk and cream and milk products other than butter or cheese (022)	469	1
Nickel and nickel alloys, unwrought (683.11,12)	264	—
Nickel oxide sinters (284.22)	299	1
Office machines and automatic data processing machines (75)	832	2
Ores and concentrates of molybdenum, noibium, titanium, etc. (287.81-85)(a)	311	1
Petroleum oils and oils obtained from bituminous minerals, crude (333)	1,590	3
Petroleum products (334,335)	1,319	2
Photographic and cinematographic supplies (882)	189	—
Plastics in primary and non-primary form (57,58)	274	—
Power generating machinery and equipment (71)	610	1
Rice(a) (042)	245	—
Sheep and goats, live (001.21,22)	95	—
Skins, sheep and lamb, with wool on, raw (211.60)	116	—
Sorghum, unmilled (045.30)	29	—
Sugar, beet or cane, raw, in solid form (061.11,12)	671	1
Uranium and thorium ores and concentrates(a) (286.10,20)	247	—
Wheat (incl. spelt) and meslin unmilled (041)	1,510	3
Wood, in chips or particles (246.11,15)	418	1
Wool, greasy (incl. fleece-washed wool) (268.11,19)	2,571	5
Wool, other, not carded or combed (268.21,29)	888	2
Zinc and zinc alloys, unwrought (686.11,12)	402	1
Zinc ores and concentrates (287.50)	627	1
Total major commodities(a)	*42,807*	*78*
Total exports	**55,075**	**100**

(a) Excludes commodities subject to a 'No Commodity Details' restriction. For further information *see* the confidentiality appendices in ABS Foreign Trade publications.

Source: Foreign Trade, Australia: Merchandise Exports and Imports, 1991-92 (5410.0).

28.16 MERCHANDISE IMPORTS OF MAJOR COMMODITIES, 1991-92

Commodity description and SITC Rev. 3 code	*$ million*	*Per cent*
Aircraft and associated equipment; spacecraft (incl. launch vehicles; and parts thereof) (792)	2,168	4
Articles of apparel and clothing accessories (84)	1,100	2
Automatic data processing machines and units thereof (752)	1,924	4
Baby carriages, toys, games and sporting goods (894)	617	1
Chemical materials and products, n.e.s. (59)(a)	659	1
Civil engineering and contractors' plant and equipment (723)	514	1
Clay and refractory construction materials and mineral manufactures n.e.s. (662,663)	379	1
Coffee and coffee substitutes (071)	120	—
Electrical apparatus for switching or protecting electrical circuits (772)	532	1
Electrical machinery and apparatus n.e.s. (778)	852	2
Fish, crustaceans, molluscs, and aquatic invertebrates, and preparations thereof (03)	474	1
Glass, glassware and pottery (664,665,666)	370	1
Household type, electrical and non-electrical equipment n.e.s. (775)	490	1
Inorganic chemicals (52)	720	1
Internal combustion piston engines, and parts thereof n.e.s. (713)	584	1
Iron and steel (67)	825	2
Machinery and equipment specialised for particular industries and parts thereof (728)	505	1
Manufactures of base metals n.e.s. (699)	473	1
Measuring, checking, analysing and controlling instruments and apparatus n.e.s. (874)	916	2
Medical and pharmaceutical products (54)	1,053	2
Motor vehicles for the transport of goods (782.10)	1,018	2
Non-electrical parts and accessories of machinery n.e.s. (749)	119	—
Organic chemicals (51)	1,095	2
Paper, paperboard and articles of paper pulp, of paper or of paperboard (64)(a)	1,335	3
Parts and accessories of motor vehicles and tractors, track-laying and wheeled (784)	903	2
Parts and accessories for office and automatic data processing machines (759)	1,411	3
Passenger motor vehicles (other than public transport type)	2,556	5
Petroleum oils and oils obtained from bituminous minerals, crude (333)	1,577	3
Petroleum oils and oils obtained from bituminous minerals (other than crude) (334)	994	2
Photographic and cinematographic supplies (882)	343	1
Plastics in primary and non-primary forms (57,58)(a)	1,085	2
Printed matter (892)	797	2
Printing and bookbinding machinery, and parts thereof (726)	272	1
Pumps, centrifuges, filtering or purifying apparatus and parts thereof (743)	583	1
Rubber tyres, interchangeable tyre treads, tyre flaps and inner tubes for wheels of all kinds (625)	465	1
Ships, boats (including hovercraft) and floating structures (793)	297	1
Telecommunication equipment n.e.s. and parts n.e.s. and accessories (764)	1,136	2
Television and radio broadcast receivers (761,762)	480	1
Textile yarn (651)	567	1
Tools for use in the hand or in machines (695)	275	1
Tractors, track-laying and wheeled (722)	95	—
Wood, sawn or chipped lengthwise, sliced or peeled (248.20,40)	383	1
Woven cotton fabrics (excl. narrow or special fabrics) (652)	289	1
Woven fabrics of man-made textile material (excl. narrow or special fabrics) (653)	377	1
Total major commodities(a)	*33,723*	*66*
Total imports	**50,983**	**100**

(a) Excludes commodities subject to a 'No Commodity Details' restriction. For further information *see* the confidentiality appendices in ABS Foreign Trade publications.

Source: Foreign Trade, Australia: Merchandise Exports and Imports, 1991-92 (5410.0).

28.17 MERCHANDISE EXPORTS AND IMPORTS BY COMMODITY
($ million)

Commodity description (Section and division of the SITC Rev. 3)	*1989–90*		*1990–91*		*1991–92*	
	Exports	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*
0 FOOD AND LIVE ANIMALS						
00 Live animals other than fish, crustaceans, molluscs and aquatic invertebrates	193	139	160	73	209	60
01 Meat and meat preparations	2,942	22	3,179	36	3,432	43
02 Dairy products and birds' eggs	709	106	721	124	813	135
03 Fish (not marine mammals) crustaceans molluscs and aquatic invertebrates and preparations thereof	674	425	720	447	831	474
04 Cereals and cereal preparations	3,401	94	2,528	105	2,352	112
05 Vegetables and fruit	536	415	628	383	727	469
06 Sugars, sugar preparations and honey	1,103	51	948	61	746	59
07 Coffee, tea, cocoa, spices and manufactures thereof	68	331	88	309	96	309
08 Feeding stuff for animals (excl. unmilled cereals)	257	69	257	65	355	90
09 Miscellaneous edible products and preparations	100	246	113	313	144	306
Total section 0	*9,983*	*1,898*	*9,342*	*1,916*	*9,707*	*2,058*
1 BEVERAGES AND TOBACCO						
11 Beverages	225	304	289	293	345	281
12 Tobacco and tobacco manufactures	17	92	21	103	21	111
Total section 1	*242*	*396*	*310*	*395*	*366*	*392*
2 CRUDE MATERIALS, INEDIBLE, EXCEPT FUELS						
21 Hides, skins and furskins, raw	575	12	413	10	361	6
22 Oil seeds and oleaginous fruits	50	27	48	58	63	61
23 Crude rubber (incl. synthetic and reclaimed)	8	93	9	77	9	82
24 Cork and wood	396	518	437	436	447	459
25 Pulp and waste paper	25	243	28	147	7	142
26 Textile fibres and their wastes (not manufactured into yarn or fabric)	4,739	149	3,745	132	4,609	141
27 Crude fertilisers (excl. those of Division 56) and crude minerals (excl. coal petroleum and precious stones)	222	230	263	118	317	139
28 Metalliferous ores and metal scrap(a)	7,375	146	8,296	132	7,625	129
29 Crude animal and vegetable materials, n.e.s.	148	120	159	110	180	123
Total section 2(a)	*13,537*	*1,539*	*13,398*	*1,220*	*13,619*	*1,281*
3 MINERAL FUELS, LUBRICANTS AND RELATED MATERIALS						
32 Coal, coke and briquettes	5,933	18	6,481	5	6,945	9
33 Petroleum, petroleum products and related materials	1,996	2,505	3,220	3,116	2,908	2,712
34 Gas, natural and manufactured	489	16	1,006	8	1,017	10
Total section 3	*8,419*	*2,540*	*10,706*	*3,129*	*10,871*	*2,731*
4 ANIMAL AND VEGETABLE OILS, FATS AND WAXES						
41 Animal oils and fats	106	2	118	2	115	2
42 Fixed vegetable fats and oils, crude, refined or fractionated(a)(b)	2	110	4	115	3	134
43 Fats and oils (processed), waxes and inedible mixtures or preparations, of animal or vegetable origin, n.e.s.	11	12	16	13	18	13
Total section 4(a)(b)	*118*	*124*	*138*	*129*	*136*	*150*

For footnotes *see* end of table.

28.17 MERCHANDISE EXPORTS AND IMPORTS BY COMMODITY — *continued*
($ million)

Commodity description (Section and division of the SITC Rev. 3)	*1989–90 Exports*	*1989–90 Imports*	*1990–91 Exports*	*1990–91 Imports*	*1991–92 Exports*	*1991–92 Imports*
5 CHEMICAL AND RELATED PRODUCTS, N.E.S.						
51 Organic chemicals(a)	89	1,071	113	1,004	89	1,095
52 Inorganic chemicals(a)	164	767	201	661	229	720
53 Dyeing, tanning and colouring materials	262	233	186	233	241	270
54 Medicinal and pharmaceutical products(b)	270	820	321	942	456	1,053
55 Essential oils and resinoids and perfume materials; toilet, polishing and cleansing preparations	89	331	124	338	132	383
56 Fertilisers (excl. crude)	10	252	19	276	14	312
57 Plastics in primary forms	134	650	161	595	188	602
58 Plastics in non-primary forms(a)	66	484	77	439	85	483
59 Chemical materials and products, n.e.s.(a)	177	627	175	629	226	659
Total section 5(a)(b)	*1,261*	*5,235*	*1,377*	*5,118*	*1,660*	*5,575*
6 MANUFACTURED GOODS CLASSIFIED CHIEFLY BY MATERIAL						
61 Leather, leather manufactures, and dressed furskins, n.e.s.	167	137	180	121	220	127
62 Rubber manufactures, n.e.s.(a)	65	750	65	661	79	748
63 Cork and wood manufactures (excl. furniture)(b)	23	227	37	214	63	238
64 Paper, paperboard and articles of paper pulp, of paper or of paperboard(a)(b)	162	1,297	188	1,155	211	1,335
65 Textile yarn, fabrics, made-up articles, n.e.s., and related products(a)	179	1,955	210	1,818	235	2,021
66 Non-metallic mineral manufactures, n.e.s.(a)(b)	460	1,069	507	958	615	928
67 Iron and steel	767	1,039	981	883	1,144	825
68 Non-ferrous metals	3,882	396	3,758	385	3,634	380
69 Manufactures of metals, n.e.s.	369	1,349	477	1,201	560	1,283
Total section 6(a)(b)	*6,073*	*8,219*	*6,404*	*7,396*	*6,762*	*7,884*
7 MACHINERY AND TRANSPORT EQUIPMENT						
71 Power generating machinery and equipment	428	1,384	543	1,259	610	1,292
72 Machinery specialised for particular industries	423	2,756	517	2,148	534	1,903
73 Metal working machinery	69	392	82	317	84	320
74 General industrial machinery and equipment, n.e.s. and machine parts, n.e.s.	384	2,977	475	2,716	535	2,718
75 Office machines and automatic data processing machines	564	3,557	720	3,375	832	3,637
76 Telecommunications and sound recording and reproducing apparatus and equipment	238	1,805	320	1,737	306	1,981
77 Electrical machinery, apparatus, appliances, parts (incl. non-electrical counterparts of electrical domestic equipment)	363	2,718	470	2,521	594	2,835
78 Road vehicles (incl. air-cushion vehicles)	595	5,062	847	4,459	769	4,808
79 Transport equipment (excl. road vehicles)	619	2,801	657	3,156	764	2,499
Total section 7	*3,684*	*23,452*	*4,630*	*21,687*	*5,027*	*21,994*

For footnotes *see* end of table.

28.17 MERCHANDISE EXPORTS AND IMPORTS BY COMMODITY — *continued*
($ million)

Commodity description (Section and division of the SITC Rev. 3)	*1989–90*		*1990–91*		*1991–92*	
	Exports	*Imports*	*Exports*	*Imports*	*Exports*	*Imports*
8 MISCELLANEOUS MANUFACTURED ARTICLES						
81 Prefabricated buildings; sanitary, plumbing, heating and lighting fixtures and fittings, n.e.s.	30	145	43	139	72	155
82 Furniture parts thereof; bedding mattresses, mattress supports, cushions and similar stuffed furnishings	44	338	34	291	42	320
83 Travel goods, handbags and similar containers	6	210	5	215	4	241
84 Articles of apparel and clothing accessories	114	908	130	956	154	1,100
85 Footwear	24	339	24	384	30	411
87 Professional, scientific and controlling instruments and apparatus, n.e.s.	255	1,144	276	1,199	329	1,282
88 Photographic apparatus, equipment and supplies and optical goods, n.e.s.; watches and clocks(a)	231	783	255	778	287	839
89 Miscellaneous manufactured articles, n.e.s.	676	3,015	553	2,994	699	3,419
Total section 8(a)	*1,381*	*6,880*	*1,319*	*6,955*	*1,617*	*7,768*
9 COMMODITIES AND TRANSACTIONS NOT CLASSIFIED ELSEWHERE IN THE SITC						
93 Special transactions and commodities not classified according to kind	185	599	174	214	210	28
95 Gold coin whether or not legal tender, and other coin being legal tender	283	35	230	20	300	9
96 Coin (excl. gold coin) not being legal tender	2	8	1	2	—	—
97 Gold non-monetary (excl. gold ores and concentrates)	2,872	285	3,672	623	4,023	1,040
98 Combined confidential items of trade(c)	1,038	123	696	108	775	74
Total section 9(c)	*4,380*	*1,050*	*4,774*	*966*	*5,309*	*1,150*
Total	**49,078**	**51,333**	**52,398**	**48,912**	**55,075**	**50,983**

(a) Excludes imports commodities subject to a 'No Commodity Details' restriction. (b) Excludes exports commodities subject to a 'No Commodity Details' restriction. (c) Includes commodities subject to a 'No Commodity Details' restriction. For further information *see* the confidentiality appendices in ABS Foreign Trade publications.
Source: Foreign Trade, Australia: Merchandise Exports and Imports, 1991–92 (5410.0).

Merchandise exports and imports by industry of origin

The following two tables classify merchandise trade statistics according to divisions and selected subdivisions of the Australian Standard Industrial Classification (ASIC). The statistics are compiled by allocating foreign trade data for a commodity to an ASIC industry of origin category based upon the industry with which that commodity is primarily associated.

28.18 MERCHANDISE EXPORTS BY INDUSTRY OF ORIGIN

Australian Standard Industrial Classification (ASIC) Division/subdivision	*1989–90*		*1990–91*		*1991–92*	
	$ million	*Per cent*	*$ million*	*Per cent*	*$ million*	*Per cent*
Agriculture, forestry, fishing and hunting						
01 Agriculture	7,018	14	5,093	10	5,310	10
03 Forestry and logging	6	—	18	—	16	—
04 Fishing and hunting	181	—	170	—	273	—
Total	*7,204*	*14*	*5,281*	*10*	*5,599*	*10*
Mining						
11 Metallic minerals	4,374	9	4,925	9	4,990	9
12 Coal	5,850	12	6,372	12	6,855	12
13 Oil and gas	1,512	3	2,785	5	2,608	5
14 Construction materials	4	—	22	—	28	—
15 Other non-metallic minerals	152	—	164	—	158	—
Total	*11,892*	*24*	*14,268*	*27*	*14,639*	*27*
Manufacturing						
21 Food, beverages and tobacco	7,270	15	7,323	14	7,891	14
23 Textiles	1,654	3	1,809	3	2,279	4
24 Clothing and footwear	145	—	160	—	192	—
25 Wood, wood products and furniture	466	1	503	1	556	1
26 Paper, paper products, printing and publishing	339	1	349	1	373	1
27 Chemical petroleum and coal products	2,249	5	2,850	5	3,012	5
28 Non-metallic mineral products	125	—	145	—	221	—
29 Basic metal products	10,322	21	11,528	22	11,281	20
31 Fabricated metal products	614	1	671	1	817	1
32 Transport equipment	1,525	3	1,907	4	1,992	4
33 Other machinery and equipment	2,794	6	3,378	6	3,804	7
34 Miscellaneous manufacturing	726	1	808	2	962	2
Total	*28,229*	*58*	*31,431*	*60*	*33,380*	*61*
Other industries						
Wholesale, retail and service industries	153	—	74	—	96	—
Confidential items; Waste and scrap n.e.s.; Second hand goods n.e.s.; Special goods	1,599	3	1,343	3	1,361	2
Total	*1,752*	*4*	*1,417*	*3*	*1,456*	*3*
Total exports	**49,078**	**100**	**52,398**	**100**	**55,075**	**100**

Source: Foreign Trade, Australia: Merchandise Exports and Imports, 1991–92 (5410.0).

