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Contents

Preface

Australian Social Trends 2000 is the seventh of an annual series presenting information on contemporary social issues and areas of public policy concern. By drawing on a wide range of ABS statistics, as well as those from other official sources, *Australian Social Trends* describes Australian society and how it is changing over time. It is designed to assist and encourage informed decision-making and to be of value to a wide audience, including all those involved in social policy, research, journalism, marketing and teaching, as well as anyone interested in how we live today.

As in previous editions the material presented in *Australian Social Trends* is organised into seven chapters, each representing an area of social concern: population, family, health, education, work, income and expenditure, and housing. Through extensive referencing to other articles, including those presented in previous editions of *Australian Social Trends*, connections between issues have also been highlighted. To mark the year 2000, the leading article looks at some of the changes in social conditions since the beginning of the 20th century. The opportunity has also been taken to revisit some topics from previous editions to provide an expanded and more contemporary picture, by using the most up-to-date data. Also featured in this edition are topics examining social disadvantage in rural and regional Australia; and the housing and other social conditions of the Indigenous population. However, as described on the contents page, there is a wealth of information on other topics of social concern.

Together with the analytical reviews, *Australian Social Trends* includes a set of national and State summary tables which present key social indicators in each of the seven major areas of concern. These show at a glance how aspects of social well-being have been changing over time and how circumstances differ between States. Also provided is a set of tables of international comparisons for 18 countries, including major OECD countries and Australia's nearest neighbours and trading partners. Finally, there is a cumulative index to the 230 articles for all seven editions.

Various organisations have once again assisted in providing information for this volume. These include: the Australian Institute of Health and Welfare, Centrelink, the Department of Family and Community Services, the Department of Health and Aged Care, the Department of Immigration and Multicultural Affairs, the Health Insurance Commission, the National Centre for Vocational Education Research, the New South Wales Fire Brigades and the Private Health Insurance Administration Council. As well as thanking these organisations I would also like to thank Professor Peter Saunders of the Social Policy Research Centre at the University of New South Wales for his contribution in preparing an article, and Mr Mike Giles, who reviewed drafts of articles prepared for this report.

The ABS welcomes readers' suggestions on how the publication could be improved. To express your views or to ask for more information, please contact the Director, Social Analysis and Reporting at the address below.

Australian Statistician

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June 2000

General information

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Inquiries about the availability of more recent data from ABS should be directed to the National Information Service on 1300 135 070.

ABS publications and services

A complete list of ABS publications produced in Canberra and each of the State Offices is contained in the ABS *Catalogue of Publications and Products* (Cat. no. 1101.0), which is available from any ABS office.

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 your nearest ABS office (see p. 204).

Abbreviations

The following abbreviations have been used in graphics and tables throughout this publication.

Australia, States and Territories of Australia

Aust.	Australia
NSW	New South Wales
Vic.	Victoria
Qld	Queensland
SA	South Australia
WA	Western Australia
Tas.	Tasmania
NT	Northern Territory
ACT	Australian Capital Territory

Other abbreviations

NZ	New Zealand
OECD	Organisation for Economic Co-operation and Development
PNG	Papua New Guinea
UK	United Kingdom
UN	United Nations
UNICEF	United Nations International Children's Emergency Fund
USA	United States of America
USSR	Union of Soviet Socialist Republics
WHO	World Health Organisation

Symbols and usages

The following symbols and usages mean:

billion	1,000 million
hrs	hours
km	kilometre
mins	minutes
mls	millilitres
m^2	square metre
n.a.	not available
n.y.a.	not yet available
no.	number
p	preliminary — figures or series subject to revision
r	figures or series revised since previous edition
'000	thousand
'000m	thousand million
$	dollar
$m	million dollars
$US	American dollar
%	per cent
*	subject to high sampling variability
* *	data suppressed due to unacceptably high sampling variability
. .	not applicable
—	nil or rounded to zero

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

Population

Population: national summary

COMPOSITION	Units	1989	1990	1991	1992	1993	1994(a)	1995	1996	1997	1998	1999p
Total population	'000	16 814	17 065	17 284	17 495	17 667	17 855	18 072	18 311	18 524	r18 730	18 967
Male population	'000	8 388	8 511	8 615	8 716	8 798	8 888	8 994	9 108	9 214	r9 320	9 440
Female population	'000	8 427	8 554	8 669	8 779	8 869	8 967	9 078	9 203	9 310	r9 411	9 526
Indigenous population(b)	'000	n.a.	n.a.	345.4	352.9	360.7	368.8	377.1	386.0	394.2	402.4	410.6
Overseas-born population	%	22.4	22.8	22.9	23.0	22.9	22.9	23.0	23.3	23.3	r23.3	23.6
Born in the United Kingdom and Ireland	%	7.3	7.3	7.2	7.1	7.0	6.9	r6.8	r6.7	6.7	r6.5	6.5
Born in Europe and the former USSR	%	14.4	14.2	14.0	13.8	13.6	13.5	13.3	13.2	13.1	12.9	12.8
Born in East and Southern Asia	%	3.5	3.8	4.2	4.4	4.5	4.7	4.9	5.1	5.2	r5.3	5.5
Population living in capital cities	%	63.7	63.6	63.6	63.5	63.5	63.5	63.5	63.6	63.7	63.7	63.8
Population aged 0–14	%	22.2	22.0	21.9	21.8	21.7	21.6	21.5	21.4	21.2	20.9	20.7
Population aged 15–64	%	66.9	66.9	66.8	66.7	66.6	66.6	66.6	66.6	66.7	66.9	67.1
Population aged 65 and over	%	11.0	11.1	11.3	11.5	11.6	11.8	11.9	12.0	12.1	12.2	12.2
Population aged 80 and over	%	2.1	2.2	2.2	2.3	2.4	2.5	2.6	2.6	2.7	r2.7	2.8
Median age of total population	years	31.8	32.1	32.4	32.7	33.0	33.4	33.7	34.0	34.3	34.6	34.9
Median age of Indigenous population(b)	years	n.a.	n.a.	19.8	19.8	19.9	20.0	20.0	20.1	r20.1	r20.1	20.2
Sex ratio of population aged 0–64	ratio	103.2	103.1	103.0	102.8	102.7	102.6	102.5	102.4	102.3	102.4	102.4
Sex ratio of population aged 65 and over	ratio	74.1	74.5	75.0	75.5	75.9	76.3	76.7	77.1	77.5	r77.9	78.3

POPULATION GROWTH	Units	1989	1990	1991	1992	1993	1994(a)	1995	1996	1997	1998	1999p
Population growth	'000	282.3	250.7	218.9	210.6	172.4	187.6	217.0	239.0	213.4	r206.2	236.4
Births	'000	250.2	257.5	261.2	259.2	260.0	258.3	258.2	250.4	253.7	r249.1	247.7
Deaths	'000	118.8	125.1	119.6	120.8	121.3	123.5	126.2	126.4	127.3	r129.3	128.6
Natural increase	'000	131.4	132.4	141.6	138.4	138.6	134.8	132.0	124.0	126.4	r119.9	119.1
Net overseas migration	'000	157.4	124.6	86.4	68.6	30.0	46.5	80.1	104.1	87.1	r86.4	117.3
Population growth rate	%	r1.71	r1.49	r1.28	r1.22	0.99	1.06	1.22	1.32	r1.17	r1.11	1.26
Net overseas migration to total growth	%	55.8	49.7	39.5	32.6	17.4	24.8	36.9	43.6	40.8	r41.9	49.6

MIGRATION	Units	1989	1990	1991	1992	1993	1994(a)	1995	1996	1997	1998	1999
Total settler arrivals(c)	'000	145.3	121.2	121.7	107.4	76.3	69.8	87.4	99.1	85.8	77.3	84.1
Skilled settler arrivals	%	30.0	35.3	39.8	37.6	29.0	18.3	23.1	20.2	23.0	33.6	33.2
Family settler arrivals	%	41.0	41.2	44.3	45.3	42.1	48.1	42.4	46.9	42.6	27.3	25.6
Humanitarian settler arrivals	%	7.5	9.9	6.4	6.7	14.3	16.3	15.6	13.9	11.5	11.4	10.4

PROJECTIONS — SERIES II	Units	2001	2006	2011	2016	2021	2026	2031	2036	2041	2046	2051
Total population	'000	19 297	20 189	21 017	21 792	22 519	23 173	23 720	24 149	24 476	24 731	24 945
Population aged 0–14	%	20.3	19.3	18.3	17.6	17.1	16.8	16.5	16.2	15.9	15.7	15.6
Population aged 15–64	%	67.3	67.8	67.7	66.4	65.0	63.4	62.2	61.4	60.8	60.6	60.2
Population aged 65 and over	%	12.4	12.9	14.0	16.0	17.9	19.8	21.3	22.4	23.3	23.7	24.2
Population aged 80 and over	%	3.0	3.4	3.7	3.8	4.1	4.7	5.8	6.7	7.5	8.0	8.4
Median age of total population	years	35.5	36.8	38.3	39.4	40.4	41.3	42.2	42.9	43.5	43.9	44.1
Population living in capital cities	%	63.8	64.0	64.1	64.3	64.5	64.7	64.9	65.1	65.3	65.5	65.7

(a) From 1994, includes Christmas and Cocos Islands.
(b) From 1997, figures are projections.
(c) Total settler arrivals includes special eligibility and non-program migration, in addition to family, skilled and humanitarian migration.

Reference periods: Population composition and projection figures are at 30 June. Growth and migration figures are for the year ended 30 June.

Population: State summary

COMPOSITION	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Total population	'000	1999	6 412	4 712	3 512	1 493	1 861	470	193	310	18 967
Male population	'000	1999	3 187	2 330	1 758	738	937	232	102	155	9 440
Female population	'000	1999	3 225	2 382	1 754	755	924	239	91	156	9 526
Indigenous population(a)	'000	1999	116.7	23.8	113.1	23.4	59.4	16.1	54.6	3.4	410.6
Overseas-born population	%	1996	24.5	25.1	17.7	22.3	29.3	10.8	16.8	23.7	23.3
Born in the United Kingdom and Ireland	%	1996	5.4	5.5	6.0	10.0	13.2	5.4	4.9	6.7	6.7
Born in Europe and the former USSR	%	1996	11.7	15.2	9.4	17.5	18.9	8.0	8.2	13.6	13.2
Born in East and Southern Asia	%	1996	6.7	5.8	2.8	2.7	5.3	1.0	4.5	5.6	5.1
Population living in capital cities	%	1999	63.0	72.5	45.6	73.2	73.3	41.3	45.7	99.9	63.8
Population aged 0–14	%	1999	20.5	20.1	21.3	19.7	21.4	21.3	26.2	21.0	20.7
Population aged 15–64	%	1999	66.7	67.2	67.3	66.0	68.1	65.3	70.4	71.0	67.1
Population aged 65 and over	%	1999	12.8	12.7	11.4	14.4	10.5	13.4	3.4	8.0	12.2
Population aged 80 and over	%	1999	2.9	2.9	2.6	3.4	2.4	3.1	0.5	1.6	2.8
Median age of total population	years	1999	35.3	35.1	34.3	36.2	33.9	36.1	28.6	32.4	34.9
Sex ratio of population aged 0–64	ratio	1999	102.4	101.3	102.9	101.8	104.2	100.6	112.4	101.5	102.4
Sex ratio of population aged 65 and over	ratio	1999	77.5	76.8	81.6	76.8	80.2	77.1	107.5	77.9	78.3

POPULATION GROWTH	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Population growth	'000	1998–99	78.2	57.2	58.9	6.7	31.9	–1.4	2.9	2.1	236.4
Births	'000	1998–99	84.3	59.0	47.0	18.3	25.0	6.1	3.6	4.4	247.7
Deaths	'000	1998–99	45.2	32.8	22.4	11.7	10.8	3.6	0.8	1.3	128.6
Natural increase	'000	1998–99	39.1	26.2	24.5	6.6	14.2	2.5	2.8	3.1	119.1
Net overseas migration	'000	1998–99	53.4	27.0	17.1	2.9	15.9	-0.2	1.1	0.2	117.3
Net interstate migration	'000	1998–99	–14.3	4.0	17.2	–2.9	1.8	–3.7	–0.9	–1.2	..
Population growth rate	%	1998–99	1.23	1.23	1.70	0.45	1.74	–0.31	1.55	0.69	1.26
Net interstate migration rate	%	1998–99	–0.23	0.09	0.50	–0.19	0.10	–0.78	–0.49	–0.39	..

PROJECTIONS — SERIES II	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Total population	'000	2051	7 861	5 242	6 203	1 400	3 098	310	440	387	24 945
Population aged 0–14	%	2051	15.6	14.8	16.1	14.0	16.2	13.9	21.8	16.1	15.6
Population aged 15–64	%	2051	59.8	59.4	61.0	57.1	61.6	54.2	68.7	63.0	60.2
Population aged 65 and over	%	2051	24.6	25.8	23.0	28.9	22.2	31.9	9.6	20.9	24.2
Population aged 80 and over	%	2051	8.6	9.3	7.7	11.0	7.4	12.2	1.9	7.2	8.4
Median age of total population	years	2051	44.5	45.3	43.4	48.0	42.6	51.0	33.9	40.6	44.1
Population living in capital cities	%	2051	67.0	77.9	47.1	75.7	74.3	40.5	53.5	(b)	65.7

(a) Population projections.
(b) Capital city/balance of Territory projections were not generated for the ACT.

Reference periods: Population composition and projection figures are at 30 June.
Growth figures are for the year ended 30 June.

Population definitions and references

Births
live births occurring in that year.
Reference: *Births, Australia* (Cat. no. 3301.0).

Deaths
deaths occurring in that year.
Reference: *Deaths, Australia* (Cat. no. 3302.0).

East and Southern Asia
including the countries of North-East, South-East and Southern Asia. Countries are classified according to the *Standard Australian Classification of Countries (SACC), 1998* (Cat. no. 1269.0).
Reference: *Migration, Australia* (Cat. no. 3412.0).

Europe and the Former USSR
including the United Kingdom and Ireland, the former USSR and the Baltic States.
Reference: *Migration, Australia* (Cat. no. 3412.0).

Family settler arrivals
migrants who have been sponsored by a relative who is an Australian citizen, or permanent resident of Australia, under the family stream of the migration program.
Reference: *Immigration Update, June Quarter 1999*, Department of Immigration and Multicultural Affairs.

Humanitarian settler arrivals
comprises: those who arrive under the refugee program (which provides protection for people who have fled their country because of persecution); those who arrive under the special humanitarian programs (those suffering persecution within their own country or who have left their country because of significant discrimination amounting to gross violation of human rights); and those who arrive under the special assistance category (groups determined by the Minister to be of special concern to Australia and in real need, but who do not come under the traditional humanitarian categories. It includes those internally and externally displaced people who have close family links in Australia).
Reference: *Immigration Update, June Quarter 1999*, Department of Immigration and Multicultural Affairs.

Indigenous population
estimates of the resident Aboriginal and Torres Strait Islander population. Estimates are experimental in that the standard approach to population estimation is not possible because satisfactory data on births, deaths and migration are not generally available. Furthermore, there is significant intercensal volatility in census counts of the Indigenous population, due in part to changes in the propensity of persons to identify as being of Indigenous origin.
Reference: *Experimental Estimates of the Aboriginal and Torres Strait Islander Population* (Cat. no. 3230.0).

Long-term arrivals and departures
long-term arrivals comprise overseas visitors who intend to stay in Australia for one year or more (but not permanently) and Australian residents returning after an absence of one year or more overseas. Long-term departures comprise Australian residents who intend to stay abroad for one year or more (but not permanently), and overseas visitors departing who stayed one year or more.
Reference: *Migration, Australia* (Cat. no. 3412.0).

Median age
the age at which half the population is older and half is younger.
Reference: *Population by Age and Sex: Australian States and Territories* (Cat. no. 3201.0).

Natural increase
the excess of births over deaths during the year.
Reference: *Australian Demographic Statistics* (Cat. no. 3101.0).

Net interstate migration
interstate arrivals minus interstate departures during the year. Net interstate migration rate expresses this as a proportion (per cent) of the population at the beginning of the year.
Reference: *Australian Demographic Statistics* (Cat. no. 3101.0).

Net overseas migration
permanent and long-term arrivals minus permanent and long-term departures during the year, plus an adjustment for the net effect of category jumping. This net effect may be either positive or negative.
Reference: *Australian Demographic Statistics* (Cat. no. 3101.0).

Permanent arrivals and departures
permanent arrivals comprise travellers who hold migrant visas and other persons eligible to settle, and permanent departures comprise Australian residents who intend to settle in another country.
Reference: *Migration, Australia* (Cat. no. 3412.0).

Population
estimated resident population. Quarterly estimates of the Australian population are obtained by adding to the estimated population at the beginning of each period the components of natural increase (on a usual residence basis) and net overseas migration. For the States and Territories, account is also taken of estimated interstate movements involving a change of usual residence.
Reference: *Australian Demographic Statistics* (Cat. no. 3101.0).

Population growth
increase in the population during the year, measured as the sum of natural increase and net overseas migration. For dates prior to 1996, differences between growth and the sum of natural increase and net overseas migration arise from retrospective adjustments to population estimates (which are made after each census) to compensate for intercensal discrepancy. Population growth rate expresses the increase as a proportion (per cent) of the population at the beginning of the year.
Reference: *Australian Demographic Statistics* (Cat. no. 3101.0).

Population projections
ABS population projections take the base year population for each sex by single years of age and advance it year by year by applying assumptions about future mortality and migration. Assumed age-specific fertility rates are applied to the female populations of child-bearing ages to provide the estimates of new births for each year. The ABS produces several series of population projections based on different combinations of assumptions about mortality, fertility and migration. The assumptions underlying Series II most closely reflect prevailing trends and comprise: declining rates of mortality; the total fertility rate for Australia falling to 1.75 by 2005–06, and then remaining constant; low levels of overseas migration (annual net gain of 70,000 from 1998–99); and medium levels of interstate migration.
Reference: *Population Projections, 1997 to 2051* (Cat no. 3222.0).

Sex ratio
the ratio of males to females multiplied by 100.
Reference: *Australian Demographic Statistics* (Cat. no. 3101.0).

Population definitions and references continued

Skilled settler arrivals

the skill stream component of the migration program is designed to contribute to Australia's economic growth. Settlers under this program meet a demand in Australia for their particular occupational skills, outstanding talents or business skills.
Reference: *Immigration Update, June Quarter 1999*, Department of Immigration and Multicultural Affairs.

Total settler arrivals

comprised largely of those who arrived under the migration and humanitarian programs. These programs include the following categories: the family stream; the skilled stream; special eligibility migrants; refugees; special humanitarian and special assistance migrants.
Reference: *Immigration Update, June Quarter 1999*, Department of Immigration and Multicultural Affairs.

20th century: beginning and end

POPULATION CHARACTERISTICS

During the 20th century Australia became an older, more culturally diverse, and much more urbanised society, holding wider religious affiliations, placing greater value on home ownership, with more females than males, and with a workforce more concentrated in service-industry based, 'white collar' occupations.

In 1900, Australia was a sparsely-populated but more characteristically rural nation with a large proportion of workers engaged in primary industries. The population was younger, largely Christian, with comparatively limited education, and with more males than females. At that time, Australians were as likely to be renting their home as to be owning it. In 2000, Australia is an older, more culturally diverse, more densely populated and much more urbanised society holding wider religious affiliations, placing greater value on home ownership, with more females than males, and with a workforce more concentrated in service-industry based, 'white collar' occupations.

Older with more females

In 1901, 113 years after the arrival of settlers from Europe, over half (55%) of the population were children or youths (aged younger than 25 years). In 1999 this age group constituted little more than a third (35%) of the Australian population. In contrast, at the start of the 20th century, those aged 35 years or older formed 29% of all Australians. At the end of the century, half of all Australians were at least 35 years of age.

Definitions and data sources

Data presented in this article have been sourced mainly from Censuses of Population and Housing conducted in 1901, 1911 and 1996. Wherever possible, 1901 data has been used to describe Australian society at the beginning of the 20th century. Where relevant data was not collected in 1901, the next available source of data was used.

To span as much of the century as possible, data closest to the years 1900 and 2000 has been sought wherever a comparison has been made.

Not all definitions and classifications are strictly comparable, and therefore the magnitude of change cannot be measured precisely in many cases. However, adjustments to categories have been made to achieve sufficient comparability between the two points in time to enable broad analysis of change.

Australia was a male dominated society at the dawn of the 20th century. Males comprised 52% of the general population in 1901 and would likely have represented a large majority of voters, given that prior to 1902, women were entitled to vote in South Australia and Western Australia only.[1] By the middle of 1999, females had formed a slight majority of the general population (50.2%) and a marginally wider majority of those eligible to vote (50.7%).

Age and sex of the Australian population in 1901 and 1999

	31 March 1901			*30 June 1999(a)*		
	Males	*Females*	*Persons*	*Males*	*Females*	*Persons*
Age distribution (%)	%	%	%	%	%	%
0–14 years	17.8	17.4	35.1	10.6	10.1	20.7
15–24 years	9.7	9.7	19.4	7.3	6.9	14.2
25–34 years	8.5	7.8	16.3	7.6	7.6	15.2
35–44 years	7.4	5.7	13.1	7.7	7.7	15.4
45–64 years	6.8	5.3	12.0	11.2	11.0	22.2
65 years and over	2.3	1.7	4.0	5.4	6.9	12.2
Total	*52.4*	*47.6*	*100.0*	*49.8*	*50.2*	*100.0*
Eligible voters	n.a.	n.a.	n.a.	49.3	50.7	100.0
	'000	'000	'000	'000	'000	'000
Total population	**1 977.9**	**1 795.9**	**3 773.8**	**9 440.5**	**9 526.3**	**18 966.8**
	years	years	years	years	years	years
Median age	23.6	21.5	22.6	34.2	35.6	34.9

(a) Preliminary estimated resident population.

Source: 1911 Census of the Commonwealth of Australia, Statistician's report Volumes I & II; Population by Age and Sex, Australian States and Territories, June 1999 (Cat. no. 3201.0).

Urbanisation in 1906 and 1996

Size of population centre (no. of people)	1906 no. of centres	1906 % of total population	1996 no. of centres	1996 % of total population
Less than 3,000(a)	..	48.5	..	18.2
3,000 – 9,999	54	6.3	191	5.8
10,000 – 99,999	19	11.7	98	13.3
100,000 – 539,000	4	33.6	8	9.6
950,000 or more	0	0.0	5	53.1
All population centres	(b)**77**	**100.0**	(b)**302**	**100.0**
		'000		'000
Total population		4 091.5		17 892.4

(a) Includes people living in rural areas between population centres.
(b) Comprising at least 3,000 people.

Source: Official Year Book of the Commonwealth of Australia, Statistics for period 1901–1907, No.1 1908; unpublished data, 1996 Census of Population and Housing; *1999 Year Book Australia* (Cat. no. 1301.0).

The main factors that have influenced the change in the age profile of the population are lower fertility and longer life expectancy (see *Australian Social Trends 1999*, Our ageing population, pp. 6–10). Greater female life expectancy in concert with a proportionately larger older population has contributed to the excess of women over men in the population.

More densely populated and more urbanised

While concentration of the Australian population in the southern and eastern coastal belt of the continent changed little during the 20th century, Australians are generally living in closer physical proximity to each other, and in more populous urban centres.[2,3]

In 1906, there was on average almost two square kilometres of land per inhabitant. By 1996, this had reduced to less than half a square kilometre per person. While a large increase in population density has occurred in Australia during the 20th century, it remains one of the most sparsely populated nations on this measure. However, population density does not give the complete picture. Large areas of the continent (particularly inland) are virtually uninhabited, while some coastal regions are very heavily populated.

At the start of the century, almost half the population lived on rural properties or in small towns (less than 3,000 people). Although one in three Australians lived in a city of at least 100,000 people in 1906, the most populous cities, Sydney and Melbourne, had populations only of little more than half a million people (538,800 and 526,400 respectively).

In stark contrast, most Australians (53%) lived in a city of close to, or more than, a million people in 1996. These city dwellers outnumbered almost threefold those living in small towns and rural properties, whose proportion of the total population had fallen to 18% in 1996.

Wider cultural diversity

Australia entered the 20th century as an overwhelmingly Christian nation whose inhabitants had been born almost exclusively in Australia, the United Kingdom or Ireland. Australia ended the century with about 16% of its people born in countries other than these. While still predominantly Christian, the

Cultural diversity in 1901 and 1996

	1901 %	1996(a) %
Birthplace(b)		
Australia	77.2	77.2
New Zealand	0.7	1.7
Europe	20.0	12.9
U.K. and Ireland	18.0	6.6
Other	2.0	6.4
Asia	1.2	5.9
Other	0.8	2.2
Total	100.0	100.0
Religious affiliation(c)		
Christian	98.1	77.9
Anglican	40.5	24.2
Catholic	23.2	29.7
Other	34.4	24.0
Jewish	0.4	0.5
Other affiliation	1.0	3.3
No affiliation	0.5	18.3
Total	100.0	100.0
	'000	'000
Total population	**3 773.8**	**17 752.8**
Indigenous population	93.0	386.0

(a) Excludes overseas visitors.
(b) As defined and classified in 1901. Not known categories have been pro rated across known categories.
(c) Excludes people whose religious affiliation was not known.

Source: Official Year Book of the Commonwealth of Australia, No.2 1901–1908; unpublished data, 1996 Census of Population and Housing; *Year Book Australia,* 1994 and 1999 (Cat. no. 1301.0).

proportion of Australians affiliating with the Christian faith in 1996 (78%) was considerably less than it was in 1901 (98%).

Much of this change to the cultural composition of Australian society was generated by large-scale post-war migration (see *Australian Social Trends 1997*, Birthplace of overseas-born Australians, pp. 12–15) and a growing tendency for Australians to not affiliate with any religion.

Indigenous Australians continue to be a relatively small but very important part of Australia's rich cultural tapestry. In 1901 there were an estimated 93,000 Aboriginal and Torres Strait Islanders.[4] By 1996, their number had grown to 386,000.[5]

Better educated

In 1911, when the minimum school leaving age was 14 years (12 in Queensland), fewer than one in three (31%) 14 to 15 year olds still attended school. With only 2,465 university students Australia-wide in 1911, rates of participation in education were very low for older teenagers (3% of those aged 18 or 19 years) and negligible for those aged 20 years or older (less than 1%).

Extension of the compulsory school age to 15 years (16 in Tasmania) and the need to undertake post-school education to acquire marketable skills to compete in the job market has resulted in teenagers staying in education for longer, and older Australians being more likely to be studying. In 1996, over half of all 18–19 year olds (53%) were attending an educational institution, along with 12% of all Australians aged 20 years or older.

Labour force participation rates in 1911 and 1999

	Males		*Females*	
	April 1911	*November 1999*	*April 1911*	*November 1999*
Age group (years)	%	%	%	%
15–19	90.0	55.5	43.5	59.0
20–24	97.7	85.0	40.2	75.7
25–34	98.0	91.4	22.9	67.8
35–44	97.3	90.8	16.7	72.4
45–54	95.8	86.8	15.5	70.4
55–59	92.7	73.3	14.6	47.4
60–64	85.8	46.6	13.1	19.9
65 and over	55.3	9.7	7.9	3.4
15 and over	**93.0**	**71.9**	**25.0**	**54.4**

Source: 1911 Census of the Commonwealth of Australia, Statistician's report Volume I; *Labour Force, Australia, November 1999* (Cat. no. 6203.0).

Rates of participation in education in 1911 and 1996

	1911	*1996*
Age group (years)	%	%
5 or younger	9.1	11.9
6–11	92.5	100.0
12–13	85.2	100.0
14–15	31.2	97.4
16–17	8.7	81.0
18–19	3.3	53.4
20 and over	0.2	12.4
All ages	**17.4**	**28.0**

Source: 1911 Census of the Commonwealth of Australia, Statistician's report Volume I; unpublished data, 1996 Census of Population and Housing.

With less confined gender roles

Working-age males in each major age group in 1999 were less likely to be in the labour force (engaged in paid employment, or unemployed and looking for work) than were males in corresponding age groups in 1911. Lesser likelihood of being part of the labour force has been far more pronounced among teenage males and men aged 60 years or older than it has been for 25–44 year old men.

Set against this shift towards reduced male labour force participation has been sharply increased female participation. Apart from women aged 65 years or older, whose low participation rate in 1911 (8%) was even lower in November 1999 (3%), the likelihood of females having, or looking for, paid employment was considerably greater in 1999 than it was in 1911. The largest percentage point increases occurred for women of child bearing and child rearing ages (20–54 years).

Some of the observed declines in labour force participation rates since 1911 may be attributable to greater participation in education (mainly among younger people), and the establishment and development of income support measures such as social security and superannuation. Increased participation by females younger than the age-pension minimum is likely to have been influenced by changing attitudes towards the roles and rights of women over the past forty years.

A consequence of the dramatically higher labour force participation of women aged 25–54 years has been the pervasive abandonment of the traditional cultural norm that viewed a man's role primarily as 'breadwinner' and a woman's as 'homemaker'. Changes over recent decades in post-school educational attainment (see *Australian Social*

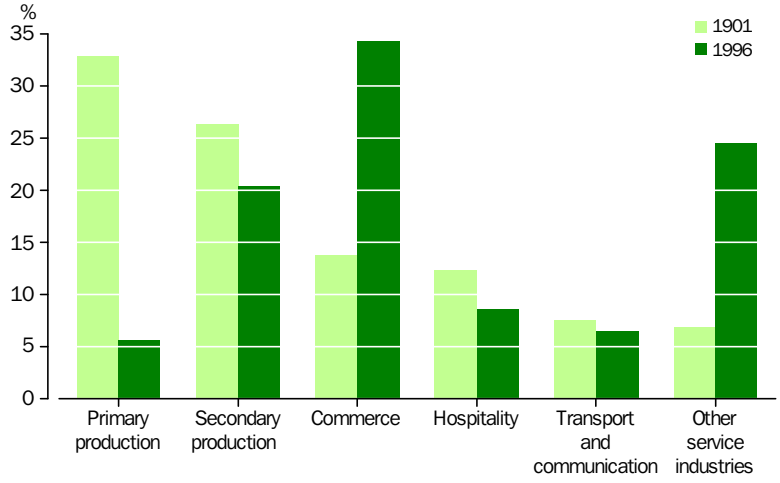
Industry categories

- *Primary production* 'embraces all persons mainly engaged in the cultivation or acquisition of food products, and in obtaining other raw materials from natural sources' in 1901. The 1996 column comprises the Australian and New Zealand Standard Industrial Classification (ANZSIC) categories of Agriculture, forestry and fishing and Mining.
- *Secondary production* 'embraces all persons, not otherwise classed, who are principally engaged in various works of utility, or in specialties connected with the manufacture, construction, modification or alteration of materials so as to render them more available for the various uses of man, but excluding, as far as possible, all who are mainly or solely engaged in the service of commercial interchange' in 1901. The 1996 column comprises the ANZSIC categories of Manufacturing, Electricity, gas and water supply, and Construction.
- *Commerce* 'embraces all persons directly connected with the hire, sale, transfer, distribution, storage, and security of property and materials' in 1901. The 1996 column comprises the ANZSIC categories of Wholesale trade, Retail trade, Finance and insurance, Property and business services.
- *Hospitality* 'embraces all persons engaged in the supply of board and lodging, and in rendering personal services for which remuneration is usually paid' in 1901. The 1996 column comprises the ANZSIC categories of Accommodation, cafes and restaurants, and Personal and other services.
- *Transport and communication* 'embraces all persons engaged in the transport of persons or goods, or in effecting communication' in 1901. The 1996 column comprises the ANZSIC categories of Transport and storage and Communication services.
- *Other service industries* 'embraces all persons, not otherwise classed, mainly engaged in the government and defence of the country, and in satisfying the moral, intellectual and social wants of its inhabitants' in 1901. The 1996 column comprises the ANZSIC categories of Government administration and defence, Education, Health and community services, and Cultural and recreational services.

Trends 1997, Education and employment, pp. 84–87) also indicate a trend towards the proliferation of a wider array of options in gender roles among men and women.

In tandem with a longer period of education prior to joining the workforce, earlier retirement (see *Australian Social Trends 2000,* Retirement and retirement intentions pp. 130–133) and longer life expectancy may also be compressing the number of years of life in the workforce by many of today's men. On average, late 20th century Australian men could expect a shorter paid working life (in number of years, but more so as a proportion of their total lifetime). They could also expect a longer period of retirement before their death than their grandparents did. For many men, the length of this period will represent a third age in their life's span.[6]

Employment by industry, 1901 and 1996



Source: Census of the Commonwealth of Australia, 1911, Statistician's report, Volume I; 1996 Census of Population and Housing: Selected family & labour force characteristics, Australia (Cat. no. 2017.0).

More concentrated in service industry-based occupations

Despite some major differences in the way in which industries were described and classified in 1901 and 1996 (see box describing industry categories), comparisons of numbers of people employed in similar industry groupings reveal a great deal of change in the structure of Australia's economy.

Most evident has been the large shift in employment away from the primary production industries such as agriculture, forestry, fishing and mining towards employment in service industries engaged in activities such as retail trade, finance, insurance, property management, health, education, administration and defence. Greater efficiencies in production processes through technological and organisational advances have underpinned much of this change.

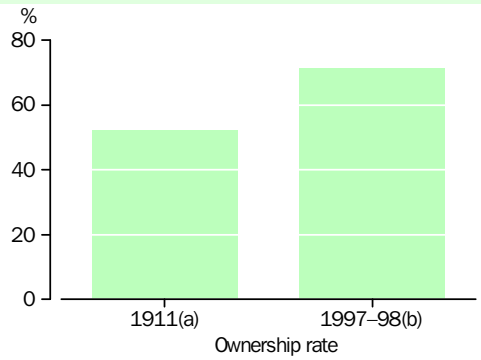
Despite the large decline in the contribution of primary industries to total employment, their contribution to export income remains disproportionately high. Merchandise exports originating from the agriculture, forestry, fishing and mining industries represented a little over one-quarter of Australia's exports of goods and services during 1998–99.[7]

Greater value placed on home ownership

Near the end of the century, Australia was largely a nation of home owners and home buyers. In 1997–98, 71% of households had bought or were buying their homes. This contrasted with earlier in the century when, in 1911, Australians were almost as likely to be renting their homes (48%) as they were to be owning or buying them (52%).

Throughout the 20th century, Australian government policies have encouraged home ownership. The Commonwealth Government assisted soldiers returning from the First World War to purchase homes, by providing

Home ownership, 1911 and 1997–98



(a) Private dwellings occupied by owners or prospective owners as a percentage of private dwellings occupied by owners, prospective owners or tenants (1911).
(b) Households who owned their homes with or without a mortgage as a percentage of households who owned their homes with or without a mortgage or rented their homes (1997–98).

Source: Census of the Commonwealth of Australia, 1911, Statistician's report, Volume I; *Housing Occupancy and Costs, Australia, 1997–98* (Cat. no. 4130.0)

them with loans under the *War Service Homes Act 1919* (Commonwealth). In the 1920s, housing policy emphasised improved opportunities for home ownership among low to moderate income households by providing financial assistance for home ownership via the *Housing Act 1927–28* (Commonwealth).

After World War II, home ownership was viewed as essential in re-establishing the stability shattered by depression and war. The perception that home ownership created stability continued to be cherished by public opinion during the 1950s and 1960s. Under pressure from the States, the Commonwealth Government encouraged the sale of public rental dwellings in 1954. Also, young people were encouraged to save to buy or build their home through tax free grants provided under the *Homes Savings Grant Act 1964–65* (Commonwealth).[8] Various government schemes (State and Commonwealth) to assist first home buyers to purchase a home during more recent decades have continued to support the ideal of home ownership.

Reflecting on change

By comparing selected aspects of Australian society at the beginning and end of the 1900s, some of the enormous changes that have occurred in the structure of our society throughout the century can be seen. The culture in which a child born in 1901 was raised was clearly very different to that which will be experienced by one born at the end of the century.

Of course there have been many factors driving these changes. Numerous advances in science, medicine and technology have been important, as have been changes in social attitudes to a wide range of issues. Many of these changes have been supported by government policies, as seen through legislative changes. However, changes are also influenced by events and social and economic trends occurring overseas as well as by the actions of individuals within our society.

Most of the following articles in this edition of Australian Social Trends examine change over the more recent past. While the magnitude of change tends to be considerably less over a decade than over a century, taken together they indicate the broad direction in which our society is headed.

Endnotes

1 Lees, K. 1995, *Votes for women: the Australian story*, Allen & Unwin, Sydney.

2 Commonwealth Bureau of Census and Statistics 1914–1917, *Census of the Commonwealth of Australia taken for the night between the 2nd and 3rd April, 1911; Volume 1, Statistician's Report, Including Appendices*, Commonwealth Bureau of Census and Statistics, Melbourne.

3 Australian Surveying and Land Information Group 1992, *The Ausmap Atlas of Australia*, Cambridge University Press, Melbourne.

4 Smith, L. R. 1980, *The Aboriginal Population of Australia*, Australian National University Press, Canberra.

5 Australian Bureau of Statistics 1998, *Census of Population and Housing Aboriginal and Torres Strait Islander People, Australia, 1996*, Cat. no. 2034.0, ABS, Canberra.

6 Rosenman, L. and Warburton, J. 1995, 'The changing context of retirement in Australia', *Social Security Journal*, Dec. 1995, pp. 54–66.

7 Australian Bureau of Statistics 2000, *Year Book Australia 2000*, Cat. no. 1301.0, ABS, Canberra.

8 Australian Bureau of Statistics 1992, *Housing Australia: A Statistical Overview*, Cat. no. 1320.0, ABS, Canberra.

Regional populations: growth and decline

POPULATION DISTRIBUTION

Australia's estimated resident population increased on average by 1.2% per year in the five-year period ending June 1999. Overall, capital cities grew more rapidly than other areas.

Identifying the location of areas experiencing high population growth or decline can reveal some of the forces shaping contemporary patterns of human settlement. Areas experiencing high levels of growth are of special interest, because these areas can provide opportunities for business investment, which, in turn, can stimulate further growth. For planners, such areas present challenges in terms of providing basic infrastructure (such as roads, power, water and sewerage), community services (such as hospitals, schools, aged care centres) and for managing the impact of the growth on the local environment. Identifying areas in decline is also of interest because of the impact this decline can have on people's lives. For example, people may lose contact with friends and family, lose access to services or lose their livelihood.

Capital cities

At June 1999, Australia's estimated population was 18,966,800, of whom most (64%) lived in the capital cities. Since June 1994 Australia's population had increased by an average of 1.2% per year. During this period, capital cities experienced 70% of the total growth and grew by an average of 1.3% each year. The rest of Australia grew by an average of 1.0% each year.

Estimated Resident Population

Population figures in this review refer to the estimated resident population (ERP) of an area at June 1994 and June 1999. The ERP is the estimate of the number of persons who usually reside in that area irrespective of where they were on the date of the estimate. The estimates are adjusted for Census underenumeration and Australian residents temporarily absent overseas. Estimates at June of the census year and the post-censal estimates are updates of census date estimates based on components of natural increase and net overseas and net interstate migration.

ERPs for areas smaller than States and Territories are derived by the same procedures but they also take into account the change in some indicators (e.g. dwelling approvals), which have an impact on population change for the area. For more information refer to ABS Information Paper: *Demographic Estimates: Concepts, Sources and Methods* (Cat. no. 3228.0). This paper is available on the ABS website <URL: http://abs.gov.au>

Areas Defined

This review uses spatial units contained within the Australian Standard Geographical Classification (ASGC) such as Statistical Local Areas (SLAs). Areas referred to in this review are defined as at June 1999. For more information refer to *Australian Standard Geographical Classification (ASGC) 1999* (Cat. no. 1216.0).

Capital city refers to the Statistical Division (SD) surrounding a State or Territory capital.[1]

Growth in capital cities and balance of State or Territory, 1994–99

		Capital city		*Balance of State or Territory*	
		Population change	*Average annual growth rate*	*Population change*	*Average annual growth rate*
Capital city	State or Territory	'000	%	'000	%
Sydney	NSW	271.7	1.4	79.8	0.7
Melbourne	Vic.	204.2	1.2	20.4	0.3
Brisbane	Qld	146.2	1.9	179.0	2.0
Adelaide	SA	21.2	0.4	5.8	0.3
Perth	WA	117.9	1.8	40.1	1.7
Hobart	Tas.	–0.4	0.0	–2.3	–0.2
Darwin	NT	9.1	2.2	10.4	2.1
Canberra	ACT	8.7	0.6	0.0	–1.4
Total	**Australia**	**778.7**	**1.3**	**333.1**	**1.0**

Source: *Regional Population Growth, Australia, 1998–99* (Cat. no. 3218.0).

Darwin, the fastest growing capital city during the five-year period, grew by 2.2% annually while Brisbane, the second fastest growing, grew by 1.9% annually. Queensland was the only place where the balance of the State or Territory experienced a larger increase in population and grew more quickly than the capital city. During the 1994–99 period, over 60% of Queensland's non-capital city growth occurred in Moreton Statistical Division (SD). This SD comprises coastal areas of the Gold Coast, the Sunshine Coast and areas surrounding Brisbane.[2]

High-growth SLAs(a) in capital cities, 1994–99

		Estimated resident population			
		June 1994	*June 1999*	*Population change*	*Average annual growth rate*
	State or Territory	'000	'000	'000	%
Fastest growing SLAs(b)					
Ngunnawal	ACT	1.1	6.6	5.5	42.5
Doolandella–Forest Lake	Qld	3.3	11.8	8.4	28.7
Parkinson–Drewvale	Qld	1.3	4.5	3.2	28.5
Melbourne (C) — Inner	Vic.	1.5	4.7	3.3	26.5
Melton (S) — East	Vic.	3.2	9.6	6.4	24.5
Sydney (C) — Remainder	NSW	6.7	17.4	10.6	20.8
Taigum–Fitzgibbon	Qld	2.7	6.0	3.3	17.2
Kuraby	Qld	1.4	3.0	1.6	16.6
Calamvale	Qld	4.3	8.6	4.3	14.9
Bridgeman Downs	Qld	2.5	5.1	2.5	14.9
Sydney (C) — Inner	NSW	2.8	5.4	2.6	14.1
Conder	ACT	2.4	4.3	1.9	12.5
Largest growing SLAs					
Liverpool (C)	NSW	112.8	143.3	30.5	4.9
Blacktown (C)	NSW	230.7	254.8	24.2	2.0
Casey (C) — Berwick	Vic.	37.7	58.1	20.4	9.1
Wyong (A)	NSW	113.9	129.3	15.4	2.6
Rockingham (C)	WA	54.7	69.0	14.3	4.7
Swan (S)	WA	65.9	80.1	14.2	4.0
Gosford (C)	NSW	144.5	158.2	13.7	1.8
Sutherland Shire (A)	NSW	199.2	211.8	12.6	1.2
Brimbank (C) — Keilor	Vic.	71.7	83.9	12.2	3.2
South Sydney (C)	NSW	74.0	85.9	11.9	3.0
Camden (A)	NSW	28.7	40.2	11.5	7.0
Hornsby (A)	NSW	137.8	149.3	11.4	1.6
Penrith (C)	NSW	162.4	173.4	11.0	1.3
Joondalup (C) — North	WA	34.3	45.0	10.8	5.6
Sydney (C) — Remainder	NSW	6.7	17.4	10.6	20.8
Cockburn (C)	WA	55.8	66.0	10.2	3.4

(a) Statistical Local Areas. See *Australian Standard Geographical Classification 1999* (Cat. no. 1216.0). The suffixes given in the SLA names describe whether the SLAs are also known as Areas (A), Cities (C), Municipalities (M) or Shires (S).
(b) Excludes SLAs with an ERP of less than 1,000 people at June 1994.

Source: Regional Population Growth, Australia, 1998–99 (Cat. no. 3218.0).

Components of population growth

Population growth or decline, within an area, is the result of natural increase (the difference between the number of births and the number of deaths) and net migration (the difference between the number of persons moving in and out of an area). Rapid and/or large changes in the size and structure of regional populations typically reflect high levels of net migration.

Sydney and Melbourne had the largest increases in population: Sydney's population increased by 271,700, and Melbourne's by 204,200. Tasmania's population declined by 2,700 people, and its capital city, Hobart, by 400 people. Tasmania was the only State or Territory, and Hobart the only capital city, where population fell during this period.

Within cities, growth can occur in particular areas for a variety of reasons. Nevertheless, there are two main patterns which can be identified: suburban growth and urban in-fill.

High growth in outer suburbs of capital cities

Supported by a combination of factors such as high levels of demand for low density housing among young families, high levels of car ownership and favourable land use regulations, suburban development on the outer fringes of Australia's capital cities has been a dominant feature of the pattern of human settlement in Australia for much of the second half of the 20th century.

Typically, new suburbs form on the fringes of the city. Starting from a low population base, they grow rapidly until they become more firmly established, after which they attract even more residents. This second stage is typified by slower growth, but can involve large absolute numbers. The cycle then starts afresh, with development on the new fringe.

Between 1994 and 1999, areas experiencing the fastest growth were mostly located in fringe areas. Examples include newly established suburbs such as the SLAs of Ngunnawal in Canberra (with an average annual growth rate of 43%) and both Doolandella–Forest Lake and Parkinson–Drewvale in the south west of Brisbane (with average annual growth rates of 29%). The areas with the largest absolute increases were in the longer established outer suburbs. These included a number in Sydney.

Liverpool (C) and Blacktown (C), both with large established populations, gained the most: 30,500 and 24,200 people respectively. In Melbourne, the developing area of Casey (C) — Berwick gained 20,400 people.

Inner-city areas of Sydney and Melbourne also growing

Greater emphasis on urban consolidation is seeing revived growth in established inner-city areas of Sydney and Melbourne. This pattern of settlement is popular amongst young financially advantaged adults who work in the central business district (see *Australian Social Trends 1999*, Inner city residential development, pp. 167–170). High density housing predominates in these SLAs due to the shortage of land available for residential purposes.[3]

Measuring population growth

Two measures have been used to identify areas experiencing high levels of population growth (or decline) between 1994 and 1999. These are: population change (which measures the change in the actual number of people in the area), and average annual growth rate (which measures the average yearly growth of the population relative to its size at the beginning of the period).

Both measures have been used because either measure by itself can give a misleading impression of the significance of change within an area. For instance, a high growth rate may not be significant if the numbers of people involved are small. It is for this reason that SLAs with high growth rates, but with an ERP of less than 1,000 people at June 1994, have been excluded from the lists of high-growth SLAs presented in the tables.

High-growth SLAs(a) which are outside capital cities, 1994–99

		Estimated resident population			
		June 1994	*June 1999*	*Population change*	*Average annual growth rate*
	State or Territory	'000	'000	'000	%
Fastest growing SLAs(b)					
Stephens	Qld	2.4	5.2	2.8	16.3
Parkwood	Qld	4.9	8.9	3.9	12.5
Hope Island	Qld	1.9	3.3	1.4	12.0
Oxenford	Qld	4.7	7.9	3.2	11.1
Guanaba–Currumbin Valley	Qld	12.4	20.5	8.0	10.5
Largest growing SLAs					
Lake Macquarie (C)	NSW	173.6	183.0	9.4	1.1
Mandurah (C)	WA	35.7	44.0	8.3	4.3
Cairns (C) — Trinity	Qld	20.8	29.1	8.3	6.9
Maroochy (S) — Buderim	Qld	21.0	29.0	8.1	6.7
Guanaba–Currumbin Valley	Qld	12.4	20.5	8.0	10.5
Hastings (A)	NSW	54.2	61.3	7.1	2.5
Tweed (A) — Pt A	NSW	35.8	42.8	7.0	3.6
Hervey Bay (C)	Qld	35.2	42.2	7.0	3.7
Mackay (C) — Pt A	Qld	58.0	64.9	6.9	2.3
Port Stephens (A)	NSW	49.4	56.0	6.5	2.5
Shoalhaven (C)	NSW	76.2	82.5	6.3	1.6
Wollongong (C)	NSW	181.0	186.6	5.6	0.6
Busselton (S)	WA	16.0	21.6	5.5	6.1
Shellharbour (C)	NSW	51.7	56.9	5.2	1.9
Coffs Harbour (C)	NSW	54.7	59.7	5.1	1.8

(a) Statistical Local Areas. See *Australian Standard Geographical Classification 1999* (Cat. no. 1216.0). See note concerning suffixes in table on page 12.
(b) Excludes SLAs with an ERP of less than 1,000 people at June 1994.

Source: Regional Population Growth, Australia, 1998–99 (Cat. no. 3218.0).

Areas of population growth outside capital cities

The top five fast growing SLAs outside of the capital cities, in the five-year period ending June 1999, were all on Queensland's Gold Coast. These were Stephens, Parkwood, Hope Island, Oxenford and Guanaba–Currumbin Valley. Each had an annual average growth rate in excess of 10% but they also all started with relatively small populations in 1994.

Associated with this growth, Moreton Statistical Division (SD), which includes the above five SLAs, grew by 3.6% annually. It recorded the second fastest growth rate of all SDs in Australia. Kimberley SD in Western Australia, with a much smaller population base than Moreton, grew by 4.0% and was the fastest growing SD.

The non-capital city SLAs, which grew by more than 5,000 people each in the five years prior to June 1999, were all coastal SLAs. All but two of these SLAs were either in Queensland or New South Wales. In fact, 64 of the 100 non-capital city SLAs which experienced the most absolute growth during this period, were coastal SLAs in Queensland and New South Wales. A number of coastal areas of south-west Western Australia also experienced large increases. Some of the movement to these areas has been associated with economic growth (particularly tourism-related economic growth), but a sizeable proportion of this migration has been a 'lifestyle' movement of those seeking cheaper costs and a better climate.[4,5] Individuals and families on low incomes are

attracted to these coastal regions as well as retirees.[6] According to 1996 Census data, 11 of the 15 non-capital city SLAs which grew by more than 5,000 people during the 1994–99 period, contained proportions of persons aged 65 years or more which were higher than the Australian average.[3]

Growth, of a lesser extent, has also occurred in some inland regional centres. Some of this growth is due to people from surrounding regions migrating to these centres. This growth can occur because of agricultural restructuring and mechanisation (resulting in larger and fewer farms and lower demand for farm workers), and improvements in transport and communications (allowing industries and services in the regional centre to service a wide area).[7] The decline in employment and services in the outlying areas encourages migration to these inland regional centres. Mildura (RC) — Part A in Victoria and Dubbo (C) in New South Wales are examples of these. These two centres grew by 3,100 people and 1,900 people respectively, during the 1994–99 period, whilst most SLAs surrounding these two centres experienced population decline.

High population decline SLAs(a), 1994–99

		Estimated resident population			
		June 1994	*June 1999*	*Population change*	*Average annual growth rate*
	State or Territory	'000	'000	'000	%
Fastest declining SLAs(b)					
Mount Magnet (S)	WA	1.1	0.7	–0.4	–7.8
Unincorp. Flinders Ranges	SA	2.0	1.6	–0.5	–5.1
West Coast (M)	Tas.	6.9	5.7	–1.2	–3.6
Laverton (S)	WA	1.4	1.2	–0.2	–3.6
East Pilbara (S)	WA	8.1	6.8	–1.2	–3.2
Largest declining SLAs					
Broken Hill (C)	NSW	23.1	21.0	–2.1	–1.9
Playford (C) — Elizabeth	SA	27.6	25.8	–1.8	–1.3
La Trobe (S) — Morwell	Vic.	24.8	23.1	–1.8	–1.5
Whyalla (C)	SA	25.1	23.7	–1.4	–1.1
Launceston (C) — Pt B	Tas.	61.1	59.7	–1.4	–0.5
Mount Isa (C)	Qld	23.2	21.9	–1.3	–1.1
Frankston (C) — West	Vic.	78.9	77.7	–1.3	–0.3
East Pilbara (S)	WA	8.1	6.8	–1.2	–3.2
Monash (C) — Waverley East	Vic.	61.9	60.7	–1.2	–0.4
West Coast (M)	Tas.	6.9	5.7	–1.2	–3.6
Tea Tree Gully (C) — Central	SA	28.3	27.2	–1.2	–0.8
Moree Plains (A)	NSW	16.2	15.1	–1.1	–1.4
Hobart (C) — Remainder	Tas.	46.8	45.8	–1.0	–0.5
La Trobe (S) — Moe	Vic.	19.6	18.6	–1.0	–1.1

(a) Statistical Local Areas. See *Australian Standard Geographical Classification 1999* (Cat. no. 1216.0). See note concerning suffixes in table on page 12.
(b) Excludes SLAs with an ERP of less than 1,000 people at June 1994.

Source: Regional Population Growth, Australia, 1998–99 (Cat. no. 3218.0).

Areas of population decline

Changes in the fortunes of particular industries can play a major role in determining whether the population of a region grows or declines, especially if the industries concerned are a large part of the economic base on which the population depends. Particularly vulnerable are areas heavily dependent on mining. Mines themselves have a fixed life, but changes in commodity prices can also quickly affect the viability of a mine.[8] Between 1994 and 1999, mining SLAs such as Broken Hill (C) and Mount Isa (C) experienced large absolute population decline. East Pilbara (S) in Western Australia, and West Coast (M) in Tasmania, experienced both large and rapid population decline. Mount Magnet (S) and Laverton (S), less populated mining areas in Western Australia, also experienced fast declines over this period.

Major population declines in other regions can also be linked to changing levels of activity in particular industries. Population declines in La Trobe (S) — Morwell and La Trobe (S) — Moe (two adjacent SLAs in Victoria's La Trobe Valley) are associated with the progressive restructuring of the coal-based electricity production industry in these areas since the mid 1980s.[9] Population decline in Playford (C) — Elizabeth, and Whyalla (C) (both in South Australia) has occurred because of large declines in manufacturing employment. The number of manufacturing workers living in both of these SLAs declined by 23% between 1991 and 1996. In comparison, manufacturing employment, at the national level, increased by 7%.[10]

Endnotes

1 Statistical Divisions (SDs) are large regional geographic units. Capital city SDs contain the anticipated development of the city for a period of at least 20 years. SDs outside capital cities represent relatively homogenous regions, characterised by identifiable social and economic links between the inhabitants and between the economic units within the region, under the unifying influence of one or more major towns or cities (see *Australian Standard Geographical Classification 1999*, Cat. no. 1216.0).

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3 Australian Bureau of Statistics 1998, *Australia in Profile: A Regional Analysis*, Cat. no. 2032.0, ABS, Canberra.

4 Maher, C. and Stimson, R. 1994, *Regional Population Growth in Australia: Nature, Impacts and Implications*, AGPS, Canberra.

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Socio-economic disadvantage across urban, rural and remote areas

POPULATION CHARACTERISTICS

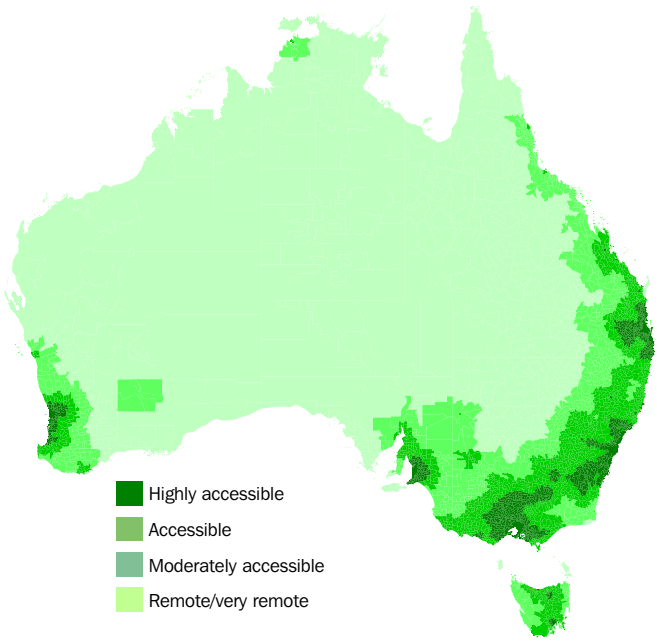
While most people in disadvantaged areas live in major urban centres, they tend to be over-represented in smaller towns and in geographically isolated communities.

Information on social inequality and levels of disadvantage according to where people live, be it in urban, rural or remote parts of Australia, can allow for better targeting of assistance. Increasing concern about the hardships being faced by people in rural and regional Australia (exemplified by the $1.8 billion package for these areas in the Federal Government's 2000 budget) highlights the demand for such information.[1]

Measuring socio-economic disadvantage is not a straightforward exercise because disadvantage is a relative concept which involves value judgements and because there are many, often interrelated, dimensions to disadvantage. Social inequality and disadvantage is typically associated with low income and with those groups that have high levels of dependency on the social security system, such as the unemployed and one-parent families. Levels of educational attainment and the ability to speak English well also affect life opportunities to the extent that some people may experience substantial disadvantage in getting jobs, in making use of available services, or in protecting their rights. In terms of places where people live, other aspects of disadvantage relate to the number and viability of local industries (which provide employment opportunities) and the access people have to various goods and services. The latter is clearly more of an issue for people living in more remote communities than for those living in, or close to, major urban centres.

One measure (known as the Index of Relative Socio-economic Disadvantage) which incorporates a wide range of information from the 1996 census, can be used to identify areas with relatively high proportions of people which have characteristics associated with low socio-economic status (see box on page 17). The index is useful as it allows small areas, namely, census collection districts (CDs) – typically clusters of 200–250 dwellings – to be ranked according to their index score from highest to lowest. Having identified the most disadvantaged CDs (taken as the 20% with the lowest index scores) this review then identifies their location by using two classifications of area which together usefully summarise the pattern of human settlement in Australia. The first classification divides the population according to an urban/rural dichotomy (largely based on sizes of urban centres), while the second takes into account levels of remoteness. The latter (see box below) distinguishes between areas that could be expected to have ready access to

Accessible and remote areas



Defining urban/rural and remote areas

A combination of two separate classifications of area have been used in this review.

The first, known as 'section of state' in the Australian Standard Geographic Classification, has four categories: *Major urban areas* (urban centres with 100,000 or more people), *other urban areas* (those with between 1,000 and 99,999 people), *rural localities* (places with 200–999 people), and *rural balance areas* (the rural remainder).

The second (also with four categories as shown in the map) is based on an index of accessibility developed by researchers at the University of Adelaide with the support of the Department of Health and Community Services. The index, known as *Accessibility/Remoteness Index of Australia* (ARIA) measures remoteness in terms of access along road networks to service centres (a hierarchy of urban centres with populations of 5,000 or more). Localities that are more remote have less access to these service centres whilst those that are less remote have greater access.[2] Each census collection district has been allocated an ARIA score.

goods and services (such as those that may be available to people on farms or in small towns living close to major cities) from those living in remote and geographically isolated communities.

Distribution of people living in the most disadvantaged CDs

In 1996, of the 3.3 million people living in the most disadvantaged CDs, 1.9 million lived in major urban areas (urban areas with more than 100,000 people) and a further 650,000 lived in other areas defined as being highly accessible, generally regions surrounding the major cities (see map). The remaining 830,000 lived in areas with lower levels of accessibility with 140,000 living in the remote/very remote parts of the country.

When compared to the distribution of Australia's total population between urban, rural and remote areas, the distribution of people living in the most disadvantaged CDs showed some differences. People living in the most disadvantaged CDs were under-represented in major urban areas and over-represented in smaller towns and localities. They were also over-represented in remote areas.

In 1996, 56% of all people living in the most disadvantaged CDs were in major urban areas compared to 63% of the total population. In contrast, 39% of all people living in the most disadvantaged CDs were in other urban areas and rural localities (combined) compared to 26% of the total population. The over-representation of people living in the most disadvantaged CDs in smaller towns is evident among towns located in highly accessible areas as well as those in more geographically isolated areas.

Identifying disadvantaged areas

The ABS has developed various indexes to describe the socio-economic status of populations living in different geographic areas.[3] Using 1996 population census data, these have been derived by a multivariate technique known as principal components analysis. The technique summarises a large number of socio-economic variables into a single measure which can then be used to rank areas (from highest to lowest) on a broad socio-economic scale.

In this review, socio-economic status has been determined using the *Index of Relative Socio-economic Disadvantage* constructed for census collection districts (CDs). CDs are usually clusters of approximately 200–250 dwellings, each with their own unique mix of people. CDs with the greatest relative disadvantage typically have high proportions of low-income families, unemployed people, people without educational qualifications, households renting from public housing and people in unskilled or semiskilled occupations. Conversely, the least disadvantaged areas tend to have higher proportions of high-income earners, professional workers and more highly qualified people, as well as low unemployment rates.

The most disadvantaged CDs have been defined to include the 20% of CDs which recorded the lowest index scores. As CDs have small and similarly sized populations the proportion of Australia's total population in the selected CDs is also close to 20% (actually 19%).

For the areas in between towns and localities (described as rural balance areas), their share of all people living in the most disadvantaged CDs was on the low side: 5% compared to 12% of the total population living in rural balance areas. This under-representation was especially evident among those in highly accessible rural balance areas (1% compared to 6%).

Geographic distribution(a) people living in most disadvantaged CDs(b), 1996

	People living in most disadvantaged CDs(c)					*Total population(c)*				
	Highly accessible	*Accessible*	*Moderately accessible*	*Remote/ very remote*	*Total*	*Highly accessible*	*Accessible*	*Moderately accessible*	*Remote/ very remote*	*Total*
Section of State	%	%	%	%	%	%	%	%	%	%
Major urban	55.2	0.4	0.0	0.0	55.7	62.1	0.6	0.0	0.0	62.7
Other urban	17.3	11.9	2.9	1.7	33.8	12.8	7.1	2.0	1.4	23.3
Rural locality	1.0	1.9	1.0	1.2	5.1	1.0	0.8	0.5	0.3	2.5
Rural balance	1.2	2.2	0.7	1.4	5.4	5.9	3.3	1.5	0.8	11.5
Total	**74.7**	**16.5**	**4.6**	**4.2**	**100.0**	**81.8**	**11.8**	**4.0**	**2.4**	**100.0**

a) Described using two classifications of areas, see details in box on the preceding page.
b) Refers to people in the 20% of CDs with the lowest scores on the Index of Relative Socio-economic Disadvantage.
c) Excludes overseas visitors and persons in offshore, shipping and migratory CDs.

Source: Unpublished data, 1996 Census of Population and Housing.

Selected characteristics: People living in most disadvantaged CDs(a) by location, 1996

	Total persons(b)	*People aged 0–14 years(c)*	*People aged 65 years and over(c)*	*Employed(c)*	*Aboriginal and/or Torres Strait Islander people(d)*	*Migrants born in other than a main English-speaking country(e)*	*People who do not speak English or do not speak it well(f)*
	'000	%	%	%	%	%	%
Most disadvantaged CDs in:							
Major urban areas	1 856.1	21.1	14.5	32.0	2.3	26.3	8.5
Other urban areas							
Highly accessible	576.2	23.1	16.5	30.8	3.5	4.3	0.5
Accessible	397.0	23.0	16.6	31.0	6.4	3.9	0.6
Moderately accessible	97.6	23.9	14.5	34.9	14.5	4.6	1.0
Remote/very remote	56.2	27.9	8.8	33.2	33.8	4.8	2.8
Rural localities							
Highly accessible	34.9	22.7	16.6	29.8	2.2	3.8	0.4
Accessible	64.9	22.4	18.0	29.8	5.2	2.9	0.2
Moderately accessible	32.8	23.1	15.5	33.1	10.2	3.4	0.4
Remote/very remote	39.0	30.9	6.9	32.2	64.0	1.9	9.3
Rural balance areas							
Highly accessible	39.2	22.8	11.4	33.0	3.3	8.2	1.3
Accessible	72.9	24.7	10.4	29.8	4.0	3.9	0.3
Moderately accessible	22.1	23.0	10.0	34.9	8.0	4.4	0.4
Remote/very remote	46.3	27.5	5.9	36.0	58.3	2.4	12.8
Total most disadvantaged CDs	*3 335.3*	*22.3*	*14.7*	*31.8*	*5.6*	*16.5*	*5.3*
Total Australia	**17 752.8**	**21.6**	**12.1**	**43.0**	**2.0**	**13.8**	**2.9**

(a) Refers to people (excluding overseas visitors) enumerated on Census night, 6 August 1996, in the 20% of Collection Districts (CDs) that recorded the lowest scores on the Index of Relative Socio-economic Disadvantage.
(b) Persons (excluding overseas visitors) enumerated in the area on Census night, 6 August 1996.
(c) As a proportion of all people (excluding overseas visitors).
(d) As a proportion of all people (excluding overseas visitors and those who did not state whether or not they were Indigenous).
(e) Those born overseas, but not in the United Kingdom, Ireland, New Zealand, South Africa, Canada or the USA, as a proportion of all people (excluding overseas visitors and those who did not state their birthplace).
(f) As a proportion of all people (excluding overseas visitors and those who did not state their proficiency in English).

Source: Unpublished data, 1996 Census of Population and Housing.

In contrast, among the comparatively small numbers of people in the most remote parts of the country the pattern was reversed. That is, these areas' share of people living in the most disadvantaged CDs was higher than their share of the total population (1.4% compared to 0.8%).

Dimensions of disadvantage

Insights into differences in the nature of disadvantage in different places are obtained by looking at particular socio-economic characteristics of people living in those areas.

The table on this and the following page presents a range of socio-economic status indicators that highlight some of the differences between people living in the most disadvantaged CDs and Australia's total population. The table also shows differences among those living in the most disadvantaged CDs according to where they live.

Although not necessarily calculated in the same way, most of the socio-economic status indicators shown in the table contributed to the construction of the Index of Relative Socio-economic Disadvantage. Some of the observed patterns are therefore predictable. It can be seen, for example, that the average income (here measured at the per capita level because household sizes vary) among those associated with the most disadvantaged CDs was substantially below that of the total population ($223 and $310 per week respectively).

However, income levels differed considerably among people associated with the most disadvantaged CDs depending on where they lived. Those in remote/very remote rural localities and in remote/very remote rural balance areas had the lowest incomes (average household per capita incomes of $171 and $156 per week, respectively) which compared to $229 per week among those in

Selected characteristics: People living in most disadvantaged CDs(a) by location, 1996

	16 year olds still at school(b)	*People aged 25-64 years with degree or higher(c)*	*Unemployment rate*	*Employed In low skill occupations(d)*	*Weekly household income per capita(e)*	*One-parent families with dependent children(f)*	*Households renting from a government authority(g)*
	%	%	%	%	$	%	%
Most disadvantaged CDs in:							
Major urban areas	72.0	6.3	18.2	25.3	229	16.6	21.8
Other urban areas							
Highly accessible	64.4	4.2	17.9	26.4	219	16.9	13.9
Accessible	63.8	4.4	17.4	25.9	219	16.3	17.1
Moderately accessible	61.5	4.7	13.1	29.3	232	15.3	12.9
Remote/very remote	59.3	5.5	13.8	25.0	232	18.1	22.9
Rural Localities							
Highly accessible	70.4	4.2	17.6	25.1	211	11.4	2.2
Accessible	63.2	3.5	16.7	26.2	207	10.1	2.7
Moderately accessible	65.4	4.2	13.6	25.0	223	10.4	3.9
Remote/very remote	28.0	4.5	9.3	40.6	171	20.2	8.1
Rural balance areas							
Highly accessible	69.4	5.0	19.0	23.6	216	12.3	2.8
Accessible	67.6	4.0	22.2	23.1	190	9.1	0.3
Moderately accessible	58.3	4.2	16.2	28.5	202	9.8	0.7
Remote/very remote	30.4	4.5	9.9	41.1	156	18.7	2.5
Total most disadvantaged CDs	*67.5*	*5.5*	*17.6*	*26.1*	*223*	*16.2*	*17.7*
Total Australia	**80.2**	**13.4**	**9.2**	**17.9**	**310**	**9.9**	**5.3**

(a) Refers to people (excluding overseas visitors) enumerated on Census night, 6 August 1996, in the 20% of Collection Districts (CDs) that recorded the lowest scores on the Index of Relative Socio-economic Disadvantage.
(b) As a proportion of all 16 year olds (excluding overseas visitors and those 16 year olds who did not state whether or not they were attending an educational institution).
(c) As a proportion of all people aged 25-64 years (excluding overseas visitors).
(d) Persons employed as elementary clerical, sales and service workers and labourers and related workers, as defined in the Australian Standard Classification of Occupations (Second Edition), as a proportion of employed people aged 15 years and over (excluding overseas visitors and employed people aged 15 years and over who did not state their ccupation).
(e) For households where all incomes were stated and no household members were temporarily absent.
(f) As a proportion of all families.
(g) As a proportion of all occupied private dwellings, excluding those in which tenure type and landlord type was not stated.

Source: Unpublished data, 1996 Census of Population and Housing.

major urban areas. Other indicators show that this difference is largely associated with the high representation of Indigenous people in remote areas.

Yet other indicators reveal the depth of disadvantage experienced in some communities. For example, school participation rates among children aged 16, which in 1996 stood at 80% among all children in Australia, varied from 72% for those living in the most disadvantaged major urban CDs, down to around 30% for those living in the most disadvantaged CDs located in small geographically remote communities (again, those remote rural localities and rural balance areas where the proportions of Indigenous people were high).

In the major urban areas where a high proportion of people associated with the most disadvantaged CDs live, other dimensions to disadvantage can be seen. Major urban areas contain a relatively high proportion of migrants from countries other than main English-speaking countries (19% of the total population of major urban areas in 1996). Largely associated with this group, a relatively high proportion of people who do not speak English well or at all (4%) live in major urban areas. Previous studies have shown that these groups, particularly recent migrants, have lower employment and income levels than other citizens (see *Australian Social Trends 1998*, Migrants in the labour force, pp. 107–110). Consistent with this, the most disadvantaged CDs in major urban areas had a higher proportion of migrants from countries other than main

English-speaking countries (26%) than their share of the total population in major urban areas (19%); and a higher proportion of people with English language difficulties (9% compared to 4%). In contrast, these groups were not highly represented in the most disadvantaged CDs outside the major urban areas, probably because relatively few people from countries other than main English-speaking countries lived there.

Other dimensions of disadvantage can be seen from the given tables which, taken together, help to show that the needs for support will differ for people living in different areas. More detailed studies showing particular places experiencing disadvantage, of which a number have recently become available, can further help target the provision of services to those in greatest need.[4,5,6,7]

Endnotes

1 *Regional Australia: Making a Difference*, Statement by the Honourable John Anderson MP, Deputy Prime Minister of Australia, Minister for Transport and Regional Services and Senator the Honourable Ian MacDonald, Minister for Regional Services, Territories and Local Government, 9 May 2000, Ausinfo, Canberra.

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Social conditions of Aboriginal and Torres Strait Islander people

POPULATION CHARACTERISTICS

Aboriginal and Torres Strait Islander people are disadvantaged relative to other Australians with respect to a number of social and economic factors, such as education, income, employment and housing. This places them at greater risk of poverty, violence, ill health and reduced wellbeing.

Aboriginal and Torres Strait Islander people make up only a small proportion of Australia's total population. However, as Australia's original inhabitants and carriers of some of the oldest continuous cultures in the world, they have a unique status in our nation. They are also one of the most disadvantaged groups in Australia.[1]

Differences between Aboriginal and Torres Strait Islander people and all Australians are evident across a range of demographic, social and economic indicators. This article presents a summary of these indicators, and highlights some major areas of disadvantage.

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 at the time of European settlement.[1,2] In the years following colonisation, the Indigenous population declined dramatically due to the impact of diseases introduced from Europe and repressive treatment by the new settlers, ultimately leading to social, cultural and spiritual disintegration, and dispossession of their land.[1,2]

At 30 June 1996, Australia's Indigenous population was estimated to be 386,000, which represented 2% of the total Australian population.[3] This showed a 33% growth in the Indigenous population since 1991, which was due in part to increased identification of Indigenous people in Census counts.[3,4,5]

In 1996 over half of Indigenous people lived in New South Wales (29%) and Queensland (27%). The Northern Territory had the most Indigenous people as a proportion of its population (29% compared to about 3% or less of the population of other States or Territories) (see *Australian Social Trends 1998*, Growth and distribution of Indigenous people, pp. 15–17).

Most of the Indigenous population live in major urban and other urban areas, with a smaller proportion living in rural areas. Indigenous people, however, form a larger proportion of the population in rural and remote areas. In the 1996 Census, approximately one in four Indigenous people

Indigenous persons

Indigenous persons are identified in the Census by the standard ABS question, 'Is the person of Aboriginal or Torres Strait Islander origin?'.

Regions

Major urban areas are urban centres with a population of 100,000 and over.

Other urban areas are urban centres with a population of 1,000–99,999.

Rural areas consist of rural localities, which are all population clusters of 200–999, and other rural areas, which are the rural remainder, including people living on separate properties.

Additional information

More detailed and comprehensive information and analysis of the health and welfare of Aboriginal and Torres Strait Islander people can be found in *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples* (Cat. no. 4704.0).

Population profile of Indigenous people, 1996

	Aged under 30 years	*Aged 65 and over*	*Total fertility rate*	*Median age of death*	*Living in major urban areas*	*Living in other urban areas*	*Living in rural areas*
	%(a)	%(a)	rate(b)(c)	years(c)	%(d)	%(d)	%(d)
Indigenous population	68.1	2.6	2.2	50.0	30.3	42.3	27.3
Total population	43.7	12.0	1.8	77.0	62.7	23.2	14.0

(a) Estimated resident population at 30 June 1996.
(b) The number of children a woman would bear during her lifetime if she experienced current age-specific fertility rates at each age of her reproductive life. Does not include Indigenous babies born to couples involving a non-Indigenous mother and an Indigenous father. Fertility rates for Indigenous births may be underestimated due to incomplete identification of Indigenous mothers on birth notification forms.
(c) Refers to 1998.
(d) Census data at August 1996.

Source: 1996 Census of Population and Housing: Aboriginal and Torres Strait Islander People (Cat. no. 2034.0); *Births, Australia*, *1998* (Cat. no. 3301.0); *Deaths, Australia*, *1998* (Cat. no. 3302.0).

were counted in non-urban areas compared with only about one in seven people in the total population.[3] Data on Indigenous people will therefore tend to reflect some of the disadvantages associated with living in rural and remote areas, e.g. distance from services and limited employment opportunities (see *Australian Social Trends 2000,* Socio-economic disadvantage across urban, rural and remote areas, pp. 16–20).

The Indigenous population has a much lower life expectancy than other Australians, therefore the age structure of the Indigenous population is considerably younger than the general population. Two thirds of the Indigenous population (68%) were aged under 30 years of age and very few (3%) were aged 65 and over, compared with 44% and 13% respectively in the general population.

The younger age structure of the Indigenous population has a bearing on some social indicators where age is an associated factor. For example, birth rates may partly be higher among the Indigenous population compared to the total population due to the greater proportion of women of child bearing age within the Indigenous population. Despite the age structure factor, however, there are significant differences in many of the indicators that describe the health and socio-economic status of Aboriginal and Torres Strait Islander people, including fertility and mortality rates (see Health section of this article).

Education

Indigenous people generally have a lower rate of participation in the education system. In 1996, among children aged 16 years, the age at which involvement in post-compulsory secondary school education is most common, only 57% of Indigenous children were students, compared to 84% of all 16 year olds in the total population. The proportion of Indigenous people in the 18–24 year age group attending post-secondary educational institutions was also lower (10% compared to 28%). However, Indigenous people aged 25 years or more had similar post-secondary education participation rates to the total population aged 25 years and over (6% and 5% respectively).

In terms of educational attainment, the 1996 Census showed that a much lower proportion of the Indigenous population held post-secondary qualifications (11%) than the total population (30%). Only 9% of Indigenous people aged 15 years and over had obtained a vocational qualification (basic or skilled), or undergraduate or associate diploma, compared with 20% of the total population aged 15 years and over. The difference between the proportion of Indigenous people who had attained a bachelor degree or higher (2%), and the proportion of the total population who had attained this level of education (10%) was also marked.

Aboriginal and Torres Strait Islander people have reduced access to employment opportunities, which may affect their motivation to participate in education beyond the compulsory years of schooling. Educational attainment limitations in turn affect the ability of Indigenous people to secure employment, and can contribute to a cycle of poverty.

Language and cultural differences also present barriers to participation in education. In 1996, 5% of Indigenous people did not speak English at all. Of the rest, 26% said they did not speak English well (see *Australian Social Trends 1999*, Indigenous languages, pp. 16–20).

Participation in education and educational attainment, 1996

	Indigenous population			*Total population*		
	Males	*Females*	*Total*	*Males*	*Females*	*Total*
	%	%	%	%	%	%
Participation in education						
16 year olds who are students	53.2	60.8	57.0	81.6	85.4	83.5
18–24 year olds in post-secondary education	9.4	11.4	10.4	27.3	29.2	28.2
25 year olds and over in post-secondary education	4.7	6.9	5.9	4.4	4.8	4.6
Educational attainment						
Left school aged 15 years or under	41.1	38.9	39.9	32.9	34.2	33.6
Vocational qualification or undergraduate or associate diploma	10.9	6.7	8.7	26.1	13.3	19.6
Bachelor degree or higher	1.6	2.3	2.0	10.8	10.1	10.4

Source: 1996 Census of Population and Housing: Aboriginal and Torres Strait Islander People (Cat. no. 2034.0); unpublished data, 1996 Census of Population and Housing.

Employment and labour force participation, 1996

	Employment population ratio(a)	Unemployment rate(b)	Employed as labourers(c)	Employed as managers and administrators(c)
	ratio	%	%	%
Indigenous population	21.3	22.8	24.3	3.7
Total population	41.7	9.3	8.7	9.3

(a) Employed persons as a proportion of the total population.
(b) Refers to the 15–64 years age range.
(c) Refers to employed people aged 15 years and over.

Source: 1996 Census of Population and Housing: Aboriginal and Torres Strait Islander People (Cat. no. 2034.0).

Employment

The unemployment rate at the time of the 1996 Census was higher for Indigenous people aged between 15 and 64 years (23%) than for all people in that age group (9%).

Compared to all employees, Aboriginal and Torres Strait Islander employees were more likely to be employed in lower income occupations that may also be perceived as having a lower social status. For example, a higher proportion of the working Indigenous population were employed as labourers (24%, compared to 9%), while a lower proportion were employed as managers and administrators (4%) or senior clerical staff (2%) (compared to 9% and 4% respectively).

The main industries in which Indigenous people were employed in 1996 were health and community services (20% of Indigenous employees) and government administration and defence (15%).[3] For all Australians these industries accounted for 9% and 5%, respectively, of all employees.[3]

The Community Development Employment Projects (CDEP) scheme makes a significant contribution to Indigenous employment. Under this scheme, a community's unemployment benefits are pooled to pay wages to people who are working for the community. The jobs created under this scheme provide employment for Indigenous people who live in remote areas, where employment opportunities may otherwise be extremely limited.[6]

Income

In 1996, the median income received by employed Aboriginal and Torres Strait Islanders was substantially less than that received by employed non-Indigenous people ($365 and $493 per week, respectively). This difference is not completely explained by differences in occupation held, level of qualification or age. Indigenous employees had a lower median weekly income than all employees for nearly every occupation group and every level of qualification.[5]

Consistent with this, and greater levels of dependency on income support, Indigenous households had a lower median weekly income than all households ($540 and $632 respectively).[5]

Living arrangements

The size and age composition of households and families can indicate economic disadvantage when considered in conjunction with income data. At the 1996 Census, the living arrangements of Aboriginal and Torres Strait Islander people were quite different to those of all Australians. For instance, Indigenous households contained an average of 3.7 persons, compared to 2.7 persons in all households.[3] This difference contributed to the difference in household income per capita, which was substantially lower for Indigenous households ($158 per week) than for the total population ($310 per week).

Indigenous families were more likely than other families to be couples with children under 15 years. They also tended to be larger than other families, with 13% having four or more children, compared to 5% of all families. In addition, they were more likely to be one-parent families (30%), than all families (14%). However, Indigenous families were

Weekly income, 1996

	Median income of employed persons			Median household income(a)	Household income per capita(a)
	Males	Females	Total		
	$	$	$	$	$
Indigenous population	387	340	365	540	158
Non-Indigenous population	561	405	493	632	310

(a) Refers to Indigenous people and total population.

Source: 1996 Census of Population and Housing: Aboriginal and Torres Strait Islander People, (Cat. no. 2034.0); unpublished data, 1996 Census of Population and Housing.

Housing and living arrangements, 1996

	Tenure type(a)		Household type(b)			Families(c)
	Owner/ purchaser	Renter	One-family	Two or more families	Lone-person	One-parent families
	%	%	%	%	%	%
Indigenous population	30.8	63.8	80.3	6.2	13.4	29.6
Total population	70.0	27.1	75.0	1.2	23.8	14.5

(a) As a proportion of all households. Households with other tenure not shown.
(b) Family and lone person households only. The definition of Indigenous households does not encompass group households.
(c) As a proportion of all families.

Source: 1996 Census of Population and Housing: Aboriginal and Torres Strait Islander People (Cat. no. 2034.0); unpublished data, 1996 Census of Population and Housing.

also more likely to live in households with other families, and Indigenous households were less likely to be lone-person households, which indicates a greater extended family network exists within Indigenous communities.

There is a lower level of home ownership among the Indigenous population than is the case in the general population. Home ownership is an important indicator of social disadvantage, as it points both to the financial capacity of a household and also to the degree of security, privacy and autonomy that a household enjoys. Indigenous people are more likely to rent their homes than to own or be purchasing their homes (64% of Indigenous households rent compared to 27% of all households).

Crime

People who are socially and economically disadvantaged are at increased risk of becoming involved with the legal system, either as perpetrators or as victims of crime.[7]

Prisoners and imprisonment rates, 1998

	Unit	Indigenous prisoners	All prisoners
Number	no.	3 750	19 906
Median age	years	27.5	30.0
Rate of imprisonment(a)			
Aged 18–19 years	rate	1 888	196.9
Aged 20–29 years	rate	2 837	311.3
Aged 30–39 years	rate	1 877	197.1
Aged 40 years or over	rate	460.2	54.6
All prisoners(b)	*rate*	*1 663*	*139.0*
Offences committed			
Assault	%	24.3	12.0
Break and enter	%	14.7	13.4
Drugs(c)	%	1.2	9.2
Fraud and misappropriation	%	1.3	4.0

(a) Rate per 100,000 people.
(b) Includes 17 year old prisoners in some States.
(c) Includes possession/use, dealing and growing/manufacturing of drugs.

Source: Prisoners in Australia, 1998: Results of the 1998 National Prisoner Census.

At 30 June 1998, there were 3,750 Aboriginal or Torres Strait Islander prisoners in Australia, which represented 19% of the total prisoner population. This was nine times as high as the proportion of Indigenous people in the general population (2%). Indigenous people were about 12 times as likely as other people to be imprisoned (1,663 adult Indigenous people per 100,000 were imprisoned, compared to 139 per 100,000 of all adults), and were much more likely to be imprisoned in every age group.

There were differences in the Indigenous and total imprisonment rates by State, but the Indigenous rate was at least six times the total rate in most States and Territories.[8] The Northern Territory recorded the highest proportion of Indigenous prisoners to all prisoners (73%), followed by Western Australia (32%).[8]

Aboriginal and Torres Strait Islander prisoners tend to have been imprisoned at a younger age than the total prisoner population. The median age of Indigenous prisoners was 27 years, compared with 30 years for all prisoners.

Indigenous prisoners were more likely to have been imprisoned for assault (24%) than all prisoners (12%), and less likely to have been imprisoned for drug related offences (1%) than all prisoners (9%).

Violence is often ignored as a risk factor for poor health, but personal safety is an essential element of wellbeing. Indigenous people are more likely than other Australians to be victims of violence. According to the 1994 National Aboriginal and Torres Strait Islander Survey, of those Indigenous people aged 13 years or more who said they had been attacked or verbally threatened in the year prior to the interview, some 44% indicated they had been attacked or threatened on three or more occasions.[5]

Health indicators

		Indigenous people			Total population(a)		
		Males	Females	Total	Males	Females	Total
Life expectancy(b)	years	56.9	61.7	n.a.	75.2	81.1	n.a.
Infant mortality(c)	rate	n.a.	n.a.	15.2	5.5	4.5	5.0
Cause of death(d)							
Diseases of the circulatory system	%	28.3	26.5	27.6	38.0	43.3	40.5
External causes(e)	%	19.1	10.2	15.4	8.7	4.0	6.5
Neoplasms (e.g. cancers)	%	11.8	13.0	12.3	28.6	25.5	27.1
Diabetes	%	4.8	10.6	7.2	2.4	2.7	2.5
Health conditions(f)							
Diabetes	%	4.0	6.1	5.1	2.3	2.2	2.2
Asthma	%	17.2	20.6	19.0	10.8	11.6	11.2
Risk factors(f)(g)							
Alcohol consumption	%	59.3	40.3	49.3	65.8	45.5	55.5
Smoking	%	55.8	46.3	50.7	26.9	20.0	23.4
Obesity	%	19.5	12.6	15.8	11.0	10.7	10.9

(a) Health conditions and risk factors data refer to the non-Indigenous population.
(b) 1991–1996.
(c) 1998. Rate per 1,000 live births.
(d) 1995–1997 year of occurrence. For WA, SA and NT only.
(e) Includes motor vehicle and other accidents, suicide, homicide, poison, violence and other external causes.
(f) 1995.
(g) For persons aged 18 years and over.

Source: Deaths Australia, 1998 (Cat. no. 3302.0); unpublished data, Deaths Australia; *1995 National Health Survey, Aboriginal and Torres Strait Islander Results* (Cat. No.4806.0).

Health

There is considerable evidence that Aboriginal and Torres Strait Islander people continue to bear a much greater burden of poor health than do other Australians. The health disadvantage of Indigenous people begins early in life and continues throughout their life cycle.

Although the fertility of Aboriginal and Torres Strait Islander women is higher than the national average, so too is infant mortality. In 1994–1996, the babies of Indigenous mothers were about twice as likely to be of low birth weight than those of non-Indigenous mothers (12% of Indigenous babies compared to 6% of non-Indigenous babies had a birth weight of under 2500 grams). They were also more than twice as likely to be stillborn or die within the first 28 days of birth than babies of non-Indigenous mothers (22 perinatal deaths per 1,000 Indigenous births compared to 10 per 1,000 for non-Indigenous births).[10] Birth weight and premature births are influenced by factors such as the age and overall health of the mother and her access to information about nutrition and cigarette smoking during pregnancy.[10]

In the period 1991–1996, life expectancy at birth for non-Indigenous males was 75 years, and for females 81 years; for the Indigenous population, it was 57 years and 62 years for males and females respectively.

Aboriginal and Torres Strait Islander people tend to die at a greater rate and at younger ages than Australians as a whole. Indigenous mortality data from Western Australia, South Australia and the Northern Territory show that in 1995–97, in these three States combined, there were three times as many deaths among both males and females in the Indigenous population than would have been expected in the general population.[11] About 23% of infant deaths were identified as Indigenous in the period.[11] More than half (53%) of deaths among Indigenous males occurred among those aged less than 50 years, compared with 13% of all male deaths in Australia. Similarly, 41% of deaths among Indigenous females, and 7% of all Australian female deaths, occurred before the age of 50.[11]

Age-specific death rates were higher for the Indigenous population than for the total population in every age group, but the largest differences occurred among males and females aged 35–54 years old, among whom the rates were 6–7 times higher. Death rates were disproportionately high among Indigenous males and females for virtually every cause of death. The rates of death from many chronic diseases rose earlier and stayed higher throughout the life span for Indigenous people than for all Australians.[11]

There are many health risk factors that seriously affect the lives of Indigenous people. For example, in a study of alcohol consumption in the Kimberly area of Western Australia, it was noted that '... alcohol has had a major, and generally damaging impact on Aboriginal traditional life, family structure, health and capacity for self-determination'.[12] Despite the lower proportion of Indigenous adults who drink alcohol, alcohol continues to be of concern for Indigenous people because those who do consume alcohol are more likely to do so at hazardous levels. According to the 1995 National Health Survey (NHS), 59% of Indigenous adult males reported recently drinking alcohol compared to 66% of non-Indigenous adult males. Of those, 13% of Indigenous adult males consumed alcohol to high levels compared to 5% of non-Indigenous adult male drinkers.[9] High-risk drinking was less common among females.

Some Indigenous people face a range of barriers that affect their ability to take actions that lead to improved health. These include access problems, such as distance, availability of transport, access to doctors and pharmaceuticals, and access to culturally appropriate services. Language and cultural differences also present barriers to health service utilisation by Aboriginal and Torres Strait Islander people.[5]

While all Australians have free public health cover, a 1997 government funded study found that Indigenous people faced considerable barriers which impede their full access to Medicare and the Pharmaceutical Benefits Scheme (PBS). These barriers related to the extent to which Indigenous people were aware of their entitlements, and to the cultural appropriateness of the enrolment requirements for Medicare and the PBS.[13] These factors, combined with financial disadvantage, may compound the health difficulties faced by Indigenous people: for instance, treatment of illness may be deferred.

The above barriers relate to basic health care needs. In terms of the more comprehensive health cover provided by private health insurance, the 1995 NHS showed that non-Indigenous adults aged 18 years and over living in non-remote areas were nearly four times as likely to report having private health insurance as Aboriginal and Torres Strait Islander people aged 18 years and over living in non-remote areas (43% compared with 11%).[5]

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Family

Family: national summary

LIVING ARRANGEMENTS	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total households	'000	n.a.	n.a.	6 173	6 302	6 446	6 579	6 690	6 762	6 956	7 056	7 186
Lone-person households	%	n.a.	n.a.	21.1	21.8	22.3	22.7	22.8	23.0	23.8	23.8	24.2
Households with three or more persons	%	n.a.	n.a.	47.0	46.3	45.5	44.8	44.5	44.5	43.6	43.2	42.8
Total families	'000	4 319	4 456	4 502	4 587	4 638	4 709	4 791	4 834	4 899	5 027	5 056
Families with children under 15	'000	1 947	1 999	2 002	2 048	2 038	2 041	2 100	2 092	2 130	2 160	2 166
Couple families	'000	3 729	3 812	3 849	3 883	3 929	3 998	4 051	4 080	4 090	4 158	4 197
De facto couple families (of all couple families)(a)	%	n.a.	n.a.	8.2	n.a.	n.a.	n.a.	n.a.	10.1	n.a.	n.a.	n.a.
Couple-only families (of all couple families)	%	48.2	48.2	48.9	48.7	49.3	51.0	51.1	51.9	51.1	51.8	52.3
Couple-only families with female partner aged under 40 (of all couple only families)	%	n.a.	22.5	22.0	22.1	22.3	22.7	21.6	21.3	20.9	21.3	21.3
Couple families with children under 15 (of all families with children under 15)	%	86.0	85.2	84.0	83.5	83.0	82.8	81.5	81.6	80.0	78.4	78.8
Lone father families with children under 15 (of all families with children under 15)	%	1.4	1.6	1.8	1.5	1.7	1.8	1.9	2.0	2.3	2.0	1.9
Lone mother families with children under 15 (of all families with children under 15)	%	12.6	13.2	14.2	14.9	15.3	15.4	16.6	16.3	17.7	19.5	19.3
Families with at least one child aged under 5 (of all families with children under 15)	%	47.4	46.8	47.4	47.4	47.8	47.8	47.4	47.8	47.8	46.2	45.0
Average family size (persons)	no.	3.2	3.2	3.2	3.2	3.2	3.1	3.1	3.1	3.1	3.1	3.1
Children under 15 living in one-parent families (of all children under 15)	%	n.a.	12.7	13.6	14.4	14.8	15.3	16.4	16.3	18.0	19.5	19.0
Persons aged 20–24 living with parents (of all persons aged 20–24)	%	44.7	46.8	47.2	47.4	46.1	44.7	45.2	44.5	46.2	48.0	47.2
Persons aged 25–34 living with parents (of all persons aged 25–34)	%	8.5	9.5	10.7	10.5	10.7	10.5	10.6	10.7	11.5	12.4	11.8
Persons aged 15–64 who live alone (of all persons aged 15–64)	%	5.9	5.7	6.0	6.3	6.8	7.0	7.4	7.6	7.9	8.1	8.2
Persons aged 65 and over who live alone (of all persons aged 65 and over)	%	28.6	29.0	29.4	29.3	31.0	29.4	29.3	29.8	30.7	29.0	29.5

FAMILIES AND WORK	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Couple families with children under 15, both parents employed (of all couple families with children under 15)	%	52.6	54.7	51.8	51.7	50.6	51.1	56.2	54.5	54.4	55.6	54.9
Couple families with children under 15, neither parent employed (of all couple families with children under 15)	%	6.9	6.3	8.1	9.8	10.8	10.0	8.4	7.9	8.6	8.5	7.9
One-parent families with children under 15, parent employed (of all one-parent families with children under 15)	%	46.1	44.2	43.2	40.6	41.4	41.8	43.2	42.7	42.9	42.1	44.0
Children under 15 living in families where no parent is employed (of all children under 15)	%	n.a.	n.a.	n.a.	n.a.	18.8	18.5	17.1	17.2	18.1	19.7	18.3

(a) Includes same-sex couples in 1996.

Reference periods: Data on living arrangements, and on families and work, are at June. Data on de facto couples are at census date.

Family: national summary continued

FAMILY FORMATION	Units	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Registered marriages												
Number of marriages	'000	116.8	117.2	117.0	113.9	114.8	113.3	111.2	109.4	106.1	106.7	110.6
Crude marriage rate (per 1,000 population)	rate	7.1	7.0	6.9	6.6	6.6	6.4	6.2	6.1	5.8	5.8	5.9
Marriages where both partners married for the first time (of all marriages)	%	67.1	67.3	67.4	67.5	67.2	67.1	67.5	67.5	66.4	66.6	66.7
Median age of men at first marriage	years	26.1	26.3	26.5	26.7	26.9	27.0	27.2	27.3	27.6	27.8	27.9
Median age of women at first marriage	years	24.0	24.2	24.3	24.5	24.7	24.8	25.1	25.3	25.7	25.9	26.2
Median age at remarriage (divorced men)	years	38.9	39.3	39.6	39.7	40.1	40.4	40.9	41.1	41.6	41.8	42.0
Median age at remarriage (divorced women)	years	35.3	35.6	36.0	36.1	36.5	36.8	37.4	37.6	38.0	38.2	38.4
Divorce												
Number of divorces	'000	41.0	41.4	42.6	45.6	45.7	48.4	48.3	49.7	52.5	51.3	51.4
Crude divorce rate (per 1,000 population)	rate	2.5	2.5	2.5	2.6	2.6	2.7	2.7	2.8	2.9	2.8	2.7
Median duration between marriage and final separation	years	7.3	7.3	7.3	7.4	7.4	7.6	7.6	7.6	7.6	7.7	7.8
Divorces involving children under 18 (of all divorces)	%	57.5	55.3	55.6	54.2	52.9	52.6	52.4	n.a.	53.6	54.0	53.4
Children under 18 affected by divorce	'000	44.4	43.3	44.9	46.7	45.7	48.1	47.5	n.a.	52.5	51.7	51.6
Fertility												
Births	'000	246.2	250.9	262.6	257.2	264.2	260.2	258.1	256.2	253.8	251.8	249.6
Total fertility rate (per woman)	rate	1.84	1.84	1.91	1.86	1.89	1.86	1.85	1.83	1.80	1.78	1.76
Births to mothers aged under 20 (of all births)	%	5.7	5.7	5.8	5.7	5.4	5.1	5.0	4.9	4.9	4.9	4.7
Births to mothers aged 35 and over (of all births)	%	9.0	9.6	10.0	10.7	11.4	11.9	12.9	13.7	14.6	15.3	16.1
Births outside marriage (of all births)	%	19.0	20.2	21.9	23.0	24.0	24.9	25.6	26.6	27.4	28.1	28.7
Births outside marriage acknowledged by father (of all births outside marriage)	%	74.4	75.9	77.1	79.5	81.0	81.7	82.2	83.3	84.2	85.5	87.1
Women aged 35 and over giving birth for the first time (of all births to women 35 and over)	%	n.a.	n.a.	n.a.	12.7	19.9	19.8	20.8	20.8	21.2	22.4	n.a.
Median age of mothers at first birth	years	n.a.	n.a.	n.a.	26.3	26.5	26.6	26.8	26.9	27.1	27.3	n.a.

CHILD CARE	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Children aged under 3 using formal care (of all children under 3)	%	n.a.	14.0	n.a.	n.a.	17.0	n.a.	n.a.	21.6	n.a.	n.a.	22.3
Children aged under 3 using informal care (of all children under 3)	%	n.a.	44.8	n.a.	n.a.	40.4	n.a.	n.a.	39.3	n.a.	n.a.	43.0

Reference periods: Data on family formation are for the calendar year. Data on child care are at November 1990, June 1993, March 1996 and June 1999.

Family: State summary

LIVING ARRANGEMENTS	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
Total households	'000	1999	2 403	1 748	1 338	610	719	186	65	117	7 186
Lone-person households	%	1999	23.8	23.0	24.0	27.6	25.5	26.1	18.7	24.1	24.2
Households with three or more persons	%	1999	43.4	44.9	42.7	37.1	41.7	38.9	50.2	42.0	42.8
Total families	'000	1999	1 721	1 260	932	411	488	131	37	75	5 056
Families with children under 15	'000	1999	736	533	413	159	213	57	20	34	2 166
Couple families	'000	1999	1 429	1 046	771	341	408	109	29	64	4 197
De facto couple families (of all couple families)(b)	%	1996	9.4	8.4	11.9	9.8	12.0	11.1	19.6	11.3	10.1
Couple-only families (of all couple families)	%	1999	52.0	51.4	52.2	58.1	52.5	52.7	43.9	47.2	52.3
Couple-only families with female partner aged under 40 (of all couple only families)	%	1999	20.8	20.8	22.3	20.4	22.6	17.4	34.9	24.1	21.3
Couple families with children under 15 (of all families with children under 15)	%	1999	79.1	80.2	77.5	75.8	79.7	78.1	73.2	81.7	78.8
Lone father families with children under 15 (of all families with children under 15)	%	1999	1.7	1.5	2.1	1.9	2.3	2.4	* *	2.2	1.9
Lone mother families with children under 15 (of all families with children under 15)	%	1999	19.1	18.2	20.5	22.3	18.0	19.5	23.2	16.1	19.3
Families with at least one child aged under 5 (of all families with children under 15)	%	1999	45.6	45.2	44.2	42.1	44.7	48.0	48.7	47.4	45.0
Average family size (persons)	no.	1999	3.1	3.1	3.1	2.9	3.1	3.0	3.2	3.2	3.1
Children under 15 living in one-parent families (of all children under 15)	%	1999	19.2	17.4	20.3	20.8	18.6	18.7	23.9	16.8	19.0
Persons aged 20–24 living with parents (of all persons aged 20–24)	%	1999	51.9	53.7	37.7	40.7	40.1	40.9	31.0	44.1	47.2
Persons aged 25–34 living with parents (of all persons aged 25–34)	%	1999	13.3	14.8	8.6	11.8	7.1	9.5	*5.7	5.9	11.8
Persons aged 15–64 who live alone (of all persons aged 15–64)	%	1999	7.8	7.3	8.3	10.7	9.5	8.7	*6.7	8.7	8.2
Persons aged 65 and over who live alone (of all persons aged 65 and over)	%	1999	29.0	28.7	31.3	31.2	27.8	33.0	*28.5	26.9	29.5

FAMILIES AND WORK	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Couple families with children under 15, both parents employed (of all couple families with children under 15)	%	1999	54.3	55.1	55.6	53.7	55.3	46.9	72.3	62.3	54.9
Couple families with children under 15, neither parent employed (of all couple families with children under 15)	%	1999	7.9	7.7	8.3	7.9	6.8	14.6	*2.2	5.4	7.9
One-parent families with children under 15, parent employed (of all one-parent families with children under 15)	%	1999	44.6	40.9	45.8	44.3	41.7	42.8	53.6	61.0	44.0
Children under 15 living in families where no parent is employed (of all children under 15)	%	1999	18.8	17.7	18.6	18.2	17.2	24.2	13.2	13.2	18.3

(a) All estimates for the Northern Territory other than household estimates and those for de facto couples, refer to mainly urban areas only.
(b) Includes same-sex couples.

Reference periods: Data on living arrangements, and on families and work, are at June.
Data on de facto couples are at census date.

Family: State summary continued

FAMILY FORMATION	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Registered marriages											
Number of marriages	'000	1998	39.1	26.4	21.3	8.0	10.7	2.6	0.8	1.7	110.6
Crude marriage rate (per 1,000 population)	rate	1998	6.2	5.7	6.2	5.4	5.8	5.5	4.3	5.5	5.9
Marriages where both partners married for the first time (of all marriages)	%	1998	67.8	69.1	63.9	65.5	64.5	62.0	61.7	67.2	66.7
Median age of men at first marriage	years	1998	27.9	28.1	27.7	28.0	28.2	27.6	28.5	27.9	27.9
Median age of women at first marriage	years	1998	26.1	26.6	25.9	26.0	26.2	25.9	26.6	26.2	26.2
Median age at remarriage (divorced men)	years	1998	42.0	41.6	42.2	42.2	42.4	41.9	42.3	42.5	42.0
Median age at remarriage (divorced women)	years	1998	38.0	38.2	38.5	39.5	38.8	38.2	37.9	38.9	38.4
Divorce											
Number of divorces	'000	1998	15.0	12.3	11.3	4.2	5.3	1.3	0.5	1.5	51.4
Crude divorce rate (per 1,000 population)	rate	1998	2.4	2.6	3.3	2.8	2.9	2.8	2.4	(a)	2.7
Median duration between marriage and final separation	years	1998	6.9	7.8	8.1	8.4	8.3	8.8	7.4	8.6	7.8
Divorces involving children under 18 (of all divorces)	%	1998	50.7	51.0	56.5	57.2	53.4	64.3	55.6	56.1	53.4
Children under 18 affected by divorce	'000	1998	13.7	11.8	12.5	4.5	5.2	1.7	0.5	1.7	51.6
Fertility											
Births	'000	1998	85.5	60.5	47.0	18.2	24.7	6.0	3.6	4.0	249.6
Total fertility rate (per woman)	rate	1998	1.79	1.68	1.79	1.70	1.76	1.81	2.20	1.56	1.76
Births to mothers aged under 20 (of all births)	%	1998	4.6	3.2	6.1	4.1	5.5	6.8	12.9	3.5	4.7
Births to mothers aged 35 and over (of all births)	%	1998	16.3	17.7	13.8	17.2	15.4	13.8	11.3	17.7	16.1
Births outside marriage (of all births)	%	1998	26.6	23.3	33.7	30.4	31.8	38.8	58.3	26.4	28.7
Births outside marriage acknowledged by father (of all births outside marriage)	%	1998	86.2	92.0	86.3	89.6	85.9	88.9	67.6	84.4	87.1

CHILD CARE	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT(b)	ACT	Aust.
Children aged under 3 using formal care (of all children under 3)	%	1999	20.7	19.7	25.8	25.5	23.6	20.1	34.8	28.8	22.3
Children aged under 3 using informal care (of all children under 3)	%	1999	43.4	47.7	37.1	50.7	38.3	38.0	32.6	40.8	43.0

(a) Based on the location of the Family Court where the divorce is granted and registered. Due to the large number of divorces granted in the ACT to usual residents of another State, the divorce rate for the ACT is not representative of the ACT population.
(b) Estimates for child care for the Northern Territory refer to mainly urban areas only.

Reference periods: Data on family formation are for the calendar year. Data on child care are at June.

Family definitions and references

Average family size
for any group of families, the total number of family members divided by the number of families in the group
Reference: *Labour Force Status and Other Characteristics of Families, Australia* (Cat. no. 6224.0).

Birth
the delivery of a child irrespective of the duration of pregnancy who, after being born, breathes or shows any evidence of life such as a heartbeat.
Reference: *Births, Australia* (Cat. no. 3301.0).

Births outside marriage
births where the father was not registered as married to the mother at the time of the birth, whether or not the parents were living together at the time of the birth, and whether or not the child may subsequently have been adopted or become legitimate.
Reference: *Births, Australia* (Cat. no. 3301.0).

Births outside marriage acknowledged by father
births outside registered marriage where the father's name is recorded on the birth certificate.
Reference: *Births, Australia* (Cat. no. 3301.0).

Child under 15
a related or unrelated person under 15 years of age who forms a parent-child relationship with one person over 15 years of age resident in the household.
Reference: *Labour Force Status and Other Characteristics of Families, Australia* (Cat. no. 6224.0).

Couple family
a family based on two persons who are in a registered or de facto marriage and who are usually resident in the same household. The family may include any number of dependents, non-dependents and other related individuals. It is not necessary for a parent-child relationship to be formed, thus a couple family can consist of a couple without children present in the household.
Reference: *Labour Force Status and Other Characteristics of Families, Australia* (Cat. no. 6224.0).

Couple-only family
a couple family with no dependent children or other family members (e.g. non-dependent children) present.
Reference: *Labour Force Status and Other Characteristics of Families, Australia* (Cat. no. 6224.0).

Crude divorce rate
the number of divorces granted in the calendar year per 1,000 of the estimated resident population at 30 June of that year.
Reference: *Marriages and Divorces, Australia* (Cat. no. 3310.0).

Crude marriage rate
the number of marriages registered in the calendar year per 1,000 of the estimated resident population at 30 June of that year.
Reference: *Marriages and Divorces, Australia* (Cat. no. 3310.0).

De facto marriage
the relationship between two people who live together in a consensual union who are not registered as married to each other.
Reference: 1996 Census of Population and Housing.

Divorces involving children
divorces of couples with unmarried children of the registered marriage who were under 18 at the time of application for divorce. Under the *Family Law Act 1975,* adopted and ex-nuptial children and children from a former registered marriage may be included (in certain cases). Children who are registered as married or aged 18 or more are not subject to custody and guardianship orders and are excluded.
Reference: *Marriages and Divorces, Australia* (Cat. no. 3310.0).

Employed
persons aged 15 and over who either worked during the reference week for pay, profit, commission, payment in kind or without pay in a family business, or who had a job but were not at work. Also includes employers, own account workers or contributing family workers who had a job, business or farm, but were not at work.
Reference: *Labour Force, Australia* (Cat. no. 6203.0).

Estimated resident population
quarterly estimates of the Australian population are obtained by adding to the estimated population at the beginning of each period the components of natural increase (on a usual residence basis) and net overseas migration. For the States and Territories, account is also taken of estimated interstate movements involving a change of usual residence.
Reference: *Australian Demographic Statistics* (Cat. no. 3101.0).

Family
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, step or fostering; and who are usually resident in the same household. The basis of a family is formed by identifying the presence of a couple relationship, lone parent-child relationship or other blood relationship. Some households will, therefore, contain more than one family.
Reference: *Labour Force Status and Other Characteristics of Families, Australia* (Cat. no. 6224.0).

Formal child care
regulated care, away from the child's home during the previous week. Includes preschool; before and after school care program; long-day care centre; family day care; occasional care and other formal care.
Reference: *Child Care, Australia* (Cat. no. 4402.0).

Household
a person living alone or a group of related or unrelated people who usually reside and eat together.
Reference: *Australian Demographic Statistics* (Cat. no. 3101.0).

Informal child care
non-regulated care either in the child's home or elsewhere, in the previous week. It includes care by (step) brothers or sisters; care by relatives (including non-custodial parents) and by non-relatives such as friends, neighbours or baby sitters. It may have been paid or unpaid.
Reference: *Child Care, Australia* (Cat. no. 4402.0).

Lone parent
a person who has no spouse or partner present in the household but who forms a parent-child relationship with at least one dependent or non-dependent child usually resident in the household.
Reference: *Labour Force Status and Other Characteristics of Families, Australia* (Cat. no. 6224.0).

Family definitions and references continued

Median
the value at which half the population falls above and half falls below.

Median age of mothers at first birth
actually the median age of mothers at first confinement. A confinement is a pregnancy which results in at least one live birth: multiple births (e.g. twins) may be involved.
Reference: Australian Institute of Health and Welfare, *Australia's Mothers and Babies (1996)*.

Median duration of marriage to separation
the median interval between the date of registered marriage and the date of separation.
Reference: *Marriages and Divorces, Australia* (Cat. no. 3310.0).

One-parent family
a family consisting of a lone parent with at least one dependent or non-dependent child (regardless of age) who is also usually resident in the household. The family may also include any number of other dependent children, non-dependent children and other related individuals.
Reference: *Labour Force Status and Other Characteristics of Families, Australia* (Cat. no. 6224.0).

Registered marriages
refers to formally registered marriages for which the partners hold a certificate.
Reference: *Marriages and Divorces, Australia* (Cat. no. 3310.0).

Total fertility rate
the average number of children a woman would bear during her lifetime if she conformed to the current age-specific fertility rates.
Reference: *Births, Australia* (Cat. no. 3301.0).

Women giving birth for the first time
Multiple births (e.g. twins or triplets) may be involved at the time of first birth.
Reference: Australian Institute of Health and Welfare, *Australia's Mothers and Babies (1996)*.

Children with parents with a disability

FAMILY FUNCTIONING

In 1998, over 840,000 children aged 0–17 years (18% of all children) lived with a parent who had a disability.

Although for many people the onset of disability, particularly physical disability, is associated with the later stages of life, many young and middle aged adults also have restrictive disabilities. These people may be parents at the time of the onset of their disability, or may wish to become parents. Over the last twenty years or so, disability legislation has promoted the rights of people with disabilities. At the same time, the application of normalisation principles, de-institutionalisation, and corresponding shifts in social attitudes have decreased the barriers faced by people with a disability who want to have children.[1]

There are a wide range of issues faced by families in which one or both parents have a disability. These issues differ according to the life stage of the family.

When children are very young, the capacity of parents who have a disability to fully care for their children, and the adequacy and availability of specialised support services, are important issues. While a range of support services is available to people with disability in the arenas of employment and accommodation, there is a more limited range of services supporting the needs of parents with a disability.[1] Disability services are typically set up to support families in which the family member with the disability is the child, not the parent.[1] Parent support groups can lack the specialised equipment or training needed to cater for people with a disability and, conversely, disability support services may not be set up to provide parenting guidance.[1]

As children grow older, the extent to which they take on a caring role for their parents and their access to educational and other opportunities become issues. Finally, when children reach adulthood, their freedom to leave home and to begin independent lives may be affected by their parent's disability.

These issues may be compounded by the socioeconomic disadvantage sometimes faced by families in which one or more parents have a disability (for example, see *Australian Social Trends 1997*, Employment of people with a handicap, pp. 104–108).

This review presents data from the 1998 Survey of Disability, Ageing and Carers. It describes the extent to which there are families with children in which parents have a disability, and the numbers of children affected. It also looks briefly at the caring role played by children in such families and examines the possible effects on educational participation of young people living with a parent with a disability.

Families in which a parent had a disability(a), 1998

	Families in which a parent had a disablity		*Children living with parent(s) with a disability*	
	Number	*Among all families*	*Number*	*Among all children(b)*
Age of children/ family type	'000	%	'000	%
Age of children (years)				
0–4	137.6	14.2	180.4	14.0
5–11	221.0	17.5	331.3	17.9
12–14	145.1	20.5	162.2	20.9
15–17	155.8	22.3	169.8	22.0
Total under 18	(c)442.5	(c)18.0	843.7	18.0
Family type				
Couple families with children aged 0–17	355.9	18.2	696.8	18.2
Lone-parent families with children aged 0–17	86.6	17.0	147.0	17.4

(a) Parents with a disability refers to those with a specified activity restriction (see p. 36).
(b) Who lived with their parent(s).
(c) As families can have more than one child in any age group, components do not add to the total.

Source: Unpublished data, 1998 Survey of Disability, Ageing and Carers.

Families affected

In 1998 there were 442,500 families with children aged 0–17 years (18% of all families with children aged 0–17 years) in which at least one parent had a disability that involved a specific restriction (see box). Of these, 355,900 were couple families and 86,600 were lone-parent families.

Families in which younger children were present were less likely to be families in which a parent had a disability, than those with older children. Among families with children aged 0–4 years the proportion in which a parent had a disability was 14%, compared to 22% in families with children aged 15–17 years. This age-related difference is partly because the onset of disability is more likely to occur later in life, when children in a family are likely to be older. (The disability rate among adults in

1998 increased from 9% among those aged 25–34 years to 29% of people aged 55–59 years and 33% of those aged 60–64 years).[2]

Children affected

In total there were 843,700 children living with a parent with a disability in 1998. The proportion of children living with parents with a disability was much the same among those living with both parents (18%), as among those living with one parent (17%). Similarly, the likelihood of children aged 0–17 years living with a lone parent with a disability was much the same among children in lone-mother families, where 17% had a mother with a disability, as among children in lone-father families, where 18% had a father with a disability. However, reflecting the distribution of lone-father and lone-mother families in the general population, fewer children lived with a lone father with a disability than with a lone mother with a disability (16,300 and 130,600 respectively).

Among the 3.8 million children aged less than 18 years who were living with both parents, 7% (250,800) lived in a family where only their mother had a disability, 9% (356,400) in one where only their father had a disability and 2% (involving 89,500 children) lived in a family where both their parents had a disability.

Type and severity of disability

The issues relating to parents whose disability is the result of a physical condition can be quite different from those faced by parents whose disability results from a mental or behavioural disorder. Parents with a physical condition may have mobility and/or sensory restrictions. Their support needs may primarily revolve around equipment, communication and access issues. Parents with mental or behavioural disorders may, in contrast, be physically capable of caring for their children, but face motivational or intellectual barriers to effective parenting.[1]

Of those children living with a parent with a disability, 91% lived with a parent whose main condition was a physical condition, and 11% with a parent whose main condition was a mental or behavioural disorder. There were 18,800 children (2%) who lived in families where one parent had a physical disability and the other had a mental or behavioural disorder.

The likelihood of a child having a parent with a physical condition as opposed to a mental or behavioural disorder was much the same across age groups. However, a slightly higher

Defining disability

The term 'disability' includes a wide range of disorders with considerable variation in degree of severity. In this review, *disability* is defined as the presence of one or more specific restrictions which had lasted, or were expected to last, for six months or more. Parents who had a disorder or disability but did not have a specific restriction have been grouped with parents who did not have a disability.

The specific *restrictions* used to identify parents with a disability included a restriction (mild to profound) in any of the core activities specified below, or cases where the parent had an employment restriction. These restrictions may have existed by themselves or in conjunction with one another.

Core activities:

- Self care – bathing or showering, dressing, eating, using the toilet and managing incontinence;
- Mobility – moving around at home and away from home, getting into or out of a bed or chair; using public transport;
- Communication – understanding and being understood by others (strangers, family and friends).

Severity of disability:

- Profound – the person is unable to do, or always needs help or supervision with a core activity task;
- Severe – the person sometimes needs help with a core activity task;
- Moderate – the person needs no help or supervision but has difficulty with a core activity task;
- Mild – the person uses aids and equipment but needs no help with a core activity task.

Employment restriction:

- The person may be restricted in type of work or number of hours, may need a modified working environment or special equipment, or may not be able to work at all.

Type of disability:

- *Physical condition* includes cancers, endocrine diseases, diseases of the nervous system, eye, ear, circulatory system, respiratory system, digestive system and musculo-skeletal system, congenital disorders, injuries and other physical conditions;
- *Mental or behavioural disorder* includes psychoses, neuroses, intellectual and developmental disorders, and other mental or behavioural disorders.

For further details of definitions and methodologies used in the Survey of Disability, Ageing and Carers, refer to *Disability, Ageing and Carers, Australia, 1998: User Guide* (Cat. no. 4431.0).

Children aged 0–17 living with a parent with a disability(a), by type and severity of parent's disability, 1998

	Main condition(b)		Severity of restriction(c)		
	Physical condition	Mental or behavioural disorder	Profound or severe	Moderate or mild(d)	Total children
	%	%	%	%	'000
Age of children (years)					
Aged 0–4	87.8	13.8	23.0	77.0	180.4
Aged 5–11	91.3	10.9	29.0	71.0	331.3
Aged 12–14	92.3	9.8	29.8	70.2	162.3
Aged 15–17	91.5	11.6	36.5	63.5	169.8
Total under 18	90.8	11.5	29.4	70.6	843.7
Family type					
Couple families	92.4	10.3	30.6	69.4	696.8
Lone-parent families	82.8	17.2	23.6	76.4	147.0

(a) Involving a specific restriction.
(b) Children in couple families in which both parents had a disability are counted twice in cases where the type of disability of each parent differed.
(c) Children in couple families in which both parents had a disability are only counted once. Where the severity of the disability differed, children were counted as having a parent with a profound or severe disability.
(d) Includes children whose parent(s) had an employment restriction only.

Source: Unpublished data, 1998 Survey of Disability, Ageing and Carers.

proportion of children aged 0–4 years (14%) had a parent with a mental or behavioural disorder compared to children in older age groups (between 10% and 12%).

Another difference, in terms of the type of disability parents have, can be seen between those children living in lone-parent families, and those living in couple families. The proportion of children living in lone-parent families with a parent with a mental or behavioural disorder was substantially higher than the proportion living in couple families (17% and 10% respectively).

The severity of a parent's disability is also likely to affect their ability to fulfil their parenting roles. Those parents with more severe conditions are also more likely to need help from others (including their children) in meeting household needs, and their own day-to-day needs.

The 1998 Survey of Disability, Ageing and Carers showed there were 247,900 children (29% of all children with a parent with a disability) who had at least one parent with a profound or severe disability. Once again there was an age-related difference: older children were more likely than younger children to have a parent with a profound or severe disability.

There were 213,200 children (31%) living in couple families in which at least one parent had a profound or severe disability. Of the 89,500 children living in couple families where both parents had a disability, there were 7,600 whose parents both had a profound or severe disability, 39,800 who had one parent with a profound or severe disability and the other with a less restrictive disability, and 42,200 whose parents both had a less than severe disability. Of children living in lone parent families, 34,700 lived with a parent with a profound or severe disability.

Children as carers

The 1998 Survey of Disability, Ageing and Carers obtained information about the extent to which parents with a disability received care or assistance from their children because of their disability. Although very few children under the age of 18 (fewer than 5,500) took primary responsibility for caring for their parent(s), in 1998 there were 106,400 children (13% of all children living with a parent with a disability) who provided some type of informal care for a parent, because their parent had a disability. Most of these (78%) were of high school age, that is, aged 12–17 years. This high proportion partly reflects the fact that older children were more likely to have a parent with a disability, and to have a parent with a profound or severe disability. However it would also be expected that older children would be more likely to be called on to assist parents because of their greater capacity to assist.

The care provided by children aged 12–17 ranged from help with simple tasks to more substantial care. It included direct care of the

Caring roles of children aged 12–17 with a parent with a disability(a), 1998

	Those giving care	
	Number	*Of all children(b)*
Type of care provided	'000	%
Direct care		
Personal care	17.4	5.2
Mobility care	20.2	6.1
Health care	10.1	3.0
Total(c)(d)	33.5	10.1
Other help		
Home maintenance	36.6	11.0
Domestic	44.6	13.4
Meal preparation	13.2	4.0
Total(d)(e)	81.9	24.7
Any form of care(d)	**82.9**	**25.0**

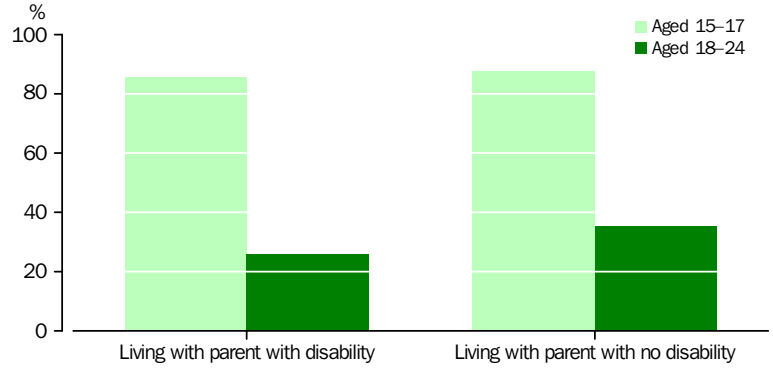
(a) Involving a specific restriction.
(b) Of all aged 12-17 years with parent(s) with a disability.
(c) Includes help with verbal communication.
(d) Components may exceed totals as children can provide more than one type of care.
(e) Includes financial management and transport help.

Source: Unpublished data, 1998 Survey of Disability, Ageing and Carers.

parent, for example, where the child helped their parent to move around the house, to communicate, or to shower or eat. It also included general household help, for example where the child helped their parent prepare or cook meals, write letters, check bills, vacuum, garden or make minor home repairs.

Overall, a greater proportion of children provided care in the form of general household help (25%). However, 34,000 children (10% of all children aged 12–17 years who had a parent with a disability) provided some form of direct care for their parent. The most common form of direct care given was related to assisting parents with mobility (involving activities such as getting in or out of bed or a chair or moving around the house). There were 20,200 children who provided mobility assistance to parents. The next most common form of direct care was personal care (including assisting with such activities as eating, dressing or toiletting) which was provided by 17,400 children.

Participation of children in school or other full-time education, 1998



Source: Unpublished data, 1998 Survey of Disability, Ageing and Carers.

Effects on educational participation

It might be expected that some of the life opportunities of children with parents with a disability would be affected by their parent's disability. Adults with a disability typically have lower incomes than those without disabilities,[2] and this in itself is likely to have an impact on the well-being of their children.

To the extent that at least some children are involved in caring for their parents, opportunities for participation in schooling and further education might also be affected. However, broad data from the 1998 Survey of Disability, Ageing and Carers suggests this impact might be relatively low. For example, the survey showed there was little difference in the proportions of children in the non-compulsory schooling age bracket (taken as those in the 15–17 year age range) attending school or full-time study, between those who had parents with a disability and those who did not (86% compared to 88%). However, a slightly greater difference was evident among people aged 18–24 years who were living with a parent. Only 26% of those who lived with a parent with a disability were attending full-time study, compared to 35% of those whose parents did not have a disability.

Endnotes

1 Lewellyn, G. 1995, 'Community services for parents with intellectual disability: specialist or generic?', in *Social Policy and the Challenges of Social Change: Reports and proceedings of the National Social Policy Conference, vol. 2*, Saunders, P. and Shaver, S., Social Policy Research Centre, University of New South Wales, Sydney.

2 Australian Bureau of Statistics 1999, *Disability, Ageing and Carers: Summary of Findings, Australia, 1998,* Cat. no. 4430.0, ABS, Canberra.

Young adults living in the parental home

LIVING ARRANGEMENTS

Between 1986 and 1999, the proportion of young adults in their twenties who were living in the parental home increased from 27% to 31%. While the increase was greater for women, men still outnumbered women living at home in 1999 by a ratio of 149:100.

For young adults in Australian society, leaving the parental home is generally seen as an important step in the transition from a largely dependent childhood to adult independence and full social maturity. For many, this step is deferred until education is completed and/or financial independence is achieved, and may often coincide with entry into a committed couple relationship.