28.19 MERCHANDISE IMPORTS BY INDUSTRY OF ORIGIN

Australian Standard Industrial Classification (ASIC) Division/subdivision	*1989–90*		*1990–91*		*1991–92*	
	$ million	*Per cent*	*$ million*	*Per cent*	*$ million*	*Per cent*
Agriculture, forestry, fishing and hunting						
01 Agriculture	569	1	519	1	541	1
03 Forestry and logging	5	—	3	—	3	—
04 Fishing and hunting	25	—	24	—	22	—
Total	*598*	*1*	*546*	*1*	*565*	*1*
Mining						
11 Metallic minerals	110	—	99	—	100	—
12 Coal	12	—	1	—	1	—
13 Oil and gas	1,090	2	1,510	3	1,587	3
14 Construction materials	19	—	13	—	13	—
15 Other non-metallic minerals	206	—	96	—	98	—
Total	*1,436*	*3*	*1,720*	*4*	*1,798*	*4*

... continued

28.19 MERCHANDISE IMPORTS BY INDUSTRY OF ORIGIN — *continued*

Australian Standard Industrial Classification (ASIC) Division/subdivision	*1989–90*		*1990–91*		*1991–92*	
	$ million	*Per cent*	*$ million*	*Per cent*	*$ million*	*Per cent*
Manufacturing						
21 Food, beverages and tobacco	1,996	4	2,081	4	2,232	4
23 Textiles	2,452	5	2,127	4	2,204	4
24 Clothing and footwear	1,185	2	1,280	3	1,452	3
25 Wood, wood products and furniture	1,006	2	884	2	956	2
26 Paper, paper products, printing and publishing	2,277	4	2,065	4	2,289	4
27 Chemical petroleum and coal products	6,214	12	6,336	13	6,276	12
28 Non-metallic mineral products	976	2	865	2	885	2
29 Basic metal products	1,834	4	1,968	4	2,343	5
31 Fabricated metal products	1,596	3	1,432	3	1,563	3
32 Transport equipment	8,197	16	8,021	16	7,944	16
33 Other machinery and equipment	17,253	34	15,947	33	16,763	33
34 Miscellaneous manufacturing	3,341	7	3,127	6	3,427	7
Total	*48,327*	*94*	*46,132*	*94*	*48,332*	*95*
Other industries						
Wholesale retail and service industries	222	—	160	—	157	—
Confidential items; Waste and scrap n.e.s.; Second hand goods n.e.s.; Special goods	751	1	354	1	130	—
Total	*973*	*2*	*515*	*1*	*287*	*1*
Total imports	**51,333**	**100**	**48,912**	**100**	**50,983**	**100**

Source: Foreign Trade, Australia: Merchandise Exports and Imports, 1991–92 (5410.0).

INTERNATIONAL TRADE IN SERVICES

In table 28.1 the current account of Australia's balance of payments includes trade in services with the rest of the world. For 1991–92, services trade accounted for exports of $13,886 million and imports of $16,573 million, 20 per cent and 25 per cent of all exports and imports of goods and services, respectively. Table 28.20 provides details of this trade in services.

28.20 INTERNATIONAL TRADE IN SERVICES, 1991–92
($ million)

	Credits	*Debits*	*Balance*
Shipment			
Freight	552	–3,233	–2,681
Insurance	12	–24	–12
Total	*564*	*–3,257*	*–2,693*
Other transportation			
Passenger services	1,782	–2,391	–609
Port services etc.	2,131	–1,175	956
Total	*3,913*	*–3,566*	*347*
Travel			
Students' expenditure	1,027	–294	733
Other	4,410	–4,853	–443
Total	*5,437*	*–5,147*	*290*

... continued

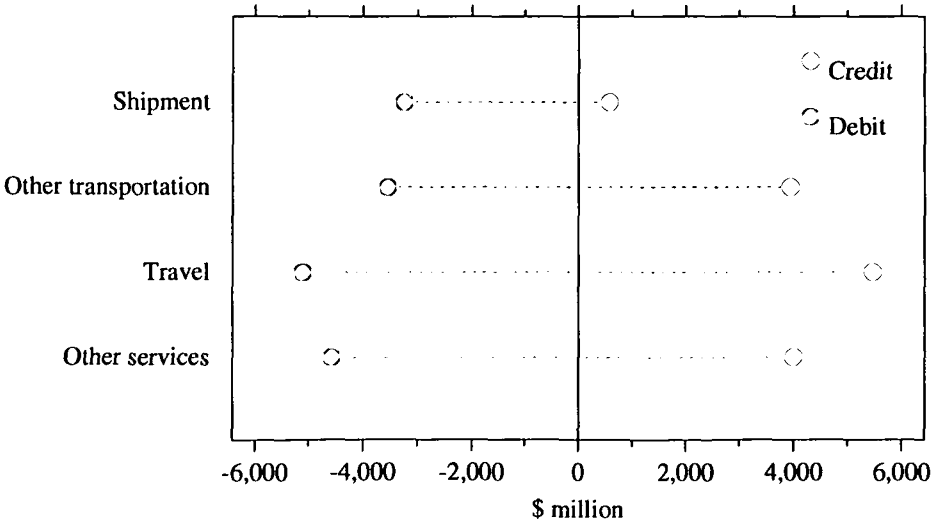
28.20 INTERNATIONAL TRADE IN SERVICES, 1991-92 — *continued*
($ million)

	Credits	*Debits*	*Balance*
Other services			
Official	254	- 387	- 133
Non-official			
Financial services	281	- 203	78
Insurance services	29	- 379	- 350
Agency and advertising services provided to international transportation operators	587	- 524	63
Other(a)	2,821	- 3,110	- 289
Total other services	*3,972*	*- 4,603*	*- 631*
Total	**13,886**	**- 16,573**	**- 2,687**
1990-91	12,998	- 16,337	- 3,339
1989-90	11,618	- 16,408	- 4,490

(a) A dissection of this data is provided by the International Trade in Services Survey. Results from the 1991-92 survey are not yet available.

Source: Balance of Payments, Australia, December Quarter 1992 (5302.0).

28.21 INTERNATIONAL TRADE IN SERVICES, BY COMPONENT, 1991-92



Source: Balance of Payments, Australia, December Quarter 1992 (5302.0).

INTERNATIONAL INVESTMENT

Conceptual framework

International investment statistics provide information on the *levels* (stock) of Australia's foreign financial assets and liabilities, *capital transactions* (investment flows) which increase and decrease these assets and liabilities, *other changes* in the value of these assets and liabilities, and *income* receivable and payable on these assets and liabilities.

These statistics form an integral part of Australia's balance of payments as well as being useful in their own right, for example, in determining the impact of foreign investment policies and the level of Australia's foreign assets and liabilities, including foreign debt. They are also useful when analysing the behaviour of financial markets.

Market price is the principle method of valuation in international investment statistics. Capital transactions are recorded on a change of ownership basis, that is, at the time when the foreign financial asset or liability is acquired, sold, repaid or otherwise disposed of. By convention, this is taken to be the time at which the event is recorded in the books of the transactors. Investment income is generally recorded at the time it becomes due for payment.

Classification

The primary classification used in international investment statistics is the direction of investment. This classification refers to the basic distinction between inward and outward investment, that is, foreign investment in Australia or Australian investment abroad. Broadly, *foreign investment in Australia* refers to the stock of financial assets in Australia owned by non-residents and capital transactions which increase or decrease this stock. Conversely, *Australian investment abroad* refers to the stock of financial assets abroad owned by Australian residents and capital transactions which increase or decrease this stock.

International investment is undertaken by means of instruments of investment. Many types of instruments of investment can be identified, but for analytical reasons and ease of reporting similar instruments are combined.

- *Equity* includes ordinary and preference shares, units in trusts and net equity in branches.
- *Borrowing* (foreign investment in Australia) or lending (Australian investment abroad) comprises deposits, loans, finance leases, bonds, bills, IMF credit and Bank of International Settlements placements.
- *Reserve Assets* includes monetary gold, Special Drawing Rights and reserve position in the IMF and foreign exchange held by the Reserve Bank of Australia.
- *Other investments* consist of amounts outstanding in respect of goods, services, interest, dividends, etc.
- *Reinvestment of earnings* of direct investors refers to income retained from after tax profits attributable to direct investors.

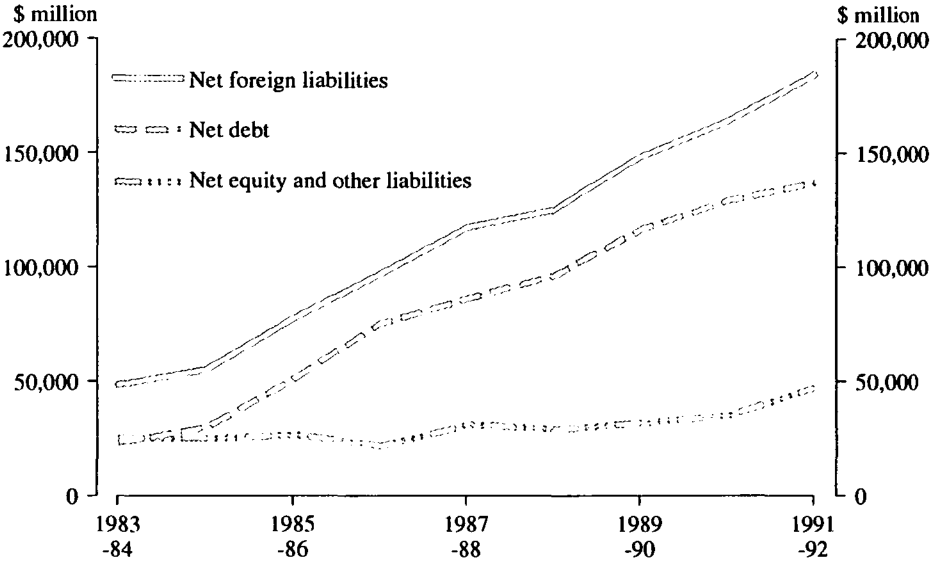
International investment position

Australia's net international investment position is the difference between the levels of Australia's foreign liabilities (foreign investment in Australia) and the levels of Australia's foreign financial assets (Australian investment abroad). Historically Australia has had a net liabilities position with the rest of the world.

Table 28.23 shows a reconciliation between opening and closing levels for foreign investment in Australia, Australian investment abroad and Australia's net international investment position. The table also shows income payable on foreign investment in Australia, income receivable on Australian investment abroad and net income payable.

Australia's net foreign liabilities at 30 June 1992 totalled $199,898 million, up eight per cent on 30 June 1991. The rise in Australia's net foreign liabilities since 30 June 1991 reflected rises of $19,835 million in the level of foreign investment in Australia and $5,709 million in the level of Australian investment abroad. Of the rise in the level of foreign investment in Australia, $14,131 million (71%) was attributable to foreign borrowing.

28.22 NET INTERNATIONAL INVESTMENT POSITION AT END OF YEAR BY INSTRUMENT OF INVESTMENT



Source: International Investment Position, Australia, September Quarter 1992 (5306.0).

28.23 INTERNATIONAL INVESTMENT POSITION AND INCOME ($ million)

Year	Levels of investment at beginning of year	Changes in levels of investment during the year: Reinvestment of earnings of direct investors	Other transactions	Exchange rate variations	Other changes	Total	Levels of investment at end of year	Investment income (a)
FOREIGN INVESTMENT IN AUSTRALIA								
Equity								
1989–90	84,776	1,105	5,246	72	2,217	8,639	93,416	5,172
1990–91	93,416	551	9,813	-9	- 1,875	8,480	101,895	5,029
1991–92	101,895	548	3,919	71	1,215	5,753	107,648	4,647
Borrowing								
1989–90	145,701	. .	16,652	- 1,224	- 1,528	13,900	159,601	14,293
1990–91	159,601	. .	9,518	2,414	1,418	13,350	172,950	14,938
1991–92	172,950	. .	9,714	4,643	- 226	14,131	187,081	13,642
Other investment								
1989–90	7,254	. .	- 1,475	99	- 360	- 1,737	5,517	372
1990–91	5,517	. .	- 570	50	982	461	5,979	170
1991–92	5,979	. .	- 226	27	149	- 49	5,929	39
Total								
1989–90	237,732	1,105	20,422	- 1,053	328	20,802	258,534	19,837
1990–91	258,534	551	18,760	2,455	525	22,290	280,824	20,135
1991–92	280,824	548	13,407	4,741	1,138	19,835	300,659	18,328

For footnotes *see* end of table.

28.23 INTERNATIONAL INVESTMENT POSITION AND INCOME — *continued*
($ million)

Year	Levels of investment at beginning of year	*Changes in levels of investment during the year:* Reinvestment of earnings of direct investors	Other transactions	Exchange rate variations	Other changes	Total	Levels of investment at end of year	Investment income (a)
AUSTRALIAN INVESTMENT ABROAD								
Equity								
1989–90	52,663	1,365	765	252	992	3,374	56,037	1,936
1990–91	56,037	343	- 2,013	- 142	- 1,585	- 3,397	52,640	937
1991–92	52,640	343	3,611	2,596	- 1,331	5,219	57,859	1,232
Reserve assets								
1989–90	20,410	. .	2,156	- 375	- 320	1,461	21,871	1,261
1990–91	21,871	. .	1,446	631	99	2,176	24,047	1,573
1991–92	24,047	. .	- 3,929	2,287	- 165	- 1,807	22,240	1,654
Lending								
1989–90	8,690	. .	644	42	- 876	- 190	8,500	480
1990–91	8,500	. .	3,426	16	- 249	3,193	11,693	558
1991–92	11,693	. .	1,852	746	610	3,209	14,902	585
Other investment								
1989–90	7,278	. .	- 41	- 19	639	579	7,857	156
1990–91	7,857	. .	208	- 2	- 388	- 183	7,674	120
1991–92	7,674	. .	- 1,125	60	150	- 915	6,759	42
Total								
1989–90	89,041	1,365	3,526	- 102	436	5,224	94,266	3,833
1990–91	94,266	343	3,066	503	- 2,124	1,789	96,055	3,188
1991–92	96,055	343	410	5,689	- 735	5,709	101,761	3,513
NET INTERNATIONAL INVESTMENT POSITION(b)								
Net equity								
1989–90	32,113	- 260	4,480	- 179	1,225	5,266	37,378	3,236
1990–91	37,378	207	11,826	133	- 290	11,876	49,255	4,093
1991–92	49,255	205	308	- 2,525	2,547	534	49,789	3,415
Net foreign debt(c)								
1989–90	116,601	. .	13,852	- 891	- 333	12,628	129,229	12,552
1990–91	129,229	. .	4,646	1,767	1,568	7,981	137,210	12,807
1991–92	137,210	. .	11,791	1,610	- 672	12,729	149,939	11,403
Other investment								
1989–90	- 24	. .	- 1,435	118	- 999	- 2,316	- 2,340	216
1990–91	- 2,340	. .	- 778	52	1,370	644	- 1,695	50
1991–92	- 1,695	. .	899	- 33	- 1	865	- 830	- 4
Total								
1989–90	148,690	- 260	16,897	- 952	- 107	15,578	164,268	16,004
1990–91	164,268	207	15,694	1,952	2,649	20,501	184,769	16,949
1991–92	184,769	205	12,998	- 948	1,874	14,129	198,898	14,815

(a) Includes reinvested earnings of direct investors. (b) Net international investment position equals foreign investment in Australia less Australian investment abroad. (c) Foreign borrowing by Australian residents less the sum of reserve assets and Australian lending abroad.

Source: International Investment Position, Australia, September Quarter 1992 (5306.0).

Foreign debt

Foreign debt is a subset of financial obligations that comprise a country's international investment position. The level of borrowing by Australian residents at a particular point can be equated with Australia's gross foreign debt. The level of Australian lending abroad and official reserve assets at the same date are deducted from the level of borrowing to arrive at Australia's net foreign debt.

As table 28.24 shows, the level of net foreign debt at 30 June 1992 was $149,939 million, up nine per cent on 30 June 1991. Capital transactions added $11,791 million to the level of net foreign debt, while exchange rate variations added $1,610 million and other factors reduced the level by $672 million.

Table 28.24 shows that net foreign debt of the public sector (official sector plus public trading and financial enterprises) rose by seven per cent during 1991–92, reaching $47,584 million at 30 June 1992 and accounting for 32 per cent of total net foreign debt at that date. Net foreign debt of the private sector increased by 10 per cent to $102,355 million. The increase in total net foreign debt was attributable to financial enterprises and the official sector, with trading enterprises recording a small decrease.

28.24 LEVELS OF FOREIGN DEBT
($ million)

						At 30 June
	1987	*1988*	*1989*	*1990*	*1991*	*1992*
FOREIGN BORROWING (GROSS DEBT)						
Official						
Commonwealth government and Reserve Bank	23,678	22,909	18,607	19,654	16,530	15,424
State government	6,684	10,627	18,584	20,069	24,721	29,357
Total official	*30,362*	*33,536*	*37,192*	*39,724*	*41,251*	*44,781*
Non-official						
Financial enterprises						
Public sector	7,073	10,843	16,617	20,334	20,251	20,764
Private sector	19,870	24,031	31,451	35,980	45,999	58,248
Total	*26,943*	*34,873*	*48,068*	*56,314*	*66,250*	*79,012*
Trading enterprises						
Public sector	12,517	12,739	11,439	12,353	13,214	12,551
Private sector	37,595	41,250	49,003	51,210	52,235	50,737
Total	*50,112*	*53,989*	*60,442*	*63,563*	*65,449*	*63,288*
Total non-official	*77,055*	*88,862*	*108,509*	*119,877*	*131,699*	*142,300*
Total	**107,417**	**122,398**	**145,701**	**159,601**	**172,950**	**187,081**
of which						
Public sector						
Official	30,362	33,536	37,192	39,724	41,251	44,781
Non-official	19,589	23,581	28,055	32,687	33,465	33,315
Total	*49,951*	*57,117*	*65,247*	*72,410*	*74,717*	*78,096*
Private sector	57,466	65,280	80,454	87,190	98,234	108,985
AUSTRALIAN LENDING ABROAD AND RESERVE ASSETS						
Official						
Reserve assets	17,594	20,182	20,410	21,871	24,047	22,240
Lending	364	649	914	849	675	803
Total official	*17,958*	*20,831*	*21,324*	*22,720*	*24,722*	*23,043*
Non-official						
Financial enterprises	3,677	4,887	7,466	9,852	10,194	13,135
Trading enterprises	-356	688	310	-2,200	824	964
Total non-official	*3,321*	*5,575*	*7,776*	*7,651*	*11,018*	*14,099*
Total	**21,279**	**26,406**	**29,100**	**30,371**	**35,740**	**37,142**
of which						
Public sector						
Official	17,958	20,831	21,324	22,720	24,722	23,043
Non-official	1,014	2,131	4,449	5,846	5,568	7,469
Total	*18,972*	*22,962*	*25,773*	*28,566*	*30,291*	*30,511*
Private sector	2,307	3,444	3,327	1,805	5,450	6,631

... *continued*

28.24 LEVELS OF FOREIGN DEBT — *continued*
($ million)

						At 30 June
	1987	*1988*	*1989*	*1990*	*1991*	*1992*
	NET FOREIGN DEBT(a)					
Official	12,404	12,705	15,868	17,003	16,529	21,739
Non-official						
Financial enterprises	23,266	29,986	40,601	46,462	56,056	65,877
Trading enterprises	50,467	53,301	60,132	65,764	64,625	62,324
Total non-official	*73,734*	*83,287*	*100,733*	*112,226*	*120,681*	*128,201*
Total	**86,138**	**95,991**	**116,601**	**129,229**	**137,210**	**149,939**
of which						
Public sector						
Official	12,404	12,705	15,868	17,003	16,529	21,739
Non-official	18,575	21,450	23,606	26,841	27,897	25,846
Total	*30,979*	*34,155*	*39,475*	*43,844*	*44,426*	*47,584*
Private sector	55,159	61,836	77,127	85,385	92,784	102,355

(a) Foreign borrowing by Australian residents less the sum of Australian lending abroad and reserve assets.
Source: International Investment Position, Australia, September Quarter 1992 (5306.0).