It is reasonable to expect, therefore, that trends in the proportions of young adults living in the parental home will be linked to trends in related factors such as participation in education, age at first marriage, labour force status and government funded income support programs for young adults. However, analysis of data from the ABS Labour Force Survey shows that these links are not as clear as might be expected. It also highlights differences between different age groups within the young adult population.

Increase in young adults living in the parental home

Between 1986 and 1999, there was an increase of 162,000 in the number of young adults living at home. This represents a small proportional increase, from 47% to 49% of the total population aged 15–29 years.

However, the increase was confined to the older age groups, with 20–24 year olds and 25–29 year olds accounting for about half each of the overall increase in the number of young adults living at home. The proportion of 20–24 year olds living at home increased from 42% in 1986 to 47% in 1999. During the same period, the proportion of 25–29 year olds living at home increased from 12% to 17%. For both age groups, the rate of increase was greater for women than for men.

Between 1986 and 1999, there was a slight decline in the proportion of 15–19 year olds living at home, primarily due to changes in the composition of the total population aged 15–19 (i.e. a decrease in the proportion, and number, aged 15–17 and an increase in the proportion, and number, aged 18–19).[1] These compositional changes were reflected in the population living at home. While most 18–19 year olds live at home, they are much less likely to do so than 15–17 year olds and this has contributed to the decline in the proportion of 15–19 year olds living at home (from 89% in 1986 to 87% in 1999). In addition, 18–19 year olds were less likely to be living at home in 1999 than in 1986 (74% compared to 78%).

Living arrangements of young adults

The statistics on living arrangements, and other characteristics, of young adults presented in this article, are taken from the ABS Labour Force Survey.

Estimates on living arrangements are based on relationship in household coding which relates only to persons aged 15 years and over who are usual residents of private dwellings. Visitors to private dwellings and people living in non-private dwellings (including hotels, motels, hospitals and other institutions) are excluded. See *Labour Force, Australia* (Cat. no. 6203.0) for more information on survey scope and methodology.

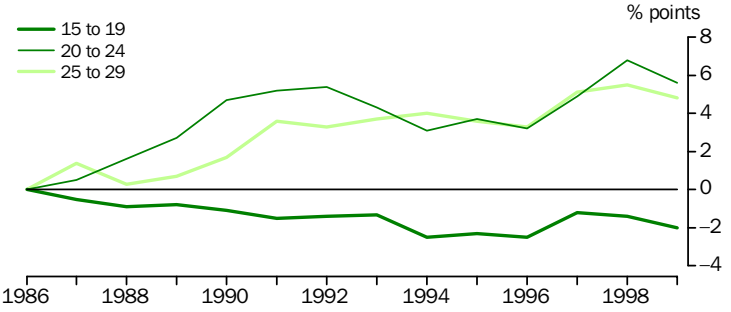
Young adults refers to persons aged 15–29 years.

Young adults living in the parental home are those 15–29 year olds who are living with one or both parents and who are themselves neither a parent nor a partner in a couple relationship. This group is also referred to as *living at home* throughout the text.

Total population of young adults comprises young adults living in the parental home (as defined above); other 15–29 year olds living with their parent(s) (i.e. those in a couple relationship and/or with children of their own); and all 15–29 year olds not living with their parent(s).

Proportion of young adults living in the parental home – for any group of young adults, the number living in the parental home (as defined above) expressed as a percentage of the total population in the same group.

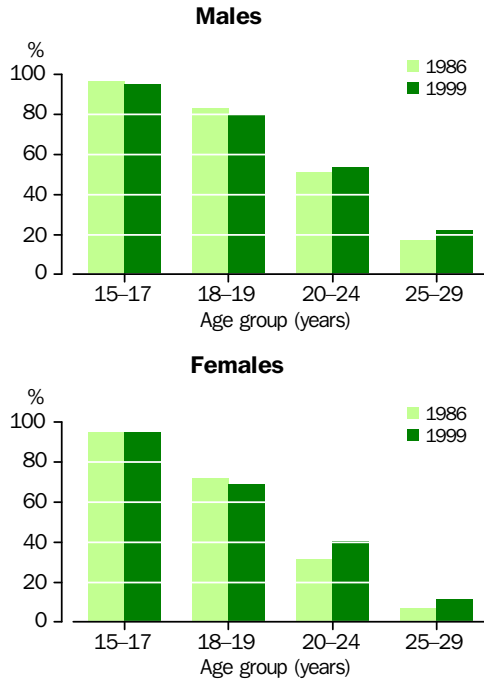
Cumulative change(a) in the proportion of young adults living in the parental home, 1986–1999



(a) For each year, the percentage of young adults living at home in that year, minus the percentage living at home in 1986.

Source: Unpublished data, Labour Force Survey, June 1986–1999.

Proportion of young adults living in the parental home



Source: Unpublished data, Labour Force Survey, June 1986 and June 1999.

Sex ratios(a) of young adults living in the parental home

	1986	*1999*
Age group (years)	ratio	ratio
15–17	104.7	104.2
18–19	118.5	120.9
Total 15–19	*109.0*	*109.5*
20–24	165.5	136.0
25–29	254.2	187.9
Total 20–29	*181.7*	*148.6*
Total 15–29	**131.3**	**124.7**

(a) The number of males for every 100 females.

Source: Unpublished data, Labour Force Survey, June 1986 and June 1999.

Age/sex profile of young adults living in the parental home

The likelihood of young adults living in the parental home decreases rapidly with age. Consequently, the majority (57%) of young adults living at home in 1999 were under twenty years of age; 31% were aged 20–24; and 12% were aged 25–29. Nevertheless, this represents an older age profile than in 1986.

Young men outnumber young women living in the parental home, and the sex ratio (number of males for every 100 females) increases with age. In 1999, the sex ratio of young adults living at home ranged from 104 among 15–17 year olds up to 136 for 20–24 year olds and 188 for 25–29 year olds. However, the predominance of men among the older age groups was less marked than in 1986 when the sex ratio was 166 for 20–24 year olds and 254 for 25–29 year olds living at home.

The age/sex profile of young adults living at home is linked, at least in part, to age at first marriage (see *Australian Social Trends 1997*, Age at first marriage, pp. 27–29). Because young adults living in the parental home generally leave when they marry, and the likelihood of being married increases with age, the proportion of young adults living at home decreases with age. Also, because men generally marry at later ages than women, men in their twenties are more likely to be living at home than women of the same age.

Similarly, the increase between 1986 and 1999 in the proportions of men and women in their twenties living at home reflects the trend towards marriage at older ages, which in turn may be linked to increased levels of participation in tertiary education. The impact of these trends was greater for women because:

- more women than men in their twenties would otherwise have left home to marry at earlier ages; and
- the increase in education participation during this period was greater for women than for men.

Student status

Students are more likely to be living at home than non-students and full-time students are more likely to be living at home than part-time students (see *Australian Social Trends 1994*, Living with parents, pp. 43–46). In 1999, 84% of full-time students aged 15–24 were living at home compared to 54% of others (i.e. part-time students plus those not studying at all) in the same age group. Younger students, particularly those still at school, were more likely to be living at home than older students. In 1999, 97% of school students were living at home compared to 78% of full-time tertiary students aged 15–19 and 52% of full-time tertiary students aged 20–24. (The Labour Force Survey does not provide information on student status for 25–29 year olds).

The numbers of full-time students living at home increased by more than a third between 1986 and 1999, reflecting the rise in

Age, sex and student status of young adults living in the parental home, 1986 and 1999

	Proportion living at home		Number living at home		Composition of population living at home	
	1986	*1999*	*1986*	*1999*	*1986*	*1999*
	%	%	'000	'000	%	%
Males	53.4	54.2	1 000.6	1 068.3	56.8	55.5
Females	41.3	44.1	762.3	856.3	43.3	44.5
Age group (years)						
15–17	95.7	95.1	743.7	730.0	42.2	37.9
18–19	77.6	74.1	361.6	366.3	20.5	19.0
Total 15–19	*88.9*	*86.9*	*1 105.2*	*1 096.4*	*62.7*	*57.0*
20–24	41.6	47.2	506.5	594.9	28.7	30.9
25–29	12.0	16.8	150.8	233.2	8.6	12.1
Total 20–29	*26.6*	*31.2*	*657.3*	*828.0*	*37.3*	*43.0*
Full-time students						
School, 15–19 years	98.4	97.3	535.2	641.2	30.4	33.3
Tertiary, 15–19 years	83.4	78.4	102.0	174.4	5.8	9.1
Total 15–19 years	*95.7*	*92.6*	*637.2*	*815.6*	*36.2*	*42.4*
Tertiary, 20–24 years	58.5	52.4	54.6	127.6	3.1	6.6
Total 15–24 years(a)	*91.0*	*83.8*	*692.8*	*943.6*	*39.3*	*49.0*
Not full-time students(b)						
15–19 years	81.1	73.8	468.0	280.8	26.6	14.6
20–24 years	40.2	45.9	450.9	466.9	25.6	24.3
Total 15–24 years	*54.0*	*53.5*	*918.9*	*747.7*	*52.1*	*38.9*
Total 15–29 years(c)	**47.4**	**49.2**	**1 762.5**	**1 924.5**	**100.0**	**100.0**

(a) Includes school students aged 20 years.
(b) Comprises part-time students and those not studying at all.
(c) Includes 25–29 year olds, for whom information on student status is not available.

Source: Unpublished data, Labour Force Survey, June 1986 and June 1999.

school retention rates and increased participation in tertiary education among 15–24 year olds in general (see *Australian Social Trends 2000,* Education: national summary table, p. 82). In 1999, full-time students accounted for more than half (56%) of 15–24 year olds living at home, compared to 43% in 1986.

Since full-time students are more likely to live at home than others in the same age group, it follows that higher rates of participation in education should result in increasing proportions of young people living at home. As previously noted, however, the proportion of 15–19 year olds living at home declined slightly between 1986 and 1999. In this age group, the impact of increased participation in education was offset by a combination of factors:

- School students, those most likely to live at home, decreased as a proportion of all full-time students aged 15–19 (partly because of the decrease in the population aged 15–17, and partly because the increase in education participation was greater among 18–19 year olds than among 15–17 year olds);
- full-time students, particularly tertiary students, aged 15–19 were less likely to be living at home in 1999 than in 1986; and
- other 15–19 year olds were also less likely to be living at home in 1999 than in 1986 (74% compared to 81%).

Even though full-time students aged 20–24 were also less likely to be living at home in 1999 than in 1986 (like those aged 15–19), the overall proportion of 20–24 year olds living at home increased between 1986 and 1999 (from 42% to 47%). This was mainly because:

- increases in education participation rates were greater for 20–24 year olds than for 15–19 year olds; and
- unlike 15–19 year olds, 20–24 year olds who were not full-time students were more likely to be living at home in 1999 than in 1986 (46% compared to 40%).

Labour force status of young adults living in the parental home, 1986 and 1999

	Proportion living at home		Composition of population living at home	
	1986	1999	1986	1999
	%	%	%	%
Aged 15–19 years				
Employed full-time	85.4	78.2	31.0	14.9
Employed part-time	92.0	90.1	17.8	32.5
Unemployed	80.8	77.7	9.9	8.5
Not in the labour force	92.7	90.0	41.3	44.1
Total aged 15–19 years	*88.9*	*86.9*	*100.0*	*100.0*
Aged 20–24 years				
Employed full-time	44.9	50.3	72.2	57.6
Employed part-time	39.9	52.9	8.7	23.0
Unemployed	45.8	44.7	8.5	8.4
Not in the labour force	26.9	31.3	10.6	11.1
Total aged 20–24 years	*41.6*	*47.2*	*100.0*	*100.0*
Aged 25–29 years				
Employed full-time	14.4	18.5	76.3	71.7
Employed part-time	6.8	13.3	5.8	10.3
Unemployed	17.5	24.7	7.9	8.5
Not in the labour force	5.8	9.9	10.0	9.6
Total aged 25–29 years	*12.0*	*16.8*	*100.0*	*100.0*

Source: Unpublished data, Labour Force Survey, June 1986 and June 1999.

Labour force status

The income associated with having a full-time job gives young adults the means to leave the parental home and live independently. Consequently, it might be expected that young adults in full-time employment would be the least likely to be living at home and that those who were unemployed would be among the most likely to be living at home. However, this is not generally the case.

In 1999, it was only among 25–29 year olds that the unemployed were the most likely to be living at home (and more likely to be living at home than in 1986). There was a slight decline in the proportions of unemployed 15–19 year olds and 20–24 year olds living at home and, in 1999, the unemployed were among the least likely, in either age group, to be living at home.

This may be linked to changes in government income support policy which has moved towards transferring some of the costs of supporting dependent young adults, particularly those under 25 years of age, back to their families.[2] For example, it may be that the additional financial pressures on families have led to a greater incidence of family breakdown, thus reducing, rather than increasing, the proportions of the younger unemployed living at home.

Similarly, it was only for 15–19 year olds that the full-time employed were among the least likely to be living at home (and less likely to be living at home than in 1986). For 20–24 year olds and 25–29 year olds, there was an increase in the proportion of full-time employed living at home and, in 1999, they were the second most likely to be living at home in both of these age groups.

Clearly then, financial dependence on parents is not the only factor that motivates young adults to continue living in the parental home, or to return after a period of living elsewhere. For example, financially independent young adults may choose to remain at home until they marry, or to return home after the break up of a relationship. Increases, between 1986 and 1999, in the proportions of 20–29 year olds living at home (not only those in full-time employment) may be partly related to the delaying of marriage on the one hand and the increasing divorce rate on the other (see *Australian Social Trends 2000*, Family: national summary table, pp. 28–29).

Between 1986 and 1999 there was a shift in the labour force composition of young adults living at home: a decline in the proportions in full-time employment balanced by a rise in the proportions in part-time employment. This was particularly marked for 15–19 year olds and 20–24 year olds, and can be explained, at least partly, by the increased representation of full-time students in these age groups. Students take up a high proportion of the part-time work available for young people and, in 1986, full-time students accounted for 77% of all 15–19 year olds, and 27% of all 20–24 year olds, in part-time employment. By 1999 this had increased to 81% and 45% respectively. Between 1986 and 1999, the proportion of all full-time students employed part-time increased from 25% to 36% among 15–19 year olds and from 31% to 48% of 20–24 year olds. In 1999, the part-time employed among these younger groups were the most likely to be living at home.

Endnotes

1 Australian Bureau of Statistics, *Estimated Resident Population of Australia, States and Territories* (Cat. no. 3201.0), AusStats spreadsheets on ABS Web site <URL: http://abs.gov.au>, (Accessed 10 May 2000).

2 McDonald, P. 1995, *Families in Australia: a Socio-demographic Perspective,* Australian Institute of Family Studies, Melbourne.

People without partners

LIVING ARRANGEMENTS

In 1996, about one in five people aged 35 to 54 did not have a partner. The likelihood of not having a partner among people in this age range was higher than that observed in 1986.

Recent decades have seen young people defer marriage to increasingly older ages. At the same time there has been an increase in the divorce rate. Consistent with these trends, and with the ageing of the population, there has been an increase in people living alone and in one-parent families. These factors have contributed to an increase in the number and proportion of the adult population who do not have a partner. In 1996, 4.4 million people, 37% of the adult population, were living without partners, up from 33% in 1986. If such trends continue, they will have an impact on the housing market and the provision of home health care. They could also affect the well-being of the population, because many people without partners live by themselves, increasing their risk of social isolation (see *Australian Social Trends 1999*, Spending time alone, pp. 35–38).

Age and sex pattern

The likelihood of a person having a partner changes across the life course, with a similar overall pattern by age observed in 1986 and 1996. In the youngest age group, 18–24 years, most people were without a partner, but beyond that age people without partners were in the minority. The proportion who were without a partner was lowest in age groups in the range 35–54 years. The proportion increased again in older age groups which include many widowed people.

The proportion without a partner was higher for men than women in age groups under 35 years, partly reflecting the tendency for men to marry at older ages than women (and hence to be somewhat older than their partners). In the oldest age groups, a greater proportion of women than men were without partners, due to the longer life expectancy of women and the fact that their male partners are on average somewhat older.

Between 1986 and 1996 the proportion of people without partners increased in each age group under 55, for both sexes. However in older age groups it increased among men but decreased among women. This may partly be because the difference in life expectancy between males and females has decreased, particularly at older ages (see *Australian Social Trends 2000,* Health: national summary table, pp. 58–59).

People with and without partners

In this review, people without partners are those adults (aged 18 years and over) who do not live with a spouse, either in a legal marriage or a defacto marriage relationship.

People in same-sex couple relationships have been excluded from counts of partnered people because of data quality and data availability issues. A proportion of 'people without partners' as defined in this review would therefore consist of such couples. People who were in a registered or defacto marriage relationship but who were not living with their partner are defined as without partners.

Because age affects a person's likelihood of living without a partner, some data in this review, as indicated, have been standardised to the age distribution of the total population. This allows groups to be compared with the age effect removed.

Proportions of men and women without partners

	1986			1996		
	Men	*Women*	*Persons*	*Men*	*Women*	*Persons*
Age group (years)	%	%	%	%	%	%
18–24	83.0	66.2	74.6	87.3	76.2	81.7
25–34	32.4	23.9	28.1	41.8	32.5	37.0
35–44	16.6	17.3	16.9	23.2	23.3	23.2
45–54	15.8	19.0	17.4	19.6	23.3	21.4
55–64	17.7	28.3	23.0	19.2	28.0	23.6
65 and over	24.8	57.7	43.4	25.4	55.6	42.2
Total	**31.8**	**34.0**	**32.9**	**35.2**	**38.0**	**36.6**

Source: Unpublished data, 1986 and 1996 Censuses of Population and Housing.

People without partners, 1996

	Marital Status				Living Arrangements				
	Never married	*Married(a)*	*Divorced/ separated*	*Widowed*	*Lives with parent(s)*	*Lone parent(b)*	*Lives alone*	*Lives with other related or unrelated individuals*	*Total people without partners*
Age group (years)	%	%	%	%	%	%	%	%	'000
Men									
18–24	98.9	0.5	0.5	0.1	65.4	0.3	6.9	27.4	704.0
25–34	86.9	2.4	10.4	0.2	35.6	2.1	26.0	36.3	509.4
35–44	55.6	3.8	39.3	1.2	19.8	10.3	44.4	25.5	286.7
45–54	34.8	4.5	56.7	4.0	11.9	15.4	51.5	21.3	204.1
55–64	30.7	4.8	51.8	12.6	5.3	10.7	61.7	22.3	130.4
65 and over	21.7	4.8	25.6	48.0	0.6	7.9	70.8	20.7	207.0
Total	*71.2*	*2.6*	*19.9*	*6.3*	*35.8*	*5.1*	*31.4*	*27.8*	*2 041.6*
Women									
18–24	97.5	0.7	1.6	0.2	56.7	7.0	6.9	29.4	614.7
25–34	73.9	2.6	22.5	1.1	22.9	30.6	19.0	27.5	419.7
35–44	35.4	3.7	56.4	4.5	8.0	56.2	22.7	13.1	304.6
45–54	18.4	4.4	63.5	13.7	5.5	44.6	35.5	14.5	243.4
55–64	12.3	3.4	42.4	41.9	3.1	23.4	56.0	17.5	189.4
65 and over	7.5	2.1	11.1	79.3	0.3	12.4	71.1	16.2	569.2
Total	*48.2*	*2.4*	*24.5*	*24.9*	*20.9*	*24.2*	*33.7*	*21.2*	*2 341.2*

(a) People not living with a partner but who identified themselves as married rather than as separated, divorced or widowed.
(b) Parents living with at least one dependent child.

Source: Unpublished data, 1996 Census of Population and Housing.

Marital status

In 1996 there were about 1.3 million people aged 18–24 years who had never been married. They made up 30% of all people without partners. Another relatively large group were widows aged 65 years and over (about 0.5 million, 10% of all people without partners). These groups strongly influenced the marital status pattern of people without partners. Of all people without partners, 71% of men and 48% of women had never been married. Almost 25% of all women without partners were widows, compared to 6% of all men.

In the youngest age group, almost all of both men and women without partners had never been married. In the age group 25–34 years this was true of 74% of women and 87% of men. From age 35 years for women and 45 years for men divorced people made up a larger proportion of those without partners than did those who had never married. In the age group 65 years and over, being widowed was the most common marital status, particularly among women (79% of women and 48% of men).

Living arrangements

In the youngest age group, living with parents was the most common living arrangement for both men and women without partners (65% and 57% respectively), followed by living with other related and/or unrelated individuals (27% and 29%). At this age, 7% of those without partners lived alone, but in the age group 25–34 years just under 23% lived alone. The proportion living alone was higher in each subsequent age group, and was highest in those aged 65 years and over (71% for both men and women).

A major difference between men and women without partners was that almost a quarter of the women were lone parents compared to 5% of the men. This difference was most apparent across the ten-year age groups in the range 25 to 54 years. Men without partners in this age range were correspondingly more likely than women without partners to be in other circumstances, such as living with parents, living alone, or living with other people.

Indicators of socio-economic status

	Men		Women	
	With partners	*Without partners*	*With partners*	*Without partners*
Selected indicators(a)	%	%	%	%
Educational attainment				
% with degree or higher	12.0	10.0	10.4	12.2
% with post-school qualifications	51.7	43.9	36.1	37.5
Work				
Labour force participation rate	77.4	68.2	55.0	57.5
Unemployment rate	6.6	13.7	5.4	10.7
Occupation				
% in high skill jobs(b)	66.9	58.2	54.3	51.2
Income of employed people				
% under $200 per week	7.1	10.1	19.5	12.5
% over $800 per week	26.1	18.1	8.4	11.4
Accommodation				
% living in rented accommodation	24.6	36.4	21.8	38.8

(a) Age-standardised.
(b) High skilled job comprises managers and administrators; professionals; associate professionals; tradespersons and related workers; and advanced clerical and service workers. These occupational groups are described in the Australian Standard Classification of Occupations 2nd edition.

Source: Unpublished data, 1996 Census of Population and Housing.

Socio-economic status

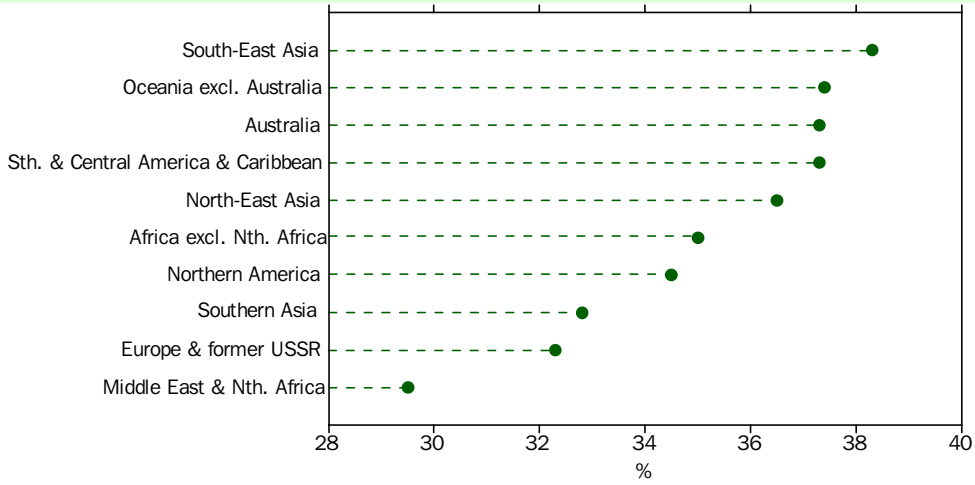
Men without partners tended to be less well off socio-economically than men with partners. After adjusting for their different age profiles, men without partners were less likely than those with partners to have a post-school qualification (44% and 52% respectively) and a bachelor degree (10% and 12%) or to work in high skilled occupation (58% and 67%). They also had a lower labour force participation rate (68% and 77% respectively) and a higher unemployment rate (14% and 7%). Of those employed, a greater proportion of men without partners had a relatively low income (less than $200 per week) than men with partners, while a smaller proportion had a relatively high income (greater than $800 per week). Men without partners were also more likely to live in rented accommodation than those with partners (36% and 25%).

On several indicators, women without partners appear better off than those with partners. For many indicators, the difference between women with and without partners was less marked than that between men with and without partners. Women without partners were more likely than women with partners to have a post-school qualification (38% compared to 36%) and a bachelor degree (12% and 10%). Compared to those with partners they also had a higher labour force participation (58% and 55%) and if employed they were more likely to be in the higher income group (greater than $800 per week) than those with partners and less likely to be in the lower income group (less than $200 per week). However, they were more likely to be unemployed (5% compared to 11%) and if employed, they were less likely than women with partners to be in high skilled jobs (51% and 54%). They were also much more likely to live in rented accommodation than women with partners (39% and 22%).

Birthplace

After adjusting for their different age profiles, people born outside Australia were slightly less likely to be living without a partner than Australian-born people (34% and 37% respectively). Among broad regions, those born in the Middle East or North Africa had the lowest proportion of people without partners (30%). The proportions of those born in Europe and the former USSR (32%) and Southern Asia (33%) who were without partners were also somewhat lower than the proportion in the total overseas-born population. Proportions for people born in other regions ranged from 35% (Northern America) to 38% (South-East Asia).

People without partners as a proportion of population, by birthplace group(a)



(a) Proportion of people aged 18 years and over who were without partners, for each birthplace group. Age-standardised.

Source: Unpublished data, 1996 Census of Population and Housing.

Health status

In various population-based health surveys in the 1990s, people without partners scored worse on several measures of health status than did those with partners, after adjusting for differences in their age profiles. This was true of both men and women. For example, in the 1995 National Health Survey, people without partners were less likely to rate their own health positively than those with partners. However, the degree of difference was relatively small, because the majority of people tend to rate their own health positively.

According to the 1998 Survey of Disability, Ageing and Carers, people without partners were more likely to have a disability (broadly defined to include diverse disabling conditions). They were also more likely to have a disability that caused a core activity restriction than those with partners.

Further, the 1997 Survey of Mental Health and Well-being showed that the prevalence of mental illness was higher among people without partners than people with partners. This was true of the three broad types of mental illness covered: affective disorders (such as depression), anxiety disorders and substance use disorders. Out of these three types, the difference in prevalence between those with and without partners was highest for substance use disorder, for both men and women.

Indicators of health status

	Men		*Women*	
	With partners	*Without partners*	*With partners*	*Without partners*
Selected indicators(a)	%	%	%	%
Health status				
% who assessed their health status as excellent, very good or good	83.5	79.4	84.2	80.4
Disability status				
% with disability	22.4	30.1	19.7	28.8
% with core activity restriction	16.7	23.7	15.7	24.0
Mental disorder				
% with affective disorder	3.5	5.7	6.6	11.0
% with anxiety disorder	6.2	9.8	11.4	16.9
% with substance use disorder	9.1	16.5	3.4	7.6

(a) Age-standardised.

Source: Unpublished data, 1995 National Health Survey; Unpublished data, 1998 Survey of Disability, Ageing and Carers; Unpublished data, 1997 Survey of Mental Health and Well-being.

Formal respite care

FAMILY SERVICES

Of the 447,900 carers looking after a person with a disability in 1998, 13% had used a formal respite care service at some time.

While fewer than one in four carers (23%) felt they needed formal respite care, 16% of all carers (71,900 people) felt some level of unmet need for such services.

A series of Acts and Reviews since the 1985 Home and Community Care Act have supported a move away from large-scale residential care of people needing help with day-to-day activities. There has been a shift to the provision of a range of support services to people in their own homes, or in smaller home-like centres.[1] With this trend towards de-institutionalisation of care since the mid-1980s, the emphasis on community care of people with a disability has increased.

However, caring work can place substantial emotional and physical demands on carers as well as affecting aspects of their daily life such as employment, recreation, education and housework (see *Australian Social Trends 1996*, Principal carers and their caring roles, pp. 44–48). Respite care can alleviate some of these demands.

Assistance is offered to carers by government and non-government organisations, profit and non-profit making suppliers of goods and services, and by family, friends and neighbours. Help given by family, friends and neighbours is generally termed 'informal care', while help provided by other sources is often referred to as 'formal care'. Community organisations (such as Meals on Wheels) and private sector service providers assist carers by supplying services such as respite care on a no-cost, subsidised cost or market rate basis. The Commonwealth and State and Territory Governments contribute funding for many services that are delivered by non-government organisations. Some government bodies deliver services directly.

The Commonwealth Government's major role in providing assistance is direct income support for carers and the people they care for. In 1998, 69% of primary carers received a government pension or benefit.[2] In June of that year there were 33,979 people receiving Carer Payment (formerly known as Carer's Pension), up from 5,023 people receiving Carer's Pension at 30 June 1986, the end of the financial year in which the Carer's Pension was introduced.[3,4] Other Commonwealth direct income payments that carers may receive include Carer Allowance, Parenting Payment, Rent Assistance and Age Pension.

Recent government initiatives have sought to expand access to respite care. The 1999–2000 Commonwealth Government Budget allocated an extra $100 million to support the respite needs of carers of people with dementia and other cognitive disorders and of carers of younger people with a disability.[5] This gave a total allocation of $208 million to respite care services for the four financial years from 1999–2000 to 2002–2003.[6] Under the Commonwealth Government's National Respite for Carers Program, Carer Resource Centres and Carer Respite Centres have been established.

Primary carers' non-monetary sources of help, 1998

	% of primary carers
Usually receives help to care	49.2
Has received formal respite care	*13.2*
Within previous three months	7.9
Day-care centre	*1.9
In-home care	2.6
Residential respite care	3.3
Other type of respite care	*0.9
Not within previous three months	5.3
Has never received formal respite care	*86.8*
All primary carers ('000)	**447.9**

(a) Categories may sum to greater than total as a primary carer could have received more than one type of formal respite care in the previous three months.

Source: Unpublished data, 1998 Survey of Disability, Ageing and Carers.

Formal and informal care

In 1998, the Disability, Ageing and Carers Survey identified 447,900 people aged 15 years or older as primary carers of a person with a profound or severe activity restriction. These primary carers represented 3% of Australia's population aged 15 years or older.

Giving care is often time consuming. In 1998, 161,300 people (36% of primary carers) usually spent at least 40 hours per week helping or supervising people with a disability. Many primary carers (49%) received assistance with their care activities from family, friends, neighbours, government bodies, non-profit community organisations, and profit making, private sector service providers. This assistance may take many forms, such as help with transport, shopping, meal preparation, household maintenance, and physical assistance to the recipient of

care. It also provides social interaction for the carer or the person with a disability. Apart from any assistance they receive from these sources, carers may also need a break from their caregiving from time to time. In 1998, 59,000 (13% of all primary carers) said that they had received formal respite care at some time in the past; 35,400 (8%) had received it in the 3 months prior to the survey.

Types of formal respite care

There is considerable variety in the types of available formal respite care services, the types of organisations and individuals providing respite care, the costs of their use and their availability at different locations. Eligibility criteria for the use of various types of care (be they on a regular, ad hoc or emergency basis) also vary, as does the extent to which subsidies meet the cost of the service.

Of those primary carers who had received respite care in the three months prior to the survey, 24% had used a day-care centre, 32% had received in-home care, 42% had used residential respite care and 11% had employed some other form of respite care.

Burden, need and demand

Primary carers may not feel they have a need for formal respite care. There were 345,100 primary carers identified in the 1998 Survey of Disability, Ageing and Carers who had not used respite care and did not express a need for it. Of the 102,800 people identified as having a need for a service, 57% had used a respite care service and 34% had used such a service in the previous 3 months.

The likelihood of a primary carer needing and receiving formal respite care increases as the burden of care rises. In 1998, only 10% (or 20,200 out of 195,000) of primary carers who provided less than 20 hours of care per week had a need for respite care. Carers who provided at least 40 hours of weekly care, on the other hand, were much more likely to say they needed respite care (38%).

Respite care

Data presented in this article have been sourced from the ABS Survey of Disability, Ageing and Carers conducted between March and May 1998.

Formal respite care services provide alternative care arrangements for persons with one or more disabilities, or older people, to allow carers a short-term break from their care commitments. Respite care may be provided on a regular, planned basis, or in an emergency or crisis. Respite care services may be received in a facility such as a nursing home or community centre or in a person's home.[2]

A *primary carer* is a person of any age who provides the most informal assistance, in terms of help or supervision, to a person with one or more disabilities (generally of a severe or profound nature). The assistance has to be ongoing, or likely to be ongoing, for at least six months and be provided for one or more core activities (communication, mobility and self care).[2]

The number of people *needing respite care* has been obtained by adding together those carers who had made use of a formal respite care service with those who had not used a service but said that they had a need for respite care. The survey did not assess need for respite care against objective criteria.

Primary carers: need for and receipt of formal respite care by level of care burden, 1998

	No. of primary carers	*Carers needing respite care(a)*		*Rate of receipt of formal respite care(b)*
Indicators of level of care burden	'000	'000	%	%
Hours per week spent caring(c)				
At least 40	161.3	61.4	38.1	61.7
20–39	70.3	16.3	23.2	*44.0
Less than 20	195.0	20.2	10.4	60.0
Recipient's severity of restriction(d)				
Profound	204.7	67.0	32.7	59.1
Severe	124.8	13.9	11.2	*43.6
Continuity of care				
Continuous	309.2	87.1	28.2	59.8
Episodic	138.7	15.7	11.3	*44.4
Whether usually receives help to care				
Yes	220.5	67.8	30.8	64.9
No	227.4	35.0	15.4	42.9
Whether has fall-back carer				
Yes	251.6	43.1	17.1	54.0
No	160.0	49.9	31.2	61.2
Don't know	36.3	9.8	27.1	*53.0
Years spent in current caring role				
Less than one	30.2	**2.7	**8.8	**62.3
One to four	141.3	30.0	21.2	56.0
Five to nine	128.5	33.6	26.2	50.3
At least ten	148.1	36.5	24.7	64.8
All primary carers	**447.9**	**102.8**	**22.9**	**57.4**

(a) Comprises the number receiving respite care, plus the number not receiving such care but indicating a need for it.
(b) Primary carers who received formal respite care as a percentage of primary carers who needed formal respite care.
(c) Category not stated responses have been excluded from all four columns.
(d) Excludes primary carers whose main care recipient's severity of disability was not determined.

Source: Unpublished data, 1998 Survey of Disability, Ageing and Carers.

Receipt of formal respite care by primary carers, 1998

	Number of primary carers	Carers needing respite care		Proportion receiving respite care(a)		
				Needs fully met	Needs partly met	Total
Characteristics of primary carers	'000	'000	%	%	%	%
Age group (years)						
15–44	157.7	34.9	22.1	*23.5	33.5	57.0
45–64	193.5	44.4	23.0	30.8	25.4	56.2
65 or older	96.7	23.5	24.3	*38.5	*21.9	60.3
Sex						
Male	132.3	20.4	15.4	*34.0	**9.1	*43.1
Female	315.6	82.4	26.1	29.1	31.9	61.0
Relationship to recipient						
Partner	192.1	30.7	16.0	30.9	*14.5	45.4
Child	111.7	25.3	22.6	*26.9	*27.7	54.6
Parent	94.4	36.8	39.0	27.9	37.6	65.5
Other	49.7	10.0	20.2	*43.6	*28.2	*71.8
All primary carers	**447.9**	**102.8**	**22.9**	**30.1**	**27.3**	**57.4**

(a) As a proportion of those needing respite care.

Source: Unpublished data, 1998 Survey of Disability, Ageing and Carers.

Similarly, those caring for people whose severity of restriction was such that they always needed assistance (i.e. classified as having a profound restriction) were more likely to need respite care (33%) than carers whose main care recipient sometimes needed assistance (severe restriction) (11%).

Need for formal respite care was also greater among carers giving continuous care (28%) and those without a back-up (31%) than among carers providing episodic care (11%) and among those who had a back-up (17%). However, carers who did not receive help to care from family, friends or formal organisations were less likely to feel the need for respite care (15%) than carers who usually received assistance in their caring role from these sources (31%), possibly because these latter carers were more likely to be providing care for the most severe cases.

The extent to which carers had used a service varied from between 43% of carers who did not usually receive help from family, friends and formal organisations, to 65% of those who did usually receive help from any of these sources. A similarly high proportion (65%) of carers who had been caring for their main care recipient for at least ten years and who felt a need for respite care received formal respite care.

Carer characteristics

Need for, and receipt of, respite care varied little with carer age but was markedly different for male and female carers. Only 15% of male carers felt they needed formal respite care, and of this group only 43% received respite care. In contrast, 26% of female carers felt a need for respite care. Of these carers, 61% received such respite.

People caring for their partners were less likely to want respite care than those caring for other friends and relatives. Only 16% of those caring for their partner felt that they needed respite care. Less than half (45%) of these spouse carers who needed respite care had ever used such a service. On the other hand, parents caring for a child were considerably more likely to need respite care (39%) and also more likely to have received formal respite care services (65%).

Unmet need for respite care

From the 1998 Survey of Disability, Ageing and Carers, primary carers can be grouped into four categories to assess the extent to which their need for respite care had been met at some time in the past: carers either did not need respite; their need had been fully met; their need had been partly met; or none of their needs had been met.

Overall, more than three quarters of primary carers (77%) did not need respite care. Of those who had needed it, 30% had received respite care in the past and did not feel they had needed any more (fully met). A similarly sized group (27%) had received respite care in the past but felt that they had needed more access to respite care (partly met). The remaining 43% (43,800 carers) felt they had needed to access respite care, but had never used such services (fully unmet). When considered as a proportion of all primary carers, 16% felt some level of unmet need for respite care (10% with fully unmet need and 6% with partly met need).

Of those carers who needed respite care, those caring for a spouse (45%) were less likely than those caring for a parent (55%), child (65%) or other person (72%) to have received formal respite care.

The proportion of people who receive respite care is an over-estimate of the extent to which need is satisfied. Because the proportion of carers who received respite care and who said their needs had been fully met was around 30% for those caring for a partner, parent or child, the proportion with some degree of 'unmet' need was around 70% for each of these groups.

Reasons for not receiving respite care

The 1998 Survey of Disability, Ageing and Carers asked primary carers with an unmet need for formal respite care (except those who had received some respite care in the previous three months) the main reason for not receiving respite care. The most common main reason why these carers had not received respite care was that they had either not heard of the service or didn't know enough about it (40%).

For 23%, the main reason for not having used respite care was that the person they were mainly providing primary care for did not want formal respite care. While the cost of respite care was rarely cited as the main reason for not accessing the service, lack of availability of any, or any suitable, respite care was the main reason that almost one in five carers with an unmet need had not used a respite care service.

Supply of respite care services

Comprehensive official statistics on the supply of formal respite care are not available. However, indicative data is obtainable from information about disability support services provided or funded under the Commonwealth/State Disability Agreement (CSDA) and aged care services provided under the auspices of the Home and Community Care Program (HACC). In 1997–98, HACC funding for home respite care and centre day care, and Commonwealth-only funding of the National Respite for Carers Program totalled $129 million.[7] One indication of the expansion of formal respite care is that in 1997/98, HACC agencies were providing 27% more hours of home respite care per 1,000 Australians aged 70 years or older than they were providing in 1993/94.[8]

Centre-based and home-based respite care is provided under both the CSDA and the HACC program. In 1997/98, Australian governments spent $91 million in support of respite care services under the CSDA. Approximately half (48%) of the 2,564 recipients of CSDA-funded respite care on the 'snapshot' day (19 August 1998 in most jurisdictions) used centre-based respite care, and the majority (77%) used services provided by non-government organisations.[8]

Access to respite care outside of the capital cities

Service delivery in rural and regional Australia is an ongoing issue of social concern. There is no readily available information to show whether carers in rural areas experience more difficulty accessing formal respite care than those living in urban areas. However, the 1998 Survey of Disability, Ageing and Carers

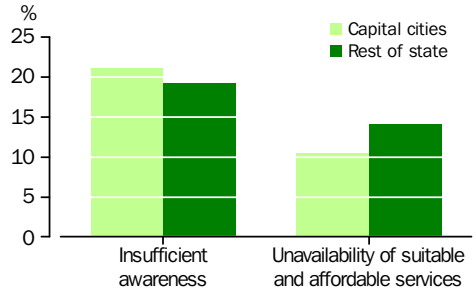
Primary carers with unmet need for formal respite care(a)

Main reason for not receiving respite care	'000	%
Insufficient awareness of formal respite care services	21.0	40.3
Main care recipient does not want formal respite care	11.8	22.6
Unavailability of suitable formal respite care	10.0	19.1
Cost of formal respite care	**2.2	**4.2
Other reason	*7.2	*13.8
Total	**52.1**	**100.0**

(a) Excluding those who had received some formal respite care in the previous three months.

Source: Unpublished data, 1998 Survey of Disability, Ageing and Carers.

Primary carers needing respite care: selected main reasons for not receiving respite care(a), 1998



(a) Those whose needs were partly met and who had received some respite care in the previous three months were not asked their main reason for not receiving enough respite care.

Source: Unpublished data, 1998 Survey of Disability, Ageing and Carers.

provides insights into differences between carers living in capital cities and those living in other areas.

The survey shows that there were only minor differences in the proportions of carers in capital cities and other areas who did not receive respite care for reasons related to service awareness or availability. Capital city carers with a need (as previously defined) for respite care were slightly more likely than their rural and regional counterparts (21% compared to 19%) to say their main reason for not receiving respite care was because they had no, or not enough, knowledge of formal respite care services. On the other hand, those living outside capital cities were only slightly more likely than those in capital cities (14% and 10% respectively) to say that they had not received respite care because of a lack of any, any suitable, any readily available, or any affordable service.

Endnotes

1 Australian Institute of Health and Welfare 1997, *Australia's Welfare 1997: Services and Assistance*, AIHW, Canberra.

2 Australian Bureau of Statistics 1999, *Disability, Ageing and Carers: Summary of Findings, Australia, 1998*, Cat. no. 4430.0, ABS, Canberra.

3 Commonwealth Department of Family and Community Services 1999, *Customers, a statistical overview, 1998*, DFCS, Canberra.

4 Department of Social Security 1986, *Annual Report 1985–86*, AGPS, Canberra.

5 Centrelink 1999, *A Carer's Guide to Financial Support, Respite Co-ordination and Information Services*, Centrelink, Canberra.

6 Commonwealth of Australia 1999, *Budget Measures 1999–2000: budget paper no. 2*, AGPS, Canberra.

7 Unpublished data, Department of Health and Aged Care.

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Cultural diversity within marriages

FAMILY FORMATION

Mixed marriages in Australia are increasing, as the population overall becomes more culturally diverse. However, there is large variation in the extent of marriages among individuals from different countries of origin.

Australia is one of the most culturally diverse nations in the world.[1] Together, its Indigenous peoples and people of many other ethnic origins have provided a rich cultural environment in many ways: through language, religion, the arts, sport and many other beliefs and activities. The extent of cultural diversity has widened since the inception of the post-war immigration program in 1945; between 1945 and 1998, 5.7 million immigrants have made Australia their home.[2] Most have come from the United Kingdom (UK) and Ireland, but, over time, immigrants have come from a wider range of countries, including other European countries and, in more recent decades, New Zealand and parts of Asia and South America. (For more detail on birthplace origins see *Australian Social Trends 1998,* Changes in immigration intake, pp. 18–23, and *Australian Social Trends 1997,* Birthplace of overseas-born Australians, pp. 12–15).

There are two dimensions (not necessarily conflicting) to cultural diversity: preservation of cultural identity; and integration with the local community. On the one hand, preservation of cultural identity can enrich a community's tastes and values and expand their collective experiences and knowledge. On the other hand, a high degree of integration can strengthen ties between different groups and foster a sense of belonging. Common perceptions are that people from some cultural backgrounds have a greater propensity to integrate, while others have a strong commitment to preserving their identity, even among their second generation.

Mixed marriages

This article is based on the marriage registration collection, which provides data on the birthplaces of brides and grooms and of their parents. Although less than ideal, this information does give some insight into cultural diversity within marriages. The data is limited because it does not include de-facto marriages, and because marriages involving Indigenous people cannot be separately identified. It should also be noted that many aspects of ethnic origin or cultural diversity can not be directly derived from birthplace information, because in some countries there is a mix of different ethnic groups, and because some ethnic groups form part of the population in more than one country.

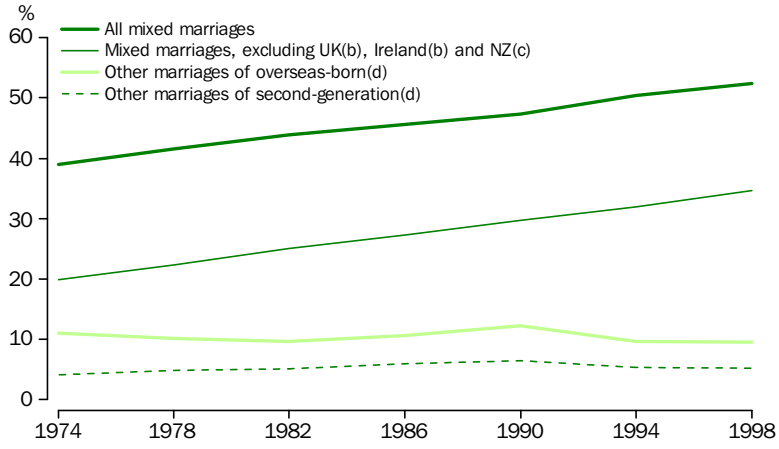
For this review, all Australians are grouped into one of three categories, according to where they, or their parent(s), were born. They have also been assigned to a particular *birthplace group*, corresponding to their country of birth or that of their parent(s):

- *Overseas-born* – people born overseas who have migrated to Australia. Their birthplace group is their country of birth;
- *Second-generation* – those born in Australia with at least one parent born overseas. Their birthplace group is assigned to the country of birth of their father if both parents were born overseas, or to that of the overseas-born parent if only one was born overseas; and
- *Long-time Australians* – in the absence of a more suitable term, this category includes those who were born in Australia and whose parents were also born in Australia.

Based on these groupings, this review defines *mixed marriages* as marriages between people from different birthplace groups. These marriages may or may not be inter-generational. Specifically, such marriages are those of:

- a long-time Australian with an overseas-born or second-generation Australian partner;
- two overseas-born people from different birthplace groups;
- two second-generation people from different birthplace groups;
- An overseas-born person and a second-generation person from different birthplace groups.

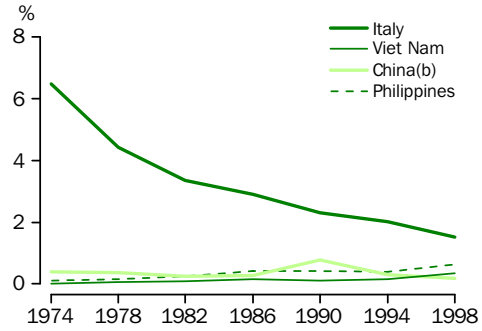
Mixed and other marriages in Australia 1974–1998(a)



(a) Mixed and other marriages as a proportion of all registered marriages in each stated year.
(b) Data for UK and Ireland not separately available.
(c) Excludes mixed marriages involving people from these birthplace groups (see box).
(d) Includes overseas-born/second-generation same country marriages.

Source: Unpublished data, Marriage Registrations, 1974–1998 (selected years only).

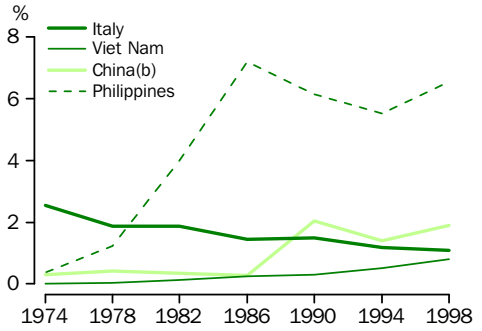
Overseas-born grooms marrying long-time Australians(a)



(a) As a proportion of all overseas-born grooms marrying long-time Australians.
(b) Excludes Taiwan province.

Source: Unpublished data, Marriage Registrations, 1974–1998 (selected years only).

Overseas-born brides marrying long-time Australians(a)



(a) As a proportion of all overseas-born brides marrying long-time Australians.
(b) Excludes Taiwan province.

Source: Unpublished data, Marriage Registrations, 1974–1998 (selected years only).

One way of viewing the degree of integration of people with different cultural backgrounds into the wider community is through their tendency to marry outside their own religious group (see *Australian Social Trends 1994*, Religion and marriage, pp. 186–189). Another, the focus of this article, is the extent of intermarriage between birthplace groups.

Social and demographic characteristics among immigrants differ and affect the extent to which they form mixed marriages (outside their birthplace group – see box) or marriages within their own birthplace group. For example, factors such as the continual supply of immigrants from the same birthplace group (migration flow), their period of residence, age, religion and language all contribute to the opportunity for persons to marry within their own grouping, or to choose a partner of another.

Trends in mixed marriages

Overall, between 1974–1998, the proportion of marriages in any year in Australia which were mixed marriages has been steadily increasing. In 1974, 39% of all marriages registered in Australia were between people from different birthplace groups. By 1998 this proportion had increased to just over half of all marriages (52%).

The main birthplace groups contributing to the overall number of mixed marriages were the UK, Ireland and New Zealand, as the great majority of past and present immigrants have come from these countries. Moreover, since Australia's first settlement in 1788, there have been close ties between Australia and the UK and Ireland (and later New Zealand), through a common language and from sharing many traditions, beliefs and practices. In 1974, mixed marriages from these two groups together constituted 25% of all marriages; by 1998 the proportion had increased to 29%.

The rise in mixed marriages has been even and steady throughout the period, even when marriages of people with a UK, Ireland or New Zealand birthplace group are excluded from the calculations. However, the overall trend has masked a number of underlying trends for particular birthplace groups; trends which tend to mirror their different arrival patterns. For example, for brides and grooms born in Italy there were relatively high proportions of marriages to long-time Australians early in the period. In contrast, marriages of brides born in China and Viet Nam (who represent more recent settlers to Australia) to long-time Australians rose towards the end of the period. For China, there was a peak around 1990, possibly associated with the extensions to visas and the granting of residence status for Chinese students in Australia, following the Tiananmen Square massacre in 1989.[3,4]

Marriages of brides born in the Philippines to long-time Australians rose very sharply from 1978, peaked in 1986, and have remained high, despite a dip in the early 1990s. This was in sharp contrast to marriages of grooms born in the Philippines to long-time Australians.

There has also been an increase in marriages between second-generation and long-time Australians, making up 16% of all marriages in 1974, rising to 21% in 1998. These have occurred with the maturing of people whose parents had migrated to Australia during the post-war period. It has been a consistent feature that marriages within the same

Marriage patterns of overseas-born people marrying in Australia, 1996–1998

	Bride born in country listed, groom's birthplace group:				*Groom born in country listed, bride's birthplace group:*			
	Different from bride				*Different from groom*			
	Long-time Australian	*Other country(a)*	*Same as bride(a)*	*Total*	*Long-time Australian*	*Other country(a)*	*Same as groom(a)*	*Total*
Country of birth(b)	%	%	%	no.	%	%	%	no.
United Kingdom or Ireland	44.6	35.3	20.1	18 147	45.2	39.3	15.5	23 510
New Zealand	44.9	35.2	19.9	6 940	45.9	37.5	16.6	1 380
Italy	25.6	49.2	25.1	999	22.1	64.1	13.8	1 817
Viet Nam	3.7	17.1	79.2	4 310	1.5	12.1	86.4	3 949
Greece	12.9	59.4	27.8	630	12.1	70.9	17.0	1 029
China(c)	10.6	28.5	60.9	3 700	1.4	22.8	75.7	2 973
Germany, Federal Republic of	33.2	40.9	25.9	1 845	32.4	45.3	22.3	2 140
Philippines	31.9	37.5	30.7	4 370	8.9	13.0	78.2	1 714
Netherlands	42.8	42.0	15.2	1 010	44.0	44.1	11.9	1 289
India	19.7	39.9	40.3	1 019	23.4	46.1	30.5	1 348
Malaysia	27.2	50.7	22.1	1 681	24.6	48.6	26.8	1 384
Lebanon	3.9	41.5	54.7	1 321	7.0	59.1	33.9	2 132
Hong Kong	13.0	43.5	43.5	1 293	6.4	45.9	47.7	1 178
Poland	16.4	35.8	47.7	882	13.9	32.5	53.6	785
Former Yugoslav Republic	13.2	48.1	38.7	1 738	13.7	57.4	28.9	2 328
Other overseas countries	25.7	42.9	31.4	26 286	23.8	43.8	32.4	25 481
All overseas countries	**29.6**	**38.2**	**32.2**	**76 171**	**29.3**	**40.6**	**30.1**	**81 392**

(a) Includes overseas-born and second-generation Australians.
(b) Countries selected according to size of birthplace group of overseas-born as at the 1996 Census.
(c) Excludes Taiwan province.

Source: Unpublished data, Marriage Registrations 1996, 1997 and 1998.

birthplace group involving only second-generation Australians made up a smaller proportion of marriages than those involving only overseas-born people over the period.

Recent marriage patterns of overseas-born Australians

There were 76,200 brides and 81,400 grooms born overseas in the three-year period 1996–98. Across all of these marriages, around 30%, for both brides and grooms, were between partners in the same birthplace group. The other 70% were mixed marriages, comprising about 30% of marriages with long-time Australians and 40% with other people from a different birthplace group. Overall, overseas-born brides were marginally more likely than overseas-born grooms to have married within their birthplace group.

However, there was large variation among individual birthplace groups in the extent of mixed marriages of overseas-born Australians. For example, there was a strong tendency for people born in the Netherlands to marry a partner who was a long-time Australian (over 40% of brides and grooms in each case).

Brides and grooms born in Viet Nam, Greece, China, Lebanon, Hong Kong and the Former Yugoslav Republic, and grooms born in the Philippines, were the least likely to marry long-time Australians. Brides and grooms born in Viet Nam and China, brides born in Lebanon, and grooms born in the Philippines, were the most likely to have married within their own birthplace group.

There were also strong tendencies for brides born in Italy, Greece, Malaysia and the Former Yugoslav Republic, and grooms born in Italy, Greece, Lebanon and the Former Yugoslav Republic, to form a mixed marriage with a partner who was not a long-time Australian.

For most birthplaces the general patterns were quite similar for brides and grooms, with one notable exception. Nearly one third (32%) of brides born in the Philippines married long-time Australian grooms. In contrast, only 9% of grooms born in the Philippines married long-time Australians.

Marriage patterns of second-generation people marrying in Australia, 1996–1998

	Bride from birthplace group listed, groom's birthplace group:				*Groom from birthplace group listed, bride's birthplace group:*			
	Different from bride				*Different from groom*			
	Long-time Australian	*Other country(a)*	*Same as bride(a)*	*Total*	*Long-time Australian*	*Other country(a)*	*Same as groom(a)*	*Total*
Birthplace group(b)	%	%	%	no.	%	%	%	no.
United Kingdom or Ireland	51.8	35.2	13.0	29 926	49.3	37.8	12.9	29 859
New Zealand	41.3	53.7	4.9	2 949	37.1	58.3	4.6	3 212
Italy	27.0	33.4	39.7	11 061	28.4	33.0	38.6	11,380
Viet Nam	6.9	90.2	2.9	102	15.3	81.4	3.4	59
Greece	12.9	32.5	54.6	5 708	14.2	32.3	53.4	5 830
China(c)	27.6	62.4	10.0	854	28.8	56.3	14.8	586
Germany, Federal Republic of	54.3	41.6	4.2	3 951	53.5	42.2	4.4	3 697
Philippines	6.5	90.2	3.3	569	12.8	74.4	12.8	156
Netherlands	56.6	38.0	5.5	4 856	55.0	39.4	5.6	4 782
India	40.8	52.6	6.6	934	36.6	56.4	7.0	965
Malaysia	27.7	67.6	4.7	429	30.6	61.8	7.6	327
Lebanon	7.7	22.1	70.2	2 161	8.7	25.0	66.3	2 268
Hong Kong	36.5	55.1	8.4	167	40.8	51.4	7.7	142
Poland	42.9	51.2	5.9	1 169	44.1	50.0	5.9	1 179
Former Yugoslav Republic	23.5	44.1	32.4	4 493	21.9	44.6	33.5	4 347
Other overseas countries	34.6	52.2	13.2	18 753	33.6	52.2	14.2	17 831
All overseas countries	**39.0**	**40.9**	**20.1**	**88 082**	**38.1**	**41.5**	**20.4**	**86 620**

(a) Includes overseas-born and second-generation Australians.
(b) Groups selected according to size of birthplace group of overseas-born as at the 1996 Census.
(c) Excludes Taiwan province.

Source: Unpublished data, Marriage Registrations 1996, 1997 and 1998.

Recent marriage patterns of second-generation Australians

There were more marriages of second-generation brides (88,100) and grooms (86,600) than there were of overseas-born people in the same three-year period. Marriage patterns among this group differed from those of overseas-born people. These differences were more marked for some birthplace groups than for others.

A larger proportion of these marriages (80% each of brides and grooms) were mixed marriages than was the case for overseas-born people. These mixed marriages were evenly divided between those marrying long-time Australians and those marrying other people outside their birthplace group.

For nearly every birthplace group listed, second-generation Australians had a greater propensity to marry long-time Australians than did overseas-born Australians. Exceptions were brides from the Philippines, where the proportion was much lower, and brides and grooms from New Zealand, where the proportions were slightly lower. For some birthplace groups, notably Viet Nam, China, the Federal Republic of Germany, India, Hong Kong, Poland, and the Former Yugoslav Republic, this difference was very marked.

In addition, over half of second-generation brides and grooms with at least one parent born in New Zealand, Viet Nam, China, Philippines, India, Malaysia, Hong Kong or Poland, married someone from a different birthplace group other than a long-time Australian. For all of these birthplace groups the proportion doing so was much greater than for the corresponding group of overseas-born people.

In general, second-generation brides and grooms were equally likely to marry within their own birthplace group. The most notable exception was those from the Philippines, where grooms were nearly four times as likely as brides to have done so. Second-generation brides and grooms from the birthplace groups of Italy, Greece, Lebanon and the Former Yugoslav Republic stood out as having the greatest propensity to marry within their birthplace group.

Second-generation brides and grooms from Lebanon, and brides from Viet Nam and the Philippines, were the least likely to marry a long-time Australian partner.

Endnotes

1 Swiss Federal Statistical Office 1998, *Monitoring Multicultural Societies: A Siena Group Report*, SFSO, Neuchatel.

2 Department of Immigration and Multicultural Affairs, home page, <URL: http://www.immi.gov.au>, (Accessed 22 March 1999).

3 Birrell, R. 1995, 'Policy implications of recent migration patterns', *People and Place,* vol. 3, no. 4, pp. 32–40.

4 Martin, B.G. 1989, 'China in Crisis. The events of April-June 1989', *Current Issues Paper no. 1, 1989–90*, Department of the Parliamentary Library, Canberra.

Mixed marriages of Indigenous people

Although it is not possible to identify marriages involving Indigenous people on marriage registration forms, the extent to which Indigenous people have been forming mixed marriages can be obtained using census data. Census data gives information about all couples (including registered and de facto marriages) in Australia. Indigenous people are those who have identified themselves as being of Aboriginal or Torres Strait Islander origin in response to census questions.

In 1991, 57% of all couples involving an Indigenous person were mixed (that is, only one partner was Indigenous). However, the extent of mixed marriages for Indigenous people appears to be increasing. By 1996, this proportion had increased to 64%.

In over half (55%) of all Indigenous couples in 1996, in which only one partner was Indigenous, that partner was the woman.

Health

Health: national summary

HEALTH STATUS	Units	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Life expectancy												
Male life expectancy at birth	years	73.1	73.3	73.9	74.4	74.5	75.0	75.0	75.0	75.2	75.6	75.9
Female life expectancy at birth	years	79.5	79.6	80.1	80.4	80.4	80.9	80.9	80.8	81.1	81.3	81.5
Male life expectancy at 65 years	years	14.8	14.7	15.2	15.4	15.4	15.7	15.7	15.7	15.8	16.1	16.3
Female life expectancy at 65 years	years	18.7	18.7	19.0	19.1	19.2	19.5	19.7	19.5	19.6	19.8	20.0
Male disability-free life expectancy at birth	years	58.4	n.a.	n.a.	n.a.	n.a.	58.4	n.a.	n.a.	n.a.	n.a.	57.5
Female disability-free life expectancy at birth	years	63.4	n.a.	n.a.	n.a.	n.a.	64.2	n.a.	n.a.	n.a.	n.a.	63.3
Mortality												
Total number of deaths	'000	119.9	124.2	120.1	119.1	123.7	121.6	126.7	125.1	128.7	129.4	127.2
Crude death rate (per 1,000 population)	rate	7.2	7.4	7.0	6.9	7.1	6.9	7.1	6.9	7.0	7.0	6.8
Standardised death rate (per 1,000 population)	rate	7.5	7.6	7.2	6.9	6.9	6.6	6.7	6.5	6.4	6.2	6.0
Infant mortality rate (per 1,000 live births)	rate	8.7	8.0	8.2	7.1	7.0	6.1	5.9	5.7	5.8	5.3	5.0
Perinatal mortality rate (per 1,000 live births and fetal deaths combined)	rate	11.6	11.0	11.3	10.6	10.7	9.2	9.1	9.4	10.0	9.2	8.3
Disability												
Disability with specific restrictions (per 100 population)(a)(b)	%.	13.6	n.a.	n.a.	n.a.	n.a.	13.6	n.a.	n.a.	n.a.	n.a.	16.1

CAUSES OF DEATH	Units	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Death rates per 100,000 population —												
Leading causes(a)												
Cancer	rate	184	183	181	181	181	180	181	r177	177	171	168
Ischaemic heart disease	rate	199	200	186	176	177	162	161	151	145	r138	128
Stroke	rate	79	78	72	69	67	65	67	63	61	56	53
Selected cancers(a)												
Male lung cancer	rate	65	64	60	60	59	57	59	56	55	52	53
Female lung cancer	rate	17	18	17	18	18	19	19	19	20	19	19
Female breast cancer	rate	27	27	27	27	25	27	27	26	25	24	23
Prostate cancer	rate	31	32	32	31	34	35	35	33	33	29	29
Skin cancer	rate	6	6	7	6	7	7	7	7	7	6	6
Heart disease and diabetes(a)												
Male ischaemic heart disease	rate	271	271	250	237	235	219	216	204	196	r183	171
Female ischaemic heart disease	rate	143	145	136	127	130	117	118	109	105	101	93
Diabetes mellitus	rate	13	13	13	13	14	14	15	14	15	14	13
Accidents and suicide												
Motor vehicle traffic accident(a)	rate	19	17	15	13	12	11	11	11	11	10	9
Male 15–24 years motor vehicle traffic accident	rate	55	49	42	38	31	33	30	32	32	29	27
Female 15–24 years motor vehicle traffic accident	rate	18	18	14	12	12	10	10	11	8	10	9
Suicide(a)	rate	13	13	13	14	13	12	13	13	13	15	14
Male 15–24 years suicide	rate	28	24	27	27	27	25	27	25	25	31	27
Female 15–24 years suicide	rate	4	3	4	6	6	4	4	6	4	7	6
AIDS(a)												
AIDS-related	rate	1	2	3	3	4	4	4	4	3	2	1

(a) Rates are age-standardised.
(b) Adjusted to a common basis for the three disability surveys of 1988, 1993 and 1998. As a result, the national estimate for 1998 is not the same as that shown in the State summary table.

Reference periods: All health status data and causes of death data are for the calendar year.

Health: national summary continued

RISK FACTORS	Units	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Immunisation status												
Children not fully immunised aged 3 months to 6 years (of children 3 months to 6 years)	%	n.a.	n.a.	45.9	n.a.	n.a.	n.a.	n.a.	47.9	n.a.	n.a.	n.a.
Drinking and smoking												
Alcohol: apparent consumption per person per day	mls	30.7	30.2	29.9	28.6	r27.2	r26.4	r27.1	r26.5	r26.0	r26.2	26.3
Tobacco: apparent consumption per person per day	grams	5.8	5.5	5.6	5.2	5.3	4.7	4.3	4.1	3.9	3.9	3.8
Diet and exercise												
Total fats: apparent consumption per person per day	grams	55.8	55.4	54.5	53.5	53.3	52.2	53.0	51.8	r52.6	r49.9	51.4
Persons who do not exercise for sport, recreation or fitness (of persons 18 years and over)(a)	%	n.a.	n.a.	35.8	n.a.	n.a.	n.a.	n.a.	34.0	n.a.	n.a.	n.a.

SERVICES	Units	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Hospital separations (per 1,000 population)	rate	214	n.a.	225	n.a.	237	247	260	274	285	289	299
Hospital beds (per 1,000 population)	no.	5.3	5.2	5.0	5.0	4.5	4.4	4.2	4.3	4.3	4.2	4.2
Average length of stay in hospital	days	6.2	5.9	5.6	5.1	4.8	4.8	4.7	4.5	4.3	4.2	4.1
Doctors (per 100,000 population)	no.	n.a.	n.a.	n.a.	225	n.a.	n.a.	n.a.	n.a.	241	n.a.	n.a.
Nursing home and hostel beds (per 1,000 population aged 70 years and over)	no.	98.4	97.2	95.1	94.0	r93.7	r93.1	r91.2	90.0	r91.1	r89.4	87.5
Medicare usage												
Average Medicare services processed per person(a)	no.	8.2	8.5	8.5	8.5	8.9	9.7	10.0	10.3	10.5	10.5	10.6
Average Medicare services processed per male(a)	no.	6.6	6.8	6.9	6.9	7.2	7.8	8.2	8.4	8.7	8.7	8.7
Average Medicare services processed per female(a)	no.	9.8	10.2	10.1	10.1	10.6	11.5	11.8	12.2	12.4	12.4	12.4
Average Medicare services processed per person aged 65 years and over	no.	14.8	15.2	15.3	15.4	16.4	17.9	18.8	19.6	20.5	20.9	21.4
Proportion of Medicare services used by persons aged 65 years and over	%	19.7	19.6	20.0	20.6	21.0	21.4	22.0	22.5	23.0	23.6	24.2

EXPENDITURE	Units	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Persons with private health insurance	%	47.0	45.5	44.5	43.7	41.0	39.5	37.2	34.9	33.6	31.9	30.5
Total health expenditure per person per year (1997–98 reference year)	$	n.a.	n.a.	1 967	1 978	2 021	2 102	2 159	2 215	2 385	2 460	2 523
Total health expenditure as a proportion of GDP	%	r7.5	r7.4	r7.5	r7.9	r8.1	r8.2	r8.2	r8.2	r8.2	r8.3	8.3

(a) Rates are age-standardised.

Reference periods: Immunisation status data are at April. Apparent consumption and expenditure data (except private health insurance data which are at the June quarter) and services data (except doctors per 100,000 population which is at census date) are for the year ended 30 June).

Health: State summary

HEALTH STATUS	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
Life expectancy											
Male life expectancy at birth	years	1998	75.8	76.3	75.6	76.0	76.1	75.1	70.6	77.5	75.9
Female life expectancy at birth	years	1998	81.6	81.7	81.5	81.6	81.9	80.4	75.0	81.6	81.5
Mortality											
Total number of deaths	'000	1998	44.7	32.0	22.3	11.7	10.7	3.6	0.9	1.3	127.2
Crude death rate (per 1,000 population)	rate	1998	7.1	6.9	6.5	7.9	5.8	7.6	4.6	4.1	6.8
Standardised death rate (per 1,000 population)	rate	1998	6.0	5.8	6.1	6.0	5.8	6.3	8.9	5.4	6.0
Infant mortality rate (per 1,000 live births)	rate	1998	4.3	4.7	6.4	4.0	5.0	5.7	12.4	6.0	5.0
Perinatal mortality rate (per 1,000 live births and fetal deaths combined)	rate	1998	8.1	7.7	9.6	7.2	7.5	9.8	13.1	12.2	8.3
Morbidity and disability (per 1,000 population)(b)											
Cancer	%	1995	2.1	1.8	2.6	1.9	2.1	2.4	2.0	1.9	2.1
Heart disease	%	1995	2.9	2.8	2.8	2.7	2.4	3.6	*1.4	2.7	2.8
Diabetes	%	1995	2.0	2.4	2.0	2.7	2.5	2.6	2.5	2.0	2.3
Asthma	%	1995	10.4	11.2	13.3	11.2	11.5	10.2	12.7	11.2	11.3
Injury	%	1995	5.8	5.6	7.7	6.4	7.6	7.2	8.7	7.6	6.4
Disability with specific restrictions(b)	%	1998	16.6	15.7	17.8	18.9	17.6	18.7	16.1	16.7	16.9

CAUSES OF DEATH	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Death rates per 100,000 population —											
Leading causes(b)											
Cancer	rate	1998	166	170	171	164	164	172	188	160	168
Ischaemic heart disease	rate	1998	131	117	141	134	117	130	140	96	128
Stroke	rate	1998	57	50	53	51	51	61	58	52	53
Selected cancers(b)											
Male lung cancer	rate	1998	54	52	56	52	50	57	69	47	53
Female lung cancer	rate	1998	19	19	17	15	20	18	21	22	19
Female breast cancer	rate	1998	22	24	23	25	21	22	22	28	23
Prostate cancer	rate	1998	29	32	30	26	23	34	17	26	29
Skin cancer	rate	1998	7	6	8	4	7	4	5	6	6
Heart disease and diabetes(b)											
Male ischaemic heart disease	rate	1998	174	157	185	181	160	181	172	135	171
Female ischaemic heart disease	rate	1998	96	86	103	98	82	91	100	69	93
Diabetes mellitus	rate	1998	10	16	14	13	13	10	43	9	13
Accidents and suicide											
Motor vehicle traffic accident(b)	rate	1998	8	9	8	11	11	7	42	10	9
Male 15–24 years motor vehicle traffic accident(c)	rate	1998	24	23	28	31	31	* *	* *	* *	27
Female 15–24 years motor vehicle traffic accident(c)	rate	1998	7	7	10	7	13	* *	* *	* *	9
Suicide(a)	rate	1998	14	12	17	16	16	12	23	10	14
Male 15–24 years suicide(c)	rate	1998	28	21	28	31	32	* *	* *	* *	27
Female 15–24 years suicide(c)	rate	1998	5	7	8	3	8	* *	* *	* *	6
AIDS(b)											
AIDS-related	rate	1998	1	1	1	1	0	1	0	0	1

(a) Morbidity and disability estimates for Northern Territory relate to mainly urban areas only.
(b) Rates are age-standardised.
(c) Data for Tasmania, Northern Territory and Australian Capital Territory are not available as numbers are too low for reliable rates.

Reference periods: All health status data and causes of death data are for the calendar year.

Health: State summary continued

RISK FACTORS	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
Immunisation status											
Children not fully immunised aged 3 months to 6 years (of children 3 months to 6 years)	%	1995	46.1	48.8	52.5	50.3	40.7	57.0	46.5	36.5	47.9
Drinking and smoking(b)											
Male medium/high-risk drinkers (of males 18 years and over)	%	1995	10.9	8.9	11.4	10.2	11.4	9.6	24.6	12.2	10.6
Female medium/high-risk drinkers (of females 18 years and over)	%	1995	6.4	5.3	6.5	6.4	6.6	4.7	5.9	7.1	6.1
Male current smokers (of males 18 years and over)	%	1995	27.1	26.7	29.0	26.6	26.6	27.2	30.2	23.6	27.3
Female current smokers (of females 18 years and over)	%	1995	20.0	20.0	21.7	20.0	18.8	24.5	26.0	19.3	20.3
Diet and exercise(b)											
Male overweight/obese adults (of males 18 years and over)	%	1995	62.5	64.6	62.1	64.7	60.5	66.4	58.9	63.1	63.0
Female overweight/obese adults (of females 18 years and over)	%	1995	45.3	48.9	43.5	49.4	45.3	53.6	43.5	50.4	46.5
Males who do not exercise for sport, recreation or fitness (of males 18 years and over)	%	1995	34.5	34.2	33.8	34.0	29.7	33.8	42.6	22.6	33.7
Females who do not exercise for sport, recreation or fitness (of females 18 years and over)	%	1995	37.4	32.4	34.8	34.8	28.5	36.1	34.6	28.0	34.4
High blood pressure(b)											
Male hypertension (of males 18 years and over)	%	1995	17.1	17.1	19.6	18.3	15.6	17.7	17.3	16.9	17.6
Female hypertension (of females 18 years and over)	%	1995	14.6	15.0	15.1	17.2	15.6	17.4	9.3	13.7	15.1

SERVICES	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Hospital separations (per 1,000 population)	rate	1997–98	288	305	313	333	280	278	278	243	299
Hospital beds (per 1,000 population)	no.	1997–98	4.1	4.0	4.7	5.0	4.3	4.0	3.1	2.5	4.2
Average length of stay in hospital	days	1997–98	4.2	3.8	4.2	4.1	3.9	4.4	3.6	4.1	4.1
Doctors (per 100,000 population)	no.	1996	250	237	233	264	221	220	249	259	241
Nursing home and hostel beds (per 1,000 population aged 70 years and over)	no.	1997–98	87.7	83.5	91.7	88.8	89.4	85.8	98.3	87.2	87.5
Medicare usage											
Average Medicare services processed per person(b)	no.	1997–98	11.3	10.5	10.6	9.7	9.6	9.4	6.6	9.4	10.6
Average Medicare services processed per male(b)	no.	1997–98	9.5	8.7	8.6	8.1	7.7	7.4	5.2	7.7	8.7
Average Medicare services processed per female(b)	no.	1997–98	13.1	12.2	12.6	11.3	11.5	11.3	8.1	11.1	12.4
Average Medicare services processed per person aged 65 years and over	no.	1997–98	22.5	21.6	21.3	19.7	19.9	18.3	12.9	19.5	21.4
Proportion of Medicare services used by persons aged 65 years and over	%	1997–98	24.6	25.3	22.5	27.5	21.8	24.9	7.4	16.8	24.2

SERVICES	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Persons with private health insurance(c)	%	1998	30.8	29.6	28.7	31.3	34.6	33.4	23.7	n.a.	30.5

(a) Risk factor estimates for NT relate to mainly urban areas only.
(b) Rates are age standardised.
(c) The ACT is included in NSW.

Reference periods: Immunisation status data are at April. Overweight/obese and hypertension data are for the year ended March 1996. Services data (except for doctors per 100,000 population which is at census date) are for the year ended 30 June. Private health insurance data are at the June quarter.

Health definitions and references

AIDS-related death
death where AIDS is mentioned anywhere on the death certificate as a contributing factor or an underlying cause.
Reference: *Causes of Death, Australia* (Cat. no. 3303.0).

Alcohol: apparent consumption
millilitres of pure alcohol (not total alcoholic beverages) consumed, divided by the population 15 and over. Apparent consumption of beer and spirits is based on the quantities on which excise duty was paid, and imports cleared for consumption. Apparent consumption of wine comprises quantities sold by winemakers and imports cleared for consumption. Home-made beer and wine are included.
Reference: *Apparent Consumption of Foodstuffs and Nutrients, Australia* (Cat. no. 4306.0).

Apparent consumption
equals (commercial production + estimated home production + imports + opening stocks) minus (exports + usage for processed food + non-food usage + wastage + closing stocks) divided by the population.
Reference: *Apparent Consumption of Foodstuffs and Nutrients, Australia* (Cat. no. 4306.0).

Asthma
the number of people per 1,000 population reporting asthma as a recent condition (within two weeks) or a long-term condition (lasting or expecting to last six months or more), asthma being a narrowing of the airways within the lung.
Reference: *National Health Survey: Summary of results, Australia* 1995, (Cat. no. 4364.0).

Average length of stay in hospital
the total number of occupied bed days in both public and private hospitals divided by the total number of separations.
Reference: *Private Hospitals, Australia* (Cat. no. 4390.0); *Australian Hospital Statistics, 1996–97,* Australian Institute of Health and Welfare.

Average Medicare services processed
average number of services processed per Australian resident.
Reference: Health Insurance Commission, *Financial Statements and Statistical Tables, 1996-97.*

Breast cancer deaths
deaths where malignant neoplasm of the female breast is mentioned on the death certificate as the underlying cause(ICD–9 code 174).
Reference: *Causes of Death, Australia* (Cat. no. 3303.0).

Cancer deaths
deaths where malignant neoplasms are mentioned on the death certificate as the underlying cause (ICD-9 codes 140–208).
Reference: *Causes of Death, Australia* (Cat. no. 3303.0).

Cancer
the number of people per 1,000 population reporting cancer as a recent condition (within two weeks) or a long-term condition (lasting or expecting to last six months or more), including both benign and malignant cancers.
Reference: *National Health Survey: Summary of results, Australia* 1995, (Cat. no. 4364.0).

Causes of death
the causes of death, both underlying and multiple, are classified by the International Classification of Diseases 9th Revision (ISD–9), clinical modification.
Reference: *International Classification of Diseases, 9th revision*, National Center for Health Statistics, United States.

Children not fully immunised
the proportion of children reported as not having received all the required vaccinations for diphtheria, tetanus, poliomyelitis, whooping cough, measles and mumps for their age. The required vaccinations are based on the 1986 NH&MRC Standard Childhood Vaccination Schedule.
Reference: *Children's Immunisation, Australia* (Cat. no. 4352.0).

Crude death rate
number of deaths registered per 1,000 of the estimated resident population at 30 June of that year.
Reference: *Deaths, Australia* (Cat. no. 3302.0).

Current smokers
persons aged 18 years and over who smoke one or more manufactured (packet) cigarettes, roll-your-own cigarettes, cigars or pipes per day. Smoking excludes chewing tobacco and smoking of non-tobacco products.
Reference: *National Health Survey: Health Risk Factors* (Cat. no. 4380.0).

Diabetes mellitus deaths
deaths where diabetes mellitus is mentioned on the death certificate as the underlying cause (ICD–9 code 250).
Reference: *Causes of Death, Australia* (Cat. no. 3303.0).

Diabetes
the number of people per 1,000 population reporting diabetes as a recent condition (within two weeks) or a long-term condition (lasting or expecting to last six months or more), including Diabetes Mellitus Type 1 and 2 and unspecified diabetes.
Reference: *National Health Survey: Summary of results, Australia,* 1995 (Cat. no. 4364.0).

Disability-free life expectancy
the average number of years at birth a person might expect to live free of disability. Disability is the presence of a limitation, restriction or impairment due to a physical, emotional or nervous condition which had lasted or was likely to last 6 months or more.
Reference: *Australian Health Trends, 2000,* Australian Institute of Health and Welfare.

Disability with specific restrictions
people with a disability which causes difficulty or they need assistance with, or use an aid for, self-care, mobility, communication, employment and/or education activities. Includes all children aged under 5 with a disability.
Reference: *Disability, Ageing* and *Carers: Summary of Findings, Australia,* 1998 (Cat. no. 4430.0).

Doctors per 100,000 population
the number of practising general and specialist medical practitioners per 100,000 estimated mean resident population.
Reference: *Australia's Health, 1998*, Australian Institute of Health and Welfare

Exercise (persons who do not exercise)
persons who reported that within the two-week reference period they did not undertake exercise activities for sport, recreation or fitness, so as to cause a moderate increase in heart rate or breathing.
Reference: *National Health Survey: Summary of results, Australia,* 1995 (Cat. no. 4364.0).

Fetal death
the delivery of a child weighing at least 400 grams at delivery (or, when birthweight is unavailable, of at least 20 weeks gestation) which did not, at any time after delivery, breathe or show any other evidence of life such as a heart beat.
Reference: *Causes of Death, Australia* (Cat. no. 3303.0).

Health definitions and references continued

Heart disease
the number of people per 1,000 population reporting heart disease as a recent condition (within two weeks) or a long-term condition (lasting or expecting to last six months or more), including heart attack, coronary thrombosis, angina and leaking valve.
Reference: *National Health Survey: Summary of results, Australia,* 1995 (Cat. no. 4364.0).

Hospital beds (per 1,000 population)
the total number of beds in all hospitals (public and private) providing acute care services per 1,000 estimated mean resident population. Hospitals providing acute care services are those in which the treatments typically require short durations of stay.
Reference: *Private Hospitals, Australia* (Cat. no. 4390.0); Australian Institute of Health and Welfare, National Public Hospital Establishments Database (unpublished data).

Hospital separations (per 1,000 population)
the total number of separations in all hospitals (public and private) providing acute care services per 1,000 estimated resident population at 31 December of the reference year. A separation is an episode of care which can be a total hospital stay (from admission to discharge, transfer or death) or a portion of a hospital stay ending in a change of status (for example from acute care to rehabilitation). The inclusion of status changes has been progressively introduced since 1995–96. Hospitals providing acute care services are those in which the treatments typically require short durations of stay.
Reference: *Australian Hospital Statistics 1996–97* and earlier editions, Australian Institute of Health and Welfare.

Hypertension
high blood pressure, either treated or untreated. People are considered hypertensive if they are on tablets for blood pressure and/or their systolic blood pressure is 160 mmHg or greater and/or their diastolic blood pressure is 95 mmHg or greater.
Reference: Unpublished data, 1995 National Nutrition Survey.

Infant mortality rate
the number of deaths of children under one year of age per 1,000 live births.
Reference: *Deaths, Australia* (Cat. no. 3302.0).

Injury
the number of people per 1,000 population reporting injury as a recent condition (within two weeks) or a long-term condition (lasting or expecting to last six months or more), including fractures, dislocations, sprains, wounds, bruising, crushing, burns, poisoning and surgical complications.
Reference: *National Health Survey: Summary of results, Australia,* 1995 (Cat. no. 4364.0).

Ischemic heart disease deaths
deaths where coronary heart diseases, including heart attack (acute myocardial infarction, coronary occlusion) and angina (angina pectoris), are mentioned on the death certificate as the underlying cause (ICD–9 codes 410–414).
Reference: *Causes of Death, Australia* (Cat. no. 3303.0).

Life expectancy
the average number of years a newborn infant of a given sex would be expected to live if the age-specific death rates of the reference period continued throughout his or her lifetime. For persons aged 65 of a given sex, it is the average additional years of life expected if the age specific death rates of the reference period continued throughout his or her remaining life.
Reference: *Deaths, Australia* (Cat. no. 3302.0).

Live birth
the delivery of a child weighing at least 400 grams at delivery (or, when birthweight is unavailable, of at least 20 weeks gestation) who after being born, breathed or showed any other evidence of life such as a heart beat.
Reference: *Causes of Death, Australia* (Cat. no. 3303.0).

Lung cancer deaths
deaths where malignant neoplasm of the trachea, bronchus and lung are mentioned on the death certificate as the underlying cause (ICD–9 code 162).
Reference: *Causes of Death, Australia* (Cat. no. 3303.0).

Medium/high-risk drinkers
men aged 18 and over who reported drinking 50–75ml of absolute alcohol (medium-risk) or more than 75ml (high-risk) per day, and women aged 18 and over who reported drinking 25–50ml of absolute alcohol (medium-risk) or more than 50ml (high-risk) per day.
Reference: *National Health Survey: Health Risk Factors* (Cat. no. 4380.0).

Motor vehicle traffic accident deaths
deaths where motor traffic accidents are mentioned on the death certificate as the underlying cause (ICD–9 codes E810–E819).
Reference: *Causes of Death, Australia* (Cat. no. 3303.0).

Neonatal death
deaths of any child weighing at least 400 grams at delivery (or, when birthweight is unavailable, of at least 20 weeks gestation) who was born alive (as defined under live birth) and who died within 28 days of birth.
Reference: *Causes of Death, Australia* (Cat. no. 3303.0).

Nursing home and hostel beds
the number of beds which are provided for long-term nursing care to chronically ill, frail or disabled persons, and beds provided for people who are unable to live wholly independently but do not require nursing care, per 1,000 of the population aged 70 and over.
Reference: *Nursing Homes in Australia 1996–97: A statistical overview,* AIHW; *Hostels in Australia 1996–97: A statistical overview,* AIHW and DHFS.

Overweight or obese adults
overweight is defined by a body mass index (BMI) greater than or equal to 25 and less than 30, while obesity is defined by a BMI greater than or equal to 30, as recommended by WHO (1995). BMI is body weight in kilograms divided by the square of the height in metres.
Reference: Unpublished data, 1995 National Nutrition Survey.

Perinatal mortality rate
the annual number of fetal and neonatal deaths per 1,000 live births and fetal deaths combined (where birthweight was at least 400 grams).
Reference: *Causes of Death, Australia* (Cat. no. 3303.0).

Persons with private health insurance
proportion of the total population with private basic hospital insurance.
Reference: Private Health Insurance Administration Council, *Annual Reports*.

Prostate cancer deaths
deaths where malignant neoplasm of the prostate gland is mentioned on the death certificate as the underlying cause (ICD–9 code 185).
Reference: *Causes of Death, Australia* (Cat. no. 3303.0).

Health definitions and references continued

Skin cancer deaths

deaths where malignant neoplasm of the skin, including both melanoma and non-melanocytic skin cancer are mentioned on the death certificate as the underlying cause (ICD–9 codes 172–173).
Reference: *Causes of Death, Australia* (Cat. no. 3303.0).

Standardised rates

these enable the comparison of rates between populations with differing age structures by relating them to a standard population. These rates are the overall rates that would have prevailed in a standard population if it had experienced at each age the rates of the population being studied. Mortality and Medicare usage rates use the 1991 Australian population as the standard population. All other standardised rates use the Australian population of the year that the survey was last collected.
Reference: *Deaths, Australia* (Cat. no. 3302.0).

Stroke deaths

deaths where cerebrovascular disease (causing a blockage (embolism) or rupture (haemorrhage) of blood vessels within or leading to the brain) is mentioned on the death certificate as the underlying cause (ICD–9 codes 430–438).
Reference: *Causes of Death, Australia* (Cat. no. 3303.0).

Suicide deaths

deaths where suicide is mentioned on the death certificate as the underlying cause (ICD–9 codes E950–E959).
Reference: *Causes of Death, Australia* (Cat. no. 3303.0).

Tobacco: apparent consumption

grams of tobacco consumed divided by the population aged 15 and over. Apparent consumption of tobacco is based on the quantity on which import duty and excise (on cigarettes only) was paid and does not include duty or excise-free tobacco.
Reference: Unpublished ABS International Trade data.

Total fats: apparent consumption

the total fat content of food apparently consumed, in grams, divided by the total population.
Reference: *Apparent Consumption of Foodstuffs and Nutrients, Australia* (Cat. no. 4306.0).

Total health expenditure as a proportion of GDP/per person

total health expenditure as a proprtion of Gross Domestic Product, in current prices. Total health expenditure per person is expressed in Australian dollars, in chain volume measures, referenced to the year 1997–98.
Reference: *Health Expenditure Bulletin*, Australian Institute of Health and Welfare.

Suicide

MORTALITY AND MORBIDITY

In 1997 the standardised suicide death rate was 14.6 per 100,000 persons, the highest rate recorded since 1971. The 1998 rate of 14.3 reflects a decline of 40 deaths from 1997.

In recent years, suicide, especially among young people, has emerged as a major public health issue. Although death by suicide is a relatively uncommon event (in 1998, 2% of all deaths were attributed to suicide), the human and economic costs are significant. Apart from the loss of life, there are health care costs associated with attempted suicide, and it can be particularly difficult for friends and family to deal with the circumstances surrounding the death.

Recent government policy initiatives for suicide prevention began in 1992 when the National Health and Medical Working Group was set up to examine options for preventing suicide in Australia, and suicide prevention was identified as a target in 1994. The Commonwealth Government allocated $31m to the National Youth Suicide Prevention Strategy over four years from July 1995 to June 1999. From May 1999, it allocated a further $32m over four years to the Fighting Suicide initiative, including funds towards the implementation of the draft National Action Plan on Youth Suicide Prevention.[1]

Suicides since 1921

In 1921 there were 621 registered suicides, where many more men (510) took their lives than women (111). The age-standardised suicide rate was 14.0 deaths per 100,000 of the standard population. By 1998 the number of deaths from suicide had increased to 2,683 (2,150 males and 533 females) and the age standardised rate was 14.3 per 100,000.

Although the rates were similar in 1921 and 1998, there were a number of fluctuations during the intervening decades. The suicide rate rose during the depression years to peak at 16.8 per 100,000 in 1930. In this period, high suicide rates coincided with high levels of unemployment, particularly among males. In contrast, rates declined during World War II, falling below 8 per 100,000 people in both 1943 and 1944, the lowest recorded in Australia. The declining suicide rate during World War II was consistent with trends observed in many countries. However, rates for the war years may have been underestimated because suicides and any other deaths of troops overseas were not included in Australian death statistics.[2]

After the war, suicide rates began to rise gradually and again peaked in 1963 at 17.5 per 100,000. This rise and subsequent fall may be attributed in part to changes in the availability of hypnotic and sedative drugs, from unrestricted availability (following changes made to the National Health Act in 1960), to more restricted availability (following an amendment to the Act in 1967).[3] After 1968, the standardised suicide rate remained fairly stable at approximately 13 per 100,000 until the mid 1990s. In 1997

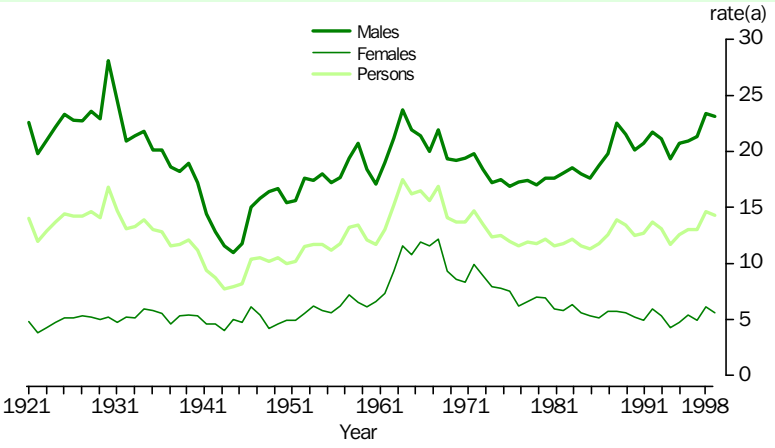
Suicide

This article primarily contains summary statistics on deaths registered in Australia between 1921 and 1998 where the underlying cause of death was determined as suicide (International Classification of Diseases 9th Revision, code E950–E959). This is the period for which suicide rates can be calculated in a consistent manner, using the estimated resident population.

Suicide – to be classified as a suicide, a death must be recognised as due to other than natural causes. It must also be established by coronial inquiry that death results from a deliberate act of the deceased with the intention of ending his or her own life.

Standardised death rates allow comparisons to be made between populations which have different age structures. To calculate the standardised death rate, age-specific death rates of persons aged 15 years and over are applied to the age distribution of the standard population of persons the same age. In this review this was Australia's population at 30 June 1991.

Trends in suicide, 1921–1998(a)



(a) Age-standardised rate, per 100,000 persons aged 15 years and over.

Source: 1921–1998 Suicides, Australia (Cat. no. 3309.0).

Age-specific suicide rates(a)

	Period(b)			
	1921–25		1996–98	
	Men	Women	Men	Women
Age group (years)	rate	rate	rate	rate
15–24	8.6	3.0	27.7	5.9
25–34	19.9	6.3	37.0	7.4
35–44	28.3	7.1	31.0	8.5
45–54	35.2	7.2	24.1	7.2
55–64	41.0	7.6	22.0	6.3
65–74	48.2	6.8	22.6	6.2
75 and over	47.8	2.1	31.3	6.2

(a) Rate per 100,000 persons.
(b) Suicide rates are averaged over each of the periods because of the small numbers in some age groups in any one year, and to dampen the effects of any year-to-year fluctuations.

Source: Suicides, Australia, 1921–1998 (Cat. no. 3309.0).

it increased to 14.6, the highest recorded since 1971. The 1998 rate of 14.3 per 100,000 reflects a drop of 40 deaths from 1997.

Examination of data on deaths from suicide allows the identification of some of the main characteristics of those who commit suicide, such as age patterns, sex differentials, marital status and geographical location. This assists policy makers to better target their policies on suicide prevention to those most at risk.

Age and sex differentials

Since 1921 the male suicide rate has been consistently higher and more volatile than the female rate. Therefore, variations in the overall suicide rate were largely attributable to changes in the male rate.

The profile of age-specific death rates did not change substantially from the early 1920s to the late 1970s. After this period there were gradual but marked increases for men aged 25–44 and decreases for men aged 45 and over. The trends were similar for women, although the changes were smaller.

In 1921–25 suicides generally increased with age; by 1996–98 suicides were most common in the 25–44 year age groups and then generally declined slightly with age.

The biggest increase in deaths from suicide between 1921 and 1998 has been in the 15–24 years age group for men (rising from 8.6 deaths per 100,000 men in 1921–25 to 27.7 in 1996–98), and in the 75 and older age group for women (from 2.1 per 100,000 women in 1921–25 to 6.2 in 1996–98).

The ratio of men to women who commit suicide is not a reflection of the ratio of men to women who attempt suicide. According to results from the 1997 Survey of Mental Health and Wellbeing of Adults, women were about twice as likely as men to have attempted suicide in the 12 months prior to the interview. Reasons for the differences in attempts at suicide and completed suicides between men and women are not fully understood.

Marital status

Married people are less likely to die from suicide than those who were never married, widowed or divorced. Over the most recent period for which suitable data is available (1995–97), people in registered marriages exhibited lower suicide rates than people who were not married (whether never married, divorced, or widowed). Although the male rates of suicide for the years 1995 to 1997 were about four times as high as female rates, the relationship between marital status and standardised death rates from suicide was similar for men and women. The average suicide rates for males who had never married was more than twice as high as those for married males, and the rates for widowers and divorced men were about three times higher. Similar patterns were observed for women.

Suicide rates(a): selected characteristics

	Men	Women	Total
	rate	rate	rate
Registered marital status(b)			
Never married	33.0	8.2	22.0
Married	14.3	3.5	8.9
Widowed	43.1	6.2	13.1
Divorced	42.2	14.0	26.5
Total	**23.4**	**5.6**	**14.0**
Usual residence(c)			
Capital city	20.7	5.5	12.9
Other urban	24.3	5.8	14.9
Rural	28.6	5.2	17.1
Total	**23.0**	**5.5**	**14.2**

(a) Age-standardised rate, per 100,000 persons.
(b) Rate for the period 1995–97.
(c) Rate in 1998.

Source: Suicides, Australia, 1921–1998 (Cat. no. 3309.0).

Geographical location

In 1998 there were 1,589 suicides in capital cities, 511 suicides in other urban areas and 557 suicides in rural areas. Despite year-to-year fluctuations, throughout the period from 1988 to 1998, persons living in capital cities had the lowest rates of suicide, (13 deaths per 100,000 persons in 1998); persons living in other urban areas had the next lowest (15 per 100,000 in 1998); and those in rural areas had the highest (17 per 100,000 in 1998). Possible explanations for high rural suicide rates for males include greater access to firearms, rapid technological changes and living in a climate of economic uncertainty.[4]

Associated causes of suicide

In 1997 the Australian Bureau of Statistics began tabulating all causes and conditions reported on death certificates. This process of recording multiple causes of death was introduced to give more detailed information about the underlying cause of death. It is now possible to identify not only the immediate cause of death but also other associated or contributory causes involved that may have indirectly influenced the death.

In 1998, 15% of men and 18% of women who committed suicide also had an associated or contributory diagnosis of a mental disorder, including 9% of men and 5% of women for whom substance use (usually abuse of alcohol or other drugs) was a factor. A further 4% of men and 9% of women who committed suicide were classified as having a depressive disorder.

In 1998, approximately 4% of males and 5% of females who committed suicide also had a disease of the circulatory system mentioned on their death certificate as an associated or contributory cause. No females, and less than 1% of males had the human immuno-deficiency virus (HIV) mentioned on their death certificate.

These results are supported by findings from the 1997 Survey of Mental Health and Wellbeing of Adults, which indicate that people with a mental disorder were nearly seven times more likely to have attempted suicide in the previous 12 months than people without a mental disorder (see *Australian Social Trends, 1999*, Mental health, pp. 71–74).

Associated or contributory causes of suicide, 1998

	Men	*Women*
Reported medical condition	%	%
Mental disorder	15.1	18.2
Substance use	9.0	5.4
Depressive disorders	4.1	9.0
Diseases of the circulatory system	3.9	4.5
Symptoms and signs and ill-defined conditions	2.4	4.1
Diseases of the nervous system and sense organs	1.6	3.4
Neoplasms	1.3	2.1
HIV	0.4	0.0
Total with reported medical condition	*22.9*	*28.7*
Total suicide deaths	**100.0**	**100.0**

(a) More than one factor may contribute to or be associated with a suicide, therefore components do not add to total.

Source: Suicides, Australia, 1921–1998 (Cat. no. 3309.0).

Deaths among people aged between 1 and 75 years (premature deaths)

	Deaths		*Years of potential life lost(a)*	
	All causes	*% of suicides to all causes*	*All causes*	*% of suicides to all causes*
Years	'000	%	'000	%
1988	58.7	3.5	1 010.8	7.4
1990	56.9	3.6	963.6	7.7
1992	56.3	3.8	930.1	8.5
1994	55.8	3.8	902.3	8.6
1996	54.5	4.1	897.4	9.3
1998	52.6	4.8	884.8	10.9

(a) Rounded to the nearest 100.

Source: Suicides, Australia, 1921–1998 (Cat. no. 3309.0).

Premature mortality

Early death, regardless of the cause, is distressing, partly because the opportunity for a full range of life experiences has been curtailed. Premature mortality can be calculated in terms of the years of potential life lost if the individual survived a particular cause and were to die later of another cause. In this instance, premature mortality is assumed to be any death before the age of 75 years. By estimating potential years of life lost, it is possible to assess the significance of suicide as a cause of untimely death relative to other causes.

Between 1988 and 1998, the number of years of potential life lost from all causes of death decreased, while years of potential life lost due to suicide increased. This rise occurred

Trends in methods of suicide, 1979–1998

	Distribution 1979–98		Men		Women	
	Men	Women	1979	1998	1979	1998
Method	%	%	rate(a)	rate(a)	rate(a)	rate(a)
Firearms	27.0	6.8	7.0	2.4	0.6	0.2
Poisoning	12.4	39.5	3.5	1.9	3.7	1.6
Hanging	26.5	20.0	2.6	11.2	0.8	2.0
Carbon monoxide gas	20.3	12.0	2.2	5.0	0.3	0.8
Jumping	3.7	5.7	0.5	0.8	0.3	0.3
Cutting and piercing	1.8	2.0	0.4	0.4	0.1	0.1
Drowning	2.2	6.5	0.4	0.3	0.5	0.2
Other and unspecified means	6.0	7.6	1.1	1.1	0.5	0.4
All methods	**100.0**	**100.0**	**17.7**	**23.1**	**6.9**	**5.6**

(a) Rate per 100,000 persons.

Source: Suicides, Australia, 1921–1998 (Cat. no. 3309.0).

because there has been an increase in both the overall number of suicide deaths (by nearly 500 deaths), and in the numbers of suicide deaths in the younger age groups. The years of potential life lost from suicide as a percentage of years lost from all causes of death increased from 7% to 11%.

Method of suicide

Most suicides (85%) reported in the period 1979–98 involved four methods: hanging and strangulation (25%), firearms and explosives (23%), carbon monoxide poisoning (19%), and poisoning by solid and liquid substances (18%). Other methods each contributed only a small proportion towards total suicide deaths during the period.

The methods of suicide chosen by men and women differed over the period 1979–98. Because male suicides account for the majority of all suicides, the methods chosen by men have a greater influence on the overall pattern than the methods chosen by females.

Over the period 1979–98, the most frequent method used by men was firearms (27%), followed by hanging (26%) carbon monoxide (20%), and poisoning (12%). Between 1979 and 1998 men's use of firearms as a method of suicide declined from 7.0 to 2.4 per 100,000 persons. Firearms was the leading cause of suicide death among men until 1989, when hanging became the leading cause.

Male deaths from hanging increased from 2.6 in 1979 to 11.2 per 100,000 persons in 1998, and for deaths from carbon monoxide poisoning the rate increased from 2.2 to 5 per 100,000 persons.

Poisoning was the most common method of suicide for females until 1996. However, since 1997 hanging has become the most common method, accounting for 34% of suicide deaths in 1998, compared with 30% for poisoning.[1]

Endnotes

1 Australian Bureau of Statistics 2000, *Suicides, Australia, 1921–1998*, Cat. no. 3309.0, ABS, Canberra.

2 Australian Bureau of Statistics 1997, *Australian Demographic Trends, 1997*, Cat. no. 3102.0, ABS, Canberra.

3 Oliver, R.G. and Hetzel, B.S. 1972, 'Rise and fall of suicide rates in Australia: relation to sedative availability', *Medical Journal of Australia*, 2:919–923.

4 Ruzicka, L. and Choi, C.Y. 1999, 'Youth suicide in Australia', *Journal of the Australian Population Association*, 16: 1/2;29–46.

Accidental drowning

MORTALITY AND MORBIDITY

The drowning rate fluctuated in the range 1.5 to 2.0 deaths per 100,000 over 1992–1998.

Young children aged 1–4 years recorded the highest drowning rate of any age group.

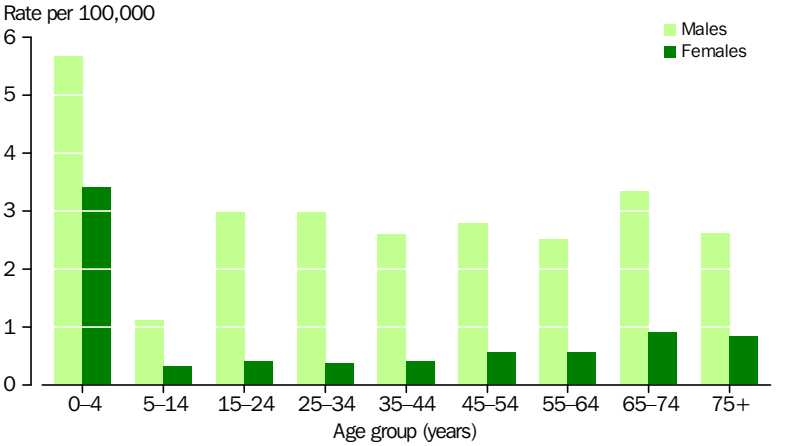
45% of these children drowned in private pools.

The long-term trend in accidental drowning in Australia (since the 1920s) has been a decline.[1] In the 1990s, accidental drowning was relatively rare, causing fewer than 2 deaths per 100,000 population per year and accounting for less than 1% of all deaths. Nevertheless, drowning is a focus of public concern because these deaths are often premature and avoidable. The National Water Safety Council is a coordinating body promoting water safety across areas and levels of government and to the general public. The Council's Water Safety Plan promotes specific measures in the area of research, management of aquatic locations and water safety education. The plan also encourages a focus on key demographic groups, such as 1–4 year olds, known to have a higher risk of drowning.[2]

Magnitude and age pattern

Over the years 1992–1998, 2,199 people died from accidental drowning, including 343 who drowned as a result of water craft accidents. There was an average of 314 deaths per year, with four times as many males as females drowning (an average of 251 per year compared to 63). The age-standardised death rate from accidental drowning fluctuated annually, and ranged from 1.5 deaths per 100,000 (1998) to 2.0 (1992).

Average age-specific accidental drowning rates(a), by sex, 1992–1998



(a) Registered deaths, classified to codes E830, E832 and E910 (ICD–9). Age-specific death rate is the number of deaths per 100,000 of the estimated mid-year population. Age-specific death rates 1992–1998 were averaged over the period.

Source: Unpublished data, Causes of Death collection.

Information on drowning

In ABS mortality statistics, accidental deaths are grouped according to the nature of the accident, in accordance with the International Classification of Disease version 9 (ICD–9). The majority of accidental drownings are coded to:

- code E830 – Accident to watercraft causing submersion;
- code E832 – Other accidental submersion or drowning in water transport accident;
- code E910 – Accidental drowning and submersion.

Most of this article is based on information regarding deaths grouped to these three codes.

Since 1992, additional information has been extracted from coroners' files and added to the statistical records, to identify the general circumstances and location of each drowning. This assists those planning water safety policies, and has been used in this article.

Children under five years had the highest average drowning rate of any age group (4.6 deaths per 100,000). The rate for males was 5.7 deaths per 100,000 and for females it was 3.4 per 100,000.

The average death rates were higher for males than for females in every age group. The difference was least in the 0–5 years age group in which the rate for males was 70% higher than that for females. It was greatest in the 15–24 and 25–34 years age group. In these two age groups the average rates for males were more than seven times higher than the average rates for females.

Circumstances and locations

Drownings over 1992–1998 occurred in a variety of circumstances and locations, and highlighted diverse issues in water safety.

Drowning is seasonal, with a peak in December–January, the hottest months and also a holiday period. Of all drownings over the period, 13% took place in January and 13% in December while the trough occurred in May (4%). (Data was adjusted to take account of differences in the number of days per month).

Many deaths took place during recreational use of water. As well as 600 drownings while swimming, paddling or wading, there were 83 drownings while skin diving or spear fishing, 20 drownings while surfboard riding and 2 drownings while water skiing.

Circumstances of accidental drownings(a), 1992–1998

	Males	Females	Persons	
Circumstance	no.	no.	no.	%
Fell or wandered into water	561	187	748	34
Swimming, paddling or wading	503	97	600	27
Surfboard riding	19	1	20	1
Swept off rocks, breakwater	78	13	91	4
Skin diving, spear fishing	64	19	83	4
Drowned in a bathtub	57	74	131	6
Attempting rescue	39	2	41	2
Watercraft accidents(b)	325	18	343	16
Total(c)	**1 758**	**441**	**2 199**	**100**

(a) Deaths classified to ICD–9 codes E830, E832, E910.
(b) Deaths classified to ICD–9 codes E830 and E832.
(c) Includes drownings in other and unspecified circumstances.

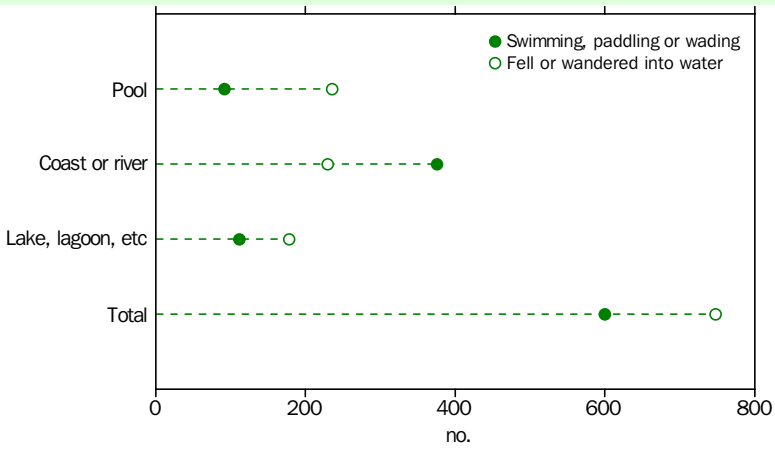
Source: Unpublished data, Causes of Death collection.

However, a substantial number of deaths resulted from people accidentally falling or wandering into water. Indeed, more deaths in swimming pools and in lakes, dams or lagoons, were attributed to people accidentally entering the water than to swimming, paddling or wading. Almost 40% of the 748 drownings due to falling or wandering into water were of children aged 1–4 years.

After deaths from falling or wandering into water, and while swimming paddling or wading, water craft accidents claimed the most lives through drowning.

Each year a small number of people drown while trying to save others; there were 41 such deaths over the period.

Location of selected drownings(a), 1992–1998



(a) Death registered to ICD–9 code E910 and which occurred while swimming, paddling or wading, or after falling or wandering into water.

Source: Unpublished data, Causes of Death collection.

As well as the more common locations, (major types of natural water body and swimming pools), drownings occur in other sites. Bathtubs are a hazard for infants, people with certain medical conditions, and those prone to falls, such as the elderly. There were 131 drownings in bathtubs over the period. The hazards of ditches or shafts on building sites, and irrigation canals on farms, have been recognised in various regulations. Storm water drains are also a hazard, especially to children who play in them. There were 34 deaths in trenches, irrigation canals or storm water drains over the period. Dams, creeks and water holes are included in the location category with lakes. A recent report highlights drowning as a safety hazard on farms, especially for children.[3] Over 1989–92 there was an average of 22 drownings a year on farms, with more than half occurring in dams. Children under 15 years made up 57% of farm drownings.

In most circumstances more males drowned, but more females drowned in bathtubs. The circumstances and locations of drowning also varied by age. Quite different reasons account for the peak in death rates at under five years, the predominance of male deaths, especially among younger adults, and the higher drowning rates among those aged over 64 years than among other adults.

Children under five

Children under five are physically vulnerable to drowning. They are also unaware of water hazards and are dependent on the vigilance of adults to protect them. International data shows that children of this age who drown tend to do so in whatever hazards are in or near their homes. For example, locations of drowning which are quite common in other countries but not in Australia include canals (the Netherlands), sunken bathtubs (Japan), ornamental garden ponds (the United Kingdom), and industrial buckets used in the home (the United States).[4]

In Australia, the most common location of drowning of children under five years over 1992–1998 was a private swimming pool (45%). The great majority of children of this age who drowned had fallen or wandered into water (72%). Only a small proportion drowned while swimming, paddling or wading (7%). This may reflect the fact that children of this age are not normally allowed to swim, paddle or wade without adult supervision. If they get into difficulties while supervised, an adult may often be able to rescue them, and if necessary, resuscitate them and call for medical assistance.

Circumstances associated with drowning and near-drowning of children, Brisbane(a)

1. Absence of a pool fence
2. Inadequate pool fence
3. Inadequate pool gate
4. Child unsupervised
5. Vulnerable period for caretakers or child
6. Attractive objects in pool
7. Dichotomy of care
8. Unrealistic disciplinary expectations
9. False security (child left with other children)
10. Safety features misused
11. Unfulfilled expectations of the child.
12. Child disobedient
13. 'Floaties'
14. Motor vehicle accidents
15. Child neglect
16. Injury in or beside water

(a) Established through reconstruction of the incident with parents.

Source: Brisbane Drowning Study.[4]

A study of drownings and near-drownings of children in Brisbane over a number of years identified several issues relating to supervision.[4] As well as less common circumstances which were considered to show neglect, these included situations where the child was not supervised, or there was confusion about who was supervising the child at the time (*dichotomy of care*), or a degree of disruption to routine (*vulnerable period for child or parent*). The findings also suggest that there was some confusion about the degree of supervision necessary. While most children of five and over can understand parents' instructions, some parents were unrealistic in thinking younger children could be trained not to go near a pool or that the presence of older children was sufficient supervision. The study also found some over-reliance on buoyancy aids *('floaties')*.

The major associated factors identified by the study, however, related to the adequacy of the pool fencing. Safety advocates regard isolation fencing, with a childproof gate which is kept closed by those who use it, as the most important measure to protect children in houses with private pools.[5] While pool fencing legislation of some sort applies in most areas of Australia, isolation fencing is not always required. Other issues relating to the pool environment which arose in the Brisbane Drowning Study were the presence of attractive objects in the water and the misuse of safety features.

Selected circumstances and location of drownings of children aged less than five years(a), 1992–1998

	no.	%
Drowned in a bathtub	67	16
Total fell or wandered into water	*297*	*72*
Fell or wandered into private pool	173	42
Fell or wandered into lake, lagoon etc.	69	17
Total who were swimming, paddling or wading	*29*	*7*
Were swimming, paddling or wading in private pool	14	3
Were swimming, paddling or wading in lake etc.	8	2
Total(b)	**411**	**100**

(a) Classified to E830, E832 and E910.
(b) Includes drownings in other and unspecified circumstances.

Source: Unpublished data, Causes of Death collection.

Youth and adults to age 64

Whereas the peaks in the age pattern of drowning among young children and older adults reflect physical vulnerability, the rise among youth (15–24 years), and the much higher rate among males than females sustained through adult years, are regarded as reflecting behavioural differences. Greater involvement in water recreation, less supervision than applies to those under 15, and a greater tendency to take risks may explain these patterns.

In contrast to the pattern for young children, only 3% of drownings of people aged 15–64 years that occurred between 1992 and 1998 were in private swimming pools. Drowning while swimming, paddling or wading was the most common circumstance (33%), while 30% followed falling or wandering into water, and 20% were due to watercraft accidents. The majority of both swimming, paddling and wading drownings (68%), and those which followed falling or wandering into water (56%) occurred in an ocean, coastal or river environment. Of the 1,377 people who drowned in this broad age group, 86% were male, and males made up at least 75% of deaths in all circumstances except for the 46 drowning in private pools (65% were males), and the 36 in bathtubs (33% were males).

Older people

In contrast to younger adults, the largest group of drownings of those aged over 64 years resulted from falling or wandering into water (41%). This was the most common circumstance among both men and women (78 and 35 deaths respectively). Among men, watercraft accidents (48 deaths), and drowning while swimming paddling and

wading (40 deaths) were the next most common. Among women, bathtub drownings (17 deaths) and swimming, paddling or wading drownings (11 deaths) were the next most common circumstances. Only four men of this age drowned in a bathtub and only four women drowned in watercraft accidents.

Overseas tourists

Water-based recreations such as swimming, scuba diving or snorkelling attract tourists. The deaths of tourists undertaking some of these activities has generated concern about safety standards and contributed to discussion regarding the systems of medical checks which operate.[6]

In the period 1992–98 nearly all drownings were of Australian residents. Nevertheless there were 102 deaths of people whose usual residence was overseas. In contrast to the pattern for all drownings, 60% drowned while swimming, paddling and wading, with surf beaches the most common location (38 deaths). About 20% drowned while skin diving or spear fishing. In fact, overseas residents made up 24% of all skin diving or spear fishing drownings.

Alcohol

There has been concern voiced by water safety experts that alcohol may be involved in some drowning deaths, particularly in those resulting from boating accidents.[4] Alcohol and drug abusers, and those on some medications, are also at risk of drowning after losing consciousness in a bath. These aspects of water safety cannot be investigated directly from statistical deaths data. However, the National Drug Research Institute has estimated that about 70 drownings were alcohol-related in 1997.[7]

Incidental drownings

Since 1992, information from coroners' files has been used by statistical officers to note some additional drownings which were not classified to the accidental drowning codes E830, E832 or E910. In these cases, the underlying cause of death is either another type of accident, such as a motor vehicle accident, or a medical condition, such as epilepsy. They include drownings due to floods, storms or earth movements (which are classified to codes E908 and E909). Information on incidental drownings is used in this article to add to knowledge of the range of circumstances that may result in drowning.

Incidental drownings

Over 1992–1998, 291 deaths were noted as incidental drownings. There were 40 drownings due to floods, storms and earth movements. The medical conditions which were the most common underlying causes of incidental drownings were epilepsy and heart conditions. Motor vehicle accidents were prominent as the major accidental cause in this group. A variety of other types of accident were also represented including aircraft accidents and falls. Drownings due to machinery accidents or electrocution remind of the need for vigilance in using electrical and other equipment near water.

Incidental drownings(a), 1992–1998

	Males	*Females*	*Persons*	
	no.	no.	no.	%
Motor vehicle accident	71	25	96	33
Flood, storm, earth movement(b)	32	8	40	14
Aircraft accident	7	2	9	3
Fall	8	1	9	3
Machinery accident/electrocution	8	2	10	3
Epilepsy	50	8	58	20
Heart attack/condition or stroke	17	3	20	7
Other accident or condition	34	15	49	15
Total	**227**	**64**	**291**	**100**

(a) Deaths registered to ICD–9 codes other than E830, E832, E910 and noted by statistical officers as drownings on the basis of information in coronors' files. Homicides, suicides and deaths which were undetermined as purposeful or accidental are excluded.
(b) Deaths registered to codes E908 and E909 and noted as drownings.

Source: Unpublished data, Causes of Death collection.

Endnotes

1 Mackie, I. and Tebb, N. 1994, *National drowning study: Second report*, The Royal Lifesaving Society Australia, Sydney.

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Trends in smoking

RISK FACTORS

In 1995, 24% of the population smoked, compared to 37% in 1977.

The prevalence of smoking is not spread evenly in the population. People with less education, less skilled jobs or who are unemployed are more likely to smoke than people of higher socio-economic status.

In the twentieth century, cigarette smoking became widespread.[1] The early nineteenth century had seen a craze for cigars; cigarettes were an innovation borrowed from Turkey and adapted to mass production by the end of that century. The supply of cigarettes as rations to troops in the two world wars helped spread smoking, especially among men. For most of the century, smoking was one of the behaviours acceptable for men but less so for women. Nevertheless, by the 1970s, women made up a substantial minority of smokers in some countries, including Australia (40% by 1977).

Increases in lung cancer were noted in the 1920s and 1930s, and by 1950 several major studies had found a link to smoking. Between 1957 and 1964 major health bodies, including governmental agencies, officially recognised a link between smoking and lung cancer. Curbs such as mandatory warnings on cigarette packets and restrictions on advertising followed (in Australia from 1972). In the 1980s, passive smoking became a focus of health concerns. In Australia, this was accompanied by various bans on smoking in workplaces, aircraft and other places.[1]

Despite the combination of official warnings, price increases, and the activities of the anti-smoking lobby, a national survey in 1985 found that 31% of people thought that tobacco was either 'not dangerous at all' or 'OK if you know how to use it'.[2] On the positive side, regular surveys conducted in Victoria since 1983 have found smokers have become more likely to intend to quit, to see a risk in smoking, to name more advantages than disadvantages of quitting, and to expect strong social support for quitting.[3]

Self-reported smoking habits

Three ABS population-based national health surveys have asked people about their smoker status, using similarly worded questions and similar survey methodology. These surveys were conducted in 1977, 1989–90 and 1995. The 1989–90 survey carried additional questions which provided more detailed data on tobacco consumption and smoking habits (see *Australian Social Trends 1994,* Tobacco use, pp. 60–65).

Self-reported data on smoker status is considered comparable for the three surveys. People interviewed were asked whether they smoked, and how much they usually smoked. Those who indicated that they did not smoke were asked whether they had ever smoked regularly. Smoker status could then be classified as *current smoker*, *ex-smoker* and *never smoked*.

Current smokers comprise both regular and occasional (less than one cigarette, pipe or cigar per day) smokers. In 1995, 93% of current smokers were regular smokers. The terms *Current smokers* and *smokers* are used interchangeably in this article.

Quit ratios – ex-smokers as a proportion of those who have ever smoked (i.e. as a proportion of ex-smokers and current smokers combined).

Smoking prevalence 1977–1995

Smoking was less prevalent in 1995 than in 1977. About 24% of the adult population were smokers in 1995, compared to 37% in 1977. The proportion of men aged 18 and over who smoked decreased by 40% over the period, while among women the decrease was 30%. The greatest proportional decline (44%), was among people aged 45 years and over, and the least among young people, aged 18–24 years (24%).

Smoking prevalence(a), by age and sex, 1977–1995

	Males				*Females*				*Persons*			
	1977	*1989–90*	*1995*	*Change 1977 –1995*	*1977*	*1989–90*	*1995*	*Change 1977 –1995*	*1977*	*1989–90*	*1995*	*Change 1977 –1995*
Age group (years)	%	%	%	%	%	%	%	%	%	%	%	%
18–24	42.8	35.9	32.2	–24.8	37.1	36.0	28.1	–24.3	39.9	36.0	30.2	–24.3
25–44	48.7	36.3	32.1	–34.1	33.2	28.3	24.7	–25.6	41.1	32.3	28.4	–30.9
45–64	47.1	30.3	24.0	–49.0	27.3	21.5	17.4	–36.3	37.2	26.0	20.7	–44.4
65 and over	32.0	16.9	14.5	–54.7	11.8	10.8	8.8	–25.4	20.2	13.4	11.3	–44.1
Total	**45.4**	**32.1**	**27.3**	**–39.9**	**29.1**	**24.7**	**20.3**	**–30.2**	**37.2**	**28.4**	**23.8**	**–36.0**

(a) Proportion who were current smokers, of those in age group.

Sources: Unpublished data, 1977 Alcohol and Tobacco Consumption Patterns Survey; 1989–90 National Health Survey; 1995 National Health Survey.

Smoker status, by sex, 1977–1995

Year	Current smoker %	Ex-smoker %	Never smoked %	Total %	Quit ratio %
Males					
1977	45.4	21.3	33.3	100.0	31.9
1989–90	32.1	28.8	39.1	100.0	47.3
1995	27.3	32.4	40.4	100.0	54.3
Females					
1977	29.1	9.9	61.0	100.0	25.4
1989–90	24.7	17.8	57.4	100.0	41.9
1995	20.3	22.5	57.1	100.0	52.5
Persons					
1977	37.2	15.5	47.3	100.0	29.4
1989–90	28.4	23.2	48.4	100.0	45.0
1995	23.8	27.4	48.9	100.0	53.5

Sources: Unpublished data, 1977 Alcohol and Tobacco Consumption Patterns Survey; 1989–90 National Health Survey; 1995 National Health Survey.

Although the National Health Survey has not collected information on smoking from those under 18 years, an indication of recent teenage smoking patterns can be obtained from other surveys. According to the 1998 National Household Drug Survey, less than half (47%) of those aged 14–19 years had never smoked. One in four were current smokers, comprising 9% who were occasional smokers and 16% who were regular smokers. Similar proportions of males and females were current smokers (24% of males and 26% of females).[4]

The next national health survey will be conducted in the year 2001, and will provide information on the trend in smoking prevalence since 1995. However, data from recent National Household Drug Surveys indicate little change in the proportion of the population who were smokers between 1995 and 1998 (27% and 26% respectively).[4]

Changes in smoker status

Decreases in the proportion of the population who smoke can result both from fewer people ever taking up smoking, and from more smokers quitting. The reductions in the prevalence of smoking between 1977 and 1995 resulted mainly from people quitting smoking rather than from fewer people taking it up. The decrease in the proportion of the population who were smokers was accompanied by a small increase in those who said they had never smoked (1.6 percentage points) and a larger increase in those who identified themselves as ex-smokers (12 percentage points).

However, there were different trends for males and females. Among males, the category 'never smoked' made almost the same gain in percentage points as did 'ex-smokers' (7 percentage points compared to 11 percentage points). In contrast, among females, the proportion who had never smoked decreased by 4 percentage points, while ex-smokers gained 13 points.

Increases in quit ratios

In 1977 about one third of all men and one quarter of all women who had ever smoked had quit (were ex-smokers). By 1995, this had increased to slightly more than half of both men and women who had ever smoked. The greater proportional increases occurred within the broad age range 25–54 years.

Proportional increases(a) in quit ratios(b), by sex and age, 1977–1995

Age group (years)	Males %	Females %	Persons %
18–24	36	91	62
25–34	78	89	85
35–44	69	128	90
45-54	71	134	88
55–64	60	81	65
65–74	47	63	51
75 and over	36	31	33
Total	70	107	82

(a) The difference between quit ratios in 1977 and in 1995, as a percentage of the quit ratio in 1977.
(b) People who were ex-smokers as a proportion of people who had ever smoked regularly.

Sources: Unpublished data, 1977 Alcohol and Tobacco Consumption Patterns Survey; 1995 National Health Survey.