International investment ratios

Table 28.25 shows that, at 30 June 1992, the ratio of Australia's net foreign liabilities to GDP was 52 per cent. This was the highest financial year result for this ratio on record. The ratio of net foreign debt to GDP was 39 per cent, again the highest financial year result on record, with net equity and other investment accounting for the remaining 13 per cent. This growth in Australia's net foreign liabilities as a proportion of GDP largely reflects the continuing high balance of payments current account deficits over the decade.

As shown in table 28.27, the ratio of net investment income payable abroad to exports of goods and services was 22 per cent in 1991–92, a decrease of more than four per cent over the previous year. This is due to a decrease of $2,134 million (13%) in net investment income payable abroad and an increase of $3,686 million (6%) in exports of goods and services in 1991–92.

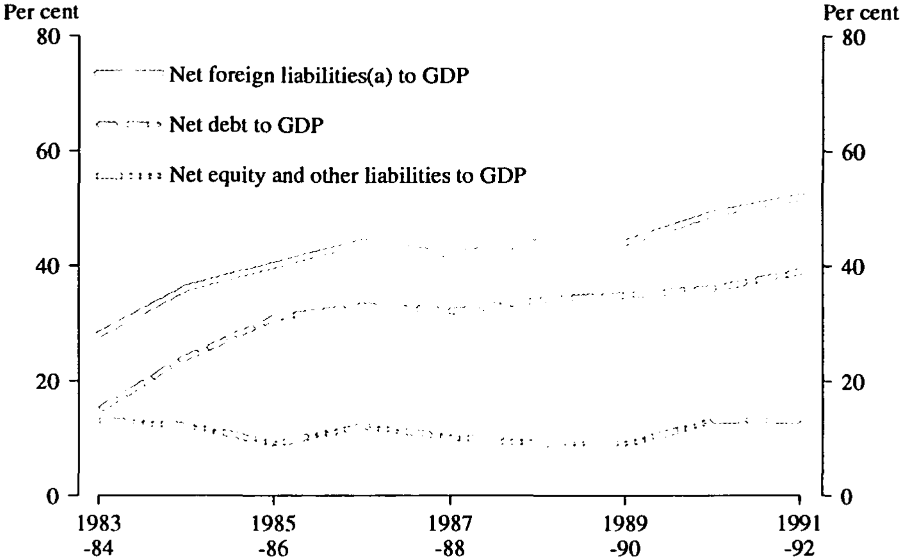
The net debt service ratio, that is net interest payable abroad on net foreign debt as a percentage of exports of goods and services, fell 3 percentage points to 17 per cent in 1991–92. The ratio of net investment income payable on equity and other foreign investment to exports of goods and services fell one percentage point over the year to five per cent.

28.25 NET FOREIGN LIABILITIES: RATIOS TO GDP

		Net foreign liabilities at end of period ($ million)			*Ratios of net foreign liabilities to GDP(a) (%)*		
Year	*Annual GDP at current cost*	*Foreign debt*	*Equity & other investment*	*Total*	*Foreign debt*	*Equity & other investment*	*Total*
1986–87	264,564	86,138	31,239	117,377	32.6	11.8	44.4
1987–88	298,335	95,991	28,882	124,873	32.2	9.7	41.9
1988–89	340,440	116,601	32,089	148,690	34.3	9.4	43.8
1989–90	369,588	129,229	35,039	164,268	35.0	9.5	44.4
1990–91	378,101	137,210	47,559	184,769	36.3	12.6	48.9
1991–92	384,719	149,939	48,959	198,898	39.0	12.7	51.7

(a) These ratios are derived by expressing net foreign liabilities at end of year as a percentage of GDP for that year.
Source: International Investment Position, Australia, September Quarter 1992 (5306.0).

28.26 RATIO OF NET FOREIGN LIABILITIES TO GROSS DOMESTIC PRODUCT (GDP)



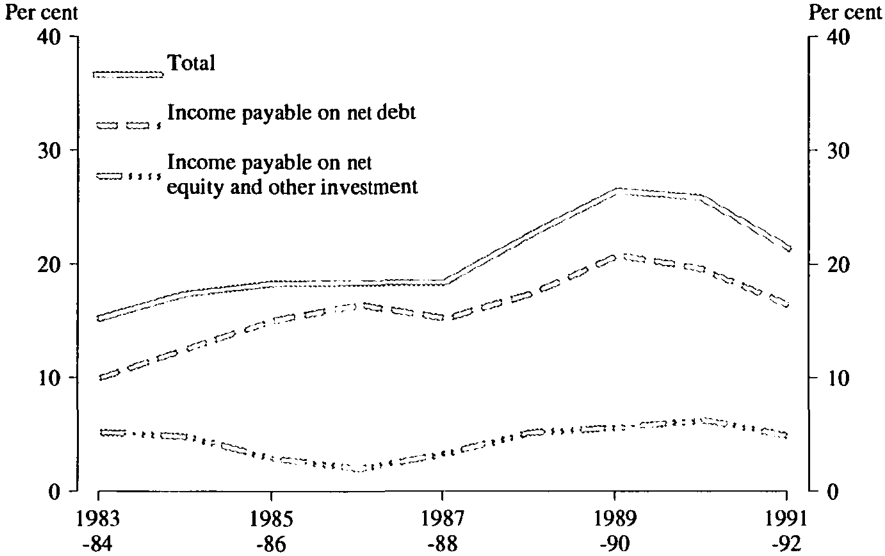
(a) Net international investment position.
Source: International Investment Position, Australia, September Quarter 1992 (5306.0).

28.27 NET INVESTMENT INCOME: RATIOS TO EXPORTS

		Net investment income payable abroad ($ million)			*Ratios of net investment income to exports(a) (%)*		
Year	*Exports of goods & services*	*Foreign debt*	*Equity & other investment*	*Total*	*Foreign debt*	*Equity & other investment*	*Total*
1986–87	43,794	7,214	847	8,062	16.5	2.0	18.4
1987–88	51,301	7,789	1,669	9,458	15.2	3.3	18.4
1988–89	54,893	9,578	2,847	12,425	17.4	5.2	22.6
1989–90	60,324	12,552	3,452	16,004	20.8	5.7	26.5
1990–91	65,379	12,807	4,141	16,947	19.6	6.3	25.9
1991–92	69,065	11,403	3,411	14,815	16.5	4.9	21.5

(a) These ratios are derived by expressing net investment income payable as a percentage of exports of goods and services.
Source: International Investment Position, Australia, September Quarter 1992 (5306.0).

28.28 RATIO OF NET INVESTMENT INCOME TO EXPORTS(a)



(a) Net investment income payable abroad as a percentage of Australia's exports of goods and services.
Source: International Investment Position, Australia, September Quarter 1992 (5306.0).

International investment by country

Tables 28.29 and 28.30 show the countries investing in Australia or receiving investment from Australia. The classification is based upon the country of residence of the foreign creditor or debtor holding Australia's liabilities or financial assets. It does not necessarily reflect either the country of ultimate beneficial ownership of the investment, the country of immediate source of funds or the country to which amounts borrowed will in fact be repaid.

The USA was the main source of the net inflow of foreign investment in Australia in 1991–92, accounting for $5,067 million, followed by borrowings raised on international capital markets (for example, Euro-bonds and similar issues) which accounted for $3,917 million, an increase of $2,074 million (113%) over the previous year. The inflow of investment from the United Kingdom into Australia decreased during 1991–92, falling from $3,881 million to $1,064 million.

At 30 June 1992, the USA was the leading investor country with $58,223 million (19%) of the total stock of foreign investment in Australia, followed by the United Kingdom with $52,117 million and Japan with $51,353 million. A level of $51,103 million was recorded for investments from international capital markets.

Of the net outflow of investment by Australian residents that can be allocated by country, the major recipient in 1991–92 was the United Kingdom, with $228 million or 30 per cent of the total outflow.

At 30 June 1992, Australian investment abroad was most substantial in the USA, with a level of $36,714 million (36%), followed by the United Kingdom with $19,730 million and New Zealand with $6,985 million.

28.29 FOREIGN INVESTMENT IN AUSTRALIA, BY COUNTRY
($ million)

Country of investor	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*	*1991–92*
CAPITAL TRANSACTIONS						
OECD						
USA	4,630	675	6,154	1,745	7,262	5,067
Japan	1,091	7,183	7,703	6,694	2,116	-381
Switzerland	342	667	383	485	-1,000	-176
EC						
UK	3,562	6,077	2,110	-570	3,881	1,064
Other(a)	1,774	1,213	2,468	781	-859	-831
Total EC	*5,336*	*7,289*	*4,579*	*211*	*3,024*	*233*
Other OECD	1,833	1,642	779	6	2,196	209
Total OECD	*13,232*	*17,456*	*19,598*	*9,141*	*13,598*	*4,952*
ASEAN	1,003	89	-1,015	594	-1,087	384
Other countries(b)	1,169	2,032	2,282	542	1,711	1,747
International capital markets	6,890	5,190	8,003	9,253	1,843	3,917
International institutions	-24	-71	-259	-30	757	82
Unallocated	572	2,813	3,274	2,026	2,490	2,873
Total	**22,842**	**27,510**	**31,884**	**21,527**	**19,311**	**13,955**
INVESTMENT INCOME						
OECD						
USA	2,798	3,597	3,490	4,345	3,866	2,986
Japan	1,687	1,861	2,670	3,685	3,456	3,059
Switzerland	383	368	479	526	463	316
EC						
UK	2,207	2,268	3,335	3,230	2,618	1,932
Other(a)	1,014	1,254	1,325	1,430	984	902
Total EC	*3,220*	*3,522*	*4,660*	*4,660*	*3,600*	*2,834*
Other OECD	321	362	182	367	378	242
Total OECD	*8,410*	*9,710*	*11,480*	*13,583*	*11,764*	*9,437*
ASEAN	613	480	652	676	544	346
Other countries(b)	334	333	730	630	938	753
International capital markets	955	1,557	2,496	3,918	4,952	4,429
International institutions	22	22	18	34	39	25
Unallocated	397	980	916	996	1,899	3,336
Total	**10,730**	**13,082**	**16,293**	**19,837**	**20,137**	**18,328**
LEVELS OF INVESTMENT AT 30 JUNE						
OECD						
USA	41,698	40,108	47,183	46,648	54,237	58,223
Japan	22,551	29,615	38,670	46,412	50,189	51,353
Switzerland	7,505	7,403	7,129	7,529	7,194	7,149
EC						
UK	38,323	44,073	48,031	46,291	49,147	52,117
Other(a)	17,848	18,810	20,277	22,263	21,168	20,770
Total EC	*56,171*	*62,883*	*68,307*	*68,554*	*70,315*	*72,887*
Other OECD	8,690	8,245	10,981	9,327	11,899	11,512
Total OECD	*136,615*	*148,254*	*172,269*	*178,470*	*193,835*	*201,123*
ASEAN	10,449	8,170	7,393	7,549	6,523	7,325
Other countries(b)	6,862	8,245	11,318	11,953	13,147	15,301
International capital markets	21,282	25,990	34,562	45,290	48,020	51,103
International institutions	332	239	287	257	1,014	1,097
Unallocated	4,604	8,266	11,902	15,015	18,285	24,710
Total	**180,148**	**199,164**	**237,732**	**258,534**	**280,824**	**300,659**

(a) From 1990-91 includes the former Federal Republic of Germany and Germany, Democratic Republic. Prior to 1990-91 Germany, Democratic Republic is included in 'other countries'. (b) Includes the former Germany, Democratic Republic up to 1989-90. From 1990-91 the former Germany, Democratic Republic is included in 'EC-Other'.

Source: International Investment Position, Australia, September Quarter 1992 (5306.0).

28.30 AUSTRALIAN INVESTMENT ABROAD, BY COUNTRY
($ million)

Country of investment	*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*	*1991–92*
			CAPITAL TRANSACTIONS			
OECD						
USA	7,458	2,616	5,983	2,434	526	-1,216
New Zealand	1,550	1,319	565	1,433	-276	-234
UK	1,288	5,089	2,056	1,359	1,394	228
Other OECD(a)(b)	1,412	2,670	2,332	969	5,977	-1,155
Total OECD	*11,709*	*11,694*	*10,937*	*6,196*	*7,621*	*-2,377*
ASEAN	252	-108	797	739	-287	430
Papua New Guinea	13	404	178	157	133	-65
Other countries(c)	677	2,420	-499	-1,183	-4,039	896
Unallocated	220	1,769	1,380	-1,019	-17	1,868
Total	**12,870**	**16,179**	**12,791**	**4,890**	**3,410**	**753**
			INVESTMENT INCOME			
OECD						
USA	552	686	1,159	1,956	1,350	907
New Zealand	344	319	307	338	237	99
UK	326	676	710	-81	91	579
Other OECD(a)(b)	437	641	691	319	1,072	790
Total OECD	*1,660*	*2,322*	*2,867*	*2,532*	*2,750*	*2,375*
ASEAN	149	113	139	216	122	81
Papua New Guinea	61	3	81	-10	192	61
Other countries(c)	579	1,043	530	704	-72	-110
Unallocated	220	143	250	300	195	1,107
Total	**2,669**	**3,624**	**3,867**	**3,832**	**3,188**	**3,514**
			LEVELS OF INVESTMENT AT 30 JUNE			
OECD						
USA	20,561	20,946	25,995	26,836	26,655	36,714
New Zealand	3,600	4,732	5,147	6,256	6,349	6,985
UK	6,839	13,032	15,461	17,957	18,134	19,730
Other OECD(a)(b)	12,731	14,814	18,762	19,896	25,935	14,442
Total OECD	*43,731*	*53,524*	*65,365*	*70,945*	*77,073*	*77,871*
ASEAN	1,938	1,495	1,882	3,175	2,696	3,041
Papua New Guinea	1,437	1,725	1,494	1,620	1,693	1,727
Other countries(c)	8,859	10,701	11,592	10,284	6,474	7,834
Reserve Bank gold(d)	4,951	4,509	3,861	3,541	3,804	3,639
Unallocated	1,855	2,337	4,847	4,700	4,315	7,650
Total	**62,771**	**74,291**	**89,041**	**94,265**	**96,055**	**101,762**

(a) The foreign exchange part of reserve assets, with the exception of those held in the USA, are not available by country and are therefore included in 'Other OECD'. (b) From 1990–91 includes the former Federal Republic of Germany and Germany, Democratic Republic. Prior to 1990–91 Germany, Democratic Republic is included in 'Other countries'. (c) Includes the former Germany, Democratic Republic up to 1989–90. From 1990–91 the former Germany, Democratic Republic is included in 'Other OECD'. (d) Gold held by the Reserve Bank as part of reserve assets which cannot be allocated by country.

Source: International Investment Position, Australia, September Quarter 1992 (5306.0).

International investment by industry

The industry classification used in Australian international investment statistics is based upon the Australian Standard Industrial Classification (ASIC), 1983 edition. For both foreign investment in Australia and Australian investment abroad, investment is classified by the industry of the enterprise group receiving that investment. Industry statistics should be treated with some caution as they do not necessarily reflect the industry in which the funds are ultimately employed.

In 1991–92, the *Finance, property and business services* industry group, which includes banks, received an inflow of foreign investment of $10,895 million, or 78 per cent, of the total, followed by *Wholesale and retail trade* ($1,513 million) and *Manufacturing* ($1,201 million).

At 30 June 1992, the level of foreign investment was highest in the *Finance, property and business services* category, with $145,663 million (48%). This was followed by *Manufacturing*, $51,458 million (17%); *Mining*, $30,146 million (10%); and *Wholesale and retail trade*, $28,215 million (9%).