Proportion of young people (18–24 years) who had never smoked

	Males	*Females*	*Persons*
	%	%	%
1977	48.0	55.5	51.7
1989–90	55.1	52.2	53.7
1995	57.6	58.6	58.1

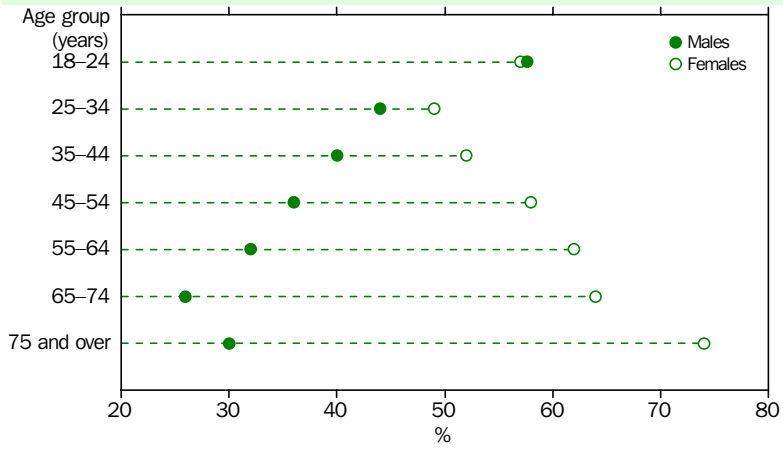
Source: Unpublished data, 1977 Alcohol and Tobacco Consumption Patterns Survey; 1989–90 National Health Survey; 1995 National Health Survey.

People who have never smoked — age and sex pattern

Any changes in the proportion taking up smoking are likely to be seen first and most clearly in the younger age groups, as surveys suggest that, in recent decades at least, most smokers have developed the habit as teenagers or in their early twenties.[1] For some time, there were opposite trends for young men and women. Between 1977 and 1989–90 the proportion of males aged 18–24 years who had never smoked increased, while the proportion of females in this age group who had never smoked decreased. However, between 1989–90 and 1995, the trend for females was reversed and the proportion of females of this age who had never smoked increased to 59%, slightly higher than in 1977. Among males of this age, between 1989–90 and 1995 there was a further increase in the proportion who had never smoked, to 58%.

To an extent, the age pattern in 1995 of people who had never smoked indicates the longer-term history of smoking patterns. In older age groups, more than 60% of women had never smoked, but in the younger age groups, the proportions of women who had never smoked were lower. This reflects a long-term trend for women to take up smoking.

Proportion who had never smoked, 1995



Source: Unpublished data, 1995 National Health Survey.

Prevalence by other variables

Smokers were not distributed evenly in the population in 1995. In addition to differences in prevalence by age and sex, there were differences by other demographic variables such as marital status, living arrangements, birthplace and Indigenous status. Prevalence also differed according to variables indicative of socio-economic status such as labour force status, occupation and education. This is generally consistent with the previous surveys (1977 and 1989–90).

Some differences are to be expected, given the different age and sex profiles of many of these groups. For example, very few widowed people smoke — not surprising given the older age ranges and the greater proportion of females in this group. Likewise, the high rate among trades persons is consistent with the predominance of men in that occupational group. However, after age and sex standardisation of data (a technique which shows what the prevalence in a particular group would be if the group had the same sex and age make-up as the total population) there is still considerable variation in smoking prevalence.

Labour force status, education, occupation

Among adults of working age (18–64 years) 40% of unemployed people were current smokers (after age and sex standardisation of data). This compared to 24% of those not in the labour force and 33% of employed persons.

Among all adults, the highest rates of smoking were recorded among people with no post-school qualifications (29%). The prevalence of smoking was lower among people with post-school qualifications, with higher qualifications associated with lower smoking rates.

Smoking was more prevalent among people in 'blue collar' occupations. Labourers and related workers had the highest rate (34%) followed by plant and machine operators and drivers (31%) and trades persons (28%). Sales and personal service workers (24%) and clerks (22%) fell in the middle range. About 19% of para-professionals and 20% of managers and administrators smoked, while the lowest prevalence was recorded for professionals (14%).

Smoking prevalence(a), and quit ratios, by selected characteristics, 1995

	Current smokers	*Quit ratio*	*Never smoked*
	%	%	%
Labour force status(b)			
Employed	24.1	51.6	50.3
Unemployed	40.3	34.2	38.7
Not in labour force	32.5	41.3	44.7
Education(c)			
Bachelor degree or higher	11.4	70.3	61.7
Undergraduate or associate diploma	17.7	61.3	54.2
Vocational qualification	23.4	56.0	46.7
No post-school qualifications	28.5	48.0	45.1
Occupation(b)			
Managers & administrators	20.0	56.7	53.7
Professionals	13.7	63.5	62.4
Para-professionals	19.2	61.0	50.8
Tradespersons	27.5	47.9	47.1
Clerks	21.9	53.8	52.7
Sales and service workers	23.9	51.4	50.9
Plant & machine operators & drivers	31.0	43.6	45.0
Labourers and related workers	34.3	40.5	42.3
Household type			
Lone person	31.6	44.7	42.9
Couple-only	22.0	57.8	47.8
Couple with dependent child(ren)	20.0	57.8	53.2
Lone parent	31.7	40.2	46.9
Marital status			
Never married	28.6	45.1	48.0
Defacto	32.1	47.1	39.3
Married	20.2	59.5	50.2
Separated	40.6	36.6	35.9
Divorced	36.5	38.4	40.8
Widowed	29.3	44.0	40.5
Indigenous status			
Indigenous	46.7	19.5	32.3
Birthplace			
Australia	24.3	52.9	48.4
New Zealand & Oceania	26.4	54.5	41.9
Ireland and United Kingdom	26.6	55.5	40.1
Southern Europe	23.6	49.7	53.2
Western Europe	26.2	56.2	40.1
Other Europe and the former USSR	20.0	57.8	52.6
Middle East	30.2	34.0	54.2
South-East Asia	12.9	57.6	69.5
North-East Asia	6.2	73.6	76.5
Southern Asia	8.9	68.7	71.5
Northern America	21.4	61.6	44.2
Africa	18.2	60.5	54.0

(a) Age and sex standardised to the estimated mid-year population 1995.
(b) People aged 18–64 years. Other data in table relate to people aged 18 years and over.
(c) Highest post-school qualification attained.

Source: Unpublished data, 1995 National Health Survey.

Household type and marital status

Of people in different types of household, lone parents with dependent children and people living alone were the most likely to smoke (almost a third of each group were smokers). Couples with dependent children (22%), and couple-only households (20%) had lower proportions of smokers.

Smoking was most common among people who were separated from their spouses (41%) or divorced (37%). Those who were in a de-facto relationship (32%), had never been married (29%) or were widowed (29%) also had relatively high prevalence rates. Married people (20%) were the least likely to smoke.

Indigenous status, birthplace

Smoking was more prevalent among Indigenous Australians (47%) than among the total population (24%).

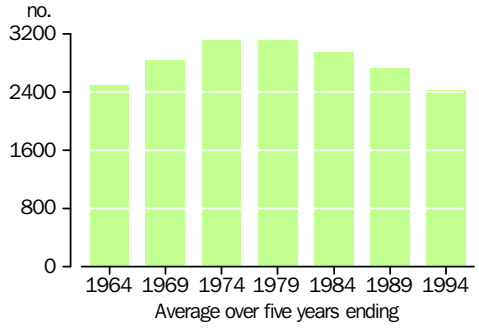
People born in Australia and Southern Europe had smoking rates which were very close to that of the total population. The prevalence among those from Western Europe (26%), New Zealand and Oceania (26%) and the United Kingdom and Ireland (27%), was slightly higher. The highest prevalence was among those born in the Middle East (30%). Smoking was less common than in the total population among those from the former USSR (20%), Africa (18%) and regions in Asia (from 6% to 13%).

Among some birthplace groups, smoking was relatively uncommon among women, and this lowers the overall rate of smoking. For example, crude smoking rates were 27% for men born in South-East Asia but 5% for women born there. Of men born in North-East Asia, 11% were smokers, compared to 3% of women born there. Among those born in Southern Europe, Africa and the Middle East men were about twice as likely to smoke as women.

Cigarette consumption trends — Australia and elsewhere

According to information compiled by a market research company, Australia's per capita consumption of cigarettes decreased over the 1980s and early 1990s, despite annual fluctuations. In 1994, consumption was 2,146 cigarettes a year (per person aged 15 years and over), a decrease of about a third from 3,161 in 1977.[5]

Cigarette consumption per capita(a), Australia



(a) Persons aged 15 years and over.

Source: NTC Publications Ltd, *World Tobacco Trends 1996.*

In 1994, Australia ranked 17th out of 77 countries in per capita (persons aged 15 years and over) tobacco consumption. The countries with the highest per capita consumption were Poland, Greece and Japan. Those with the lowest included some of the poorest countries: Tanzania, India and Zaire. Australia's per capita consumption was higher than that of Canada, the United Kingdom and New Zealand but lower than consumption in the United States. A few Western European countries had higher tobacco consumption than Australia but most, like France (1,954) and Italy (1,837) had slightly lower per capita consumption.

Adult(a) per capita cigarette consumption, and ranking, 1994

Country	*Rank*	*Cigarettes per adult* no.
Poland(b)	1	3 373
Greece	2	3 351
Japan	3	3 215
USA(b)	11	2 453
Australia	17	2 146
Canada	19	2 048
Germany	21	1 975
UK	28	1 828
New Zealand(b)	46	1 197
Zaire	77	131

(a) Persons aged 15 years and over.
(b) Latest data 1993.

Source: NTC Publications Ltd, *World Tobacco Trends 1996.*

Endnotes

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Cancer screening

HEALTH RELATED ACTIONS

Breast and cervical cancers together accounted for 19% of female cancer deaths in 1998.

The reduction of morbidity and mortality from breast and cervical cancers is the primary aim of screening programs specifically targeting these cancers.

Cancer was the leading cause of death in 1998. It was a greater cause of premature mortality in females than in males, accounting for 40% of years of potential life lost for females, compared with 25% for males. Breast and cervical cancers together accounted for 19% of female cancer deaths. Screening is currently believed to be the most effective method of reducing mortality from breast and cervical cancer.[1] Population based screening programs, BreastScreen Australia and the National Cervical Screening Program, were established in the early 1990s. The primary objective of these programs is to reduce morbidity and mortality from breast and cervical cancer. BreastScreen Australia's main aim is to detect small cancers in the breast which are more easily treatable while in their early stages. The National Cervical Screening Program seeks to detect the precursors to cancer or abnormalities of cells in the cervix which may lead to invasive cervical cancer.

Mortality

In 1998 there were 2,542 deaths due to breast cancer, accounting for 17% of female cancer deaths and 4% of all female deaths. Breast cancer was the leading cause of death from cancer for women in each age group between 25 and 64 years. As with most

Breast and cervical cancer death rates for women, by age, 1998

Age group (years)	*Breast cancer deaths* rate(a)	*Cervical cancer deaths* rate(a)
20–24	0.3	0.5
25–29	1.0	0.8
30–34	4.0	0.7
35–39	9.1	2.7
40–44	18.2	2.7
45–49	31.7	2.5
50–54	46.5	4.0
55–59	53.1	3.7
60–64	69.2	7.8
65–69	72.0	6.0
70–74	81.2	8.5
75 and over	137.7	13.8

(a) Per 100,000 women in each age group.

Source: Unpublished data, Causes of Death collection.

National Health Survey information

The most recent National Health Survey was conducted by the ABS in 1995. It included a self-enumeration form for women, collecting supplementary information on several specific topics, including breast examinations, mammograms (breast x-rays) and Pap smear tests. Mammograms and Pap smear tests taken for both screening and diagnostic purposes were included.

Population screening

Breast cancer screening

The National Program for the Early Detection of Breast Cancer was established in 1991; since 1994 it has been called BreastScreen Australia.[1] The program recommends that women in the target age group (50–69 years) have a mammogram every two years. Women in the 40–49 years and 70–79 years age groups also have access to mammograms, but are not actively recruited.[2]

Cervical screening

Although Pap smears have been available since the 1960s it was not until 1991 that the National Cervical Screening Program came into effect, following recommendations from the Australian Health Ministers Advisory Council. The Program aims to reduce cervical cancer morbidity and mortality by ensuring that: women in the target group are routinely screened every two years; Pap smears contain adequate samples of cervical cells; national uniform and reliable data are kept; and effective follow-up and treatment is available to women with screen-detected abnormalities.[1]

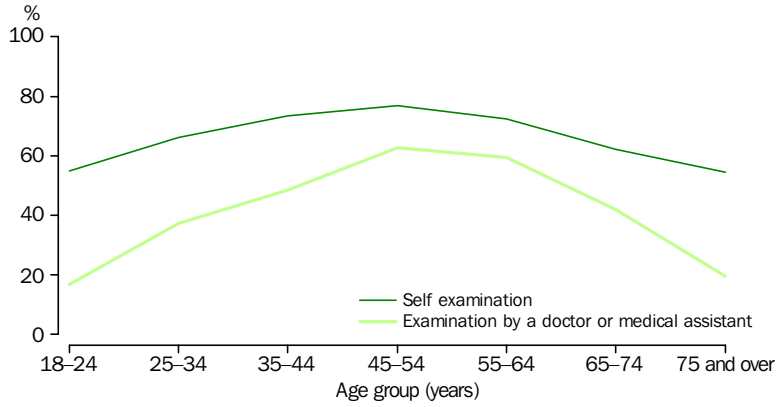
It is estimated that population screening using the Pap smear has the potential to reduce cervical cancer by up to 90%. This is because the Pap smear is able to identify early changes or pre-cancerous lesions, as well as low and high-grade abnormalities of the cervix.[1]

The target group for cervical screening is all women aged between 20 and 69 years who have ever been sexually active (excluding those who have had a total hysterectomy or a previously diagnosed gynaecological cancer). The Program actively recruits women in this group by a range of strategies. Women over 70 are screened on request, but not actively recruited. There are Pap test registers in all States and Territories.[1]

Years of potential life lost

Premature mortality can be calculated in terms of the years of potential life lost if the individual survived a particular cause. Premature mortality in this instance is assumed to be any death up to the age of 75 years. By estimating potential years of life lost, it is possible to assess the significance of a cause of untimely death relative to other causes.

Women who had had regular breast examinations, 1995



Source: Year Book Australia, 2000 (Cat. no. 1301.0).

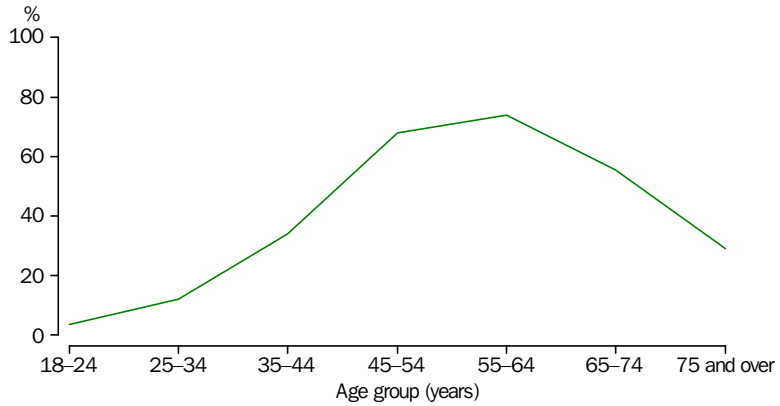
cancers, death rates increase with age, from a rate of 0.3 per 100,000 females aged 20–24 years in 1998 to 138 per 100,000 for women aged 75 years and over.

In 1998, 269 women died from cervical cancer, accounting for 1.8% of female cancer deaths and 0.4% of all female deaths in that year. Again, the death rate increased with age, from 0.5 per 100,000 women aged 20–24 years to 14 per 100,000 aged 75 years and over.

Risk factors for breast cancer

There are a number of interrelated risk factors associated with breast cancer. These include: a previous history of breast cancer; increasing age (breast cancer is rare in women under 30, but the risk rises steadily with age); having a mother, sister or daughter with breast cancer; and a history of primary cancer of the ovary or endometrium. However, these factors explain no more than 30% of breast cancers.[3]

Women who had had a mammogram, 1995



Source: Year Book Australia, 2000 (Cat. No. 1301.0).

Breast examinations

The early detection of breast cancer opens the opportunity for appropriate early treatment. Mammographic screening for women over 50 years is generally considered to be the most effective means of reducing mortality from breast cancer. In addition to mammographic screening, State and Territory cancer organisations recommend monthly breast self examination and annual clinical breast examination to detect early symptoms of breast cancer.[4]

In 1995, 67% of women said that they regularly examined their own breasts for unusual lumps. Most women who regularly examined their own breasts did so at least once a month (73% of women who examined their breasts regularly, and 49% of women overall).

Approximately 72% of women had had a breast examination performed by a doctor or medical assistant at some time during their lives, but only 42% of women reported that they had regular breast examinations performed by these health professionals.

In all age groups, self examination was more common than examination by a doctor or medical assistant. Proportional differences between the two examination type groups were smallest in those aged 45–54 years and 55–64 years, due to an increase in the percentages of women in these age groups who had regular breast examinations by a health professional.

Mammograms

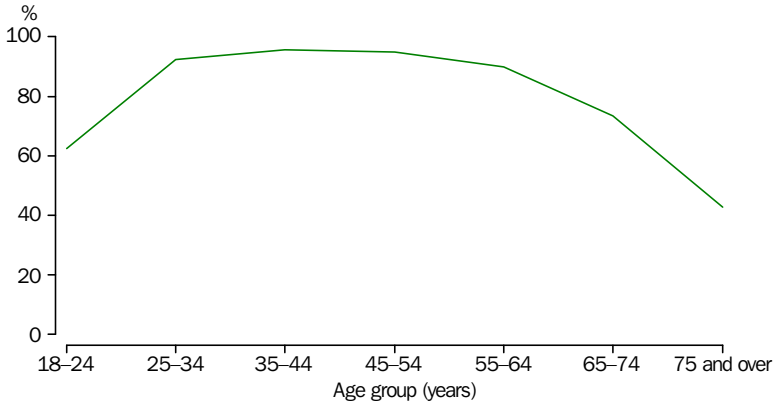
Overall, 36% of women had had a mammogram for either diagnostic or screening purposes. The most frequent reason given for a woman's last mammogram was a general checkup (54% of women who had had a mammogram), followed by the presence of symptoms (28%) and a family history of breast cancer (9%).

Those in age groups within the target range for screening (50–69 years) were most likely to have had one (68% of those aged 45–54 years, and 74% of those aged 55–64 years).

Pap smear tests

The National Cervical Screening Program recommends that all women who have been sexually active at any stage in their lives have a Pap smear test every two years, until the age of 70 years.[1]

Women who had had a Pap smear test, 1995



Source: Year Book Australia, 2000 (Cat. No. 1301.0).

In 1995, most women (95%) had heard of a Pap smear test. Older women were those least likely to have heard of this test, with 22% of women aged 75 years and over reporting that they had not heard of it. Altogether, 84% of women had had a Pap smear test, 62% within the previous two years. Women in age groups between 25 years and 64 years were the most likely to have had this test.

Usual language spoken at home

Women who do not speak fluent English may be disadvantaged in obtaining information and education about health-related matters, including breast examinations, mammograms and Pap smear tests. Although the National Health Survey did not ask about fluency in English, it did ask whether a person usually spoke English at home, which may give some indication about their fluency in English.

In 1995, women who did not usually speak English at home were less likely than those who did to either examine their own breasts regularly (49% and 68% respectively) or to have had a breast examination performed by a doctor or a medical assistant (55% and 73%).

Although women who did not speak English at home were less likely than women who did to have heard of a mammogram (62% compared with 89%), they were only slightly less likely to have had one (34% compared with 36%). Women who did not usually speak English at home were also less likely to have heard of a Pap smear test (77%) than were women who did (97%) and were less likely to have had a Pap smear test (61% compared with 86%).

Standardised death rates for breast and cervical cancer

	Breast cancer	*Cervical cancer*
Year	rate(a)	rate(a)
1984	26.3	4.3
1985	27.3	4.5
1986	26.9	4.3
1987	26.5	4.0
1988	26.9	4.1
1989	27.2	4.1
1990	26.9	3.9
1991	27.0	3.6
1992	25.4	3.4
1993	26.9	3.3
1994	26.5	3.4
1995	25.6	3.3
1996	25.0	2.9
1997	24.2	2.8
1998	23.0	2.5

(a) Per 100,000 persons, age-standardised to the total mid-year estimated resident population in 1991.

Source: Unpublished data, Causes of Death collection.

Changes in death rates over time

Between 1984 and 1998 the standardised death rates for both breast and cervical cancer declined (from 26.3 to 23.0 and 4.3 to 2.5 per 100,000 persons respectively). Death rates from breast cancer fluctuated only slightly between 1984 and 1993, after which there was a small but steady decline. Deaths from cervical cancer declined fairly steadily throughout the period.

Endnotes

1. Australian Institute of Health and Welfare 1998, *Breast and cervical cancer screening in Australia 1996–1997*, AIHW Cat. No. CAN 3, Cancer Series number 8, AIHW, Canberra.

2. National Program for the Early Detection of Breast Cancer 1994, *National Accreditation Requirements,* Commonwealth Department of Human Services and Health, Canberra.

3. National Health and Medical Research Council 1995, *Clinical Practice Guidelines: The Management of Early Breast Cancer*, AGPS, Canberra.

4. National Health and Medical Research Council National Breast Cancer Centre, *Don't ask for an opinion - ask for the scalpel: print media coverage of breast cancer in Australia in 1995* <URL: http://www.nbcc.org.au/>, (accessed 5 February 2000).

Education

Education: national summary

PARTICIPATION	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
School students	'000	3 031	3 042	3 075	3 099	3 098	3 099	3 109	3 143	3 172	3 199	3 227
Students in government schools	%	72.4	72.1	72.1	72.1	71.9	71.5	71.0	70.7	70.3	70.0	69.7
Females – of all Year 11 and 12 students	%	52.2	52.1	51.3	51.0	51.1	51.4	51.8	51.8	51.8	52.0	52.1
Year 12 retention rate – males	%	55.5	58.3	66.1	72.5	71.9	69.6	66.7	65.9	66.2	65.9	66.4
Year 12 retention rate – females	%	65.2	69.9	76.7	82.0	81.4	79.9	77.9	77.0	77.8	77.7	78.5
Education participation of 15–19 year olds (of all 15–19 year olds)	%	66.2	66.7	70.6	72.8	73.4	72.9	73.9	74.0	77.4	76.9	77.8
Education participation of 20–24 year olds (of all 20–24 year olds)	%	22.2	23.4	25.0	27.1	25.8	26.6	28.0	31.5	31.0	32.1	34.4
15–24 year olds attending TAFE	%	9.7	9.2	9.6	9.9	9.5	8.7	9.8	10.3	9.9	10.3	10.2
15–24 year olds attending higher education	%	10.8	12.0	12.7	13.7	3.1	14.9	14.2	15.5	16.4	16.4	17.6
Females – of all higher education students aged 15–24(a)	%	50.5	51.8	51.4	4.5	55.5	53.1	51.7	53.8	55.3	54.2	53.2
Vocational Education and Training (VET) clients(b)	'000	932	967	986	1 043	1 121	1 132	1 273	1 347	1 459	1 535	n.y.a.
Females – of all VET clients(b)	%	47.2	44.8	45.1	45.1	45.9	45.9	47.2	47.6	48.1	47.3	n.y.a.
Higher education students	'000	441.1	485.1	534.5	559.4	575.6	585.4	604.2	634.1	658.8	671.9	686.3
Overseas students (of all higher education students)(c)	%	4.8	5.1	5.5	6.1	6.4	6.9	7.6	8.4	9.6	10.7	12.1

ATTAINMENT	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
With post-school educational qualifications (of all aged 15–64)	%	39.2	39.7	40.8	41.7	39.1	39.0	41.0	42.3	40.4	41.9	43.7
Bachelor degree or higher	%	7.9	8.4	9.0	9.6	10.1	11.5	11.9	12.8	13.6	14.3	15.4
Undergraduate or associate diploma	%	n.a.	n.a.	n.a.	n.a.	9.0	8.6	9.1	8.8	7.7	7.9	8.1
Skilled or basic vocational qualification	%	n.a.	n.a.	n.a.	n.a.	20.0	18.9	19.9	20.6	19.1	19.7	20.2
Did not complete highest level of secondary school (of all aged 15–64)	%	39.9	37.7	36.2	34.5	37.3	37.7	36.1	34.8	36.3	34.2	32.7
Females – of all with post-school educational qualifications(a)	%	41.8	41.8	43.0	43.6	42.6	44.1	43.9	44.1	44.6	45.1	45.2
Higher education students completing courses	'000	90.5	94.8	107.7	120.6	132.9	138.7	141.0	145.3	155.3	161.7	n.y.a.

EDUCATION AND LABOUR FORCE	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Unemployment rate												
With bachelor degree or higher	%	2.4	3.2	3.9	4.3	4.8	4.7	3.6	3.8	3.5	3.1	3.0
With undergraduate or associate diploma	%	n.a.	n.a.	n.a.	n.a.	5.9	5.8	5.8	5.2	4.7	4.6	5.3
With skilled or basic vocational qualifications	%	n.a.	n.a.	n.a.	n.a.	8.9	7.1	6.6	6.4	7.1	6.6	5.6
Without post-school qualifications(a)	%	8.4	8.6	12.4	13.7	14.1	13.0	11.1	11.3	11.6	10.9	10.3
Trainees and apprentices	'000	163.9	172.8	160.2	151.9	137.5	131.1	135.8	158.0	175.4	195.5	261.1

(a) From 1993, figures refer to participation/attainment in courses leading to recognised qualifications only.
(b) Data prior to 1994 are not strictly comparable to more recent data due to changes in scope and collection methodology. Community education providers were included in the collection in 1995, and private providers were included in 1996.
(c) Prior to 1996, New Zealand students were counted as being overseas students.

Reference periods: Schools data are at July, except for 1991 and 1995–1998 (August). TAFE data comprise enrolments in the calendar year to 31 December. Higher education data are at 31 March from 1989; prior to that the reference date was 30 April. Data on educational attainment, participation rates, unemployment rates and apprentices are at May. (Note: data for participation and attainment in previous editions of Australian Social Trends were as at September). Overseas student data are at 31 March. VET data are at 30 June.

Education: national summary continued

EXPENDITURE	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total outlays on education (of GDP)	%	5.0	5.0	5.4	5.6	5.6	r5.4	r5.3	5.2	r5.3	5.2.	n.y.a.
Government outlays on education (of GDP)	%	4.4	4.3	4.7	4.9	4.9	r4.7	r4.6	4.5	r4.5	4.4.	n.y.a.
Government outlay on education												
Primary and secondary	$'000m	9.4	9.9	10.7	11.6	12.0	12.2	12.5	13.0	13.9	14.7.	n.y.a.
Tertiary	$'000m	4.7	5.0	5.9	6.4	6.9	7.1	7.6	7.6	8.1	8.0	n.y.a.

RESOURCES	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Schools	no.	10 036	10 007	9 980	9 957	9 865	9 679	9 648	9 630	9 609	9 587	9 590
Government schools – of all schools	%	74.9	74.8	74.8	74.8	74.7	74.0	73.8	73.6	73.2	73.0	72.7
School student/teaching staff ratio												
All students	ratio	15.3	15.3	15.4	15.3	15.3	15.5	15.4	15.4	15.3	15.3	15.0
Government school students	ratio	14.9	15.0	15.2	15.1	15.2	15.4	15.4	15.4	15.3	15.3	14.9
Primary students	ratio	18.7	18.4	18.5	18.4	18.4	18.5	18.1	18.1	17.9	17.9	17.3
Secondary students	ratio	12.6	12.4	12.5	12.4	12.4	12.6	12.6	12.7	12.7	12.7	12.6
Females – of all primary teachers	%	72.3	73.5	73.7	74.2	74.4	74.7	76.1	76.2	76.9	77.5	78.0
Females – of all secondary teachers	%	48.8	50.1	50.4	50.6	51.1	51.3	52.3	52.6	53.1	53.5	54.1
Females – of all higher education academic staff	%	27.8	30.1	30.8	31.9	32.6	32.8	33.5	34.1	34.4	35.1	35.5

Reference periods: Expenditure data are for financial years. Schools data are at July, except for 1991 and 1995–1998 (August). Higher education data are at 31 March from 1989; prior to that the reference date was 30 April.

Education: State summary

PARTICIPATION	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
School students	'000	1999	1 089.6	794.6	594.6	250.2	316.6	83.8	36.8	60.5	3 226.7
Students in government schools	%	1999	70.0	66.1	71.6	70.5	71.8	75.1	77.5	64.1	69.7
Females – of all Year 11 and 12 students	%	1999	52.5	52.7	51.3	52.0	51.2	52.7	53.7	49.1	52.1
Year 12 retention rate – males	%	1999	62.3	68.5	72.4	60.1	65.7	61.1	48.2	93.3	66.4
Year 12 retention rate – females	%	1999	73.2	84.2	82.9	74.1	77.6	72.8	57.6	91.8	78.5
Education participation of 15–19 year olds (of all 15–19 year olds)	%	1999	79.5	82.8	73.0	75.9	71.9	70.3	69.2	87.4	77.8
Education participation of 20–24 year olds (of all 20–24 year olds)	%	1999	37.9	36.9	28.6	29.4	31.2	25.2	n.a.	46.9	34.4
15–24 year olds attending TAFE	%	1999	11.3	10.1	8.8	9.6	10.7	9.7	n.a.	11.0	10.2
15–24 year olds attending higher education	%	1999	18.3	20.1	15.7	14.0	16.2	8.6	n.a.	24.0	17.6
Females – of all higher education students aged 15–24(b)	%	1999	53.0	53.4	53.7	54.5	51.8	53.3	53.8	53.3	53.2
Vocational Education and Training (VET) clients	'000	1998	516.9	429.1	260.0	149.2	115.0	29.0	17.6	18.5	1 535.2
Females – of all VET clients	%	1998	49.1	45.5	45.5	50.5	46.9	44.5	48.3	46.5	47.3
Higher education students(b)	'000	1999	217.0	183.9	121.5	49.0	67.4	13.1	4.7	19.9	686.3
Overseas students (of all higher education students)(b)	%	1999	10.7	15.0	10.6	10.7	16.1	9.3	3.2	8.9	12.1

ATTAINMENT	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
With post-school educational qualifications (of all aged 15–64)	%	1999	46.1	43.0	41.2	40.5	44.2	38.0	39.8	53.1	43.7
Bachelor degree or higher	%	1999	16.2	17.3	12.6	12.3	14.7	10.7	14.0	27.9	15.4
Undergraduate or associate diploma	%	1999	8.8	7.9	7.0	7.4	8.7	7.1	6.9	8.7	8.1
Skilled or basic vocational qualification	%	1999	21.2	17.9	21.6	20.7	20.8	20.2	18.9	16.5	20.2
Did not complete highest level of secondary school (of all aged 15–64)	%	1999	30.8	32.7	34.9	36.3	32.6	40.1	33.5	17.7	32.7
Females – of all with post-school educational qualifications	%	1999	46.7	44.6	43.9	44.7	43.8	43.0	44.5	49.4	45.2
Higher education students completing courses	'000	1998	50.8	44.5	26.4	11.7	15.8	3.4	0.9	5.3	161.7

EDUCATION AND LABOUR FORCE	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
Unemployment rate (aged 15–64)											
With bachelor degree or higher	%	1999	2.8	3.3	3.0	3.1	2.8	2.8	1.4	2.7	3.0
With undergraduate or associate diploma	%	1999	5.1	5.8	6.3	5.7	4.2	1.7	nil	2.5	5.3
With skilled or basic vocational qualifications	%	1999	4.7	5.0	6.5	7.6	6.9	7.1	5.9	5.6	5.6
Without post-school qualifications	%	1999	9.3	11.2	11.0	11.8	8.1	13.7	5.2	9.8	10.3
Trainees and apprentices	'000	1999	62.6	70.6	63.0	26.4	19.4	11.7	2.4	5.2	261.1

(a) Estimates for Northern Territory except all schools data and VET clients refer to mainly urban areas only.
(b) State totals exclude students of the Australian Catholic University which has campuses in more than one State.

Reference periods: Schools data are at August. TAFE data comprise enrolments in the calendar year to 31 December. Higher education data are at 31 March. Data on educational attainment, participation rates, unemployment rates and apprentices are at May. Overseas student data are at 31 March. VET data are at 30 June.

Education: State summary continued

RESOURCES	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Schools	no.	1999	3 087	2 319	1 720	824	1 038	281	182	139	9 590
Government schools – of all schools	%	1999	70.7	70.3	75.6	76.2	73.7	76.9	83.0	69.8	72.7
School student/teaching staff ratio											
All students	ratio	1999	15.2	14.9	14.8	14.9	15.1	14.6	13.1	15.1	15.0
Government school students	ratio	1999	15.2	14.9	14.6	14.8	15.3	14.5	12.8	14.6	14.9
Primary students	ratio	1999	17.9	17.5	16.4	17.2	17.5	16.2	14.5	18.0	17.3
Secondary students	ratio	1999	12.6	12.5	12.8	12.1	12.5	13.0	10.9	12.7	12.6
Females – of all primary teachers	%	1999	79.7	78.6	76.2	74.9	76.1	78.3	80.6	84.5	78.0
Females – of all secondary teachers	%	1999	54.5	54.7	55.2	48.0	51.6	52.9	57.1	60.4	54.1
Females – of all higher education academic staff(a)	%	1999	34.4	38.5	35.3	34.2	36.1	25.9	40.4	26.7	35.5

(a) State totals exclude students of the Australian Catholic University, which has campuses in more than one State.

Reference periods: Schools data are at August. Higher education data are at 31 March.

Education definitions and references

Associate diploma
course lasting from one to two years full-time (or equivalent) providing skills and knowledge for those wanting to work in advanced trade, technical or associate professional occupations.
Reference: *Transition from Education to Work, Australia* (Cat. no. 6227.0).

Basic vocational qualification
award for completion of a course lasting one semester to one year full-time (or equivalent) providing practical skills and knowledge for those wanting to work at the operative level in various fields. Prior to 1993, basic vocational qualifications were included with undergraduate or associate diplomas.
Reference: *Transition from Education to Work, Australia* (Cat. no. 6227.0).

Bachelor degree or higher
a bachelor degree (including honours), a graduate or post-graduate diploma, master's degree or a doctorate.
Reference: *Transition from Education to Work, Australia* (Cat. no. 6227.0).

Did not complete highest level of secondary school
a person without post-school qualifications who did not complete the highest level of secondary schooling available at the time they left school.
Reference: *Transition from Education to Work, Australia* (Cat. no. 6227.0).

Educational attainment
measures the highest post-school educational qualification attained by the person, with qualifications classified according to the ABS Standard Classification of Qualifications (ABSCQ).
Reference: *Transition from Education to Work, Australia* (Cat. no. 6227.0).

Educational participation
all persons enrolled and attending any institution with a primary role of education. Included are schools, higher education establishments, colleges of technical and further education, public and private colleges.
Reference: *Transition from Education to Work, Australia* (Cat. no. 6227.0).

Full-time equivalent (FTE)
a measure of the total level of staff resources used. The FTE of a full-time staff member is equal to 1.0. The calculation of FTE for part-time staff is based on the proportion of time worked compared to that worked by full-time staff performing similar duties. Casual staff are excluded.
Reference: *Schools, Australia* (Cat. no. 4221.0).

GDP (gross domestic product)
the current price measure which is the sum of all final expenditure, changes in stocks and imports less exports.
Reference: *Expenditure on Education, Australia* (Cat. no. 5510.0).

Government outlays on education
total government final expenditure on education services and facilities; government transfer payments paid for the purpose of facilitating education but not intended to be spent directly on educational services (such as personal benefit payments to students and advances to persons for the Higher Education Contribution Scheme (HECS); and other miscellaneous expenditure on education by government.
Reference: *Expenditure on Education, Australia* (Cat. no. 5510.0).

Government school
one administered by the Department of Education in each State/Territory.
Reference: *Schools, Australia* (Cat. no. 4221.0).

Higher education institutions
includes all institutions providing higher education courses e.g. universities and university colleges, institutes of tertiary education, agricultural colleges, and some institutes of technology.
Reference: *Transition from Education to Work, Australia* (Cat. no. 6227.0).

Higher education student
a person for whom there is a full-time, part-time or external enrolment in a course at a higher education institution at the reference date. Data for proportion of 15–24 year olds attending higher education are from *Transition from Education to Work* (Cat. no. 6227.0). State totals are based on the student's usual State of residence. Data for higher education students and overseas higher education students are obtained from Department of Education, Training and Youth Affairs administrative data. State totals are the number of students enrolled at all higher education institutions within a particular State or Territory. Department of Education, Training and Youth Affairs, *Selected Higher Education Statistics*.

Non-government school
any school not administered by a Department of Education, but including special schools administered by government authorities other than the State and Territory education departments.
Reference: *Schools, Australia* (Cat. no. 4221.0).

Overseas higher education students
full-fee paying students at higher education institutions whose residence is usually overseas.
Reference: Department of Education, Training and Youth Affairs, *Selected Higher Education Statistics*.

Post-school educational qualification
an award for attainment as a result of formal learning from an accredited post-school institution. Educational qualifications are classified according to the *ABS Classification of Qualifications* (ABSCQ) (Cat. no. 1262.0). The level of attainment includes higher degrees, postgraduate diplomas, bachelor degrees, undergraduate and associate diplomas, and skilled and basic vocational qualifications.
Reference: *Transition from Education to Work, Australia* (Cat. no. 6227.0).

Primary education
full-time education which typically commences around age five and lasts for seven to eight years. It does not include sessional education such as pre-school education.
Reference: *Schools, Australia* (Cat no. 4221.0).

School
an educational institution which provides primary or secondary education on a full-time daily basis, or by radio or correspondence.
Reference: *Schools, Australia* (Cat. no. 4221.0).

School student
a person who is enrolled in a school and active in a course of study, other than pre-school or Technical and Further Education (TAFE) courses.
Reference: *Schools, Australia* (Cat. no. 4221.0).

School student/teaching staff ratio
number of full-time school students divided by full-time equivalent teaching staff.
Reference: *Schools, Australia* (Cat. no. 4221.0).

Education definitions and references continued

Secondary education

education which typically commences after completion of primary education, at around age 12, and lasts for five or six years.
Reference: *Schools, Australia* (Cat no. 4221.0).

Skilled vocational qualification

an award for completion of a course lasting two to four years, and typically involving some on-the-job training, for those wanting to work in a specific vocation, recognised trade or craft that requires a high degree of skill in a range of related activities. Prior to 1993, skilled vocational qualifications referred to trade qualifications only.
Reference: *Transition from Education to Work, Australia* (Cat. no. 6227.0).

Tertiary education

education provided by any institution offering post-school courses. Includes TAFE, higher education and other post-school systems.
Reference: *Transition from Education to Work, Australia* (Cat. no. 6227.0).

Total outlays on education

total government outlays on education plus total private outlays on education less private outlays on education financed by government transfers.
Reference: *Expenditure on Education, Australia* (Cat. no. 5510.0).

Trainees and apprentices

persons undertaking vocational training through contract of training arrangements. Contracts of training are legal agreements entered into by employers and trainees who are engaged in employment-based training.
Reference: National Centre for Vocational Education Research, *Australian apprentice and trainee statistics 1997/98*.

Undergraduate diploma

course lasting three years full-time (or equivalent) for those wanting to work as professionals or associate professionals.
Reference: *Transition from Education to Work, Australia* (Cat. no. 6227.0).

Unemployment rate

the number of unemployed persons in any group expressed as a percentage of the labour force in the same group.
Reference: *Transition from Education to Work, Australia* (Cat. no. 6227.0).

Vocational Education and Training (VET) client

a person aged 15–64 for whom there is a full-time or part-time vocational stream enrolment in a TAFE college or a course provided by some private or adult and community education providers in the reference year. Does not necessarily equate to individuals, as some people may have more than one enrolment.
Reference: National Centre for Vocational Education Research, *Australian Vocational Education and Training Statistics: in detail*.

Year 12 apparent retention rate

the percentage of full-time students of a given cohort group who continue from the first year of secondary schooling to Year 12.
Reference: *Schools, Australia* (Cat. no. 4221.0).

Disability and schooling

In 1998, 277,400 children aged 5–17 years (8% of all children in that age group) had a disability.

Most of these children attended regular schools, however many of those with learning restrictions attended special classes or special schools.

Through the mid 1980s to the early 1990s the Commonwealth and each of the State and Territory governments enacted legislation seeking to enhance the well-being of people with disabilities. The legislation addressed issues such as equal opportunity, the provision of services in the community and social justice.[1] This legislation (amendments to Education Acts in some States) included specific provisions for protecting the rights of people with disabilities to access educational services. The general aim was to enhance their educational opportunities and outcomes.

Within this context much attention has been given to integrating students into regular schools. While this has led to an increase in the number of students with disabilities in regular educational settings, there has been parallel recognition that some students are still best catered for in a special facility.[1]

Participation in schooling

In 1998 there were 277,400 children aged 5–17 years (8% of all children in this age group) with a disability that involved a specific restriction (see box). Of these children, 229,800 (83%) attended a regular school and 24,000 (9%) attended a special school. A further 23,600 (8%) did not attend school. Of those attending regular schools, 66,300 (29%) attended special classes for some or all of their learning.

For those able to attend, schooling is compulsory for children aged 5–15 years in most States and Territories. School participation rates were only a little lower for children with a disability than for those without a disability at the compulsory (primary and secondary) school levels

Defining disability

The information presented in this review is based on data from the 1998 Survey of Disability, Ageing and Carers.

The survey recognised that the term 'disability' can include a wide range of disorders with considerable variation in degree and collected information to differentiate between people in terms of the type and severity of the disorder. This review focuses on children aged 5–17 years whose disability involves a specific restriction. Children with a disorder but no specific restriction have been grouped with those with no disorder.

The specific restrictions used to identify the group of children of interest included a restriction (mild to profound) in communication, mobility or self-care, a schooling restriction or an employment restriction. All of these restrictions may exist by themselves or in conjunction with one another. Thus a child may, for example, have had a communication restriction but not a schooling restriction.

A schooling restriction for a child was determined if, because of their disability, they had difficulty at school, attended a special school, attended special classes at an ordinary school, needed at least one day a week off school on average or were unable to attend school at all. For further details of the criteria used to identify the presence of other specific restrictions, such as those associated with communication, mobility or self-care, refer to ABS, *Disability, Ageing and Carers 1998 User Guide* (Cat. no. 4431.0).

Disability(a) and schooling status of children aged 5–17 years, 1998

		School participation rates		Children with disabilities attending school				
				Type of school/class				
	Proportion of children with disabilities	With disabilities	Without disabilities	Ordinary class/ regular school	Special class/ regular school	Special schools	Total	Percent of all school children
Age group	%	%	%	'000	'000	'000	'000	%
5–12	8.8	97.2	98.1	118.6	46.0	14.9	179.5	8.7
13–15	6.9	92.6	97.9	26.2	18.1	7.9	52.2	6.6
16–17	6.9	60.8	72.5	18.6	**2.3	**1.2	22.1	5.8
Total	**8.0**	**91.5**	**94.1**	**163.5**	**66.3**	**24.0**	**253.8**	**7.8**

a) Children with disabilities refers to those with a specified activity restriction (see box).

Source: Unpublished data, 1998 Survey of Disability, Ageing and Carers.

(indicated by age groups 5–12 years and 13–15 years respectively). However, the difference was much greater among children aged 16–17 years, the ages associated with post-compulsory secondary school. Only 61% of children aged 16–17 years with a disability attended school compared to 72% of those without a disability.

Schooling arrangements

As a result of their disability, children may have a learning restriction which affects their ability to be integrated into regular classes.

High proportions of children with a sensory or physical disability (83%) attended ordinary classes, probably because relatively few had a learning restriction (17%). In contrast, children with intellectual, mental and behavioural disorders (a high proportion of whom had learning restrictions) were much less likely to be fully integrated into regular classes. Contrary to this general pattern, while a high proportion of the 40,100 children whose main condition was an attention deficit/hyperactive disorder had a learning restriction (86%), a relatively high proportion (73%) attended ordinary classes.

Children with certain types of disabilities tend to participate in particular schooling arrangements. This results in different

Main disabling condition

People with disabilities often have more than one problem condition (multiple disability). The main condition is that long-term condition identified as the one causing the most problems. In this review, main conditions have been presented separately and in the following grouped categories, which have been specifically determined for this study:

Sensory and physical disorders include speech, hearing and vision disorders, as well as those associated with body malformation or dysfunction.

Intellectual and developmental disorders include 'central nervous system disorders' such as epilepsy and cerebral palsy, and a range of disorders that affect intellectual development and learning ability. The miscellany of specific developmental disorders (such as autism) often with neurological associations that produce failure in specific or isolated learning tasks, have been grouped together. Some of these, such as dyslexia, are very specific, while others may be just slowness to learn certain specific skills. Intellectual and developmental disorders which have not been given a more specific diagnosis have been listed separately.

Other mental and behavioural disorders include psychoses in childhood and adolescence, and major anxiety, tension or phobias etc. It also includes attention deficit/hyperactive disorder which has also been listed separately because it is an outstandingly large group for such a specifically defined disorder.

Students with disabilities(a) by main condition and type of schooling

	Total with a disability		*Type of school/class attended*			
	Number	*With learning restriction*	*Special school*	*Special class/ regular school*	*Ordinary class/ regular school*	
Main condition/type of disorder	'000	%	'000	'000	'000	%
Sensory and physical	*113.9*	*17.3*	**4.3*	*14.7*	*94.9*	*83.3*
Physical	84.3	16.6	**3.1	12.1	69.1	82.0
Speech, hearing, vision	29.6	19.3	**1.2	**2.5	25.8	87.3
Intellectual and developmental	*78.3*	*85.7*	*14.3*	*34.7*	*29.4*	*37.5*
Central nervous system	16.9	47.5	**3.8	**3.1	10.0	59.3
Developmental learning(b)	28.7	95.3	*4.8	15.0	8.8	30.6
Intellectual	11.1	100.0	*4.8	*4.3	**2.0	*18.2
Other developmental	21.7	95.5	**0.9	12.2	8.6	39.6
Other mental and behavioural	*61.6*	*81.6*	**5.5*	*17.0*	*39.2*	*63.6*
Attention deficit/hyperactive	40.1	86.0	**2.1	8.5	29.4	73.4
Other disorders	21.6	73.5	**3.3	8.5	9.8	45.3
Total	**253.8**	**54.0**	**24.0**	**66.3**	**163.5**	**64.4**

(a) Those with specific restrictions only.
(b) Includes autism.

Source: Unpublished data, 1998 Survey of Disability, Ageing and Carers.

profiles of students in the various types of arrangements. Students with disabilities who attended special schools, and special classes in ordinary schools were generally more likely to have intellectual, developmental, mental or behavioural disorders than those with disabilities attending ordinary classes (83% and 78% compared to 42% respectively).

Schooling difficulties

Some parents and students experience discrimination in regard to schooling, including a refusal of enrolment, failure of schools to sufficiently address harassment and bullying of students with a disability, and denial of, or limited access to, school services, facilities and programmes.[2] Experience of these difficulties is related to the type of main condition. For example, some research has shown that those with emotional disorders are the least accepted and the least welcome in the regular school system.[3]

In 1998, 68% of the school students with a disability who attended a regular school had some difficulty, at least, above the usual, in accommodating the requirements of their school environment. Those whose main condition was an intellectual or developmental disorder or another mental or behavioural disorder were much more likely to experience difficulties than those whose main condition was a physical disorder (76% and 84% compared to 55% respectively).

Integration or mainstreaming

Integration, or 'mainstreaming', refers to placing pupils with disabilities in regular schools and in regular classes set up for children without disabilities. Positive aspects of mainstreaming are said to include the opportunities for children with a disability to mix with, and learn from, their non-disabled peers (both in the classroom and on the playground) and to participate in regular academic programs at a local school. On the negative side, there have been concerns that classroom personnel in regular classes do not necessarily have the training to deal with a specific student's disability and that the learning programs may not be as suitable as those available in special classes or schools.[1,4] Among other concerns that have been expressed are problems of social isolation and loneliness that may be experienced by the children with disabilities.[5]

Reliable information on the extent to which there may have been changes over time in the proportion of children with disabilities integrated into ordinary classes, or changes in proportions in other types of schooling arrangements is not readily available. However, national school statistics show that the proportion of all schools that are special schools declined from 5% in 1988 to 4% in 1998.[6]

The most common difficulties were marked learning difficulties (43%) followed by difficulties fitting in socially (27%). The groups experiencing the most difficulty fitting in socially were those whose main condition was a mental or behavioural disorder (43%) and those with an intellectual or developmental disorder (32%). A smaller proportion (16%) of those whose main condition was sensory or physical experienced difficulties fitting in socially. On the other hand, those whose main condition was a sensory or physical disability had more difficulties with sports. In line with the probable reason for their placement, children in special classes were generally more likely to have difficulties than those in ordinary classes.

Support at educational institutions

In 1998, 45% of students with a disability attending a regular school received some additional form of assistance, special arrangement or support service at their school beyond the usual provision of the class in which they were placed. Special tuition (30%) or the provision of a counsellor or disability support person (13%) were the most commonly given. The provision of special equipment (2%) was among the least common.

Proportion of students with disabilities(a) attending regular schools who experienced education/schooling difficulties

	Type of main condition			*Type of class*	
	Sensory and physical disorders	*Intellectual and developmental disorders*	*Mental and behavioural disorders*	*Ordinary*	*Special*
Kinds of difficulties	%	%	%	%	%
Sitting	*3.6	*3.9	*9.1	*5.3	4.2
Hearing/sight	10.7	*6.4	*4.2	8.0	7.7
Communication	11.9	27.5	25.8	18.0	23.6
Learning/Intellectual	17.1	66.8	67.0	33.7	66.5
Fitting in socially	15.5	31.8	42.9	23.4	35.0
Sports participation	20.2	*10.7	*11.7	16.6	12.6
Other	11.7	*7.5	*11.8	11.0	9.4
Total with difficulty(b)	54.9	75.8	84.4	66.2	72.3

(a) Those wth specific restrictions only.
(b) Total may be less than the sum of the components as people may have more than one kind of difficulty.

Source: Unpublished data, 1998 Survey of Disability, Ageing and Carers.

Extra support provided to students with disabilities(a) who attended regular schools

	'000	%
Type of support received		
Special equipment	*3.9	*1.7
Special tuition	68.0	29.6
Special assessment procedures	22.2	9.6
Counsellor or disability support person	29.6	12.9
Special access arrangements	*3.6	*1.6
Special transport	*4.1	*1.8
Other(b)	18.0	7.8
Total receiving one or more support services(c)	103.0	44.8
Type of main condition of children receiving extra support		
Sensory and physical disorders	33.6	30.6
Intellectual and developmental disorders	44.1	69.0
Other mental and behavioural disorders	56.2	45.0
Total receiving one or more support services(c)	**103.0**	**44.8**

(a) Those with specific restrictions only.
(b) Includes signing interpreter.
(c) Students may have more than one type of support, therefore components may not add to total.

Source: Unpublished data, 1998 Survey of Disability, Ageing and Carers.

The receipt of extra assistance was related to the type of main condition. Those whose main condition was within the intellectual or developmental disorders group were much more likely to receive support (69%) than those whose main condition was a mental or behavioural disorder (45%) or a sensory or physical disorder (32%).

Students with disabilities(a) by area of residence

Selected characteristics	*Major urban*	*Other urban*	*Rural*
	%	%	%
With education/schooling difficulties	72.5	65.5	58.9
Type of schooling			
In regular school/ordinary classes	62.4	64.1	77.8
In regular school/special classes	26.3	30.1	10.8
In special schools	11.3	5.9	11.4
Level of schooling			
Attending primary level	66.7	61.2	73.7
Attending secondary level	33.3	38.8	26.3
Receipt of extra support at school			
Receiving one or more support services	51.2	45.6	38.9
Receiving special tuition	33.7	31.8	26.7
	'000	'000	'000
Total students	**145.0**	**85.0**	**23.8**

(a) Those with specific restrictions only.

Source: Unpublished data, 1998 Survey of Disability, Ageing and Carers.

Area of residence

According to a government-initiated report, under-resourcing for special education professionals, services and equipment is a particular problem for schools in rural areas.[4]

In 1998, there were 23,800 school students aged 5–17 years with a restricting disability living in rural areas, 145,000 in major urban centres (i.e. centres with more than 100,000 people) and 85,000 in smaller urban centres (500 to 100,000 people). In relative terms, students with a restricting disability made up 6.5% of the school population in rural areas compared to 7.3% of students in major urban areas and 9.5% in other urban areas.

Partly reflecting the greater availability of specialist services in urban centres, students with disabilities who lived in rural areas were more likely to attend an ordinary class at a regular school (78%) than those in urban areas (62% of those in major urban areas and 64% of those in other urban areas). However, students attending school in rural areas were less likely (59%), to report having difficulties (with learning, socialising, and so forth) than those in major urban (72%) and other urban areas (66%).

Students with a disability who lived in rural areas were also less likely to receive some form of extra assistance, special arrangement or support service from their school (39%) than school students in major urban areas (51%) and other urban areas (46%). The proportion receiving special tuition was only slightly lower (27%) in rural areas than in urban areas (about 33%).

Endnotes

1 de Lemos, M.M. 1994, *Schooling for Students with Disabilities,* supported by the Department of Employment, Education and Training, AGPS, Canberra.

2 Flynn, C. 1997, *Disability Discrimination in Schools: Students and Parents Speak Out,* National Children's Youth and Law Centre, Sydney.

3 Dempsey, I. and Foreman, P. 1997, 'Trends in Educational Placement of Students with Disabilities in New South Wales', *International Journal of Disability, Development and Education,* vol. 44, no. 3, pp. 207–216.

4 Rush Social Research Agency 1998, *Disability Issues: Report of Research into Community Attitudes*, Department of Family and Community Services, Canberra.

5 Jenkinson, J.C. 1998, 'Parent Choice in the Education of Students with Disabilities', *International Journal of Disability, Development and Education,* vol. 45, no. 2, pp. 189–202.

6 Australian Bureau of Statistics 1999, *Schools Australia, 1998,* Cat. no. 4221.0, ABS, Canberra.

Beyond compulsory schooling

PARTICIPATION IN EDUCATION

In 1999, there were almost 2.3 million people aged 15–64 years undertaking a post-compulsory education course. This was an increase of 28% since 1989.

Most of the growth was in the tertiary sector.

While schooling in Australia is compulsory between 6 and 15 years (16 years in Tasmania), considerable community and government interest is focused on the extension of educational opportunities beyond compulsory school age, and the ongoing acquisition of skills throughout people's lives.[1] Most of the students who are beyond compulsory school age are relatively young people developing skills to establish themselves in the workplace. However, older students make up a sizeable proportion (34% of students in the 15–64 years age group in 1999 were aged over 24 years). This suggests that to gain an edge, or even to keep pace, in the labour market, older people see a need to upgrade their qualifications or skills.

In 1999, there were almost 2.3 million people aged 15–64 attending an educational institution, comprising 679,400 in schools, 762,400 in Vocational Education and Training (VET) institutions, predominantly TAFE colleges (see box for definition), and a further 815,400 in higher education institutions. This represented an increase of 28% (or nearly half a million) over the 1.8 million a decade earlier, and more than at any previous time.

Participation increase by age group

There are two main factors, which cannot be clearly separated from each other from the available data, driving this rise: greater participation by certain groups of people and increasing numbers of overseas students. For example, the proportion of overseas students in higher education courses increased from 5% in 1989 to 12% in 1999 (see *Australian Social Trends 2000*, Education: national summary table, pp. 82–83).

Students in post-compulsory education

	Number of students		*Participation rate*	
	1999	*Increase 1989–99*	*1989*	*1999*
Age group (years)	'000	%	%	%
15–19	1 028.1	10.6	66.2	77.8
20–24	456.0	56.5	22.2	34.4
25–34	372.6	35.3	10.1	13.2
35–44	253.8	45.4	7.0	8.8
45–54	114.7	79.1	3.8	4.6
55–64	31.9	23.6	1.8	2.0
Total	**2 257.2**	**28.2**	**15.9**	**18.1**

Source: Unpublished data, Transition from Education to Work Survey, 1989 and 1999.

Educational participation

The main source of data used in this review is the Transition from Education to Work survey conducted in May of each year as part of the Monthly Population Survey. The respondents were people aged 15–64 years, and included some who were overseas students.

Educational institutions include schools; higher education establishments; colleges of technical and further education (TAFEs); and other providers of tertiary education, such as business colleges and industry skills centres, which primarily provide vocational training, but also provide a mixture of courses at all levels of education. For this review, Vocational Education and Training (VET) institutions include TAFEs and the other providers of tertiary education (apart from higher education institutions).

Post-compulsory education strictly refers to any study undertaken at a recognised education institution beyond the years of compulsory schooling, and includes school and tertiary education students. However, as the upper age boundary for compulsory school attendance varies across Australia, for this article it refers to educational attendance for those aged 15–64.

Tertiary education refers to study for a recognised post-school qualification at a higher education or VET institution. Over the last decade, the way in which education is delivered, and the nature of the institutions themselves, has changed considerably. Because of this, participation rates between sectors over time are not strictly comparable.

Education participation rate is the number of persons attending an educational institution in any group, expressed as a percentage of the civilian population in the same group.

Apparent retention rates of school students to Year 12 refer to the percentage of students enrolled in Year 12 as a proportion of the original cohort who entered the system some years previously. These rates do not take into account factors such as different lengths of schooling between States and Territories, repeating students or students moving between countries, States and Territories, or sectors.

Between 1989 and 1999, the education participation rate of 15–64 year olds (including overseas students) increased from 16% to 18%. The increase occurred in all age groups but was most rapid, and highest throughout the period, for younger students.

By 1999, 78% of 15–19 year olds were attending an educational institution, compared to 66% in 1989. This partly reflects the increased tendency of young people to stay at school beyond the compulsory age of

Attendance at post-compulsory education institutions, 1999

	Numbers in 1999			Percentage change 1989–99		
	School	VET(a)	Higher education	School	VET(a)	Higher education
Age group (years)	'000	'000	'000	%	%	%
15–19	671.7	174.5	182.0	9.0	–4.0	37.9
20–24	*2.6	168.8	284.5	*–37.2	34.2	76.3
25–34	*3.0	186.2	183.4	*–27.5	17.1	63.5
35–44	*1.1	145.2	107.4	*–65.0	36.2	66.0
45–54	*0.7	65.9	48.1	*–64.6	47.4	178.6
55–64	*0.3	21.6	10.0	*–2.1	7.3	87.5
Total	**679.4**	**762.4**	**815.4**	**7.8**	**19.5**	**65.5**

(a) Comprises TAFEs and other tertiary providers.

Source: Unpublished data, 1999 Transition from Education to Work Survey.

attendance: the apparent retention of school students to Year 12 increased from 60% in 1989 to 72% in 1999. It also reflects a greater tendency to progress to tertiary study.

Increased participation over the decade by the 20–24 years age group (up from 22% in 1989 to 34% in 1999) further illustrates this progression, but is also a result of an upward shift in the level of qualification sought by tertiary students. Remaining as a student for longer, by undertaking courses of longer duration or enrolling in more advanced courses, will increase rates for people in their mid to late twenties as well as overall education participation rates.

There was a small increase in the educational participation of older people (aged 25 years and over) over the decade, too, but by a smaller amount (3 percentage points or less for every ten-year age group, and declining with age). (For more information about older people in education, see *Australian Social Trends 2000,* Mature age people in education and training, pp. 98–101).

Expansion of participation in tertiary education

While the number of students in post-compulsory schooling (mainly those in the 15–19 years age group) grew by less than 8% over the decade ending 1999, the number of tertiary students increased by 40%. Within the tertiary education sector, the available statistics (which should be used with caution because boundaries between the sectors have been becoming less defined), show that the number of higher education students has increased at a much higher rate than the number of VET students (increases of 66% and 20%, respectively). The large expansion of the higher education sector began in the late 1980s with the amalgamation of universities with the then colleges of advanced education, and associated growth in the sector.[2]

Accompanying this increase in tertiary students (amounting to nearly 447,000 students), the profile of students also changed. The student population in 1999 was older and more qualified than a decade earlier, and had a higher proportion of women.

An ageing tertiary student population

In both VET and higher education institutions, the numbers of those aged 35 years or more increased more quickly than total student numbers, even though the participation rates in older age groups had increased relatively slowly. The number aged 35 years and over increased by 36% among VET students and by 90% among higher education students, (compared with overall increases of 20% and 66%, respectively). The rate of increase was most dramatic for those aged 45–54 years.

Proportion of students who were female, 1989 and 1999

	1989				1999			
	School	VET(a)	Higher education	Total	School	VET(a)	Higher education	Total
Age group (years)	%	%	%	%	%	%	%	%
15–19	50.5	36.9	52.6	48.1	49.9	38.2	55.1	48.8
20–24	*49.9	37.6	48.8	44.0	*66.2	46.5	52.0	50.0
25–44	*71.3	54.2	46.6	51.5	*82.1	55.2	54.5	55.1
45–64	*50.6	58.7	64.6	60.0	*67.8	63.0	59.0	61.4
Total	**50.7**	**46.4**	**49.8**	**48.9**	**50.1**	**50.3**	**54.1**	**51.6**

(a) Comprises TAFEs and other tertiary providers.

Source: Unpublished data, Transition from Education to Work Survey, 1989 and 1999.

Prior educational attainment of tertiary students(a), 1989 and 1999

	Bachelor degree or higher		*Other post-school qualification*		*Total with post-school qualification*	
	1989	*1999*	*1989*	*1999*	*1989*	*1999*
Currently attending/ age group (years)	%	%	%	%	%	%
VET(b)						
20–24	3.4	9.2	27.0	21.6	30.4	30.8
25–64	12.6	22.0	47.2	38.1	59.8	60.1
Total	*10.1*	*18.3*	*41.6*	*33.3*	*51.7*	*51.7*
Higher education						
20–24	12.6	17.7	11.5	9.4	24.1	27.2
25–64	40.7	51.9	34.4	22.9	75.1	74.8
Total	*28.1*	*36.5*	*24.1*	*16.9*	*52.3*	*53.4*
Total tertiary						
20–24	8.6	14.6	18.3	14.0	26.8	28.5
25–64	23.2	35.6	42.3	31.2	65.5	66.8
Total	**18.1**	**27.8**	**33.9**	**24.8**	**51.9**	**52.6**

(a) Students aged 20–64 years.
(b) Comprises TAFEs and other tertiary providers.

Source: Unpublished data, Transition from Education to Work Survey, 1989 and 1999.

Even within the younger age groups the profile had changed. Increases were higher for those aged 20–24 years than for those aged 15–19 years in higher education institutions. At the same time, there appeared to be a rise in those aged 20–34 years in VET institutions, and a small drop in numbers for those aged 15–19. The apparent drop in numbers for the 15–19 years age group may have occurred because of the introduction of vocational courses offered in schools.[3]

Participation by men and women

In 1989, levels of participation in post-compulsory education for men and women were much the same (around 16%). At that time, just under half (49%) of all students in post-compulsory education were women. However, the growth in participation over the decade was a little faster for women, so that by 1999, 19% of women aged 15–64 years were participating in post-compulsory education, compared with 18% of men. As a result, women made up just over half (52%) of all students in 1999.

The increase in the proportion of women occurred in both the VET and higher education sectors, and was greatest among those aged in their 20s and 30s. In 1989, women made up 49% of higher education students aged 20–24 and 47% of those aged 25–44. By 1999, these proportions had increased to 52% and 55%, respectively. However, while women had made up the large majority of those aged 45–64 in higher education in 1989 (65%), their predominance had decreased by 1999 (to 59%).

Similar changes have been occurring in the VET sector. Historically, many young men aged under 25 years have opted for an apprenticeship rather than continue their schooling after the age of 15. Consequently, their numbers have dominated in VET courses (in 1989, women made up 37% of VET students aged 15–19 and 38% of those aged 20–24). However, with the introduction of traineeships in 1985 (see *Australian Social Trends 2000,* Developments in contracted training: apprentices and trainees, pp. 102–106), an option which is more attractive to women, this gap has been narrowing. In 1999, women made up 38% of VET students aged 15–19 and 47% of those aged 20–24.

Increasingly qualified tertiary students

The great majority of 15–19 year old students would not have had the opportunity to gain a post-school qualification in the short time since leaving school. Of those who did (less than 5% in both 1989 and 1999), none had held a degree or higher in either year. The proportion of students aged 20 and over who already held a qualification was generally much higher, and increased with age.

Tertiary students aged 15–64 years and proportion undertaking bachelor degree courses or higher

	1989		1999	
	All students	Undertaking bachelor degrees or higher	All students	Undertaking bachelor degrees or higher
Educational institution	'000	%	'000	%
Higher education	492.8	74.3	815.4	88.3
TAFE	507.1	1.8	527.0	3.0
Other tertiary providers	131.1	5.5	235.4	15.9
Total tertiary	**1 131.0**	**33.8**	**1 577.8**	**49.0**

Source: Unpublished data, Transition from Education to Work Survey, 1989 and 1999.

Over the decade to 1999, the proportion of students aged between 20 and 64, both in VET and in higher education institutions, who already held a recognised post-school qualification has remained fairly steady (at around 52%). However, this has masked an increase in those who held a bachelor degree or higher (from 18% to 28%) and a decrease in those who held other types of post-school qualifications (from 34% to 25%).

The increases in students with a degree were greatest for older tertiary students (the proportion of students aged 25–64 holding a bachelor degree or higher rose from 23% to 36% over the period), particularly those in a higher education institution. Even so, the proportion of VET students who already held a bachelor degree or higher also rose considerably (from 10% to 18%). Again, this trend was very strong among older students.

For older people with degrees, enrolling in further study, either at a VET or higher education institution, might reflect a change of direction in their careers to keep pace with the needs of a changing workplace.

For younger students, the increased tendency for those with a degree to then seek a VET qualification (sometimes called 'reverse articulation') could be born of the perception that gaining a more practical qualification can enhance a 'theoretical' one and make them more competitive in the labour market. Unemployment rates for those with a bachelor degree or higher are generally lower, and have risen less sharply between 1989 and 1999, than those with lower levels of qualifications (see *Australian Social Trends 2000*, Education: national summary table, p. 82). However, there is evidence to show that labour market outcomes for new bachelor degree graduates have become less favourable over the decade. For those who graduated with a bachelor degree in 1988, and who were available for full-time employment, 91% had obtained a full-time job by April the following year.[4] Only 81% of 1998 graduates had experienced the same outcome by April 1999.[5] The starting salaries for 1998 graduates (82% of average weekly earnings) were also relatively lower than for 1988 graduates (90%).[5]

Level of course

Not only was there an increase in the proportion of students who already held a degree, but there were also proportionally more students undertaking a course at the bachelor degree level or higher in 1999 than there were in 1989. Of all tertiary students in 1999, just under half (49%) were undertaking a bachelor degree or higher level course compared to about one third (34%) of students in 1989. Taken together, these two trends suggest that more students are undertaking second degree, double degree, or higher degree courses.

The large majority of higher education students enrol in bachelor degree or higher level courses (88% in 1999). The proportions of students enrolled at these levels in TAFEs and other tertiary providers are much lower (3% and 16%, respectively in 1999). However, there was an increase over the decade in the proportions who were enrolled at this level in all three types of tertiary institutions; the increase being much smaller in TAFEs (from 2% to 3%) than in higher education institutions (from 74% to 88%) or other tertiary providers (from 6% to 16%). These changes illustrate that the boundaries between the schools, higher education and VET sectors have become blurred over recent years. For example, some VET courses are delivered in schools and vice versa; and certain higher education courses are delivered, at least partly, in VET institutions.[3]

Shift to full-time study

While the majority of tertiary students, both in 1989 and in 1999, were in part-time study, there has been an increasing preference for full-time study. Full-time enrolments increased from 37% of all enrolments to 45%.

In the VET sector, full-time enrolments increased from 18% to 26% over the period. The proportion of students in higher education institutions attending full-time, historically greater than in the VET sector, also increased, from 61% to 63%.

Full-time study was more popular among both men and women in 1999 than in 1989, whether they were studying in a VET or a higher education institution. The shift to full-time tertiary study was apparent across each age group. In 1989, 57% of students

Tertiary students: proportion attending full-time

	VET(a)		Higher education		Total	
	1989	*1999*	*1989*	*1999*	*1989*	*1999*
Sex / age group	%	%	%	%	%	%
Men	15.3	25.6	60.9	64.0	34.4	44.7
Women	21.1	27.2	60.8	61.8	39.1	45.7
Age group (years)						
15–19	32.0	46.7	92.4	95.7	57.4	71.7
20–24	22.3	31.0	77.8	80.0	53.5	61.7
25–64	8.6	16.1	26.3	31.6	15.3	23.2
Total	**18.0**	**26.4**	**60.9**	**62.8**	**36.7**	**45.2**

(a) Comprises TAFEs and other tertiary providers.

Source: Unpublished data, Transition from Education to Work Survey, 1989 and 1999.

aged 15–19, 54% of those aged 20–24, and 15% of those aged 25–64 undertook full-time study, rising to 72%, 62% and 23%, respectively, in 1999.

Combining work and study

There are some benefits to students from combining work and study. Having a job can provide a source of income and allow some independence. It can also enhance employment opportunities upon completion of their studies. In 1999, over half (57%) of all students held a job. This represented only a small increase from the 54% in 1989 who held a job. However, there was a strong shift from full-time to part-time employment among students over the decade.

The trend to taking on part-time employment in addition to their studies starts with school students, the proportion of whom with a part-time job increased from 25% to 31% between 1989 and 1999.

For those in tertiary institutions, there was only minimal change in the proportion who also held a job. However, this masked strong increases in the proportion of tertiary students, especially those attending full-time, who were in part-time employment, which increased from 34% to 42%.

Older students, those aged 25–64, were much more likely than younger students to be working full-time. Moreover, the shift away from full-time to part-time employment was most evident for students in the younger age groups.

These shifts may be partly related to the shift to full-time enrolment (leaving fewer hours for employment) as well as a greater availability of part-time work.

Endnotes

1 Australian Bureau of Statistics 1992, *Education and Training in Australia*, Cat. no. 4224.0, ABS, Canberra.

2 Department of Employment, Education and Training, Higher Education Division 1993, *National Report on Australia's Higher Education Sector*, AGPS, Canberra.

3 Australian Bureau of Statistics 1999, *Education and Training in Australia 1998*, Cat. no. 4224.0, ABS, Canberra

4 Graduate Careers Council of Australia 1989, *1988 Australian Graduates in 1989, A national survey of their destinations as at 30 April*, GCCA Ltd., Parkville.

5 Graduate Careers Council of Australia, *1999 Graduates: Work, Study, Salaries and Course Satisfaction – Main Points*, in GradStats Number 4 <URL: http://gradlink.edu.au>, December 1999 (Accessed April 2000).

Employed students, 1989 and 1999

	1989			1999		
	Employed Full-time	*Employed Part-time*	*Total*	*Employed Full-time*	*Employed Part-time*	*Total*
Age and study arrangements	%	%	%	%	%	%
Age group (years)						
15–19	13.1	25.0	38.1	8.5	33.1	41.6
20–24	41.2	23.4	64.6	29.4	35.9	65.3
25–64	57.0	17.6	74.6	51.6	20.8	72.4
Attending school	1.3	25.1	26.4	*0.4	30.9	31.3
Attending tertiary institution	*47.9*	*21.0*	*68.9*	*39.1*	*28.8*	*68.0*
Full-time	6.5	33.5	40.0	4.7	42.4	47.2
Part-time	71.8	13.8	85.6	67.5	17.6	85.2
Total	**31.2**	**22.5**	**53.7**	**27.5**	**29.5**	**57.0**

Source: Unpublished data, Transition from Education to Work Survey, 1989 and 1999.

Mature age people in education and training

PARTICIPATION IN EDUCATION

Between 1989 and 1999, participation rates in formal education among people between 35 and 64 years of age increased from 4% to 5% for men and from 6% to 7% for women.

For the most part, formal education and training courses aim to equip people with both general and specific knowledge and skills that are likely, ultimately, to be of use in the job market and to enable them to get the type of job they would like. However, some people take education or training courses purely out of personal interest. These can be of a formal nature (e.g. short courses or selected units of courses at educational institutions) or informal (e.g. courses on recreation, personal development, hobbies, crafts, etc.). This article describes participation in work-related training (including formal training courses and on-the-job training) and all formal education (regardless of why it was undertaken), but excludes informal hobby type courses.

Education participation increasing among mature age people

Although in the minority, older students make up a substantial and growing proportion of all students. In 1999, students aged between 35 and 64 years accounted for 18% of all students, up from 15% in 1989.

Education participation rates

	1989	*1999*	*Increase(a)*
	%	%	%
Men aged (years)			
15–24	46.9	56.0	19.4
25–34	10.5	12.7	21.0
35–44	6.0	7.3	21.7
45–54	3.1	3.5	12.9
55–64	1.2	1.6	33.3
Total 35–64	3.9	4.6	17.9
Total 15–64	16.1	17.5	8.7
Women aged (years)			
15–24	42.9	56.1	30.8
25–34	9.6	13.7	42.7
35–44	8.1	10.3	27.2
45–54	4.4	5.7	29.5
55–64	2.4	2.3	–4.2
Total 35–64	5.5	6.8	23.6
Total 15–64	15.6	18.7	19.9

(a) Difference between participation rates in 1989 and 1999 expressed as a percentage of the 1989 rate.

Source: Unpublished data, Transition from Education to Work Survey, 1989 and 1999.

Participation in education or study

In this article, participation in education or study refers to formal courses provided by educational institutions. The statistics are derived from the 1999 ABS Transition from Education to Work Survey which collected information on education participation of persons aged 15–64 years.

Mature age people – refers to people aged 35–64 years.

Educational institution – any institution whose primary role is education. Includes schools; higher education establishments such as universities and institutes of higher education; institutes of technical and further education; and other educational institutions such as business colleges and industry skills centres.

Student – refers to persons enrolled for a course of study at an educational institution.

Older students – refers to students aged 35–64 years. Because the vast majority of students are in their teens or twenties, 35 years and over can be considered relatively old in the educational context.

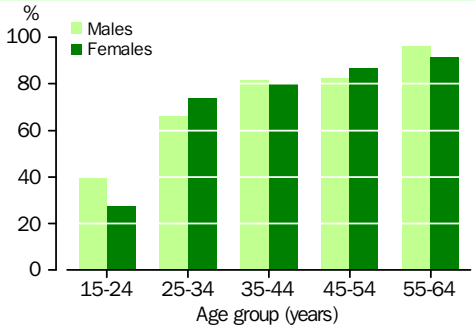
Education participation rate – for any group, the number of students expressed as a percentage of the total (civilian) population in the same group.

Studying full-time – refers to students who considered themselves to be studying full-time.

Recognised qualification – refers to a course of study for which an award is conferred upon completion, and which is recognised as one of the seven levels of post-school qualification under the ABSCQ. See *ABS Classification of Qualifications (ABSCQ), 1993,* (Cat. no. 1262.0) for further information.

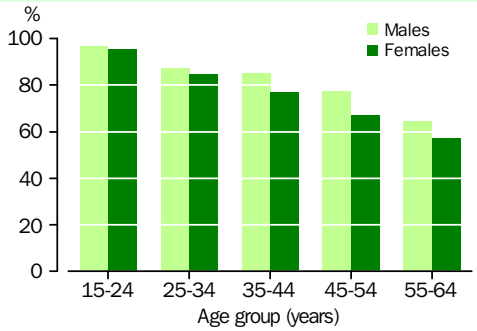
Even though education participation rates decline dramatically with age, particularly after people reach their early to mid twenties, participation in education is increasing among mature age people. Between 1989 and 1999, education participation rates for people aged 35–64 years increased from 4% to 5% for men and from 6% to 7% for women. With the exception of women aged 55–64 years, education participation rates increased for both men and women in all age groups 35 years and over. In common with younger age groups, the increases among mature age people were greater for women than for men (again with the exception of women aged 55–64 years).

Proportion of students studying part-time, 1999



Source: Unpublished data, 1999 Transition from Education to Work Survey.

Proportion of students studying for a recognised qualification, 1999



Source: Unpublished data, 1999 Transition from Education to Work Survey.

Most older students study part-time

The competing demands of work and family commitments limit the amount of time and energy available for study. These factors not only contribute to lower education participation rates as people get older, but also mean that the vast majority of older students choose to study part-time. In 1999, 83% of older students were studying part-time compared to 45% of those aged 15–34 years. The proportions of older students studying part-time increased from around 80% of those aged 35–44 years to more than 90% of those aged 45–64 years.

Qualifications and field of study

Older students are less likely to study for a recognised qualification than younger students, and more likely to undertake a short certificate course of less than one semester, or selected units of an award course (without the intention of gaining a formal qualification). In 1999, 76% of students aged 35–64 years were studying for a recognised qualification, compared to 94% of students aged 15–34 years. Among older students, men were more likely to be studying for a recognised qualification than women (82% compared to 73%).

Of those students who were studying for a recognised post school qualification in 1999, older students were more likely than younger students to be studying for a postgraduate qualification, an undergraduate or associate diploma, or a basic vocational qualification, but less likely to be studying for a bachelor degree or a skilled vocational qualification.

The most popular broad fields of study among older students in 1999 were: society and culture (undertaken by 30% of older students); and business and administration (28%). Older students were more likely than younger students to be studying for a qualification in the fields of society and culture, business and administration, education, and health but less likely to be studying for a qualification in engineering, architecture and building, or the natural and physical sciences.

Level of qualification and field of current study, 1999

	Age group (years)	
	15–34	*35–64*
	%	%
Level of qualification(a)		
Higher degree	6.4	15.9
Postgraduate diploma	4.1	10.2
Bachelor degree	48.7	23.1
Undergraduate diploma	11.1	15.6
Associate diploma	5.3	9.6
Skilled vocational	13.1	3.4
Basic vocational	11.3	22.2
Total post school qualifications	100.0	100.0
Field of study(a)		
Business and administration	24.9	27.6
Health	10.1	10.9
Education	5.6	7.7
Society and culture	21.3	29.5
Natural and physical sciences	12.9	11.9
Engineering	12.8	5.5
Architecture and building	4.9	*1.6
Agriculture and related fields	2.4	2.4
Total post-school qualifications(b)	100.0	100.0

(a) As categorised within the ABS Classification of Qualifications , 1993.
(b) Includes miscellaneous fields and field not stated or uncodable.

Source: Unpublished data, 1999 Transition from Education to Work Survey.

Participation in training

In this article, training refers to formal training courses as well as informal on-the-job training. The statistics are derived from the 1997 Survey of Education and Training. This survey collected information on training received in the 12 months prior to the survey date.

Training courses – activities undertaken to obtain, maintain, or improve work-related skills, and conducted at a designated time and in a structured format. Includes in-house and external courses. Questions about training courses were asked of persons aged 15–64 years who, at the time of the survey, were either in the labour force, marginally attached to the labour force, or studying (excluding students aged 15–20 years who were still at school), or who had been employed at any time during the 12 months prior to the survey.

On-the-job training – comprises activities such as self-learning, being shown how to do a job, watching others work, and other activities undertaken to improve job skills, while working. Excludes training that occurred as part of an in-house or external training course. Relates to persons aged 15–64 years, who had been employed at any time during the 12 months prior to the survey date.

Retraining – training done with the specific purpose of enabling the recipient to do a different kind of work to that performed in the job held at the time of training, or – in the case of courses undertaken while not employed – a different kind of work to a previous job.

Work-related training

Mature age people are much more likely to undertake a work-related training course than a course of formal education. The 1997 Survey of Education and Training found that 45% of 35–44 year olds (who were asked – see 'Participation in training' box on this page) had taken one or more training courses in the previous 12 months in order to obtain, maintain or improve work-related skills. However, the proportion declined with age within the 35–64 years group, as did the average number of courses taken.

People who took one or more training courses in previous 12 months, 1997

	Proportion of population(a)	*Average number of courses*
Age group (years)	%	no.
15–24	35.1	2.0
25–34	44.0	2.3
35–44	45.2	2.3
45–54	40.8	2.3
55–64	27.7	2.1
Total 35–64	*40.9*	*2.3*
Total 15–64	**40.6**	**2.2**

(a) Population in scope for questions on training courses. See 'Participation in training' box on this page.

Source: Education and Training Experience, Australia, 1997 (Cat. No. 6278.0).

This general pattern was also evident among those who had been employed in a wage or salary job in the previous 12 months. While 35–44 year olds were more likely than any other age group to have taken an in-house or external training course, or to have received employer support (such as payment for fees or paid study leave) for external training, the proportions declined with age among 35–64 year olds, as did the proportion who received on-the-job training.

For each course completed in the past 12 months, people were asked for specific information about why they had taken each course. For each course taken while employed, people were asked whether or not the course had been taken in order to improve chances of promotion and whether or not it had been taken for retraining. Each course may have been taken for one, both or neither of these reasons. Promotion was reported as a reason for only 7% of courses taken by 35–64 year olds while employed, compared to 12% of courses taken by younger people. Around 40% of all courses taken by 35–64 year olds while employed were for retraining, compared to 47% for those aged under 35 years.

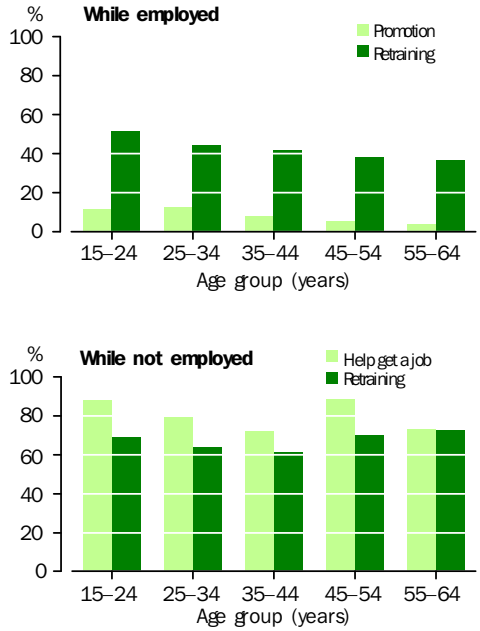
Proportion of employees(a) who undertook training in previous 12 months, 1997

	Age group (years)					*Total*
	15–24	*25–34*	*35–44*	*45–54*	*55–64*	*15–64*
Type of training	%	%	%	%	%	%
In-house training courses	22.1	37.0	38.8	36.3	25.0	33.0
External training courses	15.4	21.4	23.9	20.6	14.2	20.0
Employer supported	6.8	13.1	15.1	12.9	8.3	11.7
On-the-job training	72.5	77.1	73.5	66.3	54.8	71.6

(a) Persons who had a wage or salary job for any part of the last 12 months.

Source: Education and Training Experience, Australia, 1997 (Cat. No. 6278.0).

Reasons for courses undertaken in previous 12 months, 1997



(a) Relates only to courses taken by persons who had previously had a job and who were unemployed or marginally attached to the labour force at the time of training.

Source: Education and Training Experience, Australia, 1997 (Cat. No. 6278.0).

Similarly, for each course taken while not employed, people were asked whether or not it had been taken in order to help find a job. In common with 15–24 year olds, almost 90% of all courses taken by 45–54 year olds, while not employed, were to help get a job. For each course taken while unemployed or marginally attached to the labour force, people who had previously had a job were also asked whether or not the course was for the purpose of retraining. Around 70% of such courses taken by 45–64 year olds were for retraining, about the same as for 15–24 year olds.

Reasons for not studying or taking training courses

The reason most commonly reported by 35–64 year olds for either not studying or not training was that there was no need. This reason was reported by 54% of those who had not taken a training course, and 46% of those who had not studied, in the previous 12 months. The proportion who said that they had no need for study or training increased with age (within the 35–64 years age group), as did the proportion who said they that lacked interest or motivation.

On the other hand, barriers such as lack of time, work, and family commitments, appear to become less important with age (within the 35–64 years age group), as do financial considerations. Overall, reasons such as lack of time; too much work; problems with scheduling work and study or training; caring for family members; or children too young, were reported by 31% of 35–64 year olds who had not studied and 20% of those who had not taken a training course in the previous 12 months.

Main reason reported for not studying or taking training courses in previous 12 months, 1997

	Did not undertake study, age group (years)				*Did not undertake training, age group (years)*			
	35–44	*45–54*	*55–64*	*Total 35–64*	*35–44*	*45–54*	*55–64*	*Total 35–64*
	%	%	%	%	%	%	%	%
No need for study/training	37.5	50.0	62.2	46.3	47.9	56.3	65.5	54.4
Too much work, or difficulty scheduling work and study/training	15.6	12.2	6.6	12.8	8.9	8.3	4.3	7.8
No time	15.0	11.4	6.2	12.2	9.6	8.1	5.1	8.2
Lack of interest or motivation	6.3	8.8	8.1	7.6	4.1	4.3	4.9	4.3
Caring for family members, or children too young	9.4	2.6	1.5	5.5	7.7	2.1	*1.2	4.4
Too expensive, financial reasons, no money	4.5	2.9	1.3	3.3	2.9	2.0	*0.6	2.1
Lack of information, no suitable courses	1.0	1.2	*0.7	1.0	2.5	1.9	1.7	2.1
Other reasons	10.7	10.8	13.4	11.2	16.4	17.1	16.7	16.7
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Education and Training Experience, Australia (Cat. no. 6278.0).

Developments in contracted training: apprentices and trainees

EDUCATION AND WORK

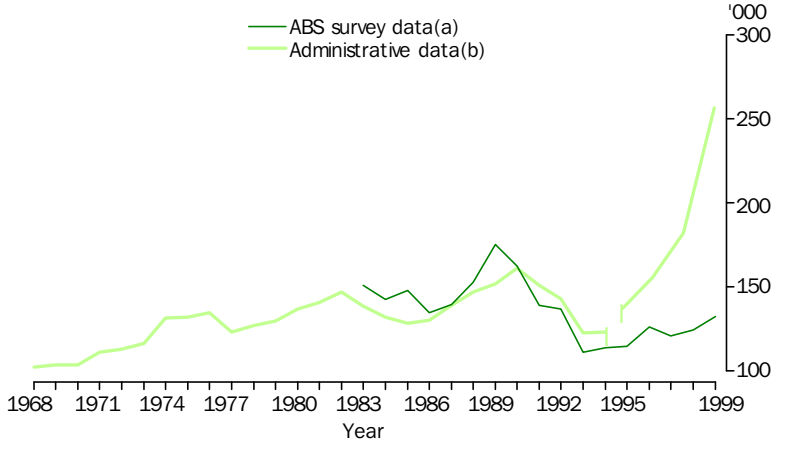
The number of apprentices reached a peak of 175,500 in 1989, followed by a marked decline to 1993 and a further increase through the latter half of the 1990s. Along with this more recent increase has been the rapid emergence of traineeships.

Available information shows that the number of apprentices in Australia generally increased throughout the 1970s and 1980s, which according to ABS data reached a peak of 175,500 in 1989. Their numbers fell sharply during the early 1990s, down to 111,200 in 1993, rising again to about 132,200 in 1999. In 1999, apprentices represented a relatively small number of students when compared with the 1.5 million aged 15–24 engaged in all forms of post-compulsory education (see *Australian Social Trends, 2000,* Beyond compulsory schooling, pp. 93–97). However, the emerging importance of traineeships as another form of entry-level training during the latter half of the 1990s has greatly increased the numbers of people involved in contracted training. Taken together, there were 256,500 apprentices and trainees in Australia in 1999.

Apprenticeships have existed in Australia since the early part of the 19th century. Since that time they have evolved and, in recent decades in particular, the nature of apprenticeships has changed substantially in terms of the forms they take, the length of the indenture period and the occupational fields covered. In 1985, a traineeship system was introduced to broaden entry-level training opportunities. More recently, from 1998 both apprentices and trainees have been covered under the umbrella of New Apprenticeships.

In addition to these structural changes, there have also been variations to the methods of collecting data on apprentices, both between the States and Territories, and over time. Consequently, it is difficult to get a precise statistical picture over time of either apprenticeships or traineeships.

Apprentices and trainees, 1968–1999



(a) Includes apprentices only.
(b) Includes apprentices and trainees from 1995. See box on page 103 for more information.

Source: Transition from Education to Work, Australia (Cat. no. 4227.0); Australian Committee on Vocational Education and Training Statistics (ACVETS), *Apprenticeship Statistics, 1984–85 to 1993–94*; unpublished estimates, NCVER apprenticeships and traineeships collections, June 1999.

Trades and apprenticeships

Traditionally, the term 'apprenticeship' not only described a system of training, but also was generally applied to specific types of occupations commonly known as 'trades'. A 1954 report[1] listed all the 'apprenticeship trades' which it found. The industry groups mentioned included (among others): blacksmiths, electrical mechanics, motor mechanics, fitters and turners, plumbers, bricklayers, printers, dressmakers, bakers and hairdressers; as well as less common trades such as window frame fitters, brush makers and sausage casing makers. While some of these trades no longer exist, most are still included in the Australian Standard Classification of Occupations (ASCO, 2nd Edition) under the broad level group 'Tradespersons and related workers'. The link between trades and apprentices continues today, with most (85%) people who stated that they were apprentices in 1999, apprenticed in the trades (i.e. Tradespersons and related workers).[2]

Definitions

Apprenticeships – a system of employment and training involving a contract between an apprentice and an employer. It is governed by legislative, industrial and administrative machinery to ensure that contract conditions are observed by both parties. It involves a combination of work and study which usually includes both on-the-job and off-the-job technical training.

Traineeships – a system of employment and training that involves an agreement between the employer and trainee to provide training and employment for a specified period of time.

New Apprenticeships – were introduced in 1998 and include both apprenticeships and traineeships. They involve a formal agreement known as either a Training Agreement or a Contract of Training. The Agreement outlines the training, support and supervision an employer will provide. They offer more flexible arrangements including part-time school-based contracts.

Data sources

Between 1969 and 1994, a count of the number of apprentices recognised in each State and Territory in June each year was provided for the Commonwealth-State Training Advisory Committee (COSTAC). The collators of this data have changed over time and included various Commonwealth departments and the National Centre for Vocational Education Research (NCVER).

Since 1995, the NCVER has compiled a count of all persons, both apprentices and trainees, undertaking employment-based training under a contract of training. The data is compiled every quarter, from administrative data collected by each State and Territory Training Authority under the Australian Vocational Education and Training Management Statistical (AVETMIS) Standard. Each quarter, the data is revised to incorporate data missed due to time lags in the reporting of data to the training authorities. However, at the same time as releasing preliminary reported data the NCVER produces estimates of expected final numbers which are referred to as estimates.

This review uses both estimated and preliminary reported data prepared by the NCVER. The latter has been used as the estimated data are not produced for detailed disaggregations. In 1999, the year for which both preliminary reported and estimated data are given, the preliminary count of all apprentices and trainees represented 91% of that given in the estimated data.

It is not possible to separately identify apprentices and trainees in NCVER data. Data from this collection, as at June of each year, is hereafter called the NCVER collection.

Since 1983 the ABS Transition from Education to Work Survey (hereafter called the ABS survey), has provided estimates of the number of people who stated that they were apprentices in training in May each year. While the collection of this data item has undergone few changes since that time, policy changes and changes to the way entry level training has been provided throughout Australia have given rise to a concern that what respondents mean when they state that they are an apprentice may have changed.

From 1983 until 1994, the administrative data and the ABS survey collections were roughly comparable.

A small break in the time series for the ABS survey data occurred in May 1998 when information on apprenticeship was collected from all people aged 15–64 years rather than only those aged 15–34 years. This change has not yet made any substantial difference to the overall number of apprentices, as most apprentices reported are aged under 25 years (92% in 1999). Over time, more apprentices may be reported in the older age groups.

From 2000, the ABS survey will also attempt to collect and publish trainee data. It will continue to provide a long time series of data on apprentices but will also allow the apprentice and trainee counts to be combined.

The history of apprenticeships

The apprenticeship system was introduced into Australia in the early part of the 19th century in response to demand for trades skills in the expanding colonies. The system, including its legislation, reflected the British system of the time. At the time of Federation, the legislative powers relating to apprenticeships remained with the individual States.[3]

While there were some variations between the States at the beginning of the 20th century, apprenticeships were usually for a maximum period of seven years, starting at age 14. At the age of 21 (or sooner if married) apprentices would be accepted as journeymen (these were fully qualified tradespeople who were employees rather than independent).[3]

After World War I, the apprenticeship period was lowered to five years for most trades (four years was more common for girls).[4] During the 1930s, 1940s and 1950s, there were not always enough apprentices to fulfil demand, and various Commonwealth and State inquiries were set up to find ways to encourage young people into trade careers.[1]

However, it was not until changes occurred to the apprenticeship system in the late 1960s that the supply of young people wanting to become apprentices increased. Those changes included reducing the period of apprenticeship to four years in most cases; improving the wages and conditions of apprentices; and introducing compulsory technical training during work hours. However, the changes also had the effect of reducing the number of apprenticeships offered, as the conditions were then less attractive to employers. By 1968, there were 102,354 registered apprentices.[3]

Throughout the 1970s, 80s and 90s there have been a number of Commonwealth and State Government incentives to encourage employers to provide more apprenticeships and other entry-level training opportunities for young people.[3]

The introduction of traineeships

The Australian Traineeship System was introduced Australia-wide in 1985. It aimed to provide a combination of on-the-job and off-the-job training for young people entering many non-trade occupations such as clerical, sales or services work. The traineeship system was designed to complement the apprenticeship system and other post-secondary education. As with

Measures of apprentices and trainees, 1995–1999

	Trade occupations(a)			All fields		
	Apprentices (ABS survey data)	*Apparent no. of trainees(b)*	*Apprentices and trainees (NCVER data)*	*Apprentices (ABS survey data)*	*Apparent no. of trainees(b)*	*Apprentices and trainees (NCVER data)*
Year	'000	'000	'000	'000	'000	'000
1995	99.8	20.4	120.2	114.6	21.4	136.0
1996	108.1	16.6	124.7	126.3	30.4	156.7
1997	105.7	19.3	125.0	121.1	51.2	172.3
1998	104.1	20.4	124.5	124.5	69.7	194.2
1999	112.7	18.0	130.7	132.2	124.3	256.5

(a) Trade occupations are those in the Australian Standard Classification of Occupations 2nd edition broad classification 'Trades and related workers'.
(b) Obtained by taking the difference between the estimates available from the two sources of data. These should be treated with caution as they are not the actual numbers, which are not known.

Source: Transition from Education to Work, Australia, May 1999 (Cat. no. 6227.0); unpublished estimates, NCVER apprenticeships and traineeships collections, June 1999.

apprenticeships, the States and Territories have the responsibility for approving, certifying and monitoring traineeships.[3]

Traineeships generally last for a shorter period than apprenticeships (usually around 12 months) and, when first introduced, did not necessarily involve the strict contract that apprenticeships did. Originally traineeships were offered only to people up to the age of 19 years. People who had left school without completing Year 12 were given preference.[3] In later years the age limit was dropped.

The New Apprenticeships Scheme

In 1998, the Federal Government introduced the New Apprenticeships Scheme. This scheme included both traineeships and apprenticeships, and was introduced to make the systems more flexible for both students and employers. The scheme increased flexibility by providing: greater choice in the duration of training; different mixes of experiential and formal learning; and a choice of training provider for the off-the-job component. The introduction of new apprenticeships has abolished many of the formal distinctions between apprenticeships and traineeships. Indeed, a traditional apprenticeship is not necessarily the only means of becoming a tradesperson, and it is also possible to obtain an apprenticeship in a non-trade field.

As a result of all these changes, apprenticeships and traineeships have become difficult to identify and measure separately. However, the need to distinguish between these two groups is relevant when information about the potential number of qualified tradespersons is required or when numbers of trainees are required.

Detailing recent trends

There are two main sources of data which provide information about the number and characteristics of apprentices and trainees in Australia. These are: the ABS Transition from Education to Work survey, a population survey which includes information about people who state that they are doing an apprenticeship; and the NCVER collection, which counts the number of people undertaking employment-based training through contracts of training (commonly known as trainees and apprentices).

Although the data are not directly comparable (see box on page 103), crude estimates of the numbers of trainees, as opposed to the numbers of apprentices, can be approximated by taking the difference between the figures from the respective sources. The resultant data highlights the rapid growth of traineeships that occurred in the mid to late 1990s, and that this growth has occurred in non-trade related occupations.

Between 1995 and 1999 the ABS Survey showed that the number of apprentices increased from 114,600 to 132,200 people (that is, by 17,600 people). Over this same period the combined number of apprentices and trainees, as seen from the NCVER collection, increased from 136,000 to 256,500. The difference between the two collections suggests that the number of people undertaking traineeships increased by 102,900 (from 21,400 to 124,300) between 1995 and 1999.

Age and sex distribution of apprentices and trainees aged 15–64 years, 1999

	Apprentices (ABS survey data)(a)				Apprentices and trainees (NCVER data)(b)			
	15–19 years	20–24 years	Total(c)	Proportion male	15–19 years	20–24 years	Total(c,d)	Proportion male
Field of Occupation	'000	'000	'000	%	'000	'000	'000	%
Trades and related workers								
Engineering	13.7	7.1	23.7	97.2	9.1	8.4	19.7	98.5
Automotive	11.7	5.3	18.0	100.0	10.1	9.1	22.0	97.8
Electrical and Electronics	5.6	6.4	12.5	100.0	7.2	8.0	17.2	98.2
Construction	14.2	11.9	28.3	99.7	13.3	10.3	25.6	98.9
Structural Construction	9.3	7.5	18.4	99.5	9.0	6.6	16.7	99.3
Plumber	*4.1	*3.6	8.2	100.0	2.9	2.4	5.9	99.5
Food	7.1	*3.5	10.6	78.8	7.7	8.2	19.5	76.9
Skilled Agricultural and Horticultural	*1.8	*1.2	*3.2	*91.7	1.5	1.7	3.7	89.4
Other Trade and related work	9.9	5.9	16.5	55.6	8.9	7.0	17.7	45.7
Wood	*3.4	*1.3	*4.8	*100.0	2.3	1.6	4.1	97.3
Hairdresser	*5.1	*3.1	8.9	*19.9	5.4	3.5	9.6	10.2
Total trades and related workers	*64.0*	*41.2*	*112.7*	*90.6*	*57.8*	*52.6*	*125.4*	*87.3*
Other fields	9.5	6.2	19.5	69.0	28.9	24.2	108.8	47.0
Total	**73.5**	**47.5**	**132.2**	**87.4**	**86.7**	**76.8**	**234.2**	**68.6**

(a) Refers to May 1999.
(b) Preliminary data for June 1999. Due to lags in the reporting of some of the data, the figures are understated (see Data sources definition box).
(c) Includes those aged 25 years and over.
(d) Includes those who did not state their age.

Source: Transition from Education to Work, Australia, May 1999 (Cat. no. 6227.0); unpublished data, 1999 Transition from Education to Work Survey; unpublished preliminary reported data, NCVER apprenticeships and traineeships collections, June 1999.

Changes within the trade-related occupations, both with respect to the numbers of apprentices and trainees (the latter being less common within trade-related occupations) have not been as marked. Between 1995 and 1999 the ABS survey data showed that the number of apprentices in trade-related occupations increased from 99,800 to 112,700. On the other hand, the number of trainees, as estimated, was slightly lower in 1999 (18,000) than it was in 1995 (20,400). Given the large overall increase in traineeships over this period, it is clear that the increase in traineeships occurred in fields other than in the trade-related occupations.

Field of occupation

In 1999, the ABS survey found that the most common trades for apprenticeships were the construction and engineering trades (28,300 and 23,700 respectively). Other more common choices included the automotive and food trades (18,000 and 10,600 apprentices respectively). A similar distribution of numbers, even though they are based on preliminary reported data (see box on page 103 for explanation) can be seen from the available NCVER data which explicitly includes trainees within the counts.

Participation by age

Traditionally, apprenticeships were exclusively for training young school leavers to take up a trade for life.[6] However, with the need for a more flexible workforce and for an array of retraining opportunities throughout people's lives, most apprenticeships are now available to people of all ages.

Nevertheless, young people still dominate apprentice numbers. In 1999, the ABS survey found that 56% of apprentices were aged 15–19 years and a further 36% were aged 20–24 years. However, the age distribution varied between trades. For example, electrical and electronics trade apprentices and construction apprentices were less likely to be aged 15–19 years (45% and 50% respectively) than food and automotive apprentices (67% and 65%, respectively).

The NCVER collection found consistently higher proportions of people in the older age groups learning a trade than did the ABS survey. The difference suggests that older people are more likely to obtain trade training through traineeships than through apprenticeships, possibly because they prefer the shorter contracts of training offered for traineeships.

Male/female differences

Occupations associated with the trades have been, and continue to be, some of the most sex-segregated in Australia. With the exception of hairdressing (which has always been predominantly female), most trades have been male dominated. Since the early 1980s strategies and programs have been put in place to reduce this dominance by encouraging females into trades such as plumbing, bricklaying and printing.[5]

In 1999, male apprentices still greatly outnumbered female apprentices: by almost seven to one, from the ABS survey data. The only trade besides hairdressing with a sizeable number of women apprentices was the food trade (21% were female, compared with less than 10% in most other trades). The NCVER collection found similar sex ratios in the trade fields to the ABS survey, suggesting that trainees in these fields have a similar gender profile as apprentices in these fields. However, as the numbers of trainees in these fields are relatively small, this finding is inconclusive.

In fields other than the trades, where traineeships are much more common, the NCVER collection shows a high proportion of female participants (51%). Even among apprentices in fields other than the trades, as seen from the ABS data, the proportions of female participants was relatively high (31% compared to 9% in the trade-related occupations taken as a whole).

Endnotes

1 Commonwealth-State Apprenticeship Inquiry 1954, *Report of the Committee, March 1954*, W.M. Houston, Government Printer, Melbourne.

2 Australian Bureau of Statistics 1999, *Transition from Education to Work, May 1999*, Cat. no. 6227.0, ABS, Canberra.

3 Department of Employment, Education and Training 1992, *Essential Features of Australia's Training Systems*, produced for VEETAC, AGPS, Canberra.

4 Commonwealth Bureau of Census and Statistics 1923, *Official Year Book of the Commonwealth of Australia, No. 16*, Albert J. Mullett, Government printer, Melbourne.

5 Department of Employment, Education and Training 1987, *Report of the Working Group on Women in Apprenticeship*, AGPS, Canberra.

6 Department of Labour and National Service August 1967, *Essential Features of Australian Apprenticeship Systems*, prepared by the Department of Labour and National Service for the Australian Apprenticeship Advisory Committee, DLNS, Melbourne.

Work

Work: national summary

LABOUR FORCE	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total labour force	'000	8 083	8 346	8 491	8 518	8 574	8 696	8 886	9 066	9 173	9 261	9 399
Females – (of total labour force)	%	40.8	41.4	41.7	41.9	41.9	42.3	42.7	43.0	43.1	43.2	43.3
Participation rate	%	62.6	63.5	63.6	63.0	62.6	62.8	63.3	63.7	63.5	63.1	63.2
Male participation rate	%	75.2	75.5	75.3	74.4	73.9	73.6	73.8	73.8	73.4	73.0	72.8
Female participation rate	%	50.4	51.9	52.3	51.9	51.7	52.2	53.2	53.8	53.9	53.6	53.9
Females in the labour force with children aged 0–4 years (of all females with children aged 0–4 years)	%	44.0	46.3	44.5	46.6	45.3	46.1	49.3	47.4	47.7	48.2	47.1
Standardised participation rate	%	62.7	63.6	63.7	63.1	62.8	63.0	63.6	64.0	63.9	63.7	63.8
Participation rate of persons aged 15–19 years	%	59.9	60.9	58.6	55.7	55.1	55.8	58.8	59.2	59.0	57.7	58.3
Participation rate of persons aged 20–24 years	%	83.7	83.9	84.0	82.6	82.1	82.1	82.8	83.0	82.5	82.0	82.2
Median age of male labour force	years	35.6	35.8	36.1	36.3	36.5	36.7	36.9	37.1	37.2	37.5	37.7
Median age of female labour force	years	33.4	33.7	34.2	34.6	34.9	35.1	35.3	35.7	36.1	36.2	36.5

EMPLOYED PEOPLE	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total employed	'000	7 549	7 832	7 782	7 637	7 634	7 781	8 093	8 301	8 381	8 496	8 681
Employment/population ratio	%	58.5	59.6	58.3	56.5	55.8	56.2	57.7	58.3	58.0	57.9	58.3
Part-time work												
Part-time workers (of total employed)	%	20.1	20.9	21.7	22.9	23.5	23.8	24.4	24.6	25.2	25.6	26.0
Male part-time workers (of total male employed)	%	7.2	8.0	8.5	9.7	10.2	10.4	10.9	11.0	11.7	12.0	12.5
Female part-time workers (of total female employed)	%	38.9	39.5	40.2	41.1	41.7	42.0	42.5	42.5	42.9	43.3	43.5
Female part-time workers (of total part-time employed)	%	78.6	77.6	77.2	75.6	75.1	75.0	74.5	74.6	73.7	73.4	72.7
Average hours worked per week by part-time workers	hours	15.3	15.2	15.3	15.4	15.4	15.5	15.7	15.6	15.8	16.0	16.1
Part-time workers who prefer more hours (of all part-time employed)	%	17.6	18.0	21.7	26.4	29.2	28.3	26.1	26.1	26.2	25.8	25.1
Part-time workers who worked 15 hours or less per week (of all part-time employed)	%	53.6	54.1	53.9	53.3	53.4	52.8	51.8	52.1	51.1	50.8	50.8
Average hours worked per week by full-time workers	hours	39.7	39.9	40.0	40.6	40.4	40.7	41.0	40.6	41.1	41.3	41.3
Full-time workers working more than 49 hours per week (of all full-time employed)	%	20.1	20.4	20.7	22.1	22.4	23.7	24.3	23.7	24.4	24.9	24.9
Males casually employed (of all male employees)	%	13.1	12.7	13.5	15.6	16.4	18.1	18.5	21.2.	20.9	22.6	22.0
Females casually employed (of all female employees)	%	29.3	28.2	29.0	30.9	30.6	30.8	30.8	32.0	31.7	32.0	31.8
Persons casually employed (of all employees)	%	20.0	19.4	20.3	22.3	22.7	23.7	24.0	26.1	r25.8	26.9	26.4
Job mobile in previous year	%	19.7	18.3	14.8	12.8	n.a	14.5	n.a	15.8	n.a	14.3	n.a.
Employers and own account workers (of total employed)	%	14.6	14.2	14.6	15.0	15.2	15.2	14.6	14.6	13.9	14.3	13.6
Industry												
Employed in service industries (of total employed)	%	67.8	68.8	69.7	71.1	71.0	71.1	71.7	72.3	72.6	72.9	73.6
Employed in manufacturing industries (of total employed)	%	15.9	15.4	14.7	14.2	14.3	14.1	13.8	13.4	13.5	63.3	12.5
Sector												
Private sector employees (of all employees)	%	73.2	73.2	71.9	72.9	73.6	75.4	76.7	77.7	78.3	79.2	79.9
Employed in small business (of all private sector employed)	%	n.a.	n.a.	n.a.	r48.3	r49.1	r48.7	r47.5	r47.0	r46.2	r47.4	46.8

Reference periods: All data are annual averages for the year ending 30 June except: labour force participation of females with children (June); job mobility (February), and casual employment and private sector employment (August).

Work: national summary continued

EMPLOYED PEOPLE CONTINUED	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Occupation												
Employed in highest skill (ASCO Skill Level 1) occupations(a)	%	22.9	23.7	24.4	24.9	25.1	24.9	24.4	24.2	25.2	25.2	25.0
Employed in lowest skill (ASCO Skill Level 5) occupations(a)	%	19.4	19.3	18.9	19.1	19.1	19.3	19.7	20.4	20.3	r20.2	19.9
Females – of all employed in highest skill (ASCO Skill Level 1) occupations(a)	%	35.6	37.0	37.8	38.4	39.1	38.0	39.2	41.2	41.9	41.1	41.5

INDUSTRIAL RELATIONS	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Trade union membership	%	n.a.	40.5	n.a.	39.6	37.6	35.0	32.7	31.1	30.3	28.1	25.7
Median age of trade union members	years	n.a.	36	n.a.	37	37	37	38	38	38	39	40
Working days lost due to industrial disputes (per 1,000 employees)	days	190	207	248	147	100	76	79	131	r75	72	87

UNEMPLOYMENT	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total unemployed	'000	534.6	513.7	709.0	881.6	940.5	915.4	793.7	764.3	792.4	764.2	718.2
Long-term unemployed (of total unemployed)	%	27.2	22.7	21.1	29.0	35.8	36.6	34.4	29.5	29.2	31.6	31.9
Unemployment rate	%	6.6	6.2	8.4	10.4	11.0	10.5	8.9	r8.4	r8.6	8.3	7.6
Male unemployment rate	%	6.2	5.8	8.4	10.8	11.7	10.9	9.1	8.8	8.8	8.5	7.8
Female unemployment rate	%	7.3	6.7	8.2	9.7	10.0	10.0	8.7	8.0	8.4	8.0	7.4
Full-time job seekers:												
Persons aged 15–19 years (of all persons aged 15–19)	%	6.3	5.8	7.7	9.1	9.0	8.6	7.4	7.2	7.0	6.5	5.8
Persons aged 20–24 years (of all persons aged 20–24)	%	6.7	6.3	9.1	11.4	11.8	10.9	8.8	8.6	9.0	8.7	7.7
Median duration of unemployment – males	weeks	23	18	19	29	34	35	31	26	25	28	27
Median duration of unemployment – females	weeks	12	11	14	21	25	24	21	18	18	20	20
Unemployment rate – capital cities	%	5.9	5.6	8.1	10.2	10.8	10.3	8.8	8.2	8.2	7.6	7.1
Unemployment rate – balance of States and Territories	%	7.8	7.1	8.7	10.6	11.2	11.0	9.2	8.9	9.4	9.4	8.6

NOT IN THE LABOUR FORCE	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Marginally attached	'000	708.4	752.5	819.3	846.4	907.8	773.3	862.8	879.6	890.5	922.6	n.a.
Discouraged jobseekers	'000	76.1	100.9	138.2	145.6	147.4	106.5	111.9	118.9	118.4	110.9	n.a.

TRANSITION TO RETIREMENT	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Participation rate of males aged 55–59 years	%	74.0	75.0	75.2	72.9	72.5	72.6	73.6	73.0	73.2	72.5	73.2
Participation rate of females aged 55–59 years	%	32.4	32.3	35.7	35.7	36.4	38.0	38.7	41.3	42.3	42.3	43.6
Participation rate of males aged 60–64 years	%	49.1	49.9	50.7	50.2	48.5	49.1	47.7	46.6	45.4	45.8	45.9
Participation rate of females aged 60–64 years	%	14.9	15.1	15.9	14.9	14.4	15.8	16.0	17.5	18.3	19.1	18.4
Persons retired from full-time work (of all persons aged 50–64 years)	%	46.4	n.a.	n.a.	46.4	n.a.	46.1	n.a.	n.a.	45.0	n.a.	n.a.

(a) Australian Standard Classification of Occupation (ASCO) second edition was introduced in August 1996. Data prior to this date are concorded with ASCO second edition at the major group level.

Reference periods: All data are annual averages for the year ending 30 June except: occupation and trade union membership (August); working days lost due to industrial disputes (year ending 31 December); not in the labour force data (September) and retirement data (October/November).

Work: State summary

LABOUR FORCE	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
Total labour force	'000	1998–99	3 112	2 351	1 772	720	962	217	98	167	9 399
Females – (of total labour force)	%	1998–99	43.1	43.4	43.4	43.2	42.9	43.3	43.0	47.4	43.3
Participation rate	%	1998–99	61.7	63.0	65.0	60.3	66.4	58.7	71.8	70.9	63.2
Male participation rate	%	1998–99	71.5	72.9	74.3	70.1	75.9	68.2	78.1	77.2	72.8
Female participation rate	%	1998–99	52.3	53.5	55.9	51.0	56.9	49.7	64.8	65.1	53.9
Females in the labour force with children aged 0–4 years (of all females with children aged 0–4 years)	%	1999	47.0	46.5	49.4	45.1	43.8	43.3	62.2	55.7	47.1
Standardised participation rate	%	1998–99	61.8	63.1	65.0	60.4	66.3	58.8	71.4	71.1	63.8
Participation rate of persons aged 15–19 years	%	1998–99	54.4	56.6	64.7	58.4	63.7	56.1	52.6	59.9	58.3
Participation rate of persons aged 20–24 years	%	1998–99	81.9	83.1	82.0	81.0	82.3	80.4	76.2	85.7	82.2
Median age of male labour force	years	1998–99	37.6	37.3	37.2	38.0	37.3	38.6	35.7	37.3	37.7
Median age of female labour force	years	1998–99	36.0	36.0	36.1	37.2	35.9	37.3	34.7	36.5	36.5

EMPLOYED PEOPLE	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
Total employed	'000	1998–99	2 895	2 169	1 625	653	894	195	94	157	8 681
Employment/population ratio	%	1998–99	57.4	58.1	59.6	54.7	61.8	52.6	68.7	66.5	58.3
Part-time work											
Part-time workers (of total employed)	%	1998–99	24.1	26.4	26.6	28.4	27.6	30.3	21.3	26.2	26.0
Male part-time workers (of total male employed)	%	1998–99	11.7	13.0	12.7	13.3	12.4	14.3	12.8	15.7	12.5
Female part-time workers (of total females employed)	%	1998–99	40.5	43.7	44.6	47.9	47.6	50.4	32.5	37.6	43.5
Female part-time workers (of total part-time employed)	%	1998–99	72.5	72.1	72.9	73.5	74.4	73.6	65.8	68.7	72.7
Average hours worked per week by part-time workers	hours	1998–99	16.1	15.7	16.3	16.3	15.7	15.9	18.2	16.4	16.1
Part-time workers who prefer more hours (of all part-time employed)	%	1998–99	23.9	24.8	27.2	29.5	22.8	27.7	18.0	23.7	25.1
Part-time workers who worked 15 hours or less per week (of all part-time employed)	%	1998–99	50.0	52.5	49.6	49.9	52.8	50.9	38.2	49.8	50.8
Average hours worked per week by full-time workers	hours	1998–99	41.4	41.0	41.7	41.1	41.7	39.3	40.8	39.9	41.3
Full-time workers working more than 49 hours per week (of all full-time employed)	%	1998–99	24.6	24.2	26.6	24.0	26.8	20.5	24.1	20.1	24.9
Males casually employed (of all male employees)	%	1999	20.7	21.3	25.4	24.5	21.1	19.4	20.7	21.7	22.0
Females casually employed (of all female employees)	%	1999	30.0	29.0	38.2	38.2	30.0	34.6	26.2	24.2	31.8
Persons casually employed (of all employees)	%	1999	24.8	24.8	31.2	30.8	25.1	26.4	23.3	22.9	26.4
Employers and own account workers (of total employed)	%	1998–99	12.9	12.2	15.8	15.1	15.1	14.8	8.5	8.5	13.6
Industry											
Employed in service industries (of total employed)	%	1998–99	74.6	72.6	72.4	71.4	72.9	71.5	80.8	92.0	73.6
Employed in manufacturing industries (of total employed)	%	1998–99	12.1	15.9	11.0	14.4	10.1	12.2	3.5	2.1	12.5
Sector											
Private sector employees (of all employees)	%	1999	81.1	83.4	78.1	78.0	79.2	75.0	71.2	55.0	79.9
Employed in small business (of all private sector employed)	%	1999	46.0	44.1	50.2	47.8	48.3	48.8	50.0	53.9	46.8

(a) Estimates for Northern Territory refer to mainly urban areas only.

Reference periods: All data are annual averages for the year ending 30 June except: labour force participation of females with children (June); casual employment and private sector employment (August).

Work: State summary continued

EMPLOYED PEOPLE CONTINUED	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
Occupation											
Employed in highest skill (ASCO Skill Level 1) occupations	%	1999	26.6	26.3	20.7	23.8	24.2	23.9	20.9	34.8	25.0
Employed in lowest skill (ASCO Skill Level 5) occupations	%	1999	18.4	19.3	22.7	22.9	19.4	19.7	22.9	15.9	19.9
Females—of all employed in highest skill (ASCO Skill Level 1) occupations	%	1999	42.9	41.3	40.3	39.9	39.3	42.1	45.1	42.0	41.5

INDUSTRIAL RELATIONS	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
Trade union membership	%	1999	27.0	24.4	25.0	30.3	20.9	32.5	26.4	26.4	25.7
Median age of trade union members	years	1999	40	39	40	40	41	40	41	42	40
Working days lost due to industrial disputes (per 1,000 employees)	days	1999	126	116	38	27	57	2	3	30	87

UNEMPLOYMENT	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
Total unemployed	'000	1998–99	217.3	182.1	147.3	66.7	67.6	22.6	4.2	10.4	718.2
Long-term unemployed (of total unemployed)	%	1998–99	34.6	33.1	27.7	38.3	21.0	42.2	*18.6	28.8	31.9
Unemployment rate	%	1998–99	7.0	7.7	8.3	9.3	7.0	10.4	4.2	6.3	7.6
Male unemployment rate	%	1998–99	7.0	7.8	8.4	9.8	7.4	11.8	4.5	7.0	7.8
Female unemployment rate	%	1998–99	6.9	7.7	8.2	8.5	6.6	8.5	3.8	5.4	7.4
Full-time job seekers:											
Persons aged 15–19 years (of all persons aged 15–19)	%	1998–99	5.2	5.2	6.8	7.7	5.4	8.3	*4.0	*4.3	5.8
Persons aged 20–24 years (of all persons aged 20–24)	%	1998–99	6.6	7.4	8.9	10.3	7.6	11.7	*3.6	6.5	7.7
Median duration of unemployment – males	weeks	1998–99	36	31	28	42	16	47	**	35	27
Median duration of unemployment – females	weeks	1998–99	21	24	18	26	11	34	**	23	20
Unemployment rate – capital cities	%	1998–99	5.6	7.4	8.3	9.6	7.3	9.8	4.2	6.3	7.1
Unemployment rate – balance of State	%	1998–99	9.5	8.6	8.3	9.6	6.4	10.8	n.a	n.a	8.6

NOT IN THE LABOUR FORCE	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
Marginally attached	'000	1998	294.1	221.7	185.7	77.9	96.1	27.6	4.3	15.3	922.6
Discouraged jobseekers	'000	1998	38.1	26.8	20.1	10.4	11.1	2.8	**	*1.0	110.9

TRANSITION TO RETIREMENT	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
Participation rate of males aged 55–59 years	%	1998–99	72.0	72.8	74.9	70.7	78.9	64.1	79.3	74.5	73.2
Participation rate of females aged 55–59 years	%	1998–99	41.2	42.8	45.7	40.6	50.5	40.8	62.3	59.3	43.6
Participation rate of males aged 60–64 years	%	1998–99	44.7	47.8	47.2	38.4	50.3	36.9	64.2	51.0	45.9
Participation rate of females aged 60–64 years	%	1998–99	18.9	16.8	17.2	18.0	23.6	13.9	18.0	29.8	18.4
Persons retired from full-time work (of all persons aged 50–64 years)	%	1997	44.0	47.2	44.1	47.6	44.3	48.5	20.6	36.4	45.0

(a) Estimates for Northern Territory refer to mainly urban areas only.

Reference periods: All data are annual averages for the year ending 30 June except: occupation and trade union membership (August); working days lost due to industrial disputes (year ending 31 December); not in the labour force data (September) and retirement data (October/November).

Work definitions and references

Average hours worked per week by full-time workers
aggregated hours worked, including overtime, by full-time workers during the survey reference week divided by the number of full-time workers. The hours are those actually worked and are not necessarily the hours paid for.
Reference: *Labour Force, Australia* (Cat. no. 6203.0).

Casually employed
employees who were not entitled to either paid holiday leave or sick leave in their main job.
Reference: *Weekly Earnings of Employees, Australia* (Cat. no. 6310.0). For data after 1998, *Employee Earnings, Benefits and Trade Union Membership, Australia* (Cat. no. 6310.0).

Discouraged jobseekers
persons who were marginally attached to the labour force, wanted to work and who were available to start work within four weeks but whose main reason for not actively seeking work was that they believed they would not find a job for any of the following reasons:
- considered too old or too young by employers;
- difficulties with language or ethnic background;
- lacked necessary schooling, training, skills or experience;
- no jobs in their locality or line of work; or
- they considered that there were no jobs available at all.

Reference: *Persons Not in the Labour Force, Australia* (Cat. no. 6220.0).

Employed
persons aged 15 and over who, during the reference week, worked for one hour or more for pay, profit, commission, payment in kind in a job or business or on a farm, or worked without pay in a family business, or who had a job but were not at work. Also includes employers, own account workers or contributing family workers who had a job, business or farm, but were not at work.
Reference: *Labour Force, Australia* (Cat. no. 6203.0).

Employees
an employee is a person who works for a public or private employer and receives remuneration in wages, salary, a retainer fee by their employer while working on a commission basis, tips, piece rates or payment in kind, or a person who operates his or her own incorporated enterprise with or without hiring employees.
Reference: *Labour Force, Australia* (Cat. no. 6203.0).

Employer
an employer is a person who operates his or her own unincorporated economic enterprise or engages independently in a profession or trade, and hires one or more employees.
Reference: *Labour Force, Australia* (Cat. no. 6203.0).

Employment/population ratio
the number of employed persons in a group expressed as a proportion of the civilian population aged 15 and over in the same group.
Reference: *Labour Force, Australia* (Cat. no. 6203.0).

Full-time job seekers
unemployed persons seeking full-time work, expressed as a proportion of the civilian population aged 15 years and over in the same group.
Reference: *Labour Force, Australia* (Cat. no. 6203.0).

Full-time workers
employed persons who usually worked 35 hours or more a week (in all jobs) and others who, although usually working less than 35 hours a week, worked 35 hours or more during the reference week.
Reference: *Labour Force, Australia* (Cat. no. 6203.0).

Industrial dispute
a withdrawal from work by a group of employees, or a refusal by an employer or a number of employers to permit some or all of their employees to work, each withdrawal or refusal being made in order to enforce or resist a demand, or to express a grievance.
Reference: *Industrial Disputes, Australia* (Cat. no. 6322.0).

Job mobile
the proportion of people aged 15–69 years who had worked at some time during the previous year who were job mobile, that is, they changed their job (employer/business or locality) within the previous year.
Reference: *Labour Mobility, Australia* (Cat. no. 6209.0).

Labour force
for any group, persons who were employed or unemployed, as defined.
Reference: *Labour Force, Australia* (Cat. no. 6203.0).

Long-term unemployed
persons unemployed for a period of 52 weeks or longer.
Reference: *Labour Force, Australia* (Cat. no. 6203.0).