28.31 FOREIGN INVESTMENT IN AUSTRALIA, BY INDUSTRY(a)
($ million)

Industry of investment (ASIC division/subdivision)			*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*	*1991–92*
		CAPITAL TRANSACTIONS						
B	Mining							
	12,13	Coal, oil and gas	1,499	1,106	1,026	1,469	469	211
	11,14,15	Other mining	-666	839	617	-73	1,296	242
	16	Services to mining (incl. exploration)	291	353	31	65	-160	64
		Total mining	*1,123*	*2,298*	*1,674*	*1,461*	*1,605*	*517*
C	Manufacturing							
	21	Food, beverages and tobacco	2,076	1,818	1,612	-147	1,608	871
	23	Textiles	49	-30	8	22	-82	50
	24	Clothing and footwear	-97	-10	62	31	—	—
	25	Wood products and furniture	19	-73	-18	2	-10	-1
	26	Paper products and publishing	203	555	802	670	-17	-590
	27	Chemicals, petroleum and coal products	499	161	383	307	376	-80
	28	Non-metallic mineral products	-338	-409	402	-77	-91	-37
	29	Basic metal products	-749	551	539	-555	-345	741
	31	Fabricated metal products	116	95	-138	279	503	13
	32	Transport equipment	927	250	436	-59	72	246
	33	Other machinery and equipment	-108	125	-1	92	12	-4
	34	Miscellaneous manufacturing	594	635	1,119	893	394	-8
		Total manufacturing	*3,191*	*3,670*	*5,207*	*1,459*	*2,421*	*1,201*
Other industries								
A	Agriculture, forestry, fishing and hunting		438	-122	120	143	498	-79
D	Electricity, gas and water		-995	-105	-1,797	146	-190	125
E	Construction		358	-57	-345	-58	65	100
F	Wholesale and retail trade		1,316	1,690	1,786	1,269	1,777	1,513
G	Transport and storage		405	155	1,312	723	1,148	-469
I	Finance, property and business services(d)		12,621	19,227	26,281	14,716	15,108	10,895
I	Public administration, and defence(e)		3,549	-8	-4,770	687	-3,183	-1,840
H,K,L	Other industries(b)		202	444	940	63	179	69
M	Unallocated		634	318	1,476	918	-117	1,924
	Total other industries		*18,528*	*21,542*	*25,002*	*18,607*	*15,285*	*12,238*
Total			**22,842**	**27,510**	**31,884**	**21,527**	**19,311**	**13,956**

For footnotes *see* end of table.

28.31 FOREIGN INVESTMENT IN AUSTRALIA, BY INDUSTRY(a) — *continued*
($ million)

Industry of investment (ASIC division/subdivision)			*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*	*1991–92*
		INVESTMENT INCOME						
B	Mining							
	12,13	Coal, oil and gas	699	749	562	1,095	1,173	1,065
	11,14,15	Other mining	441	464	808	764	807	444
	16	Services to mining (incl. exploration)	97	97	- 17	86	—	63
		Total mining	*1,237*	*1,309*	*1,352*	*1,945*	*1,981*	*1,572*
C	Manufacturing							
	21	Food, beverages and tobacco	593	833	927	764	786	347
	23	Textiles	37	33	26	56	12	3
	24	Clothing and footwear	10	10	15	12	24	3
	25	Wood products and furniture	14	20	12	10	6	6
	26	Paper products and publishing	169	77	99	311	292	139
	27	Chemicals, petroleum and coal products	223	332	483	423	251	112
	28	Non-metallic mineral products	102	77	68	46	- 34	53
	29	Basic metal products	702	947	1,012	1,233	987	557
	31	Fabricated metal products	56	57	66	56	50	39
	32	Transport equipment	- 192	33	233	84	10	20
	33	Other machinery and equipment	2	254	292	251	223	110
	34	Miscellaneous manufacturing	79	159	445	568	339	158
		Total manufacturing	*1,795*	*2,832*	*3,680*	*3,813*	*2,946*	*1,547*
Other industries								
A	Agriculture, forestry, fishing and hunting		5	10	53	9	20	71
D	Electricity, gas and water		530	452	436	295	317	274
E	Construction		58	119	74	46	11	23
F	Wholesale and retail trade		940	1,141	1,913	2,038	1,305	866
G	Transport and storage		381	420	595	815	748	514
I	Finance, property and business services(d)		2,749	3,899	4,845	6,699	9,220	8,856
J	Public administration, and defence(e)		1,950	2,251	2,409	2,619	1,928	1,693
H,K,L	Other industries(b)		50	104	114	123	115	154
M	Unallocated		1,034	544	822	1,436	1,547	2,760
	Total other industries		*7,697*	*8,941*	*11,261*	*14,079*	*15,209*	*15,211*
Total			**10,730**	**13,082**	**16,293**	**19,837**	**20,135**	**18,330**
		LEVELS OF INVESTMENT AT 30 JUNE						
B	Mining							
	12,13	Coal, oil and gas	8,159	8,570	9,714	11,422	11,938	12,400
	11,14,15	Other mining	14,477	13,126	14,358	13,035	12,789	13,676
	16	Services to mining (incl. exploration)	6,177	4,142	3,763	4,224	4,232	4,070
		Total mining	*28,813*	*25,838*	*27,836*	*28,681*	*28,959*	*30,146*
C	Manufacturing							
	21	Food, beverages and tobacco	8,624	9,757	12,532	12,823	13,869	13,896
	23	Textiles	498	383	553	432	365	399
	24	Clothing and footwear	138	85	211	112	135	114
	25	Wood products and furniture	153	81	56	73	61	58
	26	Paper products and publishing	2,455	2,280	3,475	3,935	3,503	3,542
	27	Chemicals, petroleum and coal products	3,632	4,692	5,302	5,374	5,340	5,645
	28	Non-metallic mineral products	1,052	643	1,138	959	1,035	928
	29	Basic metal products	10,211	10,417	11,242	10,625	11,263	12,011
	31	Fabricated metal products	966	979	843	1,180	1,639	1,220
	32	Transport equipment	1,755	2,198	2,335	2,406	2,510	2,790
	33	Other machinery and equipment	2,560	2,868	2,917	2,632	2,866	2,809
	34	Miscellaneous manufacturing	2,944	4,042	5,851	7,327	7,481	8,046
		Total manufacturing	*34,988*	*38,425*	*46,454*	*47,878*	*50,066*	*51,458*

For footnotes *see* end of table.

28.31 FOREIGN INVESTMENT IN AUSTRALIA, BY INDUSTRY(a) — *continued*
($ million)

Industry of investment (ASIC division/subdivision)		*1986–87*	*1987–88*	*1988–89*	*1989–90*	*1990–91*	*1991–92*
Other industries							
A	Agriculture, forestry, fishing and hunting	950	541	1,312	1,344	1,595	1,906
D	Electricity, gas and water	7,353	7,267	5,071	5,290	5,211	5,647
E	Construction	1,688	1,655	1,527	1,590	2,030	2,296
F	Wholesale and retail trade	16,716	19,591	23,076	24,046	26,829	28,215
G	Transport and storage	6,084	6,029	7,490	8,267	9,049	8,750
I	Finance, property and business services(d)	52,544	69,780	98,970	111,930	131,591	145,663
J	Public administration, and defence(e)	24,027	23,131	18,720	19,579	16,471	15,315
H,K,L	Other industries(b)	1,846	2,334	3,213	2,874	3,574	4,309
M	Unallocated(c)	5,179	4,574	4,064	7,054	5,449	6,954
	Total other industries	*116,347*	*134,901*	*163,442*	*181,974*	*201,799*	*219,055*
Total		**180,148**	**199,164**	**237,732**	**258,534**	**280,824**	**300,659**

(a) The industry categories shown are based on the 1983 edition of ASIC and relate to the predominant activity of the enterprise group receiving the investment funds. This is not necessarily the industry of the end use of the funds. (b) Consists of: Division H — Communications; Division K — Community services; and Division L — Recreation, personal and other services. (c) Details of accounts payable/prepayments received, a component of portfolio and other investment, are not classified by industry prior to 1988–89 and are therefore included in 'Other industries'. (d) Includes the Reserve Bank and the State government components of General government. (e) Includes the Commonwealth government components of general government.

Source: International Investment Position, Australia, September Quarter 1992 (5306.0).

FOREIGN PARTICIPATION

Estimates of foreign ownership are shown in table 28.32.

Of the total equity on issue at 30 June 1991, non-residents held equity valued at $101,867 million (35%), and residents held $189,114 million (65%).

When analysed by sector, it can be seen that equity held by non-residents in private corporate trading enterprises rose steadily over the period, from 36 per cent at 30 June 1989 to 41 per cent at 30 June 1991.

While the value of non-residents' equity in banks also rose steadily, it remained relatively flat as a proportion of the total equity issued by banks. The dip in percentage foreign ownership in 1989–90 reflects the build-up of cross shareholdings between Australian banks in the same year. These positions appear to have been largely unwound between 30 June and 30 September 1990, as bank holdings of bank shares fell back between those dates.

Non-resident equity holdings in non-bank deposit taking institutions remained fairly constant in dollar terms, but rose as a proportion of the amount on issue, from 20 per cent at 31 December 1989 to 27 per cent at 30 June 1991. This was due to the decrease in the level of equity on issue by these institutions. This fall may have been due in part to enterprises formerly belonging to this sector becoming banks (for example, Challenge Bank, Metway Bank and Town and Country Bank) and others becoming insolvent.

The estimates of equity issued by life offices and superannuation funds shown in table 28.32 above only include shares in Australian incorporated companies and net equity of foreign incorporated companies in their Australian branches. They do not include policy-holders' claims on the technical reserves of life offices and pension funds. Foreign ownership of equity in these enterprises has declined, as a proportion of their total equity on issue, from 81 per cent at 30 June 1989 to 76 per cent at 30 June 1991.

The other financial institutions sector largely comprises general insurers. Foreign ownership of equity in these enterprises has remained around 23 per cent (using annual averages) over the period.

The major advantages of the methodology for deriving estimates of foreign ownership from financial accounts data in the way described above are that:

- it provides a measure of foreign ownership of the total economy (this was not possible using the alternative industry/activity based studies);
- uniform measures of components of the economy are available at a single point in time

(this was not possible using the alternative industry/activity based studies);

- measures are available on a regular and frequent basis; and
- the estimates are much more timely and less costly to produce than measures which rely on the conduct of surveys of shareholdings coincident with the host collections in respect of the industry/activity being studied.

The disadvantages are that:

- at present, estimates can only be derived at the institutional sector level shown in Table 28.32 above, not at the industry or activity level possible using the approach taken in earlier studies; and
- it does not provide as much information about the relationships between foreign ownership and behaviour/performance as is possible using the approach taken in earlier studies.

28.32 OWNERSHIP OF EQUITY(a) IN AUSTRALIAN ENTERPRISE GROUPS
($ million)

	Value of equity outstanding at end of quarter								
	1988–89	*1989–90*				*1990–91*			
	June	*Sept.*	*Dec.*	*Mar.*	*June*	*Sept.*	*Dec.*	*Mar.*	*June*
Public trading enterprises									
Amount issued(b)	7,882	7,942	9,052	9,168	10,273	10,613	10,628	10,596	11,352
Amount held by rest of the world	—	—	—	—	—	—	—	—	—
Percentage foreign ownership	—	—	—	—	—	—	—	—	—
Private corporate trading enterprises									
Amount issued(c)	205,733	209,976	213,037	210,381	210,323	208,833	212,225	212,790	211,550
Amount held by rest of the world	73,441	75,005	77,572	79,571	80,980	83,879	84,784	86,264	87,600
Percentage foreign ownership	36	36	36	38	39	40	40	41	41
Banks									
Amount issued(c)	31,797	34,247	35,320	36,388	37,087	37,864	40,813	40,434	41,072
Amount held by rest of the world	5,281	5,167	5,403	5,775	5,852	6,871	7,403	7,407	7,371
Percentage foreign ownership	17	15	15	16	16	18	18	18	18
Non-bank deposit taking institutions									
Amount issued(c)	13,615	13,347	13,677	13,674	13,412	13,090	12,346	12,468	11,654
Amount held by rest of the world	3,043	2,747	2,779	2,920	2,983	2,962	2,885	2,892	3,177
Percentage foreign ownership	22	21	20	21	22	23	23	23	27
Life offices and superannuation funds									
Amount issued(c)	1,256	1,211	1,278	1,275	1,517	1,538	1,565	1,605	1,646
Amount held by rest of the world	1,018	956	1,028	1,032	1,217	1,219	1,232	1,235	1,252
Percentage foreign ownership	81	79	80	81	80	79	79	77	76
Other financial institutions									
Amount issued(c)	9,555	10,078	10,170	10,436	10,604	9,900	9,950	10,452	11,155
Amount held by rest of the world	1,993	2,362	2,374	2,386	2,383	2,272	2,399	2,479	2,467
Percentage foreign ownership	21	23	23	23	22	23	24	24	22
General government and reserve bank									
Amount issued(b)	2,266	2,266	2,266	2,266	2,266	2,552	2,553	2,552	2,552
Amount held by rest of the world	—	—	—	—	—	—	—	—	—
Percentage foreign ownership	—	—	—	—	—	—	—	—	—
All sectors									
Amount issued	**272,104**	**279,067**	**284,800**	**283,588**	**285,482**	**284,390**	**290,080**	**290,897**	**290,981**
Amount held by rest of the world	**84,776**	**86,237**	**89,156**	**91,684**	**93,415**	**97,203**	**98,703**	**100,277**	**101,867**
Percentage foreign ownership	**31**	**31**	**31**	**32**	**33**	**34**	**34**	**34**	**35**

(a) Includes units in trusts. (b) Book values. (c) These estimated market values are considered to be of poor quality. They should be used cautiously.

Source: International Investment Position, Australia, June Quarter 1992 (5306.0).

To summarise, the financial accounts provide an inexpensive and easy means of monitoring levels of foreign ownership of equity in Australian enterprise groups across all sectors of the economy. However, for more detailed analysis of the impact of foreign ownership on specific industries/activities, an alternative methodology needs to be adopted.

By making use of the comprehensive information about the rest of the world sector from the international investment database, it is possible to supplement the information on foreign ownership derived from the financial accounts. A number of examples are given in the article and include regional analysis and analysis by degree of influence. For more information, see the June quarter 1992 issue of *International Investment, Australia* (5306.0).

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International Trade in Services, Australia (5354.0)

Other Publications

Related publications are available from Australian Customs Service —

Australian Customs Tariff

Customs (Prohibited Imports) Regulations

FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book.* Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book.*

Historical Series

Contents **Page**

DEMOGRAPHY

Year	*Population* *Males*	*Population* *Females*	*Population* *Persons*	*Natural increase*	*Net migration (a)*	*Marriages* *No.*	*Marriages* *Rate (b)*	*Divorces (c)*	*Births* *No.*	*Births* *Rate (d)*	*Deaths* *No.*	*Deaths* *Rate (b)*	*Infant deaths* *No.*	*Infant deaths* *Rate (b)*
	'000	'000	'000	'000	'000	'000		'000	'000		'000		'000	
1901	2,005	1,820	3,825	36.6	3.0	28	7.3	. .	103	27.2	46	12.2	10.7	103.6
1911	2,382	2,192	4,574	74.3	74.4	39	8.8	1	122	27.2	48	10.7	8.4	68.5
1921	2,799	2,712	5,511	82.1	17.5	47	8.6	1	136	25.0	54	9.9	9.0	65.7
1931	3,333	3,220	6,553	61.9	−10.1	39	6.0	2	119	18.2	57	8.7	5.0	42.1
1941	3,599	3,545	7,144	59.1	(e) 6.9	75	10.6	3	135	18.9	75	10.6	5.3	39.7
1951	4,311	4,217	8,528	111.5	108.9	77	9.2	7	193	23.0	82	9.7	4.9	25.2
1960	5,253	5,139	10,392	141.9	89.1	75	7.3	7	230	22.4	88	8.6	4.6	20.2
1961	(f) 5,374	(f) 5,268	(f) 10,643	(f) 151.8	58.7	77	7.3	7	240	22.8	89	8.5	4.7	19.5
1962	5,470	5,376	10,846	144.4	59.0	79	7.4	7	237	22.3	93	8.7	4.8	20.4
1963	5,572	5,484	11,055	141.3	68.1	81	7.4	8	236	21.6	95	8.7	4.6	19.5
1964	5,683	5,597	11,280	129.1	95.8	86	7.7	8	229	20.6	101	9.0	4.4	19.1
1965	5,794	5,712	11,505	123.7	101.3	94	8.2	9	223	19.6	100	8.8	4.1	18.5
1966	5,891	5,814	11,705	119.2	80.2	(f) 96.0	(f) 8.3	10	(f) 224	(f) 19.3	(f) 105	(f) 9.0	(f) 4.2	(f) 18.7
1967	5,992	5,920	11,912	126.6	80.8	100	8.5	10	229	19.4	103	8.7	4.2	18.3
1968	6,108	6,037	12,146	131.4	102.0	106	8.8	11	241	20.0	110	9.1	4.3	17.8
1969	6,238	6,169	12,407	143.7	118.0	112	9.2	11	250	20.4	106	8.7	4.5	17.9
1970	6,365	6,299	12,663	144.5	111.8	116	9.3	12	258	20.6	113	9.0	4.6	17.9
1971	(g) 6,632.8	(g) 6,565.5	(g) 13,198.4	165.7	103.6	118	(g) 9.0	13	276	(g) 21.1	111	(g) 8.5	4.8	17.3
1972	6,735.7	6,673.6	13,409.3	155.2	56.3	114	8.6	16	265	19.9	110	8.3	4.4	16.7
1973	6,835.5	6,778.9	13,614.3	136.8	67.5	113	8.3	16	248	18.3	111	8.2	4.1	16.5
1974	6,941.9	6,890.0	13,832.0	129.3	87.2	111	8.1	18	245	17.9	116	8.4	4.0	16.1
1975	7,002.2	6,966.6	13,968.9	124.0	13.5	104	7.5	24	233	16.8	109	7.8	3.3	14.3
1976	7,065.8	7,044.3	14,110.1	115.1	43.0	110	7.8	(h) 63	228	16.2	113	8.0	3.2	13.8
1977	7,145.4	7,136.1	14,281.5	117.5	68.0	105	7.4	45	226	15.9	109	7.7	2.8	12.5
1978	7,213.6	7,217.3	14,430.8	115.8	47.4	103	7.2	41	224	15.6	108	7.5	2.7	12.2
1979	7,293.3	7,309.1	14,602.5	116.6	68.6	104	7.2	38	223	15.4	107	7.3	2.5	11.4
1980	7,391.4	7,415.9	14,807.4	116.8	100.9	109	7.4	39	226	15.3	109	7.4	2.4	10.7
1981	7,514.3	7,539.8	15,054.1	126.8	123.1	114	7.6	41	236	15.8	109	7.3	2.3	10.0
1982	7,633.2	7,655.7	15,288.9	125.1	102.7	117	7.7	44	240	15.8	115	7.6	2.5	10.3
1983	7,730.4	7,753.1	15,483.5	132.5	55.0	115	7.5	44	243	15.8	110	7.2	2.3	9.4
1984	7,826.4	7,850.9	15,677.3	126.6	59.8	(i) 114	(i) 7.4	43	(i) 238	(i) 15.3	(i) 112	(i) 7.2	2.2	9.2
1985	7,940.0	7,960.5	15,900.6	126.1	89.3	114	7.2	40	243	15.4	117	7.4	2.4	10.0
1986	8,055.0	8,079.1	16,134.1	128.4	107.5	111	6.9	39	243	15.2	115	7.2	2.2	8.8
1987	8,176.5	8,207.6	16,384.1	126.6	133.3	114	7.0	40	244	15.0	117	7.2	2.1	8.7
1988	8,317.5	8,354.6	16,672.1	126.3	171.7	117	7.1	41	246	14.9	120	7.2	2.1	8.7
1989	8,438.9	8,482.4	16,921.4	126.6	133.2	117	7.0	41	251	14.9	124	7.4	2.0	8.0
1990	8,559.8	8,609.6	17,169.4	142.7	111.3	117	6.8	43	263	15.4	120	7.0	2.1	8.2
1991	8,677.5	8,736.8	17,414.3	138.0	109.5	114	6.6	46	257	14.9	119	6.9	1.8	7.1

(a) Net overseas migration component used in population estimates. Prior to 30 June 1971, net migration includes discrepancies disclosed by the various censuses and is based on the excess of all arrivals over all departures. From 30 June 1971, net migration is defined as the excess of overseas arrivals over overseas departures classified as permanent and long term (greater than one year). From 30 June 1976, net migration consists of net permanent and long-term movement and an adjustment for the net effect of changes in travel intentions which affect the categorisation of movements. (b) Number per 1,000 of mean population. (c) Includes decrees made absolute and nullities of marriage up to and including 1946. From 1947 excludes nullities of marriage. (d) Number per 1,000 of mean population. (e) Excludes movements of defence personnel from September 1939 to June 1947. (f) Includes full blood Aboriginals. (g) Figures for 1971 and later years are the estimated resident population which include an estimate of residents not enumerated at the Census and an estimate of residents temporarily overseas. (h) Introduction of Family Law Act. (i) Adjusted to offset a lag in registrations that arose in New South Wales in 1984, affecting years 1985 and 1986.

Source: Australian Bureau of Statistics.

EDUCATION
('000)

	Schools(b)				Students				
	Government		Non-government						
Year(a)	*Number*	*Students*	*Number*	*Students*	*Advanced education(c)*	*Universities*	*Higher education(d)*	*Technical education(e)*	*TAFE(f)*
1902	7.2	637	2.4	144	. .	1.9	. .	. .	. .
1912	8.4	663	1.9	164	. .	3.8	. .	48.7	. .
1922	9.6	837	1.7	202	. .	7.8	. .	68.2	. .
1932	10.2	934	1.8	221	. .	9.9	. .	65.5	. .
1942	9.0	868	1.8	250	. .	10.8	. .	87.6	. .
1952	7.6	1,145	1.9	348	. .	29.6	. .	170.3	. .
1960	7.9	1,613	2.1	511	. .	53.4	. .	224.9	. .
1961	7.9	1,664	2.1	527	. .	57.7	. .	235.3	. .
1962	7.9	1,711	2.2	540	. .	63.3	. .	281.2	. .
1963	7.9	1,754	2.2	553	. .	69.1	. .	299.6	. .
1964	7.9	1,799	2.2	565	. .	76.2	. .	322.1	. .
1965	7.8	1,855	2.2	580	. .	83.3	. .	340.1	. .
1966	7.8	1,919	2.2	583	. .	91.3	. .	360.8	. .
1967	7.7	1,991	2.2	595	. .	95.4	. .	375.0	
1968	7.6	2,055	2.2	601	. .	101.5	. .	376.9	. .
1969	7.5	2,114	2.2	603	31.9	109.7	. .	388.8	. .
1970	7.5	2,160	2.2	608	37.6	116.8	. .	398.1	. .
1971	7.4	2,197	2.2	611	44.4	123.8	. .	387.8	. .
1972	7.4	2,229	2.2	612	52.0	128.7	. .	395.9	
1973	7.3	2,241	2.2	613	61.6	133.1	. .	n.a..	. .
1974	7.3	2,253	2.2	618	107.2	142.9	. .	430.3	. .
1975	7.3	2,290	2.1	620	122.6	148.3	. .	. .	612.6
1976	7.3	2,323	2.1	624	134.6	154.0	. .	. .	688.8
1977	7.3	2,349	2.1	630	140.3	158.4	. .	. .	768.4
1978	7.4	2,354	2.1	638	149.9	160.0	. .	. .	818.8
1979	7.4	2,337	2.2	650	155.7	160.8	. .	. .	871.0
1980	7.4	2,318	2.2	666	159.5	163.2	. .	. .	911.7
1981	7.5	2,299	2.3	688	165.1	166.6	. .	. .	983.3
1982	7.6	2,283	2.3	712	168.6	167.4	. .	. .	1,015.0
1983	7.5	2,281	2.4	735	179.9	169.4	. .	. .	1,145.4
1984	7.5	2,261	2.5	757	185.8	172.7	. .	. .	1,260.6
1985	7.6	2,231	2.5	775	195.2	174.8	. .	. .	1,316.6
1986	7.6	2,208	2.5	794	209.1	180.7	. .	. .	1,366.1
1987	7.6	2,197	2.5	808	. .	. .	393.7	. .	1,430.9
1988	7.5	2,198	2.5	825	. .	. .	420.9	. .	1,482.8
1989	7.5	2,194	2.5	837	. .	. .	441.1	. .	1,505.4
1990	7.5	2,193	2.5	848	. .	. .	485.1	. .	1,489.3
1991	7.5	2,217	2.5	858	. .	. .	534.5	. .	1,554.1
1992	7.4	2,234	2.5	865	. .	. .	559.4	. .	n.a.

(a) Years ended at varying dates. (b) From 1974, all pre-primary education undertaken on a sessional basis or in a recognised preschool class of primary/secondary school has been excluded. (c) Prior to 1983, includes students enrolled in Colleges of Advanced Education, and Teacher Colleges granted CAE status (in 1974). 1983 onwards, includes students enrolled in advanced education courses, irrespective of type of institution attended. (d) In 1987 the universities and advanced education collections were combined to form the higher education collection. (e) Includes students enrolled in Colleges of Advanced Education until 1968, Teacher Colleges, Schools and Technical classes in High Schools. (f) Prior to 1981 includes student enrolments. 1981 onwards includes net number of students only.

Source: Department of Employment, Education and Training.

WAGES AND PRICES

Year	Weekly wages rates index adult males(a)	Award rates of pay index: weekly rates, adult males(b)	Award rates of pay index: weekly rates, adult males(c)	Retail price index numbers(d)
1901	n.a.	. .	. .	47
1911	n.a.	. .	. .	53
1921	n.a.	. .	. .	90
1931	n.a.	. .	. .	78
1941	38.5	. .	. .	89
1951	85.8	. .	. .	167
1960	125.7	. .	. .	245
1961	129.5	. .	. .	252
1962	129.8	. .	. .	251
1963	133.0	. .	. .	252
1964	140.4	. .	. .	258
1965	144.3	. .	. .	268
1966	152.4	. .	. .	276
1967	159.3	. .	. .	286
1968	173.4	. .	. .	293
1969	183.6	. .	. .	302
1970	191.9	. .	. .	313
1971	218.0	. .	. .	332
1972	239.8	. .	. .	352
1973	275.1	. .	. .	385
1974	373.8	. .	. .	443
1975	416.8	. .	. .	510
1976	478.1	104.3	. .	579
1977	526.8	114.5	. .	650
1978	569.9	123.3	. .	702
1979	597.7	129.9	. .	766
1980	662.5	144.8	. .	844
1981	765.4	166.7	. .	926
1982	. .	185.4	. .	1,028
1983	. .	194.7	. .	1,132
1984	. .	203.2	. .	1,177
1985	. .	218.9	103.8	1,257
1986	. .	223.9	106.3	1,370
1987	. .	. .	111.6	1,487
1988	. .	. .	119.0	1,594
1989	. .	. .	126.5	1,714
1990	. .	. .	130.2	1,839
1991	. .	. .	133.2	1,898
1992	. .	. .	137.3	1,917

(a) At 31 December. Base year 1954 = 100, weighted average for 'wage' earners only. Excludes rural industry. Series replaced by Award Rates of Pay Indexes from September 1982. (b) At 31 December. Base June 1976 = 100.0. Excludes ASIC Division A — Agriculture, forestry, fishing and hunting; ASIC subdivision 72 — Defence forces; and ASIC subdivision 94 — Private households employing staff. This series shows index numbers for both wage and salary earners (that is, all employees). (c) At 31 December. Base June 1985 = 100.0. Excludes ASIC Division A — Agriculture, forestry, fishing and hunting; ASIC subdivision 72 — Defence forces; and ASIC subdivision 94 — Private households employing staff. This series shows index numbers for both wage and salary earners (that is, all employees). (d) Base year 1945 = 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. The index numbers relate to the weighted average of six State capital cities up to 1980; from 1981 they relate to the weighted average of eight capital cities.

Source: Australian Bureau of Statistics.

SOCIAL SECURITY PENSIONS AND BENEFITS

	Age and invalid pensions (incl. Wives' Allowance Pensions)			*Family allowances*		*Widow's pensions*		*Unemployment benefit*	
Year ended 30 June	*Pensioners*	*Number of wives paid*	*Amount paid average*	*Number of children*	*Amount*	*Pensioners*	*Amount paid*	*Number on benefit—weekly average*	*Amount paid*
	'000	'000	$ million	'000	$ million	'000	$ million	'000	$ million
1912	90	..	4.3	..	..	..	..	..	..
1922	147	..	10.8	..	..	..	..	..	..
1932	261	..	22.3	..	..	..	..	..	..
1942	341	..	38.5	910	22.6	..	..	..	..
1952	426	11	119.6	2,518	93.2	41	11.2	2	(a)
1960	619	13	294.0	3,252	125.1	52	24.3	21	9.0
1961	651	14	315.9	3,340	148.6	55	26.9	22	8.9
1962	691	14	360.5	3,420	132.8	57	30.7	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	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	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	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	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	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
1979	1,312	86	3,919.4	4,231	974.9	161	499.3	306	910.0
1980	1,551	91	4,305.1	4,224	1,035.4	166	561.4	306	925.2
1981	1,569	86	4,816.5	4,227	950.4	166	641.8	310	995.7
1982	1,584	82	5,484.1	4,254	1,041.8	164	717.4	332	1,224.3
1983	1,611	83	5,935.9	4,303.3	1,373.7	165	758.1	540	2,249.0
1984	1,599	92	6,566.3	4,325.9	1,506.3	163	829.5	620	2,912.3
1985	1,591	99	7,108.7	4,323.4	1,505.0	160	889.4	582	2,983.6
1986	1,598	107	7,570.7	n.a.	n.a.	156	924.5	559	3,122.1
1987	1,611	115	8,169.3	4,114.9	1,381.0	152	952.7	574	3,453.8
1988	1,626	117	9,161.2	3,796.7	1,355.6	87	505.1	503	3,374.9
1989	1,642	121	9,931.7	3,759.3	1,314.9	84	535.2	429	3,135.6
1990	1,657	124	10,862.2	2,672.5	1,810.3	79	553.7	385	3,067.8
1991	1,710	131	12,303.3	3,699.4	1,894.0	74	577.3	536	4,561.4
1992	1,825	145	13,508.6	3,720.1	2,329.0	69	566.6	771	6,736.3

(a) Less than $0.05 million.
Source: Department of Social Security.

FORESTRY

Year ended 30 June	Sawn output of Australian grown timber	Wood chips(a)	
		Hard wood(b)	*Soft wood(c)*
	'000 cubic metres	'000 tonnes	'000 tonnes
1902	(d)1,067	. .	. .
1912	(d)1,428	. .	. .
1922	1,392	. .	. .
1932	559	. .	. .
1942	2,157	. .	. .
1952	3,287	. .	. .
1961	3,346	. .	. .
1962	3,190	. .	. .
1963	3,341	. .	. .
1964	3,509	. .	. .
1965	3,615	. .	. .
1966	3,558	. .	. .
1967	3,448	. .	. .
1968	3,476	. .	. .
1969	(e)3,325	. .	. .
1970	(e)3,386	. .	. .
1971	3,438	. .	. .
1972	3,367	. .	. .
1973	3,408	2,361	84
1974	3,336	2,952	118
1975	3,230	3,009	137
1976	3,228	2,603	195
1977	3,164	3,623	269
1978	3,056	3,668	241
1979	3,110	3,800	229
1980	3,279	4,798	352
1981	3,407	4,410	588
1982	3,276	3,943	604
1983	2,984	4,031	635
1984	2,817	4,551	n.a.
1985	2,988	4,817	589
1986	(f)3,002	n.a.	n.a.
1987	3,065	5,287	489
1988	(f)r3,083	n.a.	n.a.
1989	(a)3,225	n.a.	n.a.
1990	(a)r3,172	r5,169	718
1991	r2,685	r5,019	r960
1992	2,846	4,839	1,307

(a) *Source: Australian Bureau of Agricultural and Resource Economics.* (b) Broad leaved. (c) Coniferous. (d) Year ended previous December. (e) Excludes estimated quantity of timber from logs peeled or sliced for veneers. (f) *Source: Department of Primary Industries and Energy.*

Source: Australian Bureau of Statistics.

BUILDING

Year ended 30 June	New dwellings completed — Number	New dwellings completed — Value	Value of work done on all buildings(a)
	'000	$ million	$ million
1952	80.1	354.1	n.a.
1960	90.0	571.0	1,001.6
1961	94.5	627.4	1,130.8
1962	86.3	593.2	1,076.9
1963	87.7	610.2	1,140.7
1964	96.7	685.8	1,323.9
1965	112.7	823.0	1,555.9
1966	112.8	869.9	1,681.2
1967	111.9	914.8	1,745.4
1968	120.2	1,022.8	1,914.3
1969	130.7	1,182.1	2,195.4
1970	142.2	1,379.4	2,556.7
1971	142.1	1,478.9	2,815.6
1972	143.8	1,628.7	3,132.4
1973	150.6	1,845.5	3,542.4
1974	150.0	2,143.0	4,214.9
1975	141.1	2,454.2	4,713.3
1976	132.0	2,808.6	5,595.0
1977	144.8	3,635.1	6,445.5
1978	128.9	3,595.7	6,510.0
1979	117.1	3,529.7	6,946.4
1980	129.3	4,174.9	8,018.2
1981	135.9	4,875.8	10,026.3
1982	138.3	5,808.2	10,547.7
1983	115.7	5,177.9	10,550.6
1984	123.8	5,508.1	10,268.5
1985	142.4	6,659.0	14,022.8
1986	140.5	7,317.4	16,832.4
1987	119.8	6,796.7	17,755.5
1988	118.4	7,334.1	21,375.2
1989	150.3	10,460.1	27,454.7
1990	160.0	12,808.5	30,315.7
1991	134.5	11,656.9	27,029.7
1992	132.7	11,284.1	23,316.1

(a) New residential, alterations and additions to residential and non-residential building by private contractors, government authorities and owner builders.

Source: Australian Bureau of Statistics.