Manufacturing industries
the Manufacturing division of the *Australian and New Zealand Standard Industrial Classification (ANZSIC) 1993* (Cat. no. 1292.0).
Reference: *Labour Force, Australia* (Cat. no. 6203.0).

Marginally attached
persons aged 15–69 years who were not in the labour force, wanted to work and; were actively looking for work but were not available to start; or were not actively looking for work, but were available to start work.
Reference: *Persons Not in the Labour Force, Australia* (Cat. no. 6220.0).

Median age
the age at which half the population is older and half is younger.

Median duration of unemployment
the duration which divides unemployed persons into two equal groups, one comprising persons whose duration of unemployment is above the median and the other, persons whose duration is below it.
Reference: *Labour Force, Australia* (Cat. no. 6203.0).

Occupation
a collection of jobs which are sufficiently similar in their main tasks to be grouped together for the purposes of classification. The Australian Standard Classification of Occupations (ASCO) Second Edition, which is used for the classification of occupation, applies skill level and skill specialisation as major criteria.
Skill level is measured by: formal education and training, and previous experience usually required for entry into an occupation. ASCO Second Edition assigns each of the nine major groups in the classification to one of five ranked skill levels.
Skill Level 1 comprises the major groups, managers and administrators, and professionals; Skill Level 2 — associate professionals; Skill Level 3 — tradespersons and related workers and advanced clerical and service workers; Skill Level 4 — intermediate production and transport workers; and Skill Level 5 — elementary clerical, sales and service workers and labourers and related workers.
Reference: *Australian Standard Classification of Occupations, Second edition* (Cat. no. 1220.0).

Work definitions and references continued

Own account worker
a person who operates his or her own unincorporated economic enterprise or engages independently in a profession or trade, and hires no employees. (This category was formerly entitled self-employed.)
Reference: *Labour Force, Australia* (Cat. no. 6203.0).

Participation rate
for any group, the labour force expressed as a percentage of the civilian population aged 15 years and over in the same group.
Reference: *Labour Force, Australia* (Cat. no. 6203.0).

Part-time workers
employed persons who usually worked less than 35 hours a week and who did so during the survey reference week.
Reference: *Labour Force, Australia* (Cat. no. 6203.0).

Part-time workers who prefer more hours
part-time employed workers who indicated they would prefer to work more hours.
Reference: *Labour Force, Australia* (Cat. no. 6203.0).

Private sector
the public sector includes all employees of local government authorities and government departments, agencies and authorities created by, or reporting to, the Commonwealth Parliament and State and Territory Parliaments. All other employees are classified as private sector.
Reference: *Wage and Salary Earners, Australia* (Cat. no. 6248.0).

Retired from full-time work
persons aged 45 years and over, who had a full-time job at some time and who had ceased full-time labour force activity (i.e. were not working full-time, were not looking for and did not intend to work full-time at any time in the future). Unpaid voluntary work was not considered as full-time work.
Reference: *Retirement and Retirement Intentions, Australia* (Cat. no. 6238.0).

Service industries
the combination of the following divisions of the *Australian and New Zealand Standard Industrial Classification (ANZSIC) 1993* (Cat. no. 1292.0): wholesale trade; retail trade; accommodation, cafes and restaurants; transport and storage; communication services; finance and insurance; property and business services; government administration and defence; education; health and community services; cultural and recreational services; and personal and other services.
Reference: *Labour Force, Australia* (Cat. no. 6203.0).

Small business
management units with fewer than 20 employees in all industries except agriculture where they have an estimated value of agricultural operations of between $22,500 and $400,000.
Reference: *Small Business in Australia* (Cat. no. 1321.0).

Standardised participation rate
age-specific labour force participation rates expressed as a percentage of the standard civilian population, to remove the effect of age and sex composition of the population. The standard population used is the 1991 Census population.

Employment arrangements in the late 1990s

PAID WORK

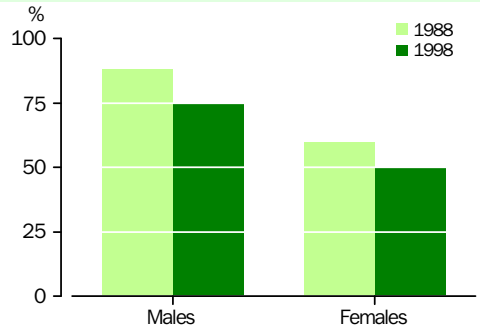
The proportion of employees in casual jobs increased from 19% to 27% between 1988 and 1998. Employees in casual jobs are more likely to have variable earnings and more likely to have more than one job compared to others.

Most employees in Australia, especially adult men, work in ongoing full-time jobs which provide a steady income. This income covers time spent on the job as well as periods of paid leave from work, such as recreation and sick leave. However, the proportion of workers in such jobs has been in decline. Between 1988 and 1998, the proportion of all male employees in full-time jobs with access to paid leave decreased from 88% to 75% and among women, from 60% to 50%.

At the same time, the proportions of workers working part-time or on a casual basis increased. For instance, the proportion of employees in casual jobs increased from 19% to 27% between 1988 and 1998 (see *Australian Social Trends 2000,* Work: national summary table p.108). Casual jobs are commonly understood to be those subject to termination at short notice, not offering leave entitlements and with varying hours of work.[1] Many part-time jobs are casual. However, there are also many employees who work on a permanent part-time basis, where they receive leave entitlements.

Associated with these trends has been the development of yet other types of employment arrangement. These include jobs organised as fixed-term contracts, those in which payment is made on a commission basis and those organised through labour hire firms. Self employment is also becoming more common.[2]

Proportion of employees(a) in full-time jobs with paid leave



(a) Includes owner managers of incorporated enterprises: proportion of all those whose employment status was determined.

Source: Employee Earnings, Benefits and Trade Union Membership, August 1988 and 1998 (Cat. no. 6310.0).

Workforce structure

The information for this review comes primarily from the Forms of Employment Survey conducted as a supplement to the Monthly Population Survey in August 1998.

- *Employees* are defined as workers who worked for an employer in return for a wage or a salary. Self-employed persons in an incorporated business, while technically employees, have been excluded for the purposes of this article.
- *Full-time/part-time* are terms based on the response to a question, asking whether the employee was working on a full-time or part-time basis in their main job.
- *Access to paid leave* is defined as being entitled to either paid sick leave, paid holiday leave or both.

While some people have benefited from these changes, enjoying the increased flexibility, others have found themselves in employment arrangements they consider unfavourable. Certainly there is evidence to show that increasing numbers of workers feel less secure in their jobs.[3]

The extent to which people are employed in jobs with more precarious working arrangements than the traditional job varies between men and women according to their life cycle stage, and according to the industries and occupations in which they work.

Employment arrangements

The 1998 Forms of Employment Survey provided new information about employment arrangements between employers and employees. This has enabled employees in traditional jobs (ongoing full-time jobs, with leave entitlements) to be distinguished from those employed on an ongoing part-time basis (that is in ongoing jobs, with leave entitlements and working part-time), and those who considered themselves to be employed on a casual basis. In 1998, 61% of employees were identified as working in a traditional job, 9% in an ongoing part-time job and 22% in a casual job, 82% of whom worked part-time. Other groups identified in the survey were people in restricted tenure jobs (such as seasonal or temporary jobs and jobs with fixed term contracts) and people

engaged through, and paid by, labour hire firms. In 1998 these two groups represented 5% and 1% of employees, respectively.

Indicators of security

By definition alone, the different employment arrangements give some idea of relative levels of job and income security. A further appreciation of the precarious nature of some employment arrangements is gained by looking at other differentiating characteristics. These include duration in employment and the proportion of people who take up a second job. Comparing people in casual employment with those in traditional jobs highlights these differences.

In 1998, employees in traditional jobs had relatively steady earnings (only 12% had variable monthly earnings), all had access to paid holiday and paid sick leave and most (64%) had a duration in employment of more than two years. Among those in casual jobs, on the other hand, relatively high proportions had variable monthly earnings (62%) and few had any paid leave (3%). Furthermore, a substantial proportion (10%) had more than one job. The percentage of people in casual jobs with a duration of tenure of more than two years was comparatively low (about 26%), although many people employed on a casual basis do remain in their jobs for long periods. In 1998, 278,600 casual employees (19% of the total) had been with their employer for four years or longer.[4]

Differences also appear among the other types of working arrangements in ways that might be expected. Generally, however, compared to those in traditional jobs, employees in each of the other employment arrangements were less likely to have a steady monthly income, less likely to have paid leave, more likely to leave their job after a short time (as indicated by the low percentage with a duration of more than two years) and more likely to have more than one job.

Types of employment arrangements

The categories of employment arrangements described below are based on information collected in the 1998 Forms of Employment Survey, but differ from those described in other publications from that source. In this review, for example, the bottom three groups are not mutually exclusive.

- *Traditional employees* are employees who have ongoing full-time employment, do not receive their remuneration through a labour hire firm, and have both paid sick and holiday leave.
- *Ongoing part-time employees* are here defined as those employed under the conditions of a traditional employee, but on a part-time basis.
- *Casual employees* are those who do not have both paid sick and holiday leave and who also identified themselves as being employed as a casual. Note: the definition of a casual employee used in other ABS surveys is an employee with no access to paid leave.
- *Restricted tenure employees* are employees who have a preset period of employment. The group comprises seasonal, temporary and fixed-term employees.
- *Employees paid by a labour hire firm* are employees who receive their payment from a labour hire firm and who may or may not have a preset period of employment.

Employment arrangements and indicators of security, 1998

			Indicators of security			
	Number of employees(a)	*Proportion who work part-time*	*Proportion with earnings that vary monthly*	*Proportion with two or more jobs*	*Proportion without any paid leave*	*Proportion with a duration with employer of more than 2 years*
Employment arrangements	'000	%	%	%	%	%
Traditional employees	4 126.8	..	11.8	3.2	..	64.2
Ongoing part-time employees	583.8	..	26.4	9.8	..	63.9
Casual employees	1 486.9	82.1	61.8	9.6	97.2	26.5
Restricted tenure employees	356.4	35.8	27.9	8.0	37.4	22.9
Employees paid by a labour hire firm	84.3	36.2	44.7	*5.3	78.4	10.4
All employees	**6 726.1**	**28.9**	**25.5**	**5.6**	**25.0**	**53.6**

(a) The total does not equal the sum of employees in each group because the total includes other employees who did not fall into any of the listed groups and because those classified as being in casual jobs, restricted tenure jobs and jobs paid by a labour hire firm are not mutually exclusive.

Source: Unpublished data, Forms of Employment Survey, August 1998.

Men and women, by age

		Proportion of employees(a) in:				
	Number of employees	Traditional jobs	Ongoing part-time jobs	Casual jobs	Restricted tenure jobs	Jobs paid by labour hire firms
Sex/Age(years)	'000	%	%	%	%	%
Males						
15–24	749.1	51.2	3.8	35.6	5.9	1.6
25–34	1 005.3	76.8	1.3	13.4	4.8	1.5
35–44	874.2	81.5	1.5	9.2	4.8	0.7
45–54	677.1	82.9	1.3	7.8	4.3	*0.6
55 and over	293.2	73.2	2.6	15.6	5.2	*0.7
Total	*3 598.9*	*73.5*	*2.0*	*16.1*	*5.0*	*1.1*
Females						
15–24	707.4	38.2	7.8	48.4	4.4	1.3
25–34	811.8	57.9	12.8	21.3	7.0	2.0
35–44	774.6	43.5	22.3	25.9	6.7	1.4
45–54	643.0	50.3	21.0	22.1	4.4	0.9
55 and over	190.3	43.2	24.6	25.6	5.1	*1.2
Total	*3 127.2*	*47.4*	*16.4*	*29.0*	*5.7*	*1.4*
Total	**6 726.1**	**61.4**	**8.7**	**22.1**	**5.3**	**1.3**

(a) The sum of proportions may not equal 100% because the number of employees includes other employees who did not fall into any of the listed groups and because casual jobs, restricted tenure jobs and jobs paid by a labour hire firm are not mutually exclusive.

Source: Unpublished data, Forms of Employment Survey, August 1998.

Differences between men and women

High proportions of men, overall 74%, but especially those in age groups in which they are most likely to have family responsibilities, work in traditional jobs. In 1998, 77% of male employees aged 25–34 years were employed in traditional jobs and the proportion among those aged 35–54 years was about 82%. Conversely, much higher proportions of women than men work in ongoing part-time and casual jobs. These differences partly reflect the traditional caring roles women have for children and other family members (see *Australian Social Trends 1998,* Trends in women's employment, pp. 111–114). Nevertheless, in the 25–34 year age group, the group in which child care responsibilities is likely to be highest, the proportion of women in traditional jobs was the highest (58%) compared to women in other age groups.

The proportions of men and women employed in either restricted tenure jobs or jobs in which they were paid by a labour hire firm were much the same. The likelihood of having these two arrangements also varied little according to age, although among men it generally decreased with age.

Youth and older employees

Among young employees (those aged 15–24 years) the proportion employed in traditional jobs was relatively low. However, this is likely to reflect the fact that many of these employees are studying (see *Australian Social Trends 1996*, From school to work, pp. 79–81). Students are likely to prefer the non-traditional working arrangements because of the flexibility they offer.

Workers appear to move (not necessarily by choice) into more flexible employment arrangements as they approach their retirement. Among male employees, for instance, only 73% of those aged 55 and over worked in traditional jobs compared to 83% of those aged 45–54 years. In contrast, the proportions of men in each of the other working arrangements described (ongoing part-time, casual, restricted tenure and jobs paid by a labour hire firm) were higher for the older group of men. The same pattern occurred for women approaching retirement.

Industry

Types of employment arrangements differ greatly across industries. At one extreme, the 1998 Forms of Employment Survey found that over 90% of employees in electricity, gas and water supply were employed in

Industry and occupation, 1998

		Proportion of employees in:				
	Number of employees(a)	Traditional jobs	Ongoing part-time jobs	Casual jobs	Restricted tenure jobs	Jobs paid by labour hire firms
	'000	%	%	%	%	%
Industry						
Electricity, gas and water supply	68.4	90.9	*1.8	*2.9	*3.1	*1.5
Mining	73.3	83.1	**0.3	*5.6	7.4	*2.2
Manufacturing	963.1	81.9	1.7	11.9	2.4	1.2
Wholesale trade	419.5	79.5	2.9	13.2	2.3	1.6
Communication	137.7	77.4	7.0	6.7	*3.2	**0.8
Government administration and defence	329.6	76.3	7.3	7.4	8.6	*1.3
Finance and Insurance	299.9	76.1	14.4	4.5	2.9	2.1
Transport and storage	295.5	74.8	3.1	14.3	3.2	*1.2
Personal and other services	245.6	65.5	6.4	19.1	4.8	**0.3
Construction	313.0	65.3	*0.8	16.7	6.2	*0.5
Property and business services	643.3	61.7	6.7	21.1	6.4	5.8
Education	581.4	57.8	11.6	16.2	16.6	*0.3
Cultural and recreational services	149.9	47.4	6.5	37.5	8.9	**0.0
Health and community services	744.7	46.2	26.9	18.8	6.2	*0.4
Retail trade	978.1	40.6	10.8	44.8	1.0	*0.4
Agriculture, forestry and fishing	134.0	39.4	*2.5	48.8	13.3	**0.3
Accommodation, cafes and restaurants	349.1	31.9	5.6	55.2	2.6	**0.2
Occupation groups (Skill level(b))						
Managers and administrators (1)	276.7	88.6	*1.3	1.7	4.4	**0.2
Professionals (1)	1 262.9	66.9	11.0	10.8	10.8	1.1
Associate professionals (2)	613.1	76.3	6.0	7.9	5.0	0.6
Tradespersons and related workers (3)	807.4	78.7	1.1	11.1	4.3	1.0
Advanced clerical and service workers (3)	280.6	65.6	10.7	14.7	5.0	4.0
Intermediate clerical, sales and service workers (4)	1 310.5	54.8	14.3	24.7	4.4	1.6
Intermediate production and transport workers (4)	657.6	69.4	2.6	20.5	2.4	1.6
Elementary clerical, sales and service workers (5)	790.7	33.4	12.4	50.4	2.1	*0.5
Labourers & related workers (5)	726.6	42.8	8.6	42.5	5.3	1.6

(a) The sum of proportions may not equal 100% because the number of employees includes other employees who did not fall into any of the listed groups and because casual jobs, restricted tenure jobs and jobs paid by a labour hire firm are not mutually exclusive.
(b) Occupation groups are based on the Australian Standard Classification of Occupations (ASCO) Second Edition, which classifies occupations by skill level ranked from 1 (the highest) to 5 (the lowest) (Cat. no. 1220.0).

Source: Unpublished data, Forms of Employment Survey, August 1998.

traditional jobs. At the other extreme, the proportion in such jobs among those employed in the accommodation, cafes and restaurants industry was only 32%. Various factors help explain such differences.

Industries with high proportions of workers in traditional work arrangements (including manufacturing and mining) tend to have ongoing rather than seasonal production schedules and thus require a stable workforce. As a result, jobs offered on a casual or other more flexible basis may be less beneficial to the employer. Such industries also have higher than average levels of trade union membership (see *Australian Social Trends 2000,* Trade union members, pp. 134–137) which suggests that new arrangements might be more difficult to introduce.

In contrast, industries with high levels of casual employment, such as accommodation, cafes and restaurants; retail trade; and agriculture, forestry and fishing, tend to have seasonal or trading day variations and need greater flexibility in hiring and firing staff.

Low trade union membership rates in these industries could also enable change to be more readily implemented.

Occupation

When jobs are grouped and ranked by occupation and skill level, it is apparent that non-traditional working arrangements tend to be more common among those employed in lower skilled jobs. In 1998, the two least-skilled occupational groups had the lowest proportions of employees in traditional jobs (33% of those in elementary clerical, sales and service jobs and 43% of those in labouring and related jobs). In contrast, 89% of employees who were managers and administrators were employed in traditional jobs. Those in the lower skilled jobs were more likely to be employed on a casual or ongoing part-time basis than those in higher skilled jobs.

Contrary to the general pattern of greater security for higher skilled workers, those employed as professionals were more likely to be working in some non-traditional jobs than those in other occupational groups. The proportion of professionals working in restricted tenure jobs was, for example, unusually high. In 1998, 11% of those employed as professionals worked in restricted tenure jobs compared to 2% of intermediate production and transport workers and 2% of elementary clerical, sales and service workers. Particular professional occupations with high proportions in restricted tenure jobs included doctors, tertiary education teachers, and scientists (40%, 31% and 29% respectively).[4]

Employment through a labour hire firm was most common in advanced clerical and service type jobs, at 4%. This occupation group includes secretaries and personal assistants, 5% of whom were employed under these arrangements.[4]

Endnotes

1 Productivity Commission 1996, *Future labour market issues for Australia,* Productivity Commission, Canberra.

2 Australian Bureau of Statistics 1997, *Labour Force, Australia, July 1997*, Cat. no. 6203.0, ABS, Canberra.

3 Kelley, Jonathan, Evans, M.D.R. and Dawkins, P. 1998, 'Job Security in the 1990s: How much is job security worth to employees?', *Australian Social Monitor,* Sept. 1998, pp. 1–7.

4 Australian Bureau of Statistics, unpublished data, 1998 Forms of Employment Survey.

Long-term unemployment

UNDER–UTILISED LABOUR

During the 1990s a quarter to a third of the people unemployed had been unemployed for 12 months or more, with fluctuations relating to the business cycle.

Some people experience great difficulties in Getting a job and remain unemployed for long periods of time. In August 1999, there were 191,600 people (2.0% of Australia's labour force) who had been unemployed for 12 months or more. Of these, 113,300 (59%) had been unemployed for two years or more. These numbers were even higher following the 1990–91 recession. The number of persons unemployed for 12 months or more reached a high of 366,000 in March 1993.

The risk of poverty is obviously greater for the long-term unemployed than for those with jobs or those unemployed for short periods of time. Associated concerns include the well-being of family members of people experiencing long-term unemployment, and the taxpayer burden carried by the wider community. There is also some evidence that the probability of welfare dependence in adulthood is increased for children who grow up with parents receiving income support.[1]

Difficulty in finding work is associated with high levels of competition for a limited number of opportunities. It has also been associated with other factors such as the loss of confidence and motivation for finding work, the lack of recent work experience or appropriate skills, or with other personal characteristics such as poor health status.[2,3] Some people unemployed for long periods of time may also have greater difficulty than persons unemployed for short periods because of negative perceptions of some employers.[3]

Job seekers who have been unemployed long term and/or who satisfy certain criteria are eligible to receive direct and indirect assistance known as Intensive Assistance from employment service providers known as Job Network members. This assistance includes job search training, vocational training, work experience, literacy training and employer incentives such as wage subsidies.[4] Furthermore, for placing in employment long-term unemployed people who qualify for Intensive Assistance, Job Network

Unemployment

Unemployed people are those aged 15 years or older who were not employed during the Labour Force Survey reference week, but were available for work, and were actively looking for work.

Long-term unemployed people are those who have been unemployed for at least one year.

The *(long-term) unemployment rate* is the number of (long-term) unemployed in any group expressed as a percentage of the labour force in that same group.

The *incidence of long-term unemployment* is the proportion of unemployed persons who are long-term unemployed.

Rates of unemployment and long-term unemployment from 1973 to 1999

Source: Unpublished data, Labour Force Survey.

members receive more than ten times the minimum job matching fee received for placing other job seekers.[5]

Recession and recovery

The likelihood of being unemployed for 12 months or more is associated with the general level of unemployment and generally fluctuates along with the peaks and troughs of business cycles. There have been two major peaks in rates of long-term unemployment over the past three decades. These occurred in 1984 (at 3.2%), soon after the 1982–83 recession, and in 1993 (at a higher peak of 4.2%) after the 1990–91 recession. The rate since 1993 has moved downwards, falling to 2.0% in August 1999, but remains above the trough observed between the last two recessions (1.3% in August 1989) and well above that observed in the early 1970s (less than 0.2%). Taking the long-term view, the trends show that the rate of long-term unemployment has generally been stepping upwards with each recession.

Rise in incidence of long-term unemployment

The incidence of long-term unemployment describes the likelihood (among unemployed people) of remaining unemployed for 12 months or more. Like the long-term unemployment rate it has also tended to rise to higher levels through successive recessions. Over the last decade the incidence of long-term unemployment rose from 22% in 1990 through a peak of 37% during 1993 (after the 1990–91 recession) and has since fluctuated to stand at 29% in August 1999.

International comparison

Like Australia, the rate and incidence of long-term unemployment in many industrialised nations increased during the 1990s. In both 1990 and 1997, Australia's rate and incidence of long-term unemployment were lower than those observed in various European countries, including Italy, France and the United Kingdom. However, other countries including Canada, New Zealand, the USA and Japan had lower rates of long-term unemployment. Differences between countries are likely to be partly attributable to the generosity of their unemployment benefit schemes and to fluctuation in their business cycles.[6]

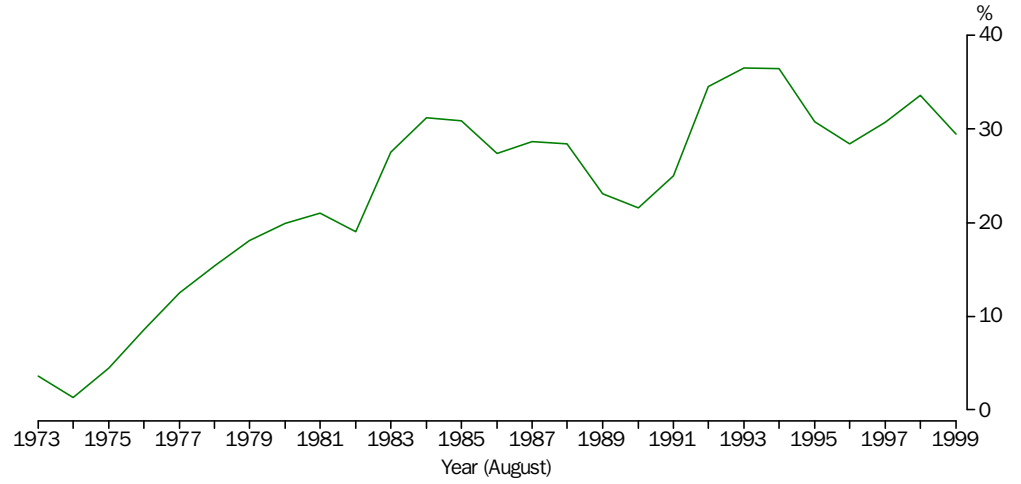
Comparability is also affected by differences in statistical measures such as survey definitions and enumeration month(s), and questionnaire design and wording.[6]

Selected OECD countries

	Rate of long-term unemployment		*Incidence of long-term unemployment*	
	1990	*1997*	*1990*	*1997*
Country	%	%	%	%
Australia	**1.5**	**2.6**	**21.6**	**30.8**
Canada	0.4	1.1	5.7	12.5
France	3.2	4.8	38.0	41.2
Greece	3.5	5.3	49.8	55.7
Italy	6.7	8.1	69.8	66.3
Japan	0.4	0.7	19.1	21.8
NZ	1.4	1.2	20.9	19.5
Sweden	0.1	2.3	4.7	29.6
UK	2.4	2.7	34.4	38.6
USA	0.3	0.4	5.5	8.7

Source: ILO *Key Indicators of the Labour Market 1999.*

Incidence of long-term unemployment from 1973 to 1999



Source: Unpublished data, Labour Force Survey.

Age/sex distribution of long-term unemployed in 1989 and 1999

	August 1989			August 1999		
	Males	Females	Persons	Males	Females	Persons
Age group(years)	%(a)	%(a)	%(a)	%(a)	%(a)	%(a)
15–19	7.3	8.0	15.3	5.0	5.6	10.6
20–24	10.8	7.2	17.9	9.8	4.1	13.9
25–34	14.9	5.6	20.5	14.2	6.8	21.0
35–44	12.5	6.1	18.6	12.4	10.2	22.6
45–54	9.9	4.4	14.3	12.6	7.7	20.3
55 and over	12.1	*1.3	13.4	9.7	*2.0	11.7
Total	**67.4**	**32.6**	**100.0**	**63.7**	**36.3**	**100.0**
	'000	'000	'000	'000	'000	'000
Total long-term unemployed	72.9	35.2	108.0	122.0	69.6	191.6

(a) As a percent of all long-term unemployed.

Source: Unpublished data, Labour Force Survey.

The general trend since 1973 has been an increase in the chance that a period of unemployment would last for at least a year.

It is interesting to observe that the highest incidence of long-term unemployment has generally occurred after, rather than during, recession. This is because many of those who become unemployed as a result of recession either find work or become long-term unemployed when economic growth resumes. Also contributing to the post-recession peak incidence of long-term unemployment are people who were already unemployed long-term when unemployment began rising, and who did not find work in the subsequent recovery.

Shift from young to old

In August 1989, 54% of long-term unemployed were under 35 years of age and 33% were under 25. By August 1999, long-term unemployed youth (aged 15–24 years) had decreased to 25% of all people unemployed long-term. Over the same ten-year period, the proportion of long-term unemployed who were aged 35 years or older increased from 46% to 55%. In particular, women aged between 35 and 54 years comprised a substantially larger proportion of all people unemployed long-term in August 1999 (18%) than they had done ten years earlier (11%). This change may reflect an increased tendency for women who had left the labour force for family reasons to seek to regain employment, coupled with increased difficulty in securing such employment. However, the distributional shift in the long-term unemployed population from younger to older people, and from men to women, is likely to have been strongly influenced by the changes to the age and sex composition of the broader labour force population which occurred over the same period.

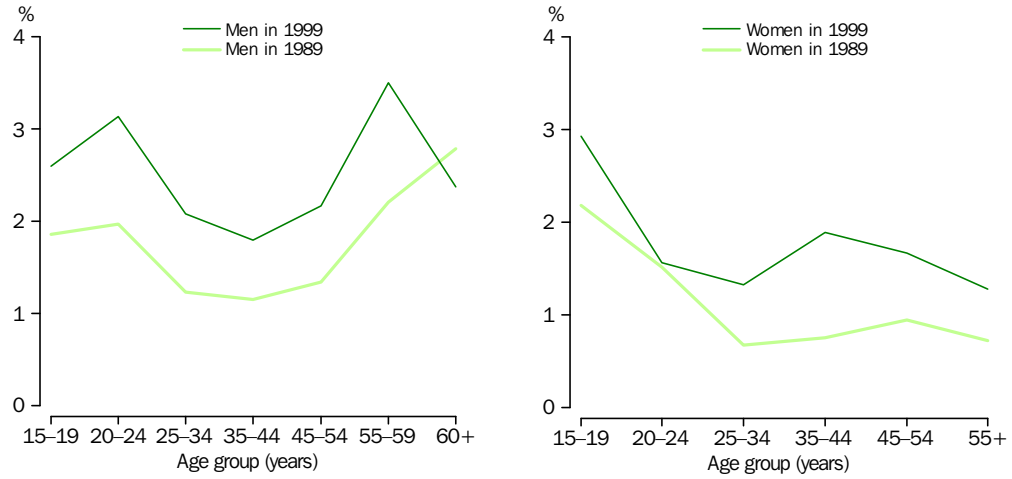
The true extent of the decade-wide change in the age and sex profile of people experiencing a long period of unemployment may be understated by focussing solely on those unemployed for 12 months or more. Older jobseekers may give up looking for work, and in doing so leave the labour force. While no longer contributing to the pool of long-term unemployed people, they may still be marginally attached to the labour force (see *Australian Social Trends 1999*, Men and women wanting work, pp. 110–113). In September 1998, 44% of the 111,000 discouraged jobseekers were aged 55 years or older. As discouraged jobseekers they may continue to experience many of the adverse effects of long-term unemployment despite having withdrawn from the labour force.

Age/sex groups at greatest risk

In August 1999, teenage women and men in their early 20s and late 50s had higher rates of long-term unemployment than men and women of other age groups. These age and sex groups at greatest risk of long-term unemployment in August 1999 were similar to those most at risk in August 1989.

Set against the general pattern of higher rates of long-term unemployment in 1999 than in 1989 were men aged 60 years or older whose rate of long-term unemployment did not significantly change between August 1989 (2.8%) and August 1999 (2.4%). Changes in rates of receipt of income support payments are likely to have contributed to this relative stability in the rate of long-term

Long-term unemployment rates in August 1989 and August 1999



Source: Unpublished data, Labour Force Survey.

unemployment among men in this age group. In March 1994 Mature Age Allowance was introduced for long-term unemployed persons aged between 60 and Age Pension qualifying age (65 years for men).[7]

Among women the smallest percentage point increase over this period was for women aged 20–24 years and greatest among those aged 35–44 years. Growth in the availability of part-time, casual and service industry employment during the 1990s may have favoured the employment prospects of women in their early 20s relative to the prospects of other job seekers over the past decade. However the differences may also be due, in part, to a greater rate of 35–44 year old women without dependent children looking for work as a result of changes in income support for dependent spouses of unemployed men. Prior to September 1994 married unemployment payment recipients (usually men) received an allowance comprising a basic payment and an additional allowance of the same amount for a dependent spouse.[8] In September 1994 the allowance for dependent spouses became Partner Allowance and was paid to the dependent spouse in their own right.[9] In July 1995 Partner Allowance was restricted to dependent spouses, who were born on or before 1 July 1955, without dependent children.[7] Most of those with dependent children became eligible for Parenting Allowance. Thus, to obtain unemployment benefits, all other dependent spouses had to look for work or undertake training.

Regions(a) with high rates of long-term unemployment in August 1999

		Long-term unemployed	
		Number	*Rate*
	State or Territory	'000	%
Richmond–Tweed and Mid–North Coast	NSW	10.4	5.3
Wide Bay–Burnett	Qld	5.1	5.2
Newcastle(b)	NSW	10.3	4.8
Western Adelaide	SA	4.8	4.7
Barwon–Western District	Vic.	7.0	4.6
Outer Western Melbourne	Vic.	12.4	4.5
Mersey–Lyell(b)	Tas.	2.0	4.2
Southern and Eastern South Australia	SA	4.1	3.6
Northern Adelaide	SA	5.7	3.4
Greater Hobart(c)	Tas.	2.9	3.3

(a) Regions are Statistical Regions or groups of Statistical Regions as defined by the Australian Standard Geographic Classification except (b) which are Statistical Region Sectors and (c) which is a Statistical Division.

Source: Unpublished data, Labour Force Survey.

Geographic variation

Regions with high levels of unemployment also tend to be those in which the rate and incidence of long-term unemployment are highest. In 1998–99, Tasmania and South Australia had long-term unemployment rates of 4.4% and 3.5% respectively, and incidences of long-term unemployment of 42% and 38% respectively. They were also the States with the highest rates of unemployment (see *Australian Social Trends 2000*, Work: State summary table, p. 111).

In August 1999, those regions with limited existing employment prospects relative to high levels of population growth (such as the Richmond–Tweed/Mid-North Coast region of NSW) and regions that have traditionally had employment concentrated in heavy industry

or manufacturing (such as Newcastle) featured prominently among those experiencing high levels of long-term unemployment.

Disability and joblessness

A person's health status can be a factor in determining whether they are able to obtain and retain a job. It may also be that long-term unemployment can cause a person's health to deteriorate. Certainly there is evidence from the 1998 Survey of Disability, Ageing and Carers, that the rate of long-term unemployment is higher among people with a disability and those with a long-term health condition than among people who do not have such health conditions.

The 1998 Survey of Disability, Ageing and Carers found that the long-term unemployment rate for people who did not have a long-term health condition was 2.4%. Among people with a long-term health condition the rate was higher at 3.6%, while among people with a disability it was higher still at 5.2%.

Endnotes

1 Pech, J. and McCoull, F. 1998, 'Transgenerational poverty and income support dependence in Australia: work in progress', *Social Security Journal*, vol. 1998/2, pp. 167–182.

2 Junankar, P.N. and Kapuscinski, C.A. 1991, *The incidence of long term unemployment in Australia: Report to the National Board of Employment, Education and Training*, Discussion paper no. 249, Centre for Economic Policy Research, Australian National University, Canberra.

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8 Department of Social Security 1993, *Meeting the Challenge: Labour Market Trends and the Income Support System*, Policy Discussion Paper No. 3, AGPS, Canberra.

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Retrenchment and redundancy

UNDER–UTILISED LABOUR

Since 1982 over 4% of employed persons have been retrenched each year. Retrenchment ratios were lowest for graduates, and for women.

The likelihood of retrenchment varies with economic cycles. Over 6% of employed workers were retrenched in the economic downturn years of 1983 and 1991 to 1992. But even in relatively good years over 4% of employed workers are retrenched each year.

Retrenchment is the main reason for involuntary job loss. While many people leave jobs each year by choice, job losers are those who ceased their last job involuntarily. In 1998, 58% of job losers were retrenched (408,600), while 32% lost temporary or seasonal jobs and 10% lost jobs because of their own ill health or injury.

The 1980s and 1990s have been marked by economic globalization and reduced protection of domestic industries. Many Australian businesses have restructured, merged, downsized or gone bankrupt. On the other hand, new businesses have emerged and have helped to create many new jobs (total employment grew from 6.0 million in 1979 to 8.5 million in 1998). These new jobs are often in different industries and occupations (see *Australian Social Trends 1997*, Changing industries, changing jobs, pp. 93–98).

The consequent shift in skills demanded has meant that the employment future of people who have been retrenched may be quite precarious. Retrenched persons may be from industries and occupations which demanded a quite different set of skills from those needed in the expanding service industries.

Retrenchment and redundancy

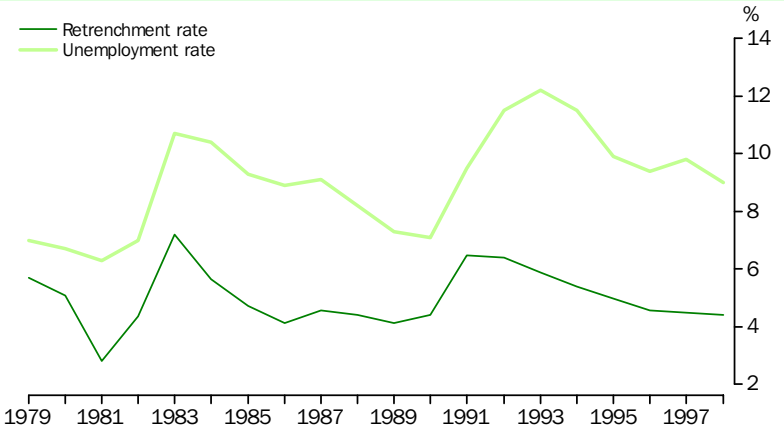
For the purpose of this review, the words *retrenchment* and *redundancy* are used interchangeably because of the difficulty of separating the two concepts during collection of the data.

In the data from the regular ABS Labour Mobility Survey, those retrenched or made redundant are given as one category of those who left their job involuntarily. Other categories of involuntary job loss are temporary or seasonal work, and leaving a job because of one's own ill-health or injury. This data series includes the self-employed. It is the principal time series on retrenchment.

In the Retrenchment and Redundancy Survey, undertaken in July 1997, a more highly specified definition of retrenchment was used. Persons aged 18–64 were included among those retrenched if they had had some inducement to accept a redundancy package; and if they were dismissed from their job for any other reason including 'age' and 'own ill-health or injury'. Moreover, these data refer to people retrenched over a three-year period. Where a person was retrenched more than once in the reference period, job details were collected only for the person's most recent retrenchment. Voluntary workers were specifically excluded from the definition of retrenched, and so were contract workers whose contracts were not renewed.

Those retrenched have had to compete in a labour market where more people are seeking work than there are jobs being offered. Their personal characteristics can mean lengthy periods of unemployment for some; others are better placed to find new employment opportunities quickly.

Retrenchment and unemployment rates, 1979–1998



Source: Labour Mobility, Australia, February 1979 to February 1998 (Cat. no. 6209.0); *Labour Force Australia*, February 1979 to February 1998 (Cat. no. 6203.0).

Trends from 1979 to 1998

Data from the series of labour mobility surveys refer to persons retrenched over the previous twelve months. Also collected are data on persons employed at any time over the previous twelve months. Retrenchment rates are calculated by dividing the number retrenched by the number employed over the previous twelve months and multiplying by 100.

Using this measure, the retrenchment rate grew from 5.7% in 1979 to 7.2% in 1983. It then fell quite quickly and bottomed at between 4.1% and 4.6% in the period from 1986 to 1990. However, there was another economic recession in 1990 and 1991, when retrenchment rates rose from 4.4% to 6.5%.

The subsequent fall was slower than in the 1980s, though by 1998 (the latest year for which data are available) retrenchment rates had fallen to 4.4%.

The pattern of retrenchment mirrors that of unemployment (both rates rise in recessions and fall in economic upswings), but the retrenchment rate was always lower than the unemployment rate in the period 1979 to 1998. The unemployment rate measures the relative number of people unemployed at any point in time. In contrast, the retrenchment rate measures the flow of people out of jobs. Some of them find new jobs quickly, while others are unemployed for some time, and others leave the workforce altogether.

Economic restructuring

As societies become richer their industry structure changes. Industries which once employed many people shrink, while new industries grow. During the past two decades, manufacturing industries have tended to shrink while service industries have expanded. There is also evidence that larger firms have reduced their employment levels much more than medium or small firms.[2]

The greatest numbers of persons retrenched between July 1994 and June 1997 were in manufacturing, retail trade and construction.

Industries: retrenchment ratios and contribution to total retrenchment, three years to July 1997

Industry division	*Number of persons retrenched* '000	*Share of all employees retrenched* %	*Retrenchment ratio* %
Manufacturing	166.9	24.3	16
Retail Trade	82.0	12.0	10
Construction	59.1	8.6	18
Property & Business Services	47.6	6.9	8
Wholesale Trade	46.4	6.8	11
Government Administration and Defence	39.5	5.8	12
Accommodation, Cafes and Restaurants	37.0	5.4	12
Health and Community Services	33.9	4.9	5
Transport and Storage	30.6	4.5	10
Finance and Insurance	23.1	3.4	8
Education	21.5	3.1	4
Electricity, Gas and Water Supply	19.3	2.8	25
Agriculture, Forestry and Fishing	18.0	2.6	13
Personal and Other Services	17.6	2.6	7
Communication Services	17.5	2.6	14
Cultural and Recreational Services	14.6	2.1	10
Mining	10.9	1.6	14
Total	**685.4**	**100.0**	**11**

Source: Retrenchment and Redundancy, Australia, July 1997 (Cat. no. 6266.0); unpublished data, Labour Force Survey, August 1994 and August 1997.

Retrenchment ratios

An issue of social and economic interest is the incidence or likelihood of retrenchment for persons with different characteristics, such as occupation or age. Knowledge of these probabilities allows the targeting of skills enhancement and other programs to help minimise time unemployed.

Defining the appropriate base for calculating such probabilities has, however, some real difficulties. UK redundancy rate data for any group is the number of persons made redundant in a three-month period, divided by the number of persons in the same group employed in the previous three-month period, and multiplied by 1000.[1]

The Australian data from the July 1997 Retrenchment and Redundancy Survey, however, refer to persons aged 18–64 years made redundant over a three-year period, of whom there were 685,400. While the total number of persons employed over those three years is known (9,339,200, giving a retrenchment rate of 7%), there are no equivalent figures for population sub-groups, for example males and females. Because of this, disaggregated retrenchment rates cannot be calculated.

However, an approximation is the retrenchment ratio, which is the measure used in this review. The denominator used for the retrenchment ratio is the average of the number of employees aged 18-64 at the beginning and end of the period. Employees have been chosen because they are the specific employment status group at risk of retrenchment. The age group is the same as that used in the Retrenchment and Redundancy Survey, i.e. persons aged 18–64.

An average was considered to be most appropriate for the denominator as, for certain categories such as industry and occupation, there were clear secular trends. For educational attainment categories, the denominator is the average for May 1994 and May 1997.

Because retrenchment ratios are derived estimates, values are rounded to whole numbers to emphasise that care must be taken in their interpretation as a measure of the likelihood of being retrenched in a three-year period.

Together these three industries accounted for 45% of the retrenched. As manufacturing and retail trade were the two largest employers in August 1997, the contribution of these two industries to retrenchment is not surprising. There has also been a long-term decline in manufacturing employment.

The retrenchment ratios show a different pattern. The highest ratio was in electricity, gas and water supply, the industry which employed fewest people in August 1997.

The lowest retrenchment ratios were in education services and health and community services. These two industries employ many

Main reason for retrenchment, three years to July 1997

	Permanent	*Casual*	*All persons retrenched*
	%	%	%
Not enough work/job cuts	42.9	52.2	45.6
Business closed	16.0	11.1	14.6
Change of management	9.0	7.0	8.4
Other business problems	3.4	4.1	3.6
Ill health or physical disability	3.4	*2.5	3.1
Nature of job changed/new technology	5.3	*1.5	4.2
Other	19.3	20.0	19.5
Don't know	*0.7	*1.6	*1.0
Total	**100.0**	**100.0**	**100.0**

Source: Unpublished data, 1997 Retrenchment and Redundancy Survey.

people: health and community services was the fourth largest industry division in terms of number employed in August 1997, and education services was the fifth largest.

The private sector dominates the economy, employing 77% of employees aged 18–64 in August 1997. During the three-year period to July 1997, the retrenchment ratio was higher in the private sector (11%) than in the public sector (8%). However, over a longer time period there has been a very large decline in public sector employment (see *Australian Social Trends 1998*, Public sector employment, pp. 115–118).

In 1997, the main reason given for retrenchment was lack of work or reductions in the workforce (46%). In general, casual workers were more likely to have been retrenched than permanent workers (the respective retrenchment ratios were 14% and 10%). Casual workers were more likely to have been retrenched because of lack of work than were permanent workers. Closure of businesses accounted for a further 15% of redundancies, giving a total of 60% of redundancies for reasons associated with economic restructuring. Changes in management and other business problems accounted for a further 12% of redundancies. In addition 4% indicated they had lost their jobs because of new technology or changes in the nature of the job. Altogether, 76% of redundancies were for reasons to do with changes in the economy and in business conditions.

Occupational change

The types of occupations in demand vary between industries, giving a difference in occupational mix between industries. As a result, shifts in industry structure lead to changes in occupational structure. As well, over time, the mix of occupations in each industry changes as production technologies change and as elements of the business are out-sourced or brought in-house.

In the period since the 1990–1991 recession, there has been a growth in highly skilled jobs and in unskilled jobs. There has been a reduction in jobs with intermediate skill levels.[3]

In August 1997, the occupational groups with the largest numbers of employees were professionals (1.3 million), intermediate

Occupation: retrenchment ratios and contribution to total retrenchment, three years to July 1997

Occupation (skill level(a))	*Number of persons retrenched* '000s	*Share of all employees retrenched* %	*Retrenchment ratio* %
Labourers and related workers (5)	128.0	18.7	19
Tradespersons and related workers (3)	122.1	17.8	15
Intermediate clerical, sales and service workers (4)	113.6	16.6	9
Intermediate production and transport workers (4)	91.6	13.4	15
Professionals (1)	68.8	10.0	6
Elementary clerical, sales and service workers (5)	59.9	8.7	10
Associate professionals (2)	50.8	7.4	8
Managers and administrators (1)	26.6	3.9	7
Advanced clerical and service workers (3)	24.0	3.5	7
Total	**685.4**	**100.0**	**11**

(a) Occupation groups are based on Australian Standard Classification of Occupations, 2nd Edition, which classifies occupations by skill level ranked from 1 (the highest) to 5 (the lowest) (Cat. no. 1220.0).

Source: Retrenchment and Redundancy, Australia, July 1997 (Cat. no. 6266.0); unpublished data, Labour Force Survey, August 1994 and August 1997.

clerical, sales and service workers (1.2 million), tradespersons and related workers (840,900) and labourers and related workers (700,900). In the three years to July 1997, but with the exception of those in the professional occupational group, these were also the groups that had the largest numbers of retrenchments. Taken together, labourers and related workers; tradespersons and related workers; and intermediate clerical, sales and service workers contributed 53% of all the retrenchments that occurred over the period.

Retrenchment ratios for occupation groups varied considerably. The lowest ratios were in occupations with high skill levels. The highest retrenchment ratio was in the occupation group of labourers and related workers, and this was almost certainly associated with the high proportion of retrenchments in the manufacturing and construction industries.

Demographic characteristics

Not only does occupational mix vary with industry, but so do various demographic characteristics. Some industries have much higher proportions of men, and some have employees with older age structures.

While men made up 56% of employees aged 18–64 years in August 1997, they made up 68% of the retrenched. Their retrenchment ratio (13%) was well in excess of that for women (8%). Men were more concentrated in those industries which had made a major contribution to retrenchment levels, such as manufacturing and construction. This was a major factor explaining their higher retrenchment rates.

Retrenchment ratios were lowest at ages 35–44 years (when family responsibilities also tend to be high). They were highest for persons aged 55–64 years.

Retrenchment ratios decreased as educational level increased: the ratios were much lower for people with a bachelor degree or higher qualification at all ages. Overall, retrenchment ratios for people with a diploma or vocational qualifications were much the same as for people with no post-school qualifications. But at older ages, those with vocational qualifications had higher retrenchment rates than those with no post-school education; perhaps the vocational skills of older people become less needed with today's technologies.

Retrenchment ratios for different birthplace groups are likely to vary somewhat, partly because people from some countries are concentrated in particular industries. However, the difference between Australian-born people and overseas-born people (whether from a main English-speaking country or elsewhere) was small. There were, however, some differences by age. Among 18–24 year olds, those born overseas in countries other than main English-speaking countries had above-average retrenchment ratios (15%). Among older workers (those aged 55–64 years) the pattern was different: all overseas-born people had higher retrenchment rates than the Australian-born.

Retrenchment ratios by age and selected social and demographic characteristics, three years to July 1997

Selected characteristics	*18–24 years* %	*25–34 years* %	*35–44 years* %	*45–54 years* %	*55–64 years* %	*18–64 years* %
Men	15	13	11	13	18	13
Women	7	8	6	8	11	8
No post-school qualification	13	12	10	11	14	12
Vocational qualification or diploma(a)	9	12	9	12	19	11
Bachelor degree or higher	*4	5	6	8	9	6
Born in Australia	11	11	9	11	15	11
Born in main English-speaking countries	9	10	9	11	20	11
Born in other countries	15	9	8	9	18	10
Total	**11**	**11**	**9**	**11**	**16**	**11**

(a) Includes those nurses for whom level of qualification is not known.

Source: Retrenchment and Redundancy, Australia, July 1997 (Cat. no. 6266.0); unpublished data, Labour Force Survey, August 1994 and August 1997; unpublished data, Transition from Education to Work Survey, May 1994 and May 1997.

Repeated retrenchment

The 1997 Retrenchment and Redundancy Survey found that in the previous three years 85% of persons retrenched had been retrenched only once, while 99,500 persons (15% of people retrenched) had been retrenched more than once in that period.

Young people were more likely to have been retrenched more than once: 16% of those aged 18–24 years had been retrenched twice, and a further 5% had been retrenched three times or more. The likelihood of being retrenched more than once decreased with age. Persons aged 45 years or more were less likely to have been retrenched more than once. For those aged 55 years or more this could be because many leave the labour force (see *Australian Social Trends 2000*, Retirement and retirement intentions, pp. 130–133).

Subsequent labour force status

Of those retrenched in the three years to July 1997, 55% were employed by the end of that period. The percentage employed was higher the longer ago the retrenchment occurred. Among those employed, many had had to change at least one aspect of the work they had previously done: 30% had changed industry, 23% had changed occupation, 13% had changed their hours of work, and 16% had shifted between permanent and casual status.

In part, these changes reflect shifts in the nature of jobs available. Increasingly jobs are part-time and casual (see *Australian Social Trends 2000,* Employment arrangements in the late 1990s, pp. 115–119).

Labour force status of persons who had been retrenched in the three years to July 1997

	Date last retrenched				
	July to December 1994	*1995*	*1996*	*January to June 1997*	*Total*
Labour force status in July 1997	%	%	%	%	%
Employed	*80.3*	*66.7*	*52.7*	*39.6*	*54.7*
Changed industry	50.3	37.2	28.2	20.1	30.1
Changed occupation	40.6	32.0	21.2	12.7	23.1
Changed full-time/part-time status	15.3	16.1	13.2	8.9	12.8
Changed permanent/casual status	21.9	17.9	15.2	11.8	15.5
Unemployed	*5.7	14.3	31.5	45.4	29.3
Not in the labour force	14.0	19.0	15.8	15.0	16.1
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Unpublished data, 1997 Retrenchment and Redundancy Survey.

Number of times retrenched by age, three years to July 1997

	Number of times retrenched			
	Once	*Twice*	*Three or more*	*Total*
Age	%	%	%	%
18–24	79.2	15.6	5.2	100.0
25–34	83.5	9.7	6.8	100.0
35–44	86.0	9.1	5.0	100.0
45–54	90.2	7.6	*2.3	100.0
55–64	92.2	*3.6	*4.2	100.0
Total	**85.5**	**9.6**	**4.9**	**100.0**

Source: Retrenchment and Redundancy, Australia, July 1997 (Cat. no. 6266.0).

A high proportion of those retrenched in the six months prior to the survey were unemployed at the time of the survey (45%). However, with increasing duration since the time of retrenchment the likelihood of being unemployed at the time of the survey decreased. Among those retrenched between two and a half and three years before the survey, only 6% were still unemployed.

While some retrenched people are able to find new jobs without assistance, others benefit from programs designed to provide new skills or other forms of assistance in finding work. Some larger organisations have provided such assistance in advance of the retrenchment taking place, but this is rare. Government-funded programs to assist the unemployed have tended to focus on supply-side initiatives, including programs which encourage the unemployed to undertake voluntary work.[4]

Endnotes

1 Terryn, B. 1999, 'Redundancies in the United Kingdom', *Labour Market Trends*, May 1999, pp. 251–261.

2 Bureau of Industry Economics 1994, *Job Growth and Job Decline*, Bureau of Industry Economics Occasional Paper 21, AGPS, Canberra.

3 Cully, M. 1999, 'A More or Less Skilled Workforce? Changes in the Occupational Composition of Employment, 1993 to 1999', *Australian Bulletin of Labour*, vol. 25, no. 2, pp. 98–104.

4 For a review of a wide range of responses to retrenchment, see Christine Evans-Klock et al. 1999, 'Worker Retrenchment: Preventative and Remedial Measures', *International Labour Review*, vol. 138, no. 1, pp. 47–66. The focus in this article is on programs in various European countries and in the USA.

Retirement and retirement intentions

NOT IN THE LABOUR FORCE

In 1997, there were 2.9 million men aged 45 and over. Of these, 1.3 million (44%) had retired from full-time work, nearly all of whom had left the labour force entirely.

Retirement from full-time work, for many people, marks the beginning of a period where they can pursue hobbies and other interests, or spend more time with family members – activities for which they will have had less time during the bulk of their working lives. It usually spells living on a reduced income, and might also signal other major lifestyle changes, such as moving house (or even changing location); adjusting roles in the household; and preparing for old age.

Over much of the 20th century, retirement has been a more important milestone for men than for women. While the labour force participation of women has been rising over the period, their participation in full-time employment has been lower than for men. Even over the last decade, labour force participation of women at near retirement ages was much lower than their male counterparts, and these women were more likely than men to have had a working history of part-time and casual employment (see *Australian Social Trends 1998*, Trends in women's employment, pp. 111–114). For

Retirement and work

This review uses data from the Retirement and Retirement Intentions surveys conducted in 1992 and 1997 as part of the Monthly Labour Force Survey. The retirement intentions component of the surveys gathered demographic and other information about two groups of people aged 45 years and over: those who had retired, and those who had not.

In order to facilitate comparisons with 1992, figures for the number of retired people in 1997 in this review were derived differently from those published in *Retirement and retirement intentions, November 1997* (Cat. no. 6238.0).

Retired persons are those who have left full-time employment and do not intend to work full-time at any time in the future. Retired people may, however, continue to work part-time or look for part-time work. These people are referred to as *partially retired*. Those who have left the labour force entirely, i.e. are not working or looking for work at all, and do not intend to work at any time in the future, are referred to as *fully retired*.

Retirement scheme – includes superannuation schemes, life assurance policies or similar schemes that provide financial benefit when a person leaves work.

Employment and retirement status among men aged 45 years and over, 1992 and 1997

	1992				1997				
	45–54 years	*55–59 years*	*60–64 years*	*65 years and over*	*45–54 years*	*55–59 years*	*60–64 years*	*65 years and over*	*Total*
	%	%	%	%	%	%	%	%	%
Employment status									
Full-time(a)	84.8	67.0	40.2	5.6	82.4	65.4	38.1	6.4	50.5
Part-time(b)	5.3	9.2	10.1	4.3	6.0	8.3	9.5	5.4	6.6
Not in the labour force	9.9	23.8	49.7	90.1	11.7	26.4	52.4	88.3	43.0
Total(c)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Retirement status									
Fully retired	7.0	20.4	47.0	88.5	8.5	22.3	49.5	86.6	40.2
Partially retired	1.8	5.2	7.1	3.9	2.2	5.2	7.5	4.8	4.1
Not retired	91.3	74.4	45.9	7.6	89.4	72.5	43.0	8.6	55.7
Total(c)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	'000	'000	'000	'000	'000	'000	'000	'000	'000
Total persons(c)	1 022.1	372.6	351.3	807.8	1 210.7	437.1	358.8	922.5	2 929.0
Total number retired	89.3	95.6	190.2	746.2	128.9	120.1	204.6	843.4	1 296.9

(a) Includes those who were working full-time or looking for full-time work.
(b) Includes those who were working part-time or looking for part-time work of more than 10 hours per week.
(c) Includes a small number whose labour force status and retirement status was not determined.

Source: Unpublished data, Survey of Retirement and Retirement Intentions, 1992 and 1997.

these reasons, the major focus of this article is on the retirement patterns and retirement intentions of men.

The process of retirement

The two measures given in the table on the previous page (employment status and retirement status) for men aged 45 years and over, indicate a similar pattern of increasing withdrawal from full-time work with increasing age. The proportion of men working, or seeking to work, full-time in 1997 decreased from 82% of those aged 45–54 years to 6% of those aged 65 years and over. At the same time, the proportion who had retired from full-time work increased, from 11% of those aged 45–54 to 91% of those aged 65 years and over (when men may become eligible for the age pension).[1]

For the most part, withdrawal from full-time work can be linked to retirement. However, retirement is not the only reason people do not work full-time. Some may reduce their hours of work or be temporarily out of the labour force for reasons such as disability or sickness; caring for another person; or full-time study. For example, in 1997 12% of men aged 45–54 years were not in the labour force, but only 8% had fully retired. Similarly, 6% of men aged 45–54 years were working, or seeking to work, part-time, but only 2% in this age group had partially retired. These differences imply that withdrawal from full-time work may also be influenced by labour market conditions.

Conversely, retirement does not necessarily signal the end of labour force participation: some men opt to work part-time after retiring from full-time employment (are partially retired). Nevertheless, for men in each of the groups aged 45 years and over the number who said they had fully retired made up over half of those not in the labour force.

In all age groups (except the 45–54 years group), the number who had partially retired made up most of those working part-time or looking to do so. The proportion of men who had partially retired increased with age up to 65 years, indicating that some men are easing themselves out of full-time work by working part-time, before leaving the labour force altogether: a pattern that is likely to continue. For those men aged 45–54 years still working full-time in 1997 who said they intended to retire before the age of 55, 46% said they intended to work part-time after retirement.

A trend observed over recent decades is the move towards early retirement (see *Australian Social Trends 1994*, Early retirement among men, pp. 126–129). Using the employment status category 'not in the labour force' as a measure of retirement (as was used in the previous study) it would appear that this trend has continued. In both the 45–54 and the 55–59 years age groups, a larger proportion were not in the labour force in 1997 (12% and 26% respectively) than in 1992 (10% and 24% respectively). Using the retirement status category (those who have partially or fully retired) supports this viewpoint. The proportions of the 45–54 and the 55–59 years age groups who had

Reasons for retirement among men, 1997

	Age at retirement(a) (years)				
	45–54	*55–59*	*60–64*	*65–69*	*Total*
Reasons for retirement	%	%	%	%	%
Own health or injury	56.0	40.1	23.2	6.8	32.6
Reached compulsory age retirement	**0.6	2.9	17.9	64.9	19.8
Reached appropriate age retirement	4.1	14.3	26.7	17.1	16.7
Retrenched	14.5	18.7	12.3	3.7	11.9
Early retirement package/pension or super eligibility	5.1	10.5	8.9	*1.1	6.2
Business closed down (economic and other reasons)	*4.8	3.3	2.9	*1.9	3.1
Pursue leisure activities	*2.1	2.7	1.7	*0.6	1.7
Look after family/ house/someone else	*2.6	*1.5	1.5	*0.9	1.7
Other(b)	10.2	6.0	4.8	3.0	6.2
Total	100.0	100.0	100.0	100.0	100.0

(a) Retirement from full-time work.
(b) Includes technological advancements/nature of job changed; temporary, seasonal or holiday job; unsatisfactory work arrangements /pay/hours; wanted to work part-time, or full-time work too stressful; to get married; to coincide with partner's retirement; to have holiday/move house/spouse transferred.

Source: Unpublished data, 1997 Survey of Retirement and Retirement Intentions.

retired from full-time work in 1997 (11% and 27%, respectively) were also slightly higher than in 1992 (9% and 26%).

Reasons for retirement

Reasons for retirement from full-time work vary by age. In 1997, for those aged under 60 years, their retirement was most commonly because of ill health or injury, particularly among those retiring before the age of 55, where over half of retirees gave this as the reason. Retrenchment was also given as a common reason for those aged under 60, particularly among those aged between 55 and 59 (19%). (See *Australian Social Trends 2000,* Retrenchment and redundancy, pp. 125–129). However, most of those who had retired between 65 and 69 years had done so because they felt they had reached an appropriate age for retirement or because they had reached the compulsory age for retirement in their job at the time (82%).

Sources of income

With the ageing of the population, retirees are likely to make up an increasing proportion of the population over the coming decades. This has led to concerns about possible pressure on government funding for age pensions and other forms of support for older people, and has prompted legislation to encourage older people to remain in the labour force, and to improve superannuation coverage of employed people.[2]

There has been increased personal and public interest in people's retirement decisions, including their means of support in old age.[3] Reflecting a concern about financial security in retirement, a national study conducted by the Australian Institute of Family Studies in 1996 showed that a high proportion of working men (70%) and women (63%) between the ages of 50 and 70 years were actively preparing for retirement. This preparation was largely financial.[3]

In 1997, the ABS survey showed that men were most likely to have initially funded their retirement from government pensions or benefits (48%), and a further 40% through a purchased pension or annuity or from investments, savings or sales of assets.

For many people, the main source of income changes in the years following retirement. For 40% of men aged 45 or more who were retired in 1997, their source of income had changed since they had first retired. For the most part, there was a marked increased reliance on the age or service pension, and a decrease for most other sources.

This was especially so for men who had reached the age of 65 years. Almost two thirds (65%) of retired men aged 65 and over were relying on a government pension as their main source of income in 1997. This rise was accompanied by sharp drops in reliance on other government benefits or part-time work.