ROAD TRANSPORT

Year ended 30 June	Tram, trolley-bus and bus services(a) Passenger journeys	Motor vehicles on the register: Motor cars and station wagons	Commercial vehicles(b)	Motor cycles	Total motor vehicles (including motor cycles)
	million	'000	'000	'000	'000
1902	n.a.	. .	. .	. .	. .
1912	360	n.a.	n.a.	n.a.	n.a.
1922	569	102	. .	38	139
1932	589	420	96	72	588
1942	(c)1,067	451	250	50	751
1952	1,019	1,028	588	155	1,770
1960	758	1,938	784	102	2,824
1961	726	2,070	800	93	2,963
1962	718	2,201	815	85	3,101
1963	712	2,377	832	77	3,286
1964	702	2,583	846	69	3,498
1965	685	2,792	858	65	3,715
1966	653	2,947	868	64	3,878
1967	621	3,104	880	69	4,053
1968	609	3,305	892	83	4,279
1969	590	3,499	911	98	4,508
1970	575	3,720	938	114	4,772
1971	561	3,935	961	144	5,039
1972	503	4,141	996	180	5,317
1973	521	4,362	1,041	210	5,613
1974	533	4,604	1,090	259	5,953
1975	531	4,859	1,140	278	6,277
1976	515	5,073	1,215	293	6,581
1977	514	5,243	1,280	296	6,818
1978	516	5,462	1,360	292	7,115
1979	(d)459	5,657	1,413	288	7,358
1980	(d)456	5,801	1,462	310	7,573
1981	(d)448	6,021	1,544	352	7,918
1982	(d)447	6,294	1,662	391	8,346
1983	(e)326	6,470	1,718	402	8,590
1984	n.a.	6,636	1,798	398	8,833
1985	454	6,843	1,887	389	9,119
1986	460	6,985	1,931	375	9,291
1987	464	7,073	1,950	351	9,374
1988	(d)388	7,244	1,978	323	9,545
1989	(d)494	7,442	2,047	317	9,806
1990	473	7,672	2,104	304	10,080
1991	n.a.	7,734	1,915	285	9,934
1992	n.a.	7,913	2,041	292	10,249

(a) Government and municipal trolley-bus services ceased in August 1969. (b) Open and closed light commercial type vehicles, utilities and panel vans, rigid and articulated trucks, other truck type vehicles and buses. (c) Tram passenger journeys only before 1942. (d) Excludes details for South Australia which are no longer separately identifiable from the railway operation of the State Transport Authority. (e) Excludes details for Victoria and South Australia.

Source: Australian Bureau of Statistics.

GOVERNMENT RAILWAYS(a)

Year ended 30 June	*Route-kilometres(b)*	*Train-kilometres*	*Passenger journeys*	*Freight tonnes carried*	*Freight net tonne-kilometres*
	'000	'000	'000	'000	million
1902	20.6	61.5	115	15.7	n.a.
1912	27.0	88.8	228	25.9	n.a.
1922	37.7	90.3	335	32.0	n.a.
1932	43.5	102.7	303	26.5	n.a.
1942	43.8	142.4	475	39.5	n.a.
1952	43.1	150.3	501	45.0	11,046
1960	42.2	140.2	479	52.0	13,091
1961	42.0	149.7	463	56.3	14,370
1962	41.2	149.0	461	56.5	14,427
1963	41.0	149.6	465	56.8	15,131
1964	40.5	155.3	471	62.7	17,170
1965	40.3	155.5	464	65.9	18,224
1966	40.2	151.7	460	65.5	18,050
1967	40.3	150.8	455	69.6	18,832
1968	40.5	152.1	453	72.2	20,054
1969	40.4	151.0	447	77.0	21,463
1970	40.3	156.3	450	83.7	23,973
1971	40.3	156.3	453	87.3	25,206
1972	40.3	153.7	404	88.7	25,403
1973	40.5	152.0	373	92.5	26,582
1974	40.4	151.2	373	97.0	28,329
1975	40.6	150.6	361	103.5	29,792
1976	40.8	150.1	338	104.4	30,809
1977	40.1	151.1	332	109.9	31,995
1978	39.7	148.8	323	107.3	31,837
1979	39.4	147.5	375	111.1	32,056
1980	39.5	150.9	401	125.7	36,366
1981	39.1	147.1	412	127.3	36,468
1982	38.9	150.5	412	127.3	37,332
1983	39.1	147.8	413	124.1	34,494
1984	39.3	149.9	(c)	142.2	39,448
1985	39.2	n.a.	(d)	160.1	44,972
1986	38.7	n.a.	377.5	171.8	48,045
1987	38.5	n.a.	388.6	174.7	48,935
1988	38.2	n.a.	405.7	173.4	49,730
1989	35.8	n.a.	417.6	178.8	50,764
1990	35.5	n.a.	413.8	185.5	53,338
1991	37.3	n.a.	n.a.	188.5	53,163

(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. (c) Refer to *Year Book Australia 1986* (1301.0). (d) Refer to *Year Book Australia 1987* (1301.0).

Source: Various rail authorities, the Rail Industry Council and the Australian Bureau of Statistics.

REGULAR INTERNAL AIR SERVICES

Year ended 30 June	Kilometres flown	Passengers: Embark-ations	Passengers: Passenger kilometres	Freight: Tonnes uplifted	Freight: Tonne-kilometres	Mail: Tonnes uplifted	Mail: Tonne-kilometres
	million	'000	million	'000	million	'000	million
1932	1.4	6	5	n.a.	n.a.	n.a.	n.a.
1942	12.6	151	122	1.2	1.5	n.a.	0.7
1952	67.3	1,829	1,162	52.2	39.0	2.4	1.9
1960	69.5	2,660	1,823	59.3	42.6	4.4	3.8
1961	68.1	2,639	1,786	57.2	41.2	5.4	4.5
1962	66.3	2,666	1,802	51.9	38.1	5.7	4.7
1963	70.3	2,833	1,965	53.9	41.3	5.9	4.9
1964	78.8	3,257	2,266	57.3	44.5	6.4	5.5
1965	84.2	3,764	2,638	63.5	49.5	7.0	5.9
1966	88.5	4,158	2,947	69.0	54.9	7.8	6.7
1967	91.3	4,425	3,174	74.4	58.6	8.7	7.5
1968	91.3	4,668	3,420	77.2	61.8	8.5	7.6
1969	97 1	5,185	3,865	81.6	66.5	9.0	8.0
1970	106.6	5,911	4,511	90.8	74.5	9.6	8.7
1971	114.6	6,340	4,974	91.4	78.0	9.9	9.3
1972	113.0	6,629	5,134	89.9	74.2	10.1	9.3
1973	118.6	7,503	5,685	94.4	81.5	10.1	9.8
1974	131.8	8,858	6,812	112.7	98.3	9.9	9.3
1975	135.5	9,393	7,374	107.8	97.9	9.6	9.0
1976	130.1	9,315	7,281	106.1	97.5	9.7	9.1
1977	122.9	9,349	7,330	108.1	96.3	9.6	9.1
1978	134.7	10,289	8,181	120.9	106.5	11.3	10.7
1979	135.4	10,724	8,619	127.5	110.7	13.1	12.5
1980	138.2	11,505	9,486	129.8	109.6	15.1	14.2
1981	137.3	11,381	9,747	125.0	107.9	17.3	16.4
1982	136.8	11,397	10,155	136.3	117.9	16.8	16.5
1983	128.0	10,333	9,327	141.9	124.8	16.8	17.2
1984	126.1	10,598	9,685	149.9	137.8	17.6	17.6
1985	132.1	11,330	10,398	151.2	135.6	18.4	18.6
1986	143.1	12,100	11,293	150.5	138.6	18.1	18.2
1987	152.1	12,507	12,047	135.6	127.4	18.7	19.1
1988	160.2	13,648	13,267	143.3	136.3	20.8	20.9
1989(r)	163.9	14,012	13,733	147.5	139.1	21.6	22.3
1990	111.2	9,905	9,990	84.5	80.8	11.4	13.1
1991	168.0	14,099	14,505	115.4	118.5	21.0	22.8
1992	202.1	18,014	19,117	116.1	133.5	19.9	22.9

Source: Department of Transport and Communications.

FINANCIAL INSTITUTIONS
($ million)

		All banks(a)			
June	*Australian notes on issue*	*Total deposits*	*Total liabilities(b)*	*Total loans, advances and bills held*	*Total assets*
1975	2,518	27,810	30,611	17,794	31,620
1976	2,920	31,783	34,923	20,611	35,921
1977	3,293	35,461	38,997	23,226	40,425
1978	3,688	37,798	41,984	26,174	43,715
1979	4,108	42,018	47,903	29,679	50,190
1980	4,586	46,912	53,975	34,026	56,760
1981	5,184	52,533	62,018	37,388	64,943
1982	5,795	58,560	72,101	43,136	75,406
1983	6,301	66,063	84,014	49,326	87,472
1984	7,165	72,870	95,623	55,063	100,230
1985	8,141	86,156	112,437	68,684	120,169
1986	8,890	96,950	(c)139,400	82,967	(d)151,248
1987	9,801	109,269	169,651	98,749	182,703
1988	11,135	123,214	204,256	117,826	226,303
1989	12,159	159,307	258,682	(e)167,322	(f)283,672
1990	12,837	183,430	295,776	201,496	(g)325,847
1991	14,621	194,741	320,791	226,757	353,733
1992	15,243	203,124	332,013	239,260	362,515

(a) Excludes the Reserve Bank. Includes the Primary Industries Bank of Australia from 1988 and the Commonwealth Development Bank and Australian Resources Development Bank from 1989. From June 1985 inclusive, the establishment of new banks may have caused the switching of liabilities and assets from non-bank financial intermediaries to banks. Data prior to 1990 show liabilities and assets within Australia. After this date they show liabilities and assets recorded on banks' Australian books. (b) Excludes shareholders' funds. (c) Total liabilities excludes foreign currency liabilities prior to 1986. (d) Break in asset series due to reclassification of lending products of banks. (e) Break in series due to the introduction of new statistical forms. (f) Prior to 1989, excludes non-resident $A assets and prior to 1986, excludes foreign currency assets. (g) Prior to 1990, excludes non-resident foreign currency assets.

Source: Reserve Bank of Australia.

BALANCE OF PAYMENTS
CURRENT TRANSACTIONS
($ million)

	Merchandise						
Year ended 30 June	*Exports f.o.b.*	*Imports f.o.b.*	*Balance on merchandise trade*	*Net services*	*Net income*	*Net unrequited transfers*	*Balance on current account*
1960	1,898	-1,820	78	-218	-305	-26	-471
1961	1,884	-2,060	-176	-249	-301	-22	-748
1962	2,165	-1,705	460	-186	-262	-20	-8
1963	2,158	-2,070	88	-201	-333	-22	-468
1964	2,764	-2,242	522	-219	-360	-13	-70
1965	2,605	-2,743	-138	-268	-355	-19	-780
1966	2,655	-2,826	-171	-292	-388	-38	-889
1967	2,954	-2,841	113	-314	-414	-44	-659
1968	2,968	-3,164	-196	-360	-551	-24	-1,131
1969	3,242	-3,207	35	-403	-603	-9	-980
1970	3,998	-3,561	437	-416	-697	-12	-688
1971	4,244	-3,806	438	-455	-704	-28	-749
1972	4,746	-3,814	932	-491	-708	-26	-293
1973	6,027	-3,817	2,210	-585	-783	-88	754
1974	6,754	-5,767	987	-990	-738	-180	-921
1975	8,512	-7,665	847	-1,119	-723	-200	-1,195
1976	9,476	-7,930	1,546	-1,250	-1,393	-326	-1,423
1977	11,446	-10,350	1,096	-1,638	-1,605	-298	-2,445
1978	12,006	-11,149	857	-1,820	-1,770	-257	-2,990
1979	14,072	-13,385	687	-1,792	-2,179	-340	-3,624
1980	18,589	-15,831	2,758	-1,890	-2,727	-135	-1,994
1981	18,718	-19,177	-459	-2,107	-2,759	-140	-5,465
1982	19,376	-22,368	-2,992	-2,409	-3,208	-192	-8,801
1983	20,930	-21,705	-775	-2,762	-2,788	-195	-6,520
1984	23,661	-23,497	164	-2,782	-4,883	115	-7,386
1985	29,730	-30,093	-363	-3,869	-6,792	198	-10,826
1986	32,148	-35,676	-3,528	-4,044	-7,928	709	-14,791
1987	36,038	-37,159	-1,121	-3,345	-8,739	1,213	-11,992
1988	41,515	-40,386	1,129	-2,853	-10,511	1,664	-10,571
1989	43,894	-47,032	-3,138	-3,331	-13,580	2,209	-17,840
1990	48,564	-50,991	-2,427	-4,790	-17,179	2,348	-22,048
1991	52,155	-49,256	2,899	-3,339	-18,166	2,478	-16,128
1992	54,930	-51,054	3,876	-2,687	-15,780	2,288	-12,303

Source: Australian Bureau of Statistics.

BALANCE OF PAYMENTS
NET CAPITAL TRANSACTIONS
($ million)

	Official		*Non-official*			
Year ended 30 June	*General government*	*Reserve Bank*	*Foreign investment in Australia*	*Australian investment abroad*	*Balancing item*	*Balance on capital account*
1960	52	-38	394	-15	78	393
1961	-10	81	475	-17	220	528
1962	1	-178	302	-81	-36	44
1963	54	145	468	2	89	379
1964	-46	-452	460	12	95	-25
1965	-32	298	596	-73	-8	788
1966	5	-56	701	10	228	661
1967	-13	123	523	-123	149	510
1968	198	-79	1,006	1	6	1,125
1969	26	-152	1,002	-22	126	854
1970	-162	-38	1,044	202	46	642
1971	-71	-598	1,569	-124	-28	777
1972	-82	-1,478	1,491	-119	481	188
1973	-90	-1,070	600	-203	-18	736
1974	54	396	708	-379	142	779
1975	-22	442	1,132	-285	-72	1,267
1976	-49	1,034	829	-191	-199	1,622
1977	245	504	1,730	-191	157	2,288
1978	1,506	567	1,422	-605	100	2,890
1979	1,367	125	2,143	-375	364	3,260
1980	-36	266	3,151	-1,293	-94	2,088
1981	-39	-1,148	6,195	-510	967	4,498
1982	463	-1,360	9,956	-729	470	8,331
1983	809	-2,423	9,390	-1,450	194	6,326
1984	820	-1,868	8,875	-2,105	1,664	5,722
1985	3,743	1,510	11,014	-4,335	-1,106	11,932
1986	5,626	2,124	14,171	-6,789	-341	15,132
1987	6,103	-3,376	16,383	-9,140	2,021	9,971
1988	4,325	-3,932	24,606	-12,946	-1,483	12,054
1989	3,012	-873	29,722	-11,886	-2,135	19,975
1990	3,643	-2,132	20,086	-3,718	4,169	17,879
1991	317	-1,468	20,698	-2,126	-1,293	17,421
1992	2,734	3,950	13,009	-3,612	-3,779	16,082

Source: Australian Bureau of Statistics.

FOR MORE INFORMATION

The ABS has a far wider range of information on Australia than that contained in the *Year Book*. Information is available in the form of regular publications, electronic data services, special tables and from investigations of published and unpublished data.

For further information contact ABS Information Services at one of the addresses listed on the page facing the Introduction to the *Year Book*.

International Comparisons

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NOTE: The statistics for Germany in these tables refer to *western Germany* (Federal Republic of Germany before the unification of Germany), except where otherwise indicated.

The tables in this section provide a historical series since 1970–71 of selected economic data for various countries.

Footnotes indicate the main differences in the bases of the figures for the countries concerned. However, other fundamental differences between the economic circumstances and statistical methodology may also operate against precise comparability. Nevertheless the figures provide a useful general comparison.

The annual figures shown in the historical series are generally derived from monthly or quarterly series, which are available from the sources shown for respective tables.

REAL GROSS DOMESTIC PRODUCT VOLUME INDEX(a)
(Reference base year 1985 = 100.0)

Year	*United States*	*Japan*	*Germany*	*France*	*Italy*	*United Kingdom*	*Canada*	*OECD Major 7*	*Australia*
1970–71	68.2	54.4	73.4	68.5	64.4	75.4	56.5	66.0	63.5
1971–72	70.6	57.7	75.5	71.9	65.9	77.4	60.6	68.6	66.4
1972–73	74.9	63.0	79.6	75.2	68.3	82.3	64.5	72.9	69.2
1973–74	76.4	64.5	81.7	78.8	74.7	83.6	68.4	75.1	72.2
1974–75	74.8	65.0	80.2	79.4	73.9	83.2	70.4	74.3	73.3
1975–76	77.5	67.8	82.4	81.0	75.2	83.2	73.8	76.6	75.1
1976–77	80.5	70.7	85.6	84.2	80.5	85.9	77.3	79.8	77.5
1977–78	84.3	74.0	87.9	86.8	81.4	88.3	80.4	83.0	78.1
1978–79	88.1	78.0	91.6	89.7	86.1	91.6	84.0	86.7	82.1
1979–80	88.7	81.7	94.6	92.5	92.2	92.1	86.3	88.7	83.9
1980–81	89.0	84.4	94.2	92.8	93.2	89.1	88.6	89.3	86.9
1981–82	88.8	87.1	94.1	95.3	94.3	90.2	88.7	89.9	88.7
1982–83	88.7	89.9	93.8	96.7	93.8	92.4	87.3	90.5	87.2
1983–84	94.6	93.2	96.2	97.4	96.2	95.5	92.6	94.8	92.8
1984–85	98.3	97.4	99.0	98.8	98.4	98.0	97.8	98.2	97.5
1985–86	101.8	101.4	101.1	101.3	101.6	101.7	102.2	101.6	101.3
1986–87	104.0	104.5	102.7	103.5	104.4	106.4	104.7	104.2	103.7
1987–88	108.3	110.5	105.3	107.2	108.4	111.9	110.7	108.7	108.7
1988–89	112.0	116.5	109.7	112.0	112.0	115.4	114.6	112.9	114.0
1989–90	113.9	122.3	113.8	115.5	115.1	117.4	115.8	115.8	117.5
1990–91	112.9	128.0	120.1	116.9	117.1	115.2	113.4	116.9	116.9
1991–92	113.5	131.6	122.1	119.0	118.9	113.9	113.6	118.2	117.3

(a) Data for Japan and Germany measure real gross national product.
Source: Organisation for Economic Co-operation and Development (OECD) and Australian Bureau of Statistics.

BALANCE ON CURRENT ACCOUNT: PERCENTAGE OF SEASONALLY ADJUSTED GDP(a)

Year	*United States*	*Japan*	*Germany (b)*	*France*	*Italy*	*United Kingdom*	*Canada*	*Australia*
1970–71	0.1	1.5	0.7	0.0	n.a.	1.4	1.3	−2.1
1971–72	−0.4	2.4	0.1	0.3	2.1	1.5	−0.3	−0.8
1972–73	−0.1	1.4	0.8	0.5	−0.5	−0.7	0.0	1.7
1973–74	0.6	−1.4	2.2	−0.9	−3.3	−3.0	−0.1	−1.7
1974–75	0.6	0.0	2.0	0.1	−1.7	−2.7	−2.2	−1.8
1975–76	0.8	0.3	0.8	0.0	−1.5	−0.9	−2.5	−1.9
1976–77	−0.3	0.9	0.9	−0.9	−0.4	−1.2	−1.9	−2.8
1977–78	−0.9	2.0	1.0	0.8	1.8	0.6	−1.8	−3.1
1978–79	−0.2	0.5	0.8	1.4	2.4	0.0	−2.3	−3.3
1979–80	−0.1	−1.8	−1.6	0.0	−0.9	−0.1	−1.2	−1.6
1980–81	0.3	−0.1	−1.9	−0.6	−2.9	3.3	−0.8	−3.9
1981–82	0.1	0.6	0.2	−1.7	−1.5	1.4	−0.8	−5.6
1982–83	−0.8	1.1	1.0	−2.0	−0.6	1.5	1.2	−3.8
1983–84	−2.3	2.2	0.6	−0.4	−0.1	0.9	0.1	−3.8
1984–85	−2.9	3.2	2.1	−0.1	−1.1	0.5	0.7	−5.0
1985–86	−2.9	3.9	3.5	0.2	−0.3	0.9	−1.5	−6.1
1986–87	−3.3	4.2	4.6	−0.1	0.3	−0.4	−1.7	−4.5
1987–88	−2.8	3.0	4.0	−0.4	−0.4	−2.3	−1.8	−3.5
1988–89	−2.3	2.5	4.9	−0.5	−1.3	−4.0	−2.5	−5.3
1989–90	−1.8	1.7	4.2	−0.6	−1.3	−4.3	−3.6	−6.0
1990–91	−0.6	1.4	n.a.	−0.9	n.y.a.	−1.7	−3.8	−4.3
1991–92	−0.7	2.8		—		−1.6	−4.4	−3.2

(a) Statistics are calculated as the original balance on current account as a percentage of the seasonally adjusted current price gross domestic product, except for Japan and Germany, where real gross national product replaces gross domestic product. (b) From July 1990, balance on current account data refer to Germany after unification.
Source: Organisation for Economic Co-operation and Development (OECD) and Australian Bureau of Statistics.

BALANCE ON MERCHANDISE TRADE(a)
($US million)

Year	United States	Japan	Germany (b)	France	Italy	United Kingdom	Canada	Australia	New Zealand
1970–71	877	1,785	4,397	471	-1,655	-3,151	2,845	351	-37
1971–72	-4,901	5,142	5,230	1,038	-234	-2,898	1,572	1,133	165
1972–73	-3,876	2,916	8,223	1,736	-3,113	-5,586	1,894	2,800	507
1973–74	924	-7,441	18,129	-1,100	-9,028	-13,522	1,697	1,342	-329
1974–75	-312	-1,979	18,810	-239	-6,496	-13,102	-883	1,058	-1,521
1975–76	1,995	-280	13,010	-955	-5,470	-9,360	-481	2,004	-624
1976–77	-20,061	4,478	14,913	-4,896	-5,489	-10,577	1,658	1,468	-239
1977–78	-36,127	15,459	18,062	-314	-314	-6,397	2,870	1,248	49
1978–79	-26,733	7,144	19,341	471	-1,645	-10,842	1,913	468	223
1979–80	-32,529	-16,747	6,961	-9,482	-12,904	-12,067	4,100	2,842	3
1980–81	-19,718	1,010	5,458	-11,366	-23,380	3,103	5,075	168	41
1981–82	-25,818	10,413	19,319	-11,959	-13,534	-5,441	7,867	-3,795	-434
1982–83	-42,492	12,596	19,508	-12,499	-9,873	-3,861	14,344	810	276
1983–84	-88,426	26,712	14,563	-3,852	-8,694	-8,738	11,305	421	-306
1984–85	-117,706	37,992	21,922	-2,094	-13,475	-10,399	13,688	610	-563
1985–86	-135,738	64,087	38,088	-1,740	-7,333	-11,503	6,930	-1,267	-454
1986–87	-149,035	89,137	61,268	-3,083	-4,184	-20,911	6,677	-906	170
1987–88	-136,797	73,749	69,431	-2,751	-7,738	-34,132	5,040	232	530
1988–89	-112,829	77,747	74,205	-6,421	-13,567	-49,164	5,302	-2,908	1,452
1989–90	-103,029	56,755	73,369	-6,719	-11,232	-41,606	6,018	-1,583	-471
1990–91	-82,813	58,313	30,746	-10,804	-12,469	-31,514	11,990	2,776	373
1991–92	-70,486	93,358	17,905	1,894	-13,243	-26,380	9,404	3,019	1,294

(a) All series are exports (f.o.b.) less imports (c.i.f.), except the United States, France, Canada and Australia where imports are also f.o.b. Data are measured on a foreign trade basis. (b) Excludes trade with the German Democratic Republic. From July 1990, data refer to Germany after unification.

Source: Organisation for Economic Co-operation and Development (OECD).

PRIVATE CONSUMPTION EXPENDITURE VOLUME INDEX
(Reference base year 1985 = 100)

Year	United States	Japan	Germany	France	Italy	United Kingdom	Canada	Australia
1970–71	64	55	73	66	61	73	56	62
1971–72	67	59	76	69	63	76	60	64
1972–73	71	65	80	73	67	81	65	68
1973–74	72	68	81	75	71	82	69	72
1974–75	72	69	82	76	71	82	72	73
1975–76	75	71	85	80	73	81	76	76
1976–77	79	74	88	83	77	81	80	78
1977–78	82	77	92	86	79	83	83	79
1978–79	85	83	96	88	84	88	85	82
1979–80	86	86	97	90	90	89	87	84
1980–81	86	86	98	91	93	89	90	87
1981–82	87	89	97	94	94	90	89	91
1982–83	89	93	96	96	95	93	89	92
1983–84	94	96	98	97	96	96	93	94
1984–85	98	98	99	98	98	98	97	97
1985–86	102	102	102	102	102	103	102	101
1986–87	105	106	105	105	106	109	107	102
1987–88	108	111	108	109	110	117	112	106
1988–89	112	116	111	112	115	123	116	110
1989–90	113	121	116	116	118	126	119	115
1990–91	113	124	122	118	122	124	117	116
1991–92	114	127	123	120	125	123	117	118

Source: Organisation for Economic Co-operation and Development (OECD).

PRIVATE FIXED CAPITAL INVESTMENT VOLUME INDEX(a)
(Reference base year 1985 = 100)

Year	United States	Japan	Germany	France	Italy	United Kingdom	Canada	Australia
1970–71	61	64	98	86	85	86	48	69
1971–72	67	64	101	92	85	87	52	70
1972–73	74	72	103	99	88	90	55	72
1973–74	75	77	97	105	97	91	62	75
1974–75	65	69	88	100	91	90	64	64
1975–76	65	71	88	99	87	89	70	69
1976–77	73	71	92	99	90	88	72	74
1977–78	82	72	94	100	89	91	73	72
1978–79	90	78	100	102	92	91	78	79
1979–80	88	82	108	107	101	93	88	81
1980–81	83	83	104	106	104	83	100	92
1981–82	81	84	98	104	98	81	99	98
1982–83	77	84	97	102	96	87	88	82
1983–84	90	87	99	98	97	93	91	85
1984–85	99	95	100	97	100	99	94	96
1985–86	101	103	102	103	101	99	105	98
1986–87	99	109	104	106	105	106	111	97
1987–88	102	125	108	115	111	122	129	109
1988–89	105	141	114	125	117	135	139	127
1989–90	103	156	123	131	123	138	140	121
1990–91	96	169	133	131	123	125	128	108
1991–92	94	165	138	130	126	119	128	97

(a) Fixed capital investment volume indexes for Germany, France, Italy and the United Kingdom are for gross domestic fixed investment.

Source: Organisation for Economic Co-operation and Development (OECD) and Australian Bureau of Statistics.

INDUSTRIAL PRODUCTION VOLUME INDEX
(Reference base year 1985 = 100.0)

Year	United States	Japan	Germany	France	Italy	United Kingdom	Canada	OECD Major 7	Australia
1970–71	64.9	57.4	81.7	76.2	72.7	83.4	62.1	67.9	n.a.
1971–72	68.7	59.2	82.6	81.2	74.5	82.3	67.6	70.6	
1972–73	75.6	67.1	87.6	86.1	78.8	89.5	75.2	77.3	
1973–74	78.3	72.2	89.9	91.1	88.9	90.8	80.8	81.2	
1974–75	72.7	62.9	84.5	86.9	82.2	88.8	76.7	75.2	78.6
1975–76	73.5	64.1	85.8	87.8	83.2	85.6	76.9	75.7	77.8
1976–77	79.9	69.9	90.4	93.4	92.1	91.2	81.2	81.9	80.7
1977–78	84.8	72.2	91.0	93.6	88.9	93.3	83.1	84.5	81.0
1978–79	90.1	77.7	95.0	97.1	95.1	97.7	87.8	89.6	84.2
1979–80	90.1	83.8	98.5	102.3	103.4	97.4	87.8	92.0	86.9
1980–81	89.7	83.7	95.7	100.8	102.4	88.9	87.7	90.6	88.8
1981–82	89.5	86.2	95.1	101.2	100.6	90.6	83.9	90.7	90.7
1982–83	86.2	85.8	91.1	99.4	95.9	92.4	79.4	88.3	86.5
1983–84	95.3	92.5	93.7	99.6	97.2	95.8	90.4	94.8	93.0
1984–85	99.4	98.9	98.4	99.5	100.0	96.8	97.8	98.9	97.5
1985–86	100.5	100.1	101.7	100.6	101.9	101.0	100.4	100.7	100.2
1986–87	102.7	100.2	102.2	101.6	105.2	103.7	100.3	102.2	100.6
1987–88	109.0	108.4	104.0	105.1	110.3	108.0	108.0	108.0	106.8
1988–89	113.7	116.9	108.7	110.1	115.8	109.8	109.8	113.2	110.9
1989–90	114.9	121.5	114.1	113.3	118.8	110.6	107.2	115.6	117.3
1990–91	114.2	128.2	120.3	114.1	116.6	106.9	101.4	116.6	114.0
1991–92	114.3	125.2	120.5	114.1	116.1	105.7	100.5	116.0	112.2

Source: Organisation for Economic Co-operation and Development (OECD) and Australian Bureau of Statistics.

CONSUMER PRICE INDEX (ALL ITEMS)
(Reference base year 1985 = 100.0)

Year	United States	Japan	Germany	France	Italy	United Kingdom	Canada	OECD Major 7	Australia	New Zealand
1970–71	36.9	38.1	51.4	25.8	14.5	20.5	32.6	32.7	25.6	18.4
1971–72	38.3	40.2	54.2	27.3	15.2	22.2	34.0	34.2	27.3	20.1
1972–73	39.8	43.0	57.6	29.1	16.4	23.9	35.9	36.1	29.0	21.3
1973–74	43.3	51.1	61.8	32.1	18.5	26.8	39.3	40.0	32.8	23.4
1974–75	48.1	60.5	65.7	36.5	22.8	32.2	43.8	45.4	38.2	26.5
1975–76	51.6	66.2	69.3	40.1	25.8	39.4	48.0	49.6	43.2	30.8
1976–77	54.6	72.4	71.9	44.0	30.9	45.6	51.2	53.8	49.1	35.5
1977–78	58.2	76.5	74.3	48.1	35.3	50.9	55.7	57.8	53.8	40.5
1978–79	63.7	79.3	76.4	52.8	40.0	55.4	60.8	62.5	58.2	45.0
1979–80	72.2	84.0	80.5	59.3	47.7	65.7	66.4	70.1	64.1	52.6
1980–81	80.5	89.7	85.0	67.1	57.3	74.9	74.2	78.0	70.2	60.9
1981–82	87.5	92.9	90.3	76.4	67.0	83.0	83.0	85.1	77.5	70.6
1982–83	91.2	95.1	94.2	83.7	78.1	87.7	90.0	89.9	86.4	79.8
1983–84	94.6	96.9	96.9	91.3	88.0	92.1	94.4	94.1	92.3	83.3
1984–85	98.3	99.0	99.0	97.4	96.0	97.2	98.0	98.2	96.3	93.0
1985–86	101.2	100.6	100.2	101.4	103.4	101.9	102.0	101.3	104.3	105.7
1986–87	103.4	100.4	99.7	104.2	108.4	105.5	106.4	103.4	114.0	123.3
1987–88	107.7	101.0	100.6	107.1	113.7	109.8	110.9	106.7	122.4	136.0
1988–89	112.7	102.4	102.7	110.6	120.2	117.4	115.7	111.1	131.4	142.4
1989–90	118.0	105.3	105.5	114.5	127.8	127.0	121.7	116.2	142.0	152.7
1990–91	124.5	108.8	108.5	118.4	136.1	138.1	128.3	122.1	149.5	159.2
1991–92	128.5	111.5	113.1	121.8	144.1	144.1	132.4	126.4	152.3	161.2

Source: Organisation for Economic Co-operation and Development (OECD).

PRODUCER PRICES INDEX(a)
(Reference base year 1985 = 100.0)

Year	United States	Japan	Germany	France	Italy	United Kingdom	Canada	OECD Major 7	Australia	New Zealand
1970–71	38.2	51.8	53.8	n.a.	n.a.	20.0	30.5	n.a.	25.9	17.0
1971–72	39.3	51.3	55.2			21.3	31.6		27.2	18.3
1972–73	41.4	54.7	57.6			22.5	33.7		28.8	19.8
1973–74	46.4	68.6	63.8			26.6	39.1		32.1	21.4
1974–75	53.4	76.9	69.5			34.1	45.7		37.7	24.3
1975–76	57.1	78.9	70.9			40.5	48.9		42.5	29.5
1976–77	59.8	83.2	73.8			47.8	51.8		47.0	35.2
1977–78	64.1	83.6	74.8			54.4	56.2		51.1	40.5
1978–79	70.1	83.4	76.4			59.4	62.9		56.7	46.1
1979–80	79.0	94.2	82.1			67.5	72.1		65.6	55.1
1980–81	88.6	101.2	86.7	68.1		75.2	80.5		72.9	64.7
1981–82	93.9	101.4	92.1	77.5	71.5	81.9	87.6		78.6	74.5
1982–83	96.6	101.4	94.7	83.5	80.2	87.0	91.5	93.4	86.0	80.2
1983–84	98.3	100.7	96.8	92.0	88.6	92.0	95.3	96.6	91.4	83.2
1984–85	99.5	100.9	99.3	98.5	96.8	97.4	98.9	99.2	96.6	94.5
1985–86	99.5	98.0	99.2	99.1	100.7	102.3	100.5	99.5	102.7	102.0
1986–87	99.3	93.0	97.0	96.6	101.0	106.3	101.8	98.5	109.5	108.2
1987–88	101.7	92.6	97.8	99.7	104.7	110.5	106.0	100.6	117.5	113.9
1988–89	106.0	92.8	100.7	107.0	110.1	116.0	110.0	104.5	125.6	119.0
1989–90	110.8	95.1	102.7	107.3	115.6	122.4	110.1	108.1	133.7	128.1
1990–91	115.8	96.5	104.8	107.2	120.2	129.7	110.9	111.8	139.6	129.1
1991–92	116.8	96.3	106.9	104.7	122.7	135.7	108.8	112.7	140.1	130.7

(a) All series represent producer prices in manufacturing goods except France (intermediate goods).
Source: Organisation for Economic Co-operation and Development (OECD).

WAGES INDEX(a)
(Reference base year 1985 = 100)

Year	*United States*	*Japan*	*Germany*	*France*	*Italy*	*United Kingdom(b)*	*Canada*	*OECD Major 7*	*Australia*	*New Zealand*
1970–71	36	26	40	17	9	16	27	28	n.a.	n.a.
1971–72	39	29	44	18	9	17	29	31	n.a.	n.a.
1972–73	42	34	49	21	11	20	32	35	n.a.	n.a.
1973–74	44	43	53	24	14	22	35	39	n.a.	n.a.
1974–75	49	52	59	29	17	28	41	45	n.a.	n.a.
1975–76	53	58	63	33	21	34	47	49	n.a.	n.a.
1976–77	57	65	67	38	27	38	52	55	49	n.a.
1977–78	62	69	72	43	32	42	57	59	53	n.a.
1978–79	68	73	75	48	37	49	61	64	57	52
1979–80	73	79	79	55	45	57	67	70	62	61
1980–81	80	84	84	63	54	66	75	77	69	73
1981–82	87	89	89	73	65	74	84	83	78	86
1982–83	91	92	92	82	75	81	91	89	88	89
1983–84	94	95	94	91	86	88	94	93	93	90
1984–85	98	98	98	97	95	96	98	98	98	95
1985–86	101	101	102	102	103	104	101	102	103	109
1986–87	103	102	106	106	108	112	105	104	107	122
1987–88	105	105	110	109	115	121	108	108	113	132
1988–89	108	110	115	113	122	132	113	113	120	139
1989–90	112	117	120	117	130	143	119	119	127	145
1990–91	115	122	128	122	141	156	126	125	134	150
1991–92	119	126	n.y.a.	127	153	168	131	131	138	152

(a) Data for Germany represent hourly wage rates in manufacturing. For France, Italy, Australia and New Zealand, hourly wage rates are based on all industries. Data on earnings, rather than wage rates, are provided for the United States (hourly), Japan (monthly), the United Kingdom (weekly), Canada (hourly) and OECD Major 7 (hourly). (b) Excludes Northern Ireland.
Source: Organisation for Economic Co-operation and Development (OECD).

EMPLOYMENT INDEX(a)
(Reference base year 1985 = 100)

Year	*United States*	*Japan*	*Germany*	*France*	*Italy*	*United Kingdom*	*Canada*	*OECD Major 7*	*Australia*	*New Zealand*
1970–71	73	88	n.a.	n.a.	94	101	71	n.a.	n.a.	79
1971–72	75	88	n.a.	n.a.	92	99	73	n.a.	n.a.	80
1972–73	78	90	n.a.	n.a.	92	101	76	n.a.	n.a.	82
1973–74	81	91	n.a.	n.a.	94	102	80	n.a.	n.a.	86
1974–75	80	90	n.a.	n.a.	95	103	82	n.a.	n.a.	89
1975–76	82	90	n.a.	n.a.	95	102	84	n.a.	n.a.	90
1976–77	84	91	n.a.	n.a.	97	101	85	n.a.	n.a.	92
1977–78	88	93	n.a.	n.a.	97	102	87	n.a.	n.a.	92
1978–79	91	94	n.a.	n.a.	98	103	91	n.a.	90	93
1979–80	93	95	n.a.	n.a.	99	104	94	n.a.	93	94
1980–81	93	96	n.a.	n.a.	100	100	97	n.a.	95	94
1981–82	93	97	101	101	99	98	97	97	96	95
1982–83	93	98	100	101	99	96	94	96	95	95
1983–84	96	99	99	101	99	98	97	98	95	95
1984–85	99	100	100	100	100	100	99	100	98	99
1985–86	101	100	101	100	101	100	102	101	102	99
1986–87	104	101	102	100	101	101	104	102	105	99
1987–88	106	103	103	101	101	104	108	104	108	98
1988–89	109	104	104	102	102	108	110	106	113	94
1989–90	110	107	106	103	102	110	112	108	117	94
1990–91	109	109	108	104	104	108	111	108	117	94
1991–92	109	110	110	104	104	105	109	108	115	93

(a) All series are total employment except the United States, France, Canada and Australia, which are civilian employment.
Source: Organisation for Economic Co-operation and Development (OECD).

UNEMPLOYMENT RATES(a)
(per cent)

Year	United States	Japan	Germany	France	Italy	United Kingdom	Canada	OECD Major 7	Australia	New Zealand(b)
1970–71	5.8	1.2	n.a.	n.a.	5.2	3.6	6.1	n.a.	n.a.	n.a.
1971–72	5.5	1.4	n.a.	n.a.	6.1	4.0	6.2	n.a.	n.a.	n.a.
1972–73	4.8	1.4	n.a.	n.a.	7.3	3.0	5.3	n.a.	n.a.	n.a.
1973–74	5.3	1.3	n.a.	n.a.	4.8	2.8	5.0	n.a.	n.a.	n.a.
1974–75	8.6	1.8	n.a.	n.a.	5.9	4.2	6.9	n.a.	n.a.	n.a.
1975–76	7.5	2.0	n.a.	n.a.	6.6	5.7	6.9	n.a.	n.a.	n.a.
1976–77	7.1	2.1	n.a.	n.a.	6.9	6.0	7.9	5.0	n.a.	n.a.
1977–78	5.8	2.3	3.5	5.2	7.0	6.0	8.3	4.8	6.2	n.a.
1978–79	5.6	2.0	3.1	5.9	7.5	5.0	7.2	5.7	6.1	n.a.
1979–80	7.5	1.9	3.0	6.1	7.3	6.2	7.7	6.3	6.2	n.a.
1980–81	7.4	2.3	4.3	7.4	7.8	9.7	7.2	7.7	5.3	n.a.
1981–82	9.4	2.4	6.0	8.1	8.3	11.0	10.9	8.3	6.7	n.a.
1982–83	9.9	2.5	8.2	8.3	8.7	12.5	11.9	7.2	10.1	n.a.
1983–84	7.1	2.8	7.1	9.7	9.4	11.7	11.1	7.2	9.1	n.a.
1984–85	7.3	2.6	7.2	10.2	9.4	11.2	10.4	7.2	8.5	
1985–86	7.1	2.7	6.4	10.4	10.6	11.3	9.5	7.2	7.6	
1986–87	6.1	3.0	6.2	10.5	10.8	10.4	8.9	6.7	8.0	4.1
1987–88	5.3	2.4	6.2	10.0	10.9	8.7	7.5	6.0	7.4	5.2
1988–89	5.3	2.2	5.6	9.4	11.1	7.1	7.3	5.7	6.0	7.2
1989–90	5.1	2.2	5.0	8.9	10.2	6.7	7.5	5.5	6.6	7.4
1990–91	6.7	2.1	4.4	9.4	10.0	8.8	10.4	6.4	9.3	10.0
1991–92	7.6	2.1	4.7	10.2	10.0	9.8	11.5	7.0	10.9	9.9

(a) All series are OECD standardised unemployment rates except New Zealand (registered unemployed as a percentage of the total labour force). (b) Monthly data for New Zealand commenced in March 1990 and finished in June 1991.
Source: Organisation for Economic Co-operation and Development (OECD).

M1 PLUS QUASI-MONEY INDEX
(Reference base year 1985 = 100.0)

Year	United States	Japan	Germany (a)	France	Italy	United Kingdom	Canada	Australia	New Zealand
1970–71	21.3	17.3	30.7	16.6	9.4	n.a.	17.1	15.9	10.0
1971–72	24.4	21.4	34.6	19.6	11.1	n.a.	19.1	17.3	11.0
1972–73	27.8	26.5	40.7	23.1	13.2	n.a.	21.8	20.7	13.4
1973–74	31.0	31.2	46.4	26.4	16.1	n.a.	26.5	25.0	15.8
1974–75	33.6	34.5	47.5	30.5	18.8	n.a.	32.2	27.3	16.4
1975–76	36.9	39.5	47.8	36.0	23.0	n.a.	37.1	32.5	18.8
1976–77	41.1	44.7	51.7	40.9	27.9	n.a.	44.0	36.6	21.8
1977–78	46.2	49.7	56.8	44.2	34.0	n.a.	50.4	39.3	24.5
1978–79	51.5	55.8	64.0	47.8	41.4	n.a.	59.3	43.5	29.5
1979–80	56.7	61.8	70.0	53.8	48.9	n.a.	70.6	48.5	34.8
1980–81	62.5	66.7	76.6	59.9	55.1	n.a.	80.7	54.6	41.8
1981–82	70.0	73.4	83.9	67.0	60.5	n.a.	88.3	60.6	51.2
1982–83	77.1	79.3	87.5	75.1	70.5	69.2	90.6	67.4	57.0
1983–84	84.6	85.2	89.8	83.9	80.4	n.a.	90.2	75.9	65.7
1984–85	93.2	92.0	93.9	93.3	90.7		94.9	86.1	80.5
1985–86	100.5	100.0	99.0	100.8	100.2		100.7	100.3	101.5
1986–87	108.9	109.0	106.6	108.4	109.2		108.7	110.9	120.8
1987–88	115.5	121.5	112.9	117.8	117.7		117.3	126.3	137.2
1988–89	122.1	134.0	121.4	127.9	127.1	159.5	129.7	151.6	146.2
1989–90	126.4	149.1	134.8	139.6	138.3	187.8	144.1	186.2	151.0
1990–91	129.1	160.7	161.0	150.5	150.3	210.4	156.2	204.2	167.3
1991–92	130.1	163.9	189.1	157.6	163.5	222.6	164.6	211.2	179.4

(a) From January 1991, data refers to Germany after unification.
Source: Organisation for Economic Co-operation and Development (OECD).

SHORT-TERM INTEREST RATES(a)
(per cent per annum)

Year	United States	Japan	Germany (b)	France	Italy	United Kingdom	Canada	Australia
1970–71	5.38	n.a.	6.80	6.95	5.68	n.a.	4.31	8.15
1971–72	4.58	n.a.	4.65	4.89	4.84	n.a.	5.25	5.75
1972–73	8.11	n.a.	13.62	8.00	6.15	n.a.	6.75	6.40
1973–74	11.38	n.a.	9.46	13.74	16.46	n.a.	9.75	18.80
1974–75	5.82	n.a.	4.88	7.26	9.81	9.72	7.17	8.80
1975–76	5.84	n.a.	4.14	7.99	19.67	11.28	9.43	10.45
1976–77	5.42	n.a.	4.28	9.04	14.27	7.94	7.13	11.10
1977–78	7.82	n.a.	3.68	7.93	11.75	10.04	8.37	10.80
1978–79	9.95	5.42	6.46	8.68	11.24	13.12	11.18	10.35
1979–80	8.49	11.73	10.11	12.35	16.91	16.77	11.04	13.85
1980–81	16.90	7.43	13.09	18.92	19.70	12.67	19.14	16.00
1981–82	14.46	7.19	9.28	15.70	20.51	13.00	16.45	18.75
1982–83	9.20	6.59	5.57	12.63	18.03	9.95	7.45	13.60
1983–84	11.34	6.47	6.13	12.23	16.87	9.45	10.00	12.80
1984–85	7.44	6.37	5.68	10.20	15.28	12.45	8.97	16.50
1985–86	6.73	4.78	4.65	7.24	12.51	9.77	7.77	14.80
1986–87	6.94	3.88	3.73	8.33	11.03	8.90	8.40	13.35
1987–88	7.51	4.37	3.93	7.39	10.50	8.91	9.31	13.15
1988–89	9.20	5.29	7.02	8.99	12.57	14.15	12.18	18.30
1989–90	8.23	7.39	8.30	10.07	11.98	14.97	13.56	15.10
1990–91	6.07	7.77	9.06	9.71	11.36	11.24	8.55	10.50
1991–92	3.86	4.66	9.75	10.11	13.58	9.98	5.89	6.40

(a) All rates are 3-month treasury bills except Japan (3-month 'gensaki' rate), Germany (3-month loans rate), France (3-month interbank loans rate), Italy (6-month treasury bill rate), and Australia (90-day commercial bill rate). (b) Monetary, economic and social union between the Federal Republic and the German Democratic Republic took place on 1st July 1990.

Source: Organisation for Economic Co-operation and Development (OECD).

LONG-TERM INTEREST RATES (GOVERNMENT BONDS)
(per cent per annum)

Year	United States(a)	Japan	Germany (b)	France(c)	Italy	United Kingdom	Canada	Australia	New Zealand
1970–71	5.94	7.32	8.20	8.45	7.05	9.08	7.30	n.a.	5.51
1971–72	5.59	6.68	7.90	7.83	6.41	9.32	7.45	n.a.	5.52
1972–73	6.32	7.09	9.90	8.88	6.98	10.15	7.74	n.a.	5.66
1973–74	7.03	9.18	10.80	11.45	9.78	14.38	9.46	n.a.	6.14
1974–75	6.86	9.17	8.40	10.21	9.84	14.41	8.88	n.a.	6.11
1975–76	6.92	8.77	8.30	10.37	13.91	14.09	9.35	n.a.	8.60
1976–77	6.99	7.31	6.60	11.11	15.28	13.26	8.72	10.41	8.53
1977–78	7.94	6.06	6.00	10.60	12.95	12.80	9.23	9.10	9.99
1978–79	8.32	8.07	8.00	10.71	12.75	12.69	9.73	10.00	12.64
1979–80	9.40	8.61	8.10	13.34	15.18	13.78	11.29	11.76	13.49
1980–81	12.39	8.78	10.50	17.32	19.67	14.57	14.76	13.15	12.90
1981–82	13.32	8.53	9.10	15.98	20.90	13.56	15.56	16.40	12.99
1982–83	10.64	7.49	8.10	14.52	18.39	10.39	11.48	14.85	13.59
1983–84	13.00	7.47	8.20	13.99	15.54	11.15	13.66	13.85	10.06
1984–85	10.36	6.49	7.10	12.12	13.91	10.70	10.71	13.50	16.70
1985–86	8.23	4.78	6.20	8.65	10.85	9.23	9.56	12.95	15.40
1986–87	8.63	3.86	6.00	10.40	10.41	9.23	9.78	12.80	15.45
1987–88	9.04	4.86	6.50	9.07	10.47	9.32	10.19	11.95	12.85
1988–89	8.40	5.50	6.90	8.96	11.44	9.88	9.63	13.50	13.03
1989–90	8.62	7.33	8.90	10.10	11.32	11.01	10.75	13.40	12.12
1990–91	8.54	6.85	8.40	9.59	11.06	10.34	10.23	11.15	9.74
1991–92	7.72	5.27	8.10	9.15	11.61	9.02	8.98	8.90	8.42

(a) Yield bond guaranteed by government. (b) Monetary, economic and social union between the Federal Republic and the German Democratic Republic took place on 1st July 1990. (c) Average of daily rates.

Source: Organisation for Economic Co-operation and Development (OECD).

EXCHANGE RATES(a)
(currency per $US)

Year	Japan (Yen)	Germany (DM) (b)	France (Franc)	Italy (Lira)	United Kingdom (Pound)	Canada (Dollar)	Australia (Dollar)	New Zealand (Dollar)
1970–71	357.41	3.5120	5.5273	624.6	0.4134	1.0210	0.8894	0.8885
1971–72	308.00	3.1720	5.0150	581.4	0.3882	0.9790	0.8396	0.8368
1972–73	264.68	2.5784	4.2528	596.2	0.3881	0.9982	0.7033	0.7466
1973–74	282.90	2.5243	4.9044	649.3	0.4182	0.9661	0.6700	0.6809
1974–75	293.44	2.3409	4.0042	625.3	0.4386	1.0259	0.7425	0.7535
1975–76	299.34	2.5775	4.7370	848.8	0.5664	0.9735	0.8112	1.0099
1976–77	272.96	2.3548	4.9401	885.1	0.5816	1.0575	0.9024	1.0327
1977–78	214.37	2.0838	4.5797	859.3	0.5440	1.1210	0.8788	0.9786
1978–79	218.84	1.8811	4.3648	845.7	0.4735	1.1718	0.9005	0.9664
1979–80	218.09	1.7668	4.1130	834.7	0.4280	1.1514	0.8678	1.0125
1980–81	224.14	2.3767	5.6568	1,183.4	0.5065	1.2041	0.8752	1.1622
1981–82	251.11	2.4274	6.5790	1,356.9	0.5691	1.2748	0.9682	1.3328
1982–83	240.02	2.5480	7.6632	1,511.1	0.6459	1.2320	1.1403	1.5250
1983–84	233.22	2.7390	8.4197	1,693.3	0.7260	1.3044	1.1338	1.5579
1984–85	248.92	3.0653	9.3391	1,954.1	0.7806	1.3682	1.5037	2.1836
1985–86	167.83	2.2364	7.1288	1,531.1	0.6627	1.3898	1.4529	1.8372
1986–87	144.52	1.8183	6.0751	1,316.3	0.6139	1.3386	1.3930	1.7057
1987–88	126.84	1.7509	5.9064	1,297.6	0.5605	1.2178	1.2379	1.4280
1988–89	143.91	1.9809	6.7209	1,436.4	0.6439	1.1983	1.3226	1.7406
1989–90	153.76	1.6840	5.6647	1,237.5	0.5849	1.1728	1.2842	1.7166
1990–91	139.80	1.7843	6.0579	1,327.6	0.6064	1.1439	1.3161	1.7341
1991–92	126.91	1.5740	5.2984	1,191.0	0.5390	1.1960	1.3234	1.8445

(a) Monthly data are daily averages of spot rates quoted for the US dollar on national markets. (b) Monetary, economic and social union between the Federal Republic and the German Democratic Republic took place on 1st July 1990.
Source: Organisation for Economic Co-operation and Development (OECD).

SHARE PRICES INDEX(a)
(Reference base year 1985 = 100)

Year	United States(b)	Japan(c)	Germany (b)(e)	France(d)	Italy(c)	United Kingdom(c)	Canada (c)	Australia (c)	New Zealand(b)
1970–71	53	19	49	37	39	24	36	25	25
1971–72	58	27	53	39	37	31	41	36	26
1972–73	56	36	51	46	59	28	42	36	32
1973–74	49	34	43	33	46	17	37	25	27
1974–75	50	33	47	34	35	21	39	22	25
1975–76	55	35	54	36	27	24	39	28	25
1976–77	53	38	54	28	21	30	38	27	23
1977–78	52	41	57	36	21	33	42	31	24
1978–79	54	45	53	46	28	40	60	33	24
1979–80	62	47	53	54	31	40	76	43	31
1980–81	72	57	56	41	59	48	87	57	50
1981–82	59	54	52	45	39	52	50	49	45
1982–83	90	65	71	60	52	71	90	57	57
1983–84	84	79	75	83	57	78	82	70	86
1984–85	100	101	98	102	96	98	100	94	100
1985–86	132	133	131	149	230	127	114	148	159
1986–87	168	218	130	178	241	182	138	199	183
1987–88	151	219	105	168	177	151	127	192	114
1988–89	178	248	136	234	212	177	139	191	109
1989–90	203	239	174	250	231	186	131	181	104
1990–91	217	190	154	219	169	192	128	179	80
1991–92	232	130	152	231	141	205	125	195	88

(a) Industrial share prices for the United States, Germany, France, the United Kingdom and Australia. For Japan, Italy, Canada and New Zealand data refer to all shares. (b) Monthly data are daily averages. (c) Closing prices on last trading day of month. (d) Last Friday of month. (e) Monetary, economic and social union between the Federal Republic and the German Democratic Republic took place on 1st July 1990.
Source: Organisation for Economic Co-operation and Development (OECD).

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ABS publications

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