However, there was a relatively small drop, after reaching the pension eligibility age, in the proportions of men relying on a

Main source of income at retirement and at time of survey, 1997

	Retired men				*Retired women*			
	At retirement	*At 1997*			At retirement	*At 1997*		
		Aged under 65 years	*Aged 65 years & over*	*All men*		*Aged under 61 years*	*Aged 61 years & over*	*All women*
	%	%	%	%	%	%	%	%
Government pension(a)	22.8	8.3	64.5	47.3	20.2	9.3	72.0	53.1
Unemployment benefits	7.9	8.8	*0.1	2.8	3.3	2.8	*0.4	1.1
Other government assistance(b)	17.4	37.8	3.6	14.1	9.2	23.6	1.8	8.4
Purchased pension/annuity(c)	17.9	17.6	14.9	15.7	6.6	4.8	8.6	7.4
Business/property investments, savings, sales of assets	22.3	12.6	13.8	13.4	14.4	11.4	9.9	10.4
Part-time work	4.7	7.9	1.0	3.1	7.0	19.7	1.2	6.8
Someone else's income	4.3	4.8	*0.7	1.9	37.6	27.1	4.8	11.6
Other/don't know(d)	2.8	2.3	1.5	1.7	1.7	*1.3	1.2	1.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) Includes age, service, widow's, war widow's pensions.
(b) Includes disability support; war disability or sickness allowance; or wife's, carer's, special or other benefit.
(c) Pension/annuity purchased with superannuation payment or with money other than superannuation payment.
(d) Includes accumulated leave/compensation; other sources of income; and don't know.

Source: Unpublished data, 1997 Survey of Retirement and Retirement Intentions.

Retirement scheme membership of persons aged 45 years and over(a) who intend to retire, 1992 and 1997

	1992			1997		
	Men	Women	Total	Men	Women	Total
	%	%	%	%	%	%
Belonged to a retirement scheme	*83.1*	*74.2*	*80.5*	*93.2*	*90.7*	*92.4*
Had superannuation cover	*79.1*	*71.7*	*76.9*	*92.1*	*90.0*	*91.4*
In job at survey date	73.9	66.7	71.8	83.2	82.1	82.9
In some previous job	5.2	4.9	5.1	8.9	7.9	8.6
Had life assurance or other scheme	3.9	2.6	3.5	1.1	*0.7	1.0
Did not belong to a retirement scheme	16.9	25.8	19.5	6.8	9.3	7.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

(a) Persons aged 45 years and over who were working full-time or looking for full-time work.

Source: Retirement and Retirement Intentions, 1992 and 1997 (Cat. no. 6238.0).

purchased pension (from 18% to 15%). This is probably because most of these people had retired after the age of 60 years, having built up their superannuation over a long period.

Among those aged 45 and over who had retired from full-time work in 1997, some differences in income sources were evident between men and women. It would seem that the income of many women after retirement was largely dependent on that of a spouse or partner, at least initially. For example, retired women in 1997 were less likely than men to have funded their own retirement through a purchased pension or annuity or from investments, savings or sales of assets. They were much more likely to rely on someone else's income (38%, compared with 4% for men), presumably that of their spouse or partner.

Women were less likely than men to obtain their main source of income at retirement from a government pension or benefit (33%, compared with 48%), and slightly more likely from part-time work (7%, compared with 5%). This may indicate, for some of these women, a continuation of a previous pattern of part-time and casual employment. In 1997, the age at which women could become eligible for the age pension was 61 years.[1] Retired women aged 61 years and over in 1997 (72%) were even more likely than men aged 65 years and over (65%) to derive their main source of income from a government pension.

Self-funded retirement patterns

It is likely that larger proportions of future retirees will derive the main part of their income from a retirement scheme, such as superannuation, life assurance policies or similar schemes that provide financial benefit when a person leaves work. In 1997, 41% of employed men and 28% of employed women aged 45 and over who intended to retire said they would support themselves from a purchased pension or annuity, and another 13% of men and of women from investments, savings or sales of assets during retirement, while only 21% of men and 23% of women, said their main source of income would be from an aged or other government pension or benefit.

Steady increases in retirement scheme membership have been evident since this information was first collected by the ABS in 1983, reflecting changes to superannuation legislation over the last 15 years.[4] In 1997, retirement scheme membership of people aged 45 years and over who had retired was 60% (69% for men and 48% for women). This was a marked increase from 38% in 1983 (50% for men and 19% for women).

Moreover, retirement scheme membership has also increased for people aged 45 years and over who intend to retire (from 81% in 1992 to 92% 1997). Most of this increase was for superannuation scheme membership, which rose from 77% to 91% over the period.

Endnotes

1 Australian Bureau of Statistics 1998, *Year Book Australia, 1998*, Cat. no. 1301.0, ABS, Canberra.

2 Rosenman, L. and Warburton, J. 1995, 'The Changing Context of Retirement in Australia', *Social Security Journal*, December 1995, pp. 54–66.

3 Woolcott, I. 1998, *Families in later life: Dimensions of retirement*, Working paper no. 14, Australian Institute of Family Studies, Melbourne.

4 Bateman, H. 1999, 'Perspectives on Australian retirement income policy', *Australian Social Policy,* vol. 1999/1, pp. 31–55.

Trade union members

INDUSTRIAL RELATIONS

The decline in the trade union membership rate accelerated through the 1990s. Institutional factors and changes in the composition of the workforce have each contributed to this decline.

In 1999, 26% of all employees (1.9 million people) were members of a trade union. Levels of trade union membership have dropped considerably over recent decades, especially through the 1990s. In 1976, close to half (51%) of all employees were members of a trade union. By 1992 the membership rate had fallen to 40%. After a slowdown in the decline around the early 1990s (possibly associated with the 1990–91 recession), membership rates have plummeted.

The trend has occurred for both men and women, although over time the membership rates of men and women have converged. In 1999, the membership rate of men was 28% compared to 23% for women (a difference of about 5 percentage points). In 1976, the difference between the membership rates of men (56%) and women (43%) had been greater at 13 percentage points. Clearly, in the last quarter of the 20th century, trade unions have been losing members and/or recruiting only a small proportion of employees entering the workforce.

Catalysts for change

Various factors have been identified as possibly contributing to the decline in union membership. One factor has been the changes that have occurred in the composition of the labour force. Job growth has been greater in segments of the labour force (such as service industries and in part-time casual jobs) which have hitherto had relatively low levels of union membership. A previous study looking at trade union membership between 1986 and 1992 estimated that at least 30% of the decline in trade union membership over the period was because of such compositional factors (see *Australian Social Trends 1994*, Trends in trade union membership, pp. 109–113).

The amalgamation of unions that took place in the 1990s may have also hastened the decline in union membership. The number of separate unions fell from 295 in June 1990 to 132 in June 1996, the date of the last union census.[1] It has been suggested that the larger unions that have been created from this amalgamation process may be less responsive to workplace level issues and to individual member input. As a consequence, the benefits of union membership may seem less valuable to individual workers.[2,3]

Another likely factor linked to the most recent decline is the nature of changes to the legislative framework for industrial relations made in the last decade. Since 1990, and the introduction of the Accord Mark VI between the Federal Government and the Australian Council of Trade Unions (ACTU), there has

Trade union statistics

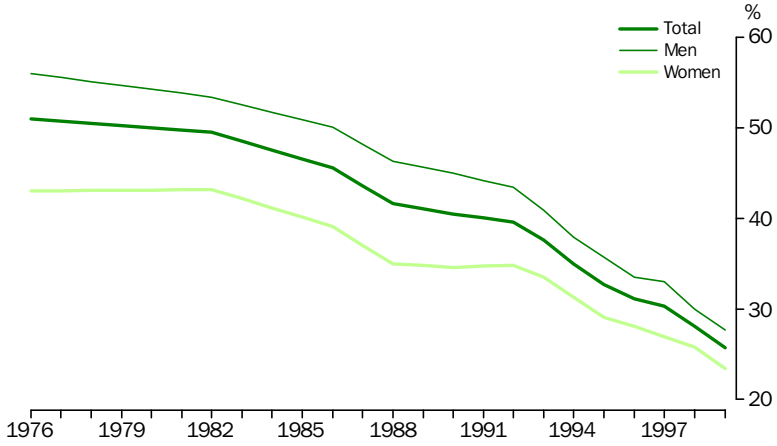
Data presented in this review have been sourced from the Survey of Employee Earnings, Benefits and Trade Union Membership, which was last conducted in August 1999 as a supplement to the Monthly Population Survey. Information about the trade union membership of employees was first collected by the ABS as a supplement to the Monthly Population Survey in November 1976. It was collected biennially in its current format from 1986 to 1992, and has since been collected annually (with limited data available every second year). For more information about this survey see *Employee Earnings, Benefits and Trade Union Membership* (ABS Cat. no. 6310.0).

A *trade union* is an organisation consisting predominantly of employees. The principal activities of a trade union include the negotiation of rates of pay and conditions of employment for its members.

A *trade union member* is an employee with membership in a trade union relating to their current job.

The *trade union membership rate* is the proportion of a specified group of employees who are trade union members.

Trade union membership rates, 1976 to 1999(a)



(a) Data prior to 1986 are not strictly comparable with 1986 and subsequent data because of minor differences in definitions.

Source: Trade Union Members, Australia (Cat. no. 6325.0); *Employee Earnings, Benefits and Trade Union Membership, Australia* (Cat. no. 6310.0).

been a move towards enterprise bargaining. This has been paralleled by a shift away from centralised wage negotiations where unions have played a large role in the past.[4]

The most recent changes, introduced through the *Workplace Relations Act 1996*, reduced the matters that could be covered by federal awards, and also provided for individual Australian Workplace Agreements (AWAs) and collective agreements (Certified Agreements, or CAs) between employers and employees at particular workplaces. Other changes included revised provisions for unions' right of entry to workplaces, restrictions on industrial action, and the banning of discriminatory action against non-unionists (removal of 'closed shops' or compulsory unionism) and unionists.[5,6]

These institutional changes may have contributed to a perception amongst workers that the role of trade unions has become less relevant and less effective. If so, the propensity to maintain membership of a trade union for existing members, or to join a trade union for new entrants to the labour force, would decrease. This would then be a factor contributing to declining trade union membership rates over the period to 1999.

Demographic changes

Between 1992 and 1999, the proportion of trade union members who were women increased from 39% to 41%. The proportion of members who were aged 35 years or older increased from 56% to 64%. These changes are generally consistent with the changing demographic profile of the labour force (more women and fewer younger people – see *Australian Social Trends 2000*, Work:: national summary table, p. 108). However, they have also been affected by changes in membership rates among employees. Thus, between 1992 and 1999, membership rates declined at a slower rate among women than men (33% and 36% respectively) and among older employees (falling by about 30% for those aged 45 years and over) than employees in younger age groups (over 40%).

History of trade unions in Australia

Trade unions have been active in Australia from the second half of the nineteenth century.[7] Representative bodies of employees have been a recognised component of Australian industrial relations since the establishment in 1904 of a formal arbitration system to settle industrial disputes.[8]

In 1912 the first survey of trade unions found that there were 408 separate unions in the Commonwealth of Australia, with around 430,000 members. It was then estimated that 44% of male employees and 8% of female employees aged 20 years and over were union members.[9]

By 1925 membership rates had increased to 58% for men and 34% for women. In the post-war years overall rates were around 60% in the 1950s and around 55% in the 1960s.[10]

Trade union membership by sex and age group, 1992 and 1999

	1992			*1999*			
	Trade union members		*Membership rate*	*Trade union members*		*Membership rate*	*Decline in membership rate(a)*
	'000	%	%	'000	%	%	%
Sex							
Men	1 536.1	61.2	43.4	1 103.7	58.8	27.7	–36.2
Women	972.7	38.8	34.8	774.5	41.2	23.4	–32.8
Age group(years)							
15–24	404.5	16.1	28.3	234.9	12.5	15.7	–44.5
25–34	692.1	27.6	40.5	437.1	23.3	23.2	–42.7
35–44	705.4	28.1	43.0	549.3	29.2	29.8	–30.7
45–54	518.2	20.7	46.5	485.7	25.9	32.4	–30.3
55 and over	188.7	7.5	42.8	171.3	9.1	29.4	–31.3
All persons	**2 508.8**	**100.0**	**39.6**	**1 878.2**	**100.0**	**25.7**	**–35.1**

(a) Decline between 1992 and 1999.

Source: Trade Union Members, Australia, August 1992 (Cat. no. 6325.0)*; Employee Earnings, Benefits and Trade Union Membership, Australia, August 1999* (Cat. no. 6310.0).

Industry and sector of trade union members, 1992 and 1999

	1992		1999		Change between 1992 and 1999	
	Number of members	Membership rate	Number of members	Membership rate	Membership rate	No. of industry employees
Industry and sector of employment	'000	%	'000	%	%	%
Industry						
Electricity, gas and water supply	80.9	77.2	35.0	50.1	–35.1	–33.3
Communication services	91.0	75.6	64.7	48.3	–36.1	11.2
Government administration and defence	210.5	60.7	140.4	41.2	–32.1	–1.8
Education	329.8	59.9	279.5	45.8	–23.5	10.8
Transport and storage	167.6	59.5	128.3	38.7	–35.0	17.5
Mining	48.6	57.6	23.8	35.3	–38.7	–20.4
Finance and insurance	145.7	47.1	81.6	27.5	–41.6	–4.2
Manufacturing	450.0	44.5	325.8	32.8	–26.3	–1.8
Construction	124.5	42.1	110.6	25.7	–39.0	45.2
Health and community services	266.6	40.7	226.5	30.7	–24.6	12.6
Personal and other services	84.2	36.6	79.0	30.5	–16.7	12.6
Cultural and recreational services	35.4	29.3	27.4	15.7	–46.4	43.9
Retail trade	219.0	25.6	192.8	17.4	–32.0	29.6
Accommodation, cafes and restaurants	69.3	22.7	35.0	10.1	–55.5	12.9
Property and business services	96.3	19.5	75.0	9.7	–50.3	56.8
Wholesale trade	72.5	16.6	45.5	9.6	–42.2	8.6
Agriculture, forestry and fishing	17.0	12.8	7.5	4.6	–64.1	21.5
Sector of employment						
Public	1 151.5	67.1	730.9	50.0	–25.5	–14.8
Private	1 346.8	29.4	1 147.3	19.6	–33.3	27.6
Total	**2 508.8**	**39.6**	**1 878.2**	**25.7**	**–35.1**	**15.3**

Source: Unpublished data, 1992 Survey of Trade Union Members; *Employee Earnings, Benefits and Trade Union Membership, Australia, August 1999* (Cat. no. 6310.0).

Change within industries

Trade union membership rates have always varied between industries. In 1999, they ranged from a low of 5% in the agriculture, forestry and fishing industry to a high of 50% in the electricity, gas and water supply industry.

All industries experienced substantial declines in membership rates between 1992 and 1999. Relative declines in rates were greatest among industries that already had low union membership rates. Those in which union membership rates halved, or more than halved, included agriculture, forestry and fishing, accommodation, cafes and restaurants, and property and business services. Each of these had had union membership rates of less than 25% in 1992.

Despite the greater declines in rates for industries with low union membership rates, many of the industries with high membership rates in 1992 experienced some of the largest absolute (percentage point) declines in membership rates. One consequence of the changes observed among the most highly unionised industries was that by 1999 unionists represented no more than one half of employees in any industry. The extent of trade union coverage had been markedly different in 1992 when there were six industries in which unionists had represented a clear majority of employees in their industry.

Industries with high union membership also tended to be industries with below average growth in employee numbers. Of the eight industries with the highest union membership rates in 1992, five experienced net job losses between 1992 and 1999 and two others had below average employee growth over that period. The industries that experienced above average growth in employee numbers, on the other hand, tended to be ones with below average union membership rates.

Membership rates declined more quickly between 1992 and 1999 in the private sector (by 33%) than the public sector (25%). As a result the public sector remained much more unionised than the private sector in 1999 (50% and 20% respectively).

Job tenure and union affiliation

Industries with comparatively low rates of union membership in 1999 tended to also be industries in which rates of casual employment were relatively high. For example, of employees in the agriculture, forestry and fishing industry, where just 5% were unionists, almost half (49%) were employed on a casual basis (see *Australian Social Trends 2000*, Employment arrangements in the late 1990s, pp. 115–119).

In 1999, only 11% of all casual employees were trade union members, compared to 31% of permanent employees. While membership rates differed between casual and permanent employees, they were much the same among both full-time and part-time permanent employees.

International Comparison

Between 1980 and 1994, union membership rates dropped in many OECD countries, although there are indications that the general rate of decline was slower in the early 1990s than it had been in the 1980s. Like Australia, other OECD countries such as Sweden, New Zealand and the United Kingdom, adopted more decentralised bargaining systems between 1980 and 1994. However, there had not been an OECD-wide uniform movement towards decentralised bargaining during this period. In many countries the degree of centralisation did not change, while in Italy, Norway and Portugal bargaining became more centralised.[11]

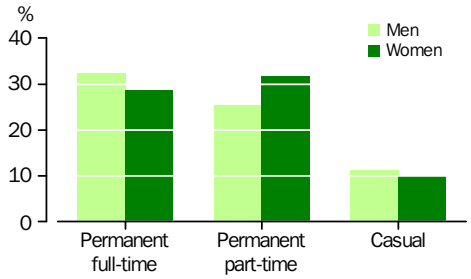
Trade union membership as percentage of employees, selected countries

Country	1980	1990	1994
Sweden	80	83	(a)91
Norway	57	56	58
Italy	49	39	(b)39
Canada	36	36	38
Australia	**48**	**41**	**35**
United Kingdom	50	39	34
Portugal	61	32	n.a.
New Zealand	56	45	30
Germany	36	33	(a)29
Japan	31	25	24
Spain	9	13	19
United States	22	16	16

(a) 1993 data.
(b) 1992 data.

Source: OECD, *Employment Outlook, July 1997.*

Union membership rate of casual and permanent employees, 1999



Source: Employee Earnings, Benefits and Trade Union Membership, Australia, August 1999 (Cat. no. 6310.0).

Endnotes

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Income and expenditure

Income: national summary

INCOME DISTRIBUTION	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
GDP per capita(a)	$'000	25.5.	r26.0	r25.6	r25.4	r26.0	r26.8	r27.7	r28.6	r29.3	r30.4	31.4
Gross household disposable income per capita	$'000	n.a.	r15.4	r15.8	r16.2	r16.7	r17.2	r18.1	r18.9	r19.6	r20.1	20.8
Personal income tax as a proportion of taxable income	%	24.1	23.1	22.4	21.9	22.2	22.0	22.1	22.7	23.3	23.7	n.a.
Share of equivalent income going to top quintile (of all income units)	%	n.a.	37.7	n.a.	n.a.	n.a.	n.a.	37.8	37.6	37.4	38.2	n.a.
Share of equivalent income going to bottom quintile (of all income units)	%	n.a.	7.6	n.a.	n.a.	n.a.	n.a.	7.2	7.3	7.6	7.1	n.a.
Gini coefficient (of all income units)	ratio	n.a.	0.42	n.a.	n.a.	n.a.	n.a.	0.44	0.44	0.44	0.44	n.a.
Median gross weekly income of couple with dependants income units	$	n.a.	755	n.a.	n.a.	n.a.	n.a.	842	849	882	928	n.a.
Median gross weekly income of one-parent income units	$	n.a.	279	n.a.	n.a.	n.a.	n.a.	349	352	349	362	n.a.

SOURCES OF INCOME	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Wages and salaries as main source of income (of all income units)	%	n.a.	58.3	n.a.	n.a.	n.a.	n.a.	56.8	55.5	54.8	54.9	n.a.
Compensation of employees as a proportion of GDP	%	n.a.	48.1	48.4	48.2	47.4	47.2	47.8	47.7	48.5	47.8	48.6
Main income source from government payments (of all income units)	%	n.a.	26.7	n.a.	n.a.	n.a.	n.a.	28.8	29.0	30.0	29.6	n.a.
Main income source from government payments (of couples with dependants income units)	%	n.a.	8.4	n.a.	n.a.	n.a.	n.a.	11.4	11.0	11.6	11.2.	n.a.
Main income source from government payments (of one parent income units)	%	n.a.	61.3	n.a.	n.a.	n.a.	n.a.	59.4	58.7	64.8	61.6	n.a.
Mean total weekly earnings of all employees	$	441	475	494	510	526	533	551	574	n.a.	610	n.a.
Mean total weekly earnings of full-time adult employees	$	538	571	597	616	641	658	690	724	n.a.	782	n.a.
Mean weekly ordinary time earnings of full-time non-managerial adult employees	$	466	495	521	541	558	578	608	634	n.a.	692	n.a.
Female/male ratio of average weekly ordinary time earnings of full-time non-managerial adult employees	ratio	0.90	0.90	0.90	0.92	0.91	0.92	0.91	0.89	n.a.	0.89	n.a.

INCOME SUPPORT	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Aged on age pension	%	60.2	59.2	59.3	61.0	62.8	64.3	63.0	62.7	64.4	65.4	65.5
Age pensioners	'000	1 334	1 340	1 376	1 446	1 516	1 582	1 579	1 603	1 680	1 683	1 716
Male age pensioners	'000	403	404	418	448	481	514	545	570	598	614	634
Female age pensioners	'000	931	936	957	998	1 034	1 068	1 034	1 033	1 082	1 069	1 082
Labour market allowance	'000	389.8	419.8	676.7	851.8	913.8	878.3	822.6	846.6	829.9	809.6	745.9
Disability support pensioners	'000	307.8	306.7	334.2	378.6	406.6	436.2	464.4	499.2	527.5	553.3	577.7
Single-parent payment	'000	239.5	248.9	265.7	287.2	298.4	313.4	324.9	342.3	358.9	372.3	384.8
Full weekly benefit received by a couple with two children	$	262	288	310	326	339	347	355	370	391	403	415
GDP spent on income support	%	r5.2	r5.2	r6.0	r6.8	r7.1	r7.4	r7.1	r7.1	r7.2	r6.8	7.0

EXPENDITURE	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Consumer price index (Base year 1989–90 = 100.0)	index no.	92.6	100.0	105.3	107.3	108.4	110.4	113.9	118.7	120.3	120.3	121.8
Household final consumption expenditure per capita(a)	$'000	n.a.	r15.4	r15.4	r15.5	r15.7	r15.9	r16.5	r17.0	r17.3	r17.9	18.5

(a) Chain volume measure, reference year 1997-98

Reference periods: Data for income distribution, sources of income (except mean weekly earnings data which are at May), and expenditure are for the year ending 30 June. Income support data (except full benefit received and GDP spent, which are for the year ending 30 June) are at June.

Income: State summary

INCOME DISTRIBUTION	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Gross state product at market prices per capita	$'000	1998–99	33.3	32.3	27.5	27.2	34.2	23.6	33.8	39.0	31.5
Gross household disposable income per capita	$'000	1998–99	22.0	21.2	18.8	19.2	20.2	17.4	21.3	29.3	20.8
Share of equivalent income going to top quintile (of all income units)	%	1997–98	39.3	36.8	37.8	36.5	39.3	37.7	n.a.	35.9	38.2
Share of equivalent income going to bottom quintile (of all income units)	%	1997–98	6.7	7.4	7.4	7.4	7.1	8.3	n.a.	6.6	7.1
Gini coefficient (of all income units)	ratio	1997–98	0.46	0.43	0.45	0.44	0.44	0.45	n.a.	0.42	0.44
Median gross weekly income of couple with dependants income units	$	1997–98	926	935	974	819	903	805	n.a.	1 163	928
Median gross weekly income of one-parent income units	$	1997–98	331	388	365	387	400	*378	n.a.	*578	362

SOURCES OF INCOME	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Wages and salaries as main source of income (of all income units)	%	1997–98	54.4	56.4	55.0	48.6	56.2	50.8	n.a.	65.3	54.9
Main income source from government payments (of all income units)	%	1997–98	30.3	28.4	29.1	36.4	26.8	37.4	n.a.	15.9	29.6
Main income source from government payments (of couple with dependants income units)	%	1997–98	11.7	9.7	12.4	19.4	*6.5	*14.1	n.a.	* *	11.2
Main income source from government payments (of one parent income units)	%	1997–98	63.2	59.2	63.1	68.7	61.0	*56.6	n.a.	*42.5	61.6
Mean total weekly earnings of all employees	$	1998	642	600	588	568	586	554	643	734	610
Mean total weekly earnings of full-time adult employees	$	1998	817	767	757	729	781	712	782	874	782
Mean weekly ordinary time earnings of full-time non-managerial adult employees	$	1998	710	684	674	668	695	653	693	745	692
Female/male ratio of average weekly ordinary time earnings of full-time non-managerial adult employees	ratio	1998	0.89	0.90	0.90	0.88	0.84	0.92	0.91	0.92	0.89

INCOME SUPPORT	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Aged on age pension	%	1999	62.9	65.1	63.3	68.4	62.7	64.7	65.4	49.8	65.5
Age pensioners(a)	'000	1999	580.3	439.6	285.6	164.1	140.0	46.0	5.2	14.3	1 715.8
Male age pensioners	'000	1999	210.6	160.2	106.4	59.9	50.6	16.6	2.1	4.8	634.1
Female age pensioners	'000	1999	369.7	279.4	179.2	104.1	89.4	29.4	3.1	9.5	1 081.7
Labour market allowance	'000	1999	222.1	170.0	152.4	62.4	62.7	24.3	10.9	8.4	713.4
Disability support pensioners(a)	'000	1999	194.1	136.2	105.3	55.1	47.8	20.2	4.5	5.5	577.7
Single-parent payment(a)	'000	1999	127.7	84.4	80.5	31.8	38.7	11.5	4.9	5.2	384.8

(a) Components do not add to total because total for Australia includes pensions paid to people living overseas.

Reference periods: Data for income distribution, sources of income (except mean weekly earnings data which are at May) are for the year ending 30 June. Income support data are at June, except labour market allowance recipients which are at May.

Income definitions and references

Adult employees
employees aged 21 or over, and those under 21 who are paid at the full adult rate.
Reference: *Employee Earnings and Hours, Australia* (Cat. no. 6306.0).

Age pension recipients
people receiving full or partial Age pension excluding associated Wife's or Carer's pension. The qualifying age for Age pension eligibility for men is 65. Between 1 July 1995 and 2012, the qualifying age for women is gradually being raised from 60 to 65 years. From 1 July 1999 the qualifying age for women was 61.5 years.
Reference: Commonwealth Department of Family and Community Services, *Customers: a statistical overview*.

Aged
population meeting age criteria for the Age pension, comprising men 65 and over and women 61.5 and over from 1999; men 65 and over and women 60 and over prior to 1998.
Reference: *Population by Age and Sex, Australian States and Territories* (Cat. no. 3201.0).

Compensation of employees as a proportion of GDP
includes wages, salaries and employers' social contributions. Wages and salaries include payments in kind and termination and redundancy payments. Employers' social contributions comprise employer contributions to superannuation and workers' compensation premiums.
Reference: *Australian System of National Accounts* (Cat. no. 5204.0).

Consumer price index
a measure of change over time in the retail price of a constant basket of goods and services which is representative of consumption patterns of employee households in metropolitan areas.
Reference: *The Australian Consumer Price Index: Concepts, Sources and Methods* (Cat. no. 6461.0).

Disability support pensioners
persons receiving a pension on the basis of an assessed physical, intellectual or psychiatric impairment and on their continuing inability to work or be retrained to work 30 hours or more per week within the next two years.
Reference: Commonwealth Department of Family and Community Services, *Customers: a statistical overview*.

Disposable income
gross income less personal income tax (including the Medicare levy and other ad-hoc periodic levies).
Reference: *Income Distribution, Australia* (Cat. no. 6523.0).

Employees
all wage and salary earners who received pay for any part of the reference period.
Reference: *Employee Earnings and Hours, Australia* (Cat. no. 6306.0).

Equivalent income
disposable income adjusted, using simplified Henderson equivalence scales, to allow comparison between different types of income units. The scales reflect assumptions about how different characteristics e.g. size and composition, relate to the amount of income different types of income units need to achieve an equivalent standard of living.
Reference: *Income Distribution, Australia* (Cat. no. 6523.0).

Female/male ratio of average weekly ordinary time earnings of full-time non-managerial adult employees
Reference: *Employee Earnings and Hours, Australia* (Cat. no. 6306.0).

Full weekly benefit income received by a couple with two children
the maximum weekly social security benefit (including family allowances) available to an adult couple, with one child aged under 5 years and one child aged between 5 and 13 years. Excludes any rent assistance which may be available.
Reference: Commonwealth Department of Family and Community Services, unpublished data.

Full-time employees
employees who usually work 35 hours or more a week, or the agreed hours of a full-time employee.
Reference: *Employee Earnings and Hours, Australia* (Cat. no. 6306.0).

GDP (gross domestic product)
an aggregate measure of the value of economic production in a year. The series used are GDP chain volume measures (reference year 1997–98) and GDP at current prices.
Reference: *Australian System of National Accounts:* (Cat. no. 5204.0).

GDP spent on income support
special appropriations under the Social Security Act 1991 for income support as a proportion of GDP.
Reference: Department of Social Security, *Annual Report*. From 1998-99, Commonwealth Department of Family and Community Services, *Annual Report*.

Gini coefficient
a measure for measuring inequality of income distribution. The measure, expressed as a ratio that is always between 0 and 1, is low for populations with relatively equal income distributions and high for populations with relatively unequal income distributions.
Reference: *Income Distribution, Australia* (Cat. no. 6523.0).

Gross household disposable income per capita
where gross household disposable income, as measured in the Australian System of National Accounts, is gross household income less income tax payable, other current taxes on income, wealth etc., consumer debt interest, interest payable by dwellings and unincorporated enterprises, social contributions for workers' compensation, net non-life insurance premiums and other current transfers payable by households. The population used is the mean resident population for the financial year.
Reference: *Australian National Accounts: State Accounts* (Cat. no. 5220.0).

Gross income
cash receipts, that are of a regular and recurring nature, before tax or any other deductions are made.
Reference: *Income Distribution, Australia* (Cat. no. 6523.0).

Gross state product
a similar measure to GDP but based on State income estimates. However, current prices have been used with State estimates as the chain volume measures are experimental.
Reference: *Australian National Accounts:: State Accounts* (Cat. no. 5220.0).

Income definitions and references continued

Household final consumption expenditure per capita
net expenditure on goods and services by persons and expenditure of a current nature by private non-profit institutuions serving households. Includes personal expenditure on motor vehicles and other durable goods, the value of 'backyard' production, the payment of wages and salaries in kind and imputed rent on owner-occupied dwellings. Excludes the purchase and maintenance of dwellings by persons and capital expenditure by unincorporated businesses and non-profiit institutions. The measure is expressed in Australian dollars using chain volume measures, reference year 1997–98, and is based on the mean resident population of each financial year.
Reference: *Australian System of National Accounts* (Cat. no. 5204.0).

Income unit
one person, or group of related persons within a household, whose command over income is assumed to be shared. Income sharing is considered to take place between partners in a couple relationship, and between parents and dependent children.
Reference: *Income Distribution, Australia* (Cat. no. 6523.0).

Labour market allowance recipients
the number of recipients of Unemployment Benefit prior to 1991; Job Search Allowance, Newstart Allowance and Youth Training Allowance from 1991 to 1996; Newstart Allowance and Youth Training Allowance from 1997; Newstart Allowance and Youth Allowance (other) from July 1998.
Reference: Commonwealth Department of Family and Community Services, *Customers: a statistical overview*.

Main income source from government payments
government pensions or allowances form the largest component of usual income.
Reference: *Income Distribution, Australia* (Cat. no. 6523.0).

Managerial employees
managerial, executive and senior professional employees who are in charge of a significant number of employees or have significant responsibilities in the conduct or operations of the organisation and who may not receive payment for overtime.
Reference: *Employee Earnings and Hours, Australia* (Cat. no. 6306.0).

Mean total weekly earnings
average total weekly earnings of employees including ordinary time earnings plus overtime earnings.
Reference: *Employee Earnings and Hours, Australia* (Cat. no. 6306.0).

Mean weekly ordinary time earnings of full-time non-managerial adult employees
Reference: *Employee Earnings and Hours, Australia* (Cat. no. 6306.0).

Median weekly income
the level of weekly income at which half the income units have higher incomes and half have lower incomes.
Reference: *Income Distribution, Australia* (Cat. no. 6523.0).

Ordinary time
employee's agreed hours of work including annual leave, paid sick leave and long service leave.
Reference: *Employee Earnings and Hours, Australia* (Cat. no. 6306.0).

Single-parent payment recipients
lone parents receiving the Parenting Payment. In 1989, the Supporting Parent Benefit and Class A Widow Pensions were combined to form the Sole Parent Pension. Figures prior to 1989 include these two pensions. In March 1998 Parenting Payment was introduced and the Sole Parent Pension became known as Parenting Payment (Single).
Reference: Commonwealth Department of Family and Community Services, *Customers: a statistical overview*.

Personal income tax as a proportion of taxable income
net income tax levied on individuals (including the Medicare levy minus rebates and other credits) expressed as a percentage of taxable income (i.e. gross income or profits minus allowable tax deductions).
Reference: Australian Taxation Office, *Taxation Statistics*; *Government Finance Statistics, Australia: Concepts, Sources and Methods* (Cat. no. 5514.0).

Share of gross/equivalent income going to top/bottom quintile
share of gross/equivalent income received by the 20% of income units with the highest/lowest incomes.
Reference: *Income Distribution, Australia* (Cat. no. 6523.0).

Wages and salaries as a main source of income
wages and salaries form the largest component of usual income.
Reference: *Income Distribution, Australia* (Cat. no. 6523.0).

Trends in earnings distribution

INCOME DISTRIBUTION

Contributed by: Peter Saunders, Social Policy Research Centre, University of New South Wales.

The difference between the earnings of full-time adult employees at the top end of the earnings scale and those at the bottom has continued to rise through the 1990s.

An earlier review in this series (see *Australian Social Trends 1994,* Trends in earnings distribution pp. 137–138) described the increasing inequality in the distribution of wage and salary earnings of full-time adult employees. It noted that the trend to increasing inequality became evident in the 1980s and that figures for the early 1990s 'suggest that this trend may be continuing'. This review examines the recent data to assess whether earnings inequality is still growing.

The degree of inequality in the distribution of earnings has potentially important economic and social consequences. If the distribution is too compressed, the incentive for workers to seek higher-paid positions will be low and this may undermine the willingness of workers to seek better-paid jobs. In aggregate, this may adversely affect productivity growth and, over the longer term, the growth in living standards. However, there are also arguments against allowing the distribution of earnings to become too unequal. How much inequality a society is prepared to tolerate is one indication of what kind of society it is, although it needs to be recognised that there will be differing views on how much inequality is tolerable and how far existing inequalities should be changed.

This article does not aim to draw any conclusions about whether the observed changes have been for the better or the worse. This would require judgements to be made about the desirability of alternative earnings distributions, and is a task that cannot be answered by statistics alone.

Measuring inequality

There is no single measure of the degree of inequality in a given distribution of earnings, or of how inequality has changed over time. A common measure used when analysing the distribution of earnings is the percentile ratio. Earnings towards the top and bottom of the distribution are expressed relative to median earnings (the amount at which exactly half of employees earn more and half earn less). If these ratios move further apart, the distribution of earnings is becoming more unequal.

Two percentile ratios are commonly used for this purpose. The first is the ratio of the earnings level at the top of the lowest decile of the distribution (one tenth of the way up from the very lowest level of earnings) to the median. The second is the ratio of the earnings level at the bottom of the top decile of the distribution (nine tenths of the way up from the very lowest level of earnings, or one tenth of the way down from the very highest level of earnings) to the median. These are referred to as the P10/P50 ratio and the P90/P50 ratio, respectively.

Changes between 1985 and 1998

The trend to greater earnings inequality has continued throughout the 1990s.[1] During the period from 1985 to 1998, the earnings of full-time adult employees at the lower end of the distribution (those at the 10th percentile) rose by less than earnings in the middle of the distribution (i.e. the P10/P50 ratio declined by 10%). The earnings of those at the top of the distribution (the 90th percentile) rose by more than those in the middle (i.e. the P90/P50 ratio increased by 6%).

Earnings distribution ratios for full-time adult employees

	1985	*1987*	*1989*	*1991*	*1993*	*1994*	*1995*	*1996*	*1998*	*Change 1985–98*
	ratio	ratio	ratio	ratio	ratio	ratio	ratio	ratio	ratio	%
Males										
P10/P50	0.70	0.69	0.66	0.67	0.65	0.65	0.65	0.64	0.62	–11.4
P90/P50	1.62	1.62	1.63	1.66	1.69	1.67	1.69	1.70	1.75	8.0
Females										
P10/P50	0.78	0.75	0.73	0.74	0.73	0.73	0.72	0.71	0.70	–10.3
P90/P50	1.50	1.50	1.51	1.54	1.55	1.54	1.54	1.53	1.55	3.3
Persons										
P10/P50	0.72	0.70	0.68	0.69	0.68	0.68	0.68	0.66	0.65	–9.7
P90/P50	1.63	1.63	1.62	1.68	1.66	1.65	1.67	1.68	1.72	5.5

Source: Unpublished data, Survey of Employee Earnings and Hours, 1985 to 1998.

Men and women

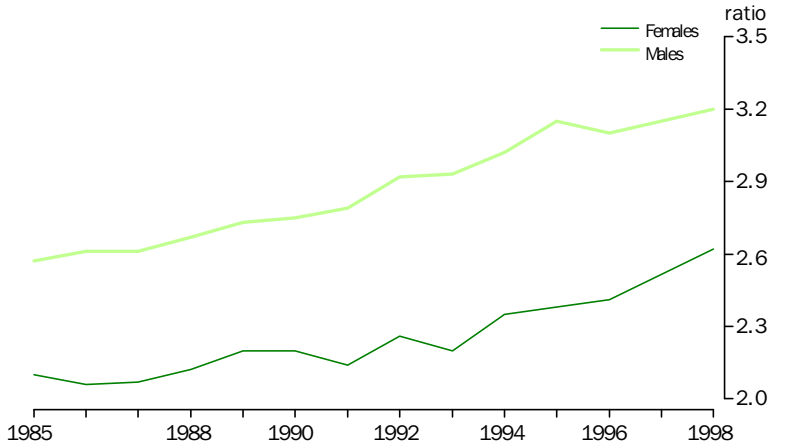
Throughout the period (1985–1998) the earnings inequality, as measured by both the P10/P50 and P90/P50 ratios, among males exceeded that among females, notably at the top end of the distribution. Changes over the period exacerbated this difference, reflecting movements at both the lower and upper ends of the distribution.

While higher-earning males improved their position relative to the median (particularly between 1989 and 1993 and again after 1996) the position of higher-earning females relative to median female earnings rose between 1989 and 1993, but was broadly stable before and after this period. The earnings of both lower-paid male and female workers declined relative to the median. As a result of these changes, the ratio of male to female earnings at the 90th percentile of each distribution increased from 1.34 to 1.36 between 1985 and 1998, while at the 10th percentile it declined from 1.12 to 1.08.

Changes at the very top

At the very top of the distribution, the earnings of both male and female employees at the 99th percentile have risen steadily relative to median earnings. Again, the trend is more pronounced for males. In 1985, male earnings at the 99th percentile were around 2.6 times greater than median male earnings. By 1998, this ratio had increased to 3.2. The corresponding ratios for females were 2.1 in 1985 and 2.6 in 1998. Thus, by the end of the period, the position of very high female earnings relative to median female earnings was about the same as the corresponding position for male earnings in 1985.

Movements in earnings ratios at the top of the earnings distribution P99/P50



Source: Unpublished data, Survey of Employee Earnings and Hours, 1985 to 1998.

Factors affecting inequality

Many factors can contribute to the observed change in the distribution of earnings. Some of these, such as changes in junior wage rates or variations in hours worked, are excluded from this analysis, which describes changes in the earnings of adult employees working in full-time jobs. Changes in patterns of supply and demand for goods and services feed through into changes in earnings and changes in the number of employees in different industries and occupations. These effects can be influenced by policies that affect how the labour market operates, as happened in the 1980s and early 1990s under the Wages Accord. The distribution of earnings will also change in response to changes in employment patterns. Technological changes, for example, may lead to an increase in demand for more highly trained employees and thus increase the number of employees with high earnings which in turn could add to levels of inequality. This article does not attempt to identify the relative roles of each of these factors.

Changes in earnings relative to the CPI

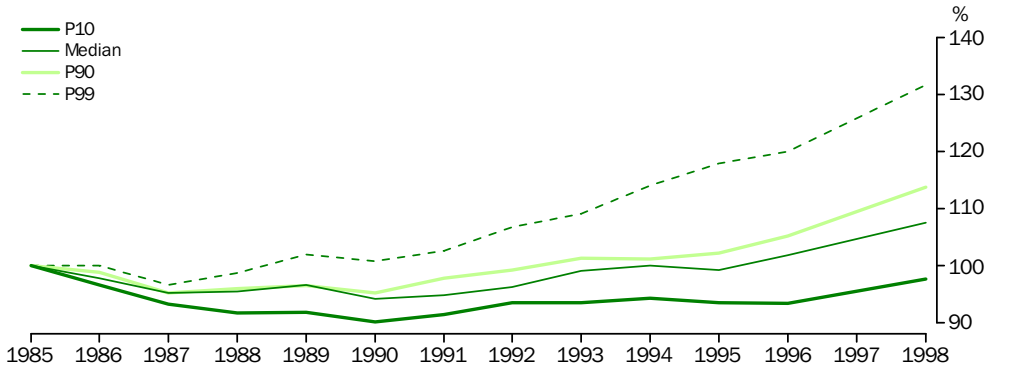
It is important to highlight the distinction between changes in the distribution of earnings and changes in the real purchasing power of earnings. The former compares changes in the positions of those earning low, medium and high earnings by summarising movements in the relativities between them. The latter compares movements in an individual's earnings with movements in the cost of a representative basket of goods and services, as reflected, for example, in the Consumer Price Index (CPI).

The real level of earnings increases when earnings rise by more than the change in the CPI, because in these circumstances it is possible to purchase more or better quality goods and services than before. In practice, it is possible for an individual's earnings to rise by more than the CPI, but to rise by less than the earnings of other workers. In this case, real earnings will have increased but relative earnings have declined.

Movements in earnings relative to changes in the CPI at different points in the earnings distribution can be seen on the following graph. Over the thirteen-year period 1985–1998, earnings at the 10th percentile rose by less than the CPI (i.e. the level of real earnings declined); earnings at the median and 90th percentile rose modestly relative to the CPI; while earnings at the 99th percentile rose substantially faster than the CPI.

Movements in earnings relative to changes in the CPI were generally downwards until 1990 at all parts of the earnings distribution, but since then the trend has been upwards. Even

Changes in earnings at different points of the earnings distribution relative to changes in the consumer price index



Source: Unpublished data, Survey of Employee Earnings and Hours, 1985 to 1998; CPI Austats.

so, the improvement since 1990 has not been sufficient to offset the decline in real earnings experienced at the 10th percentile between 1985 and 1990. Thus, in terms of purchasing power, lower-earning persons were still slightly worse off 1998 than in 1985.

Public and private sectors

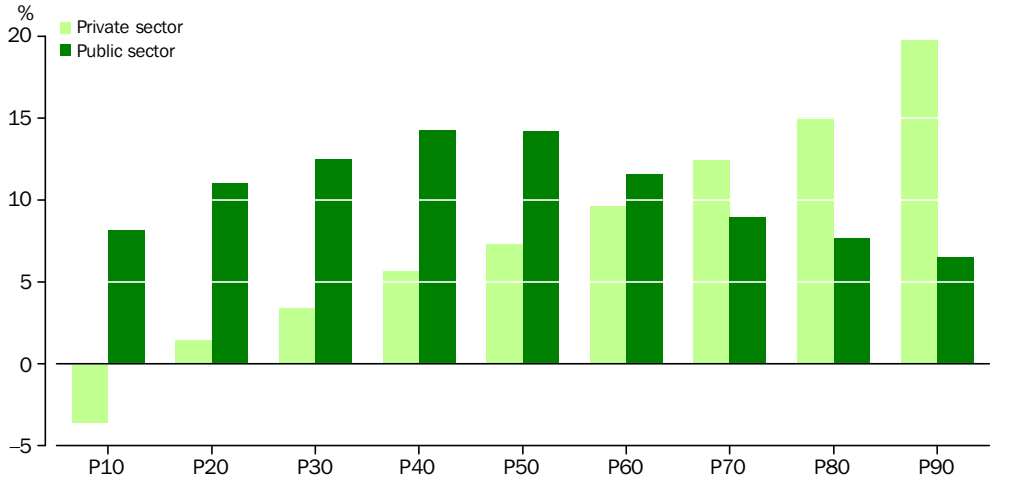
Research has identified differences in the changes in the earnings distributions of employees in the public and private sectors.[2] This is confirmed when comparing changes in real earnings at different percentiles of the distributions of public sector and private sector employees, respectively.

Such comparisons need to be interpreted carefully. The observed distributional changes will reflect changes in the distribution of jobs as well as changes in the earnings attached to particular jobs (see box on previous page).

Employment has been growing at different rates in the public and private sectors (see *Australian Social Trends 1998,* Public Sector Employment pp. 115–118) and this is likely to affect how earnings are distributed in each sector. There is, for example, evidence that the number of lower-paid public sector positions has been declining in recent years:[3] this will have had an influence on how public sector earnings are distributed.

Between 1985 and 1998, there was a substantial increase in inequality of earnings in the private sector. The level of real private sector earnings at the 10th percentile fell over this period, although private sector earnings at other points in the distribution rose in real terms, with the amount of the rise increasing at each percentile. At the 90th percentile, real earnings rose by almost 20%, while the increase at the 99th percentile was over 40%.

Changes in real earnings(a) by sector, 1985–1998



a) Changes in earnings at different points of the earnings distribution relative to changes in the consumer price index.

Source: Unpublished data, Survey of Employee Earnings and Hours, 1985 to 1998.

Changes in the real earnings of public sector employees over the period reveal a very different pattern. The change in real earnings was spread far more evenly across the entire distribution, with the largest increases occurring at the 40th and 50th (median) percentiles. The increase in real earnings for public sector employees at the 10th percentile (P10) was just over 8%, while that at the 90th percentile (P90) was slightly lower, at 6.5%.

The patterns imply that there have been considerable changes in private and public sector earnings differentials at different points in the two distributions. At the 10th percentile, public sector earnings in 1985 were 11% higher than private sector earnings at the same percentile. By 1998, this differential had more than doubled to 24%. At the 90th percentile, public sector earnings in 1985 were 9% above those in the private sector. By 1998, they were almost 3% lower.

The biggest change in the private/public sector earnings differential took place right at the top of the two distributions. This is in line with the very large increases in the earnings of chief executive officer and senior management employees in many private companies.

In 1985, public sector earnings at the 99th percentile were 8% higher than private sector earnings, but by 1998, this differential had reversed to the point where private sector earnings exceeded public sector earnings by 9%.

Endnotes

1 Norris, K. and Mclean, B. 1999, 'Changes in earnings inequality, 1975 to 1998', *Australian Bulletin of Labour,* vol. 25, no. 1, pp. 23–31.

2 Nevile, J.W. and Saunders, P. 1998, 'Globalization and the return to education in Australia', *The Economic Record,* vol. 74, no. 226, pp. 279–285.

3 Public Service Merit Protection Commission 1996 , 'Long term trends in the Australian Public Service: 1986–87 to 1995–96', *Australian Public Service Staffing Statistics Report,* PSMPC, Canberra.

Female/male earnings

INCOME DISTRIBUTION

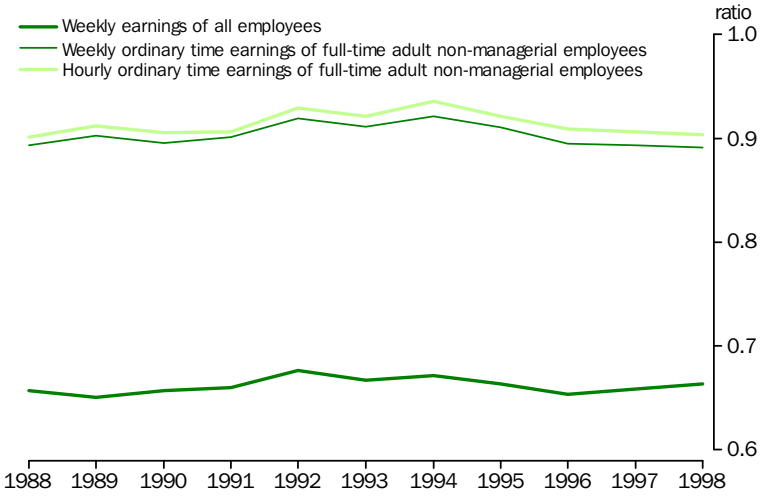
On average, women earn about 10% less than men. Since 1994, women's hourly earnings have fallen slightly as a proportion of men's hourly earnings. This has reversed the gains women made in earlier periods.

The fight for equal pay for equal work was a major issue for women in the 1960s. Under Australia's highly centralised wage negotiation system pay rates for women had been set as a proportion of the adult male basic wage. In 1969 the principle of equal pay for equal work was recognised and followed by the key 1972 decision granting equal pay for work of equal value. Differences between men's and women's wages were greatly reduced as a consequence of a series of decisions on specific awards which followed.[1]

By the 1980s women were seeking 'comparable worth', a concept based on the idea that skill relativities between occupations were based on a systematic undervaluing of women's skills.[1] While the comparable worth cases pursued in the 1980s did not succeed, women gained two substantial legislative advances. The *Sex Discrimination Act 1984* made (inter alia) both direct and indirect sex discrimination in employment unlawful. The *Affirmative Action (Equal Opportunity for Women) Act 1986* required most larger employers to institute active programs to identify and remove all forms of indirect discrimination against women employees.

Through legislative processes initiated in 1991 the general environment for wage negotiations has changed from a centralised wage fixing system to an enterprise bargaining system. Several organisations representing women's interests expressed concerns that this would widen the gender pay differential.[2] Initial research has indicated some support for this view from available data.[3]

Female/male earnings ratios, May 1988 to May 1998



Source: Employee Earnings and Hours, Australia, May 1998 (Cat. no. 6306.0).

Earnings

Data presented in this review are sourced from the now biennial ABS survey of employers known as the Survey of Employee Earnings and Hours and from a set of earnings related questions asked (in August each year) in ABS surveys conducted in association with the Monthly Population Survey. These surveys are the 1994 Survey of Weekly Earnings of Employees (Distribution) and the 1999 Survey of Employee Earnings, Benefits and Trade Union Membership. For more information about all of the above surveys see Employee Earnings and Hours (ABS Cat no. 6306.0) and Employee Earnings, Benefits and Trade Union Membership (ABS Cat. no. 6310.0).

In the Survey of Employee Earnings and Hours, *earnings* are measured before taxation and other deductions such as superannuation have been made. *Earnings* include award, workplace and enterprise bargaining payments and other agreed base rates of pay, over-award and over-agreement payments, overtime payments, penalty payments, shift and other allowances, commissions and retainers, bonuses and similar payments related to the survey reference period, payments under incentive or piecework, payments under profit-sharing schemes normally paid each pay period, payments for leave taken during the survey reference period, all workers compensation payments made through the payroll, and salary payments made to directors.

The August 1994 and August 1999 surveys conducted in association with the Monthly Population Survey (see above) define *earnings* as 'last total pay' from wage and salary jobs prior to the interview (i.e. before taxation and other deductions had been made). No adjustment was made for any back payment of wage increases or prepayment of leave, etc.

The *female/male earnings ratio* is female earnings divided by comparable male earnings.

Levels and trends

The earnings ratio measure which simply compares the weekly earnings of all male and female employees indicates a substantial and persistent earnings gap. The ratio was 0.66 in May 1998, (that is, women on average earned 33% less than men) and showed little change over the preceding decade. However the reasons for this gap do not, in the main, relate to issues of pay equity for equal work but rather to differences in other factors such

as: hours worked per week, the types of jobs performed, and to differences in levels of educational attainment. Part of the difference is also related to the fact that women's working lives are often interrupted as they bear primary responsibility for caring for babies and young children.[4,5]

When looking at men and women in more closely comparable circumstances, the differences are less marked. For instance, when comparing the ordinary time earnings of adult men and women in full-time non-managerial occupations the earnings ratio was 0.89 in May 1998. When looking at their hourly rates of pay (which allows for the fact that men in ordinary time jobs, on average, work slightly longer hours than women) the ratio was 0.90.

A study of trends in male/female earnings between 1983 and 1994 (*Australian Social Trends 1995*, Differences in men's and women's earnings, pp. 111–114) using the full-time workers ordinary time weekly earnings measure, revealed that the earnings of women relative to men had generally improved – up from 87% to 92% over that period. Since 1994, however, female earnings have drifted back, falling to 89% of men's earnings in May 1998. The same trend is evident when measured in terms of hourly rates of pay – falling from 94% to 90% between 1994 and 1998 respectively.

Components of earnings

The largest component of total earnings is base pay for standard hours worked. However, overaward payments, payments for measured result and overtime can, in various occupations, contribute substantially to earnings. Non-wage benefits, such as leave, and working time flexibility can also be valuable, but their value is hard to measure. It is possible that the value of such benefits may be greater for women than for men.[4]

In May 1998 the average additional earnings of adult men in full-time non-managerial jobs (to average base pay earnings of $705.50 per week) was $86.70 per week, whereas the additional amount for the equivalent group of women (from base pay earnings of $639.30 per week) was $19.70 per week. Most of the additional earnings for both men and women were due to overtime of which men typically do more than women.[6]

Notwithstanding the differences in levels of earnings from each component, it is apparent that from the mid to late 1990s (1994 to 1998) women's earnings have slipped relative to men's for each component of earnings. For instance the female/male ratio in average overaward payments, while involving only a small amount, fell from 0.55 in 1994 to 0.44 in 1998.

Differences by age

Earnings are related to skills obtained through education and from direct work experience. Work experience is related to age, and is reflected in the way (as shown for August 1999) average hourly earnings for both men and women went up with age, at least for those aged in their 20s and 30s.

However, the relationship between age and earnings differed for men and women in older age groups. While for men, average hourly earnings increased to a peak among those aged in their 40s, the peak for women was for those aged in their 30s. Associated with this pattern, the difference between female and male earnings, which was relatively small among younger workers, increased with age. The relatively small difference in earnings of young men and women compared to those in older age groups may partly reflect fewer differences in levels of educational attainment (see *Australian Social Trends 1999*, Educational profile of Australians, pp. 83–86) and employment opportunities for younger generations of women.

Between 1994 and 1999 the female/male average hourly earnings ratio declined in most age groups. Larger declines than average were evident among employees aged in their 40s and 50s, while more moderate declines were apparent among employees in the 25–39 year age group.

However, there were also some relative improvements for women in some age groups. For those aged 20–24 years and those

Earnings of full-time adult non-managerial employees, May 1998 and changes since May 1994

	May 1998		*Female/male earnings ratio*	
	Women	*Men*	*May 1998*	*May 1994*
Composition of average weekly earnings	$	$	ratio	ratio
Base pay	639.30	705.50	0.91	0.94
Overaward, overagreement pay	2.80	6.40	0.44	0.55
Payment by measured result	2.10	10.80	0.19	0.27
Total ordinary time earnings	*644.20*	*722.80*	*0.89*	*0.92*
Overtime	14.80	69.40	0.21	0.22
Total earnings	**659.00**	**792.20**	**0.83**	**0.85**

Source: Employee Earnings and Hours, May 1994 and May 1998 (Cat. no. 6306.0).

Average hourly earnings in main job of employees(a)

	In August 1999		Female/male earnings ratio	
	Women	Men	August 1999	Change 1994–99
Age group (years)	$	$	ratio	change in ratio
15–19	9.09	9.35	0.97	–0.03
20–24	14.11	14.00	1.01	0.04
25–29	17.55	18.32	0.96	–0.02
30–39	19.30	20.90	0.92	–0.01
40–49	18.77	22.21	0.85	–0.06
50–59	17.76	21.54	0.82	–0.05
60 and over	18.70	18.27	1.02	0.08
Total	**17.08**	**19.13**	**0.89**	**–0.02**

(a) Comprises people in full-time and part-time jobs.

Source: Unpublished data, 1994 Survey of Weekly Earnings of Employees (Distribution) and 1999 Survey of Employee Earnings, Benefits and Trade Union Membership.

aged 60 years or older, the earnings ratios increased by .04 and .08 points respectively between August 1994 and August 1999.

Occupation

Rates of pay differ between occupations. Generally those in high skilled jobs receive higher rates of pay than those in less skilled jobs. Differences in the concentration of men and women within and across broad occupation (and industry) groups affect the overall difference in men's and women's earnings.

In August 1999, differences in average hourly earnings between occupations were similar for men and women, with hourly earnings generally rising with occupational skill level. For both male and female employees, those employed as managers or administrators received the highest hourly rate of pay ($26.87 for males and, and atypically an even higher rate, $28.51 for females). The occupations receiving the lowest hourly rate of pay were different for men and women. Among male employees, those employed as labourers or related workers were paid least (averaging $13.48 per hour). Among female employees, elementary clerical, sales and service workers received the lowest average hourly wage in August 1999 ($12.48).

For major occupation groups in which most employees were women, female/male average hourly earnings ratios were close to the average ratio (0.89) for all employees. However, earnings ratios varied widely in occupation groups in which males predominated. For example, among trades or related employees (in which women only represented 9% of employees), the female/male earnings ratio was just 0.78. On the other hand, among managers and administrators (where the proportion of women was also relatively low at 21%) women earned on average 6% more per hourthan their male counterparts (female/male earnings ratio of 1.06).

Average hourly earnings in main job of employees, August 1999

		Average hourly earnings		Female to male earnings ratio	
	Proportion of employees who were women	Women	Men	All Persons	Persons aged 15–29 years
Occupation (skill level(a))	%	$	$	ratio	ratio
Managers and administrators(1)	20.9	28.51	26.87	1.06	1.20
Professionals(1)	51.4	23.39	26.84	0.87	0.95
Associate professionals(2)	37.1	18.70	21.49	0.87	0.93
Trades persons and related workers(3)	9.1	12.86	16.59	0.78	0.86
Advanced clerical and service workers(3)	87.8	18.40	20.96	0.88	1.02
Intermediate clerical, sales and service workers(4)	71.9	15.34	17.47	0.88	0.90
Intermediate production and transport workers(4)	14.2	13.38	16.20	0.83	0.90
Elementary clerical, sales and service workers(5)	65.8	12.48	14.05	0.89	0.90
Labourers and related workers(5)	38.1	12.80	13.48	0.95	0.92
Total	**45.4**	**17.08**	**19.13**	**0.89**	**0.96**

(a) Occupation groups are based on the Australian Standard Classification of Occupations Second Edition, which classifies occupations by skill level ranked from 1 (the highest) to 5 (the lowest) (Cat. no. 1220.0).

Source: Unpublished data, 1999 Survey of Employee Earnings, Benefits and Trade Union Membership.

With the exception of labourers and related workers, the differences in earnings between young men and women (those aged less than 30 years) were less in each occupation group than they were between older men and women employees. Young female employee managers and administrators commanded 20% more in average hourly earnings than young male employee managers and administrators. Female advanced clerical and related employees aged under 30 years also earned more than male employees of the same age and occupation (female/male earnings ratio of 1.02).

While young female tradespersons or related worker employees had an earnings ratio that was low (0.86) compared to younger females in other occupation groups, the ratio for younger women was still higher than for older women in this occupation group.

From the mid 1980s to the late 1990s the distribution of earnings (among full-time male and female workers) had widened to a greater extent among men than among women (see *Australian Social Trends 2000,* Trends in earnings distribution, pp. 145–148). Associated with this trend there is some evidence that the differential between the earnings of younger men and the higher earnings of older men had widened over time.[5] As a result, it is possible that the reduced difference between younger men and women may be partly due to a relative fall in male wages, rather than an increase in female wages.

In all cases, in comparing differences among broad groups of occupations, care needs to be taken because of differences in pay rates between occupations within each group.

Industry and sector, average hourly earnings of male and female employees, August 1999, and changes in earnings since August 1994

	Proportion of employees who were women in 1999	*Increase in average hourly earnings between 1994 and 1999*	*Average hourly earnings August 1999*		*Female/male earnings ratio*	
			Women	*Men*	*August 1999*	*Change in ratio(a)*
Industry and sector of employment	%	%	$	$	ratio	ratio points
Industry						
Health and community services	79.2	13.9	17.96	21.65	0.83	–0.06
Education	67.2	17.8	21.18	23.86	0.89	–0.02
Finance and insurance	58.6	26.9	18.29	26.45	0.69	0.03
Accommodation cafes and restaurants	57.0	14.4	13.05	13.77	0.95	–0.05
Retail trade	53.3	12.1	12.62	13.29	0.95	–0.10
Property and business services	46.9	12.6	17.81	22.44	0.79	–0.13
Cultural and recreational services	46.3	14.6	17.49	18.51	0.94	0.03
Personal and other services	45.8	15.9	14.65	18.64	0.79	0.10
Government administration/defence	45.2	16.4	20.01	22.40	0.89	0.07
Communication services	33.5	47.7	27.16	25.92	1.05	0.24
Wholesale trade	31.8	20.2	18.57	18.66	1.00	0.08
Agriculture forestry and fishing	28.5	10.9	14.02	12.33	1.14	0.10
Transport and storage	25.7	25.2	18.22	21.16	0.86	0.05
Manufacturing	25.3	20.7	15.47	17.84	0.87	–0.01
Electricity gas and water supply	17.2	37.6	21.55	23.94	0.90	0.06
Construction	10.8	29.6	21.71	18.11	1.20	–0.04
Mining	8.9	27.2	22.70	28.65	0.79	0.07
Sector of employment						
Public	53.3	21.8	20.95	23.15	0.90	0.04
Private	43.4	18.9	15.85	18.26	0.87	–0.06
Total	**45.4**	**18.4**	**17.08**	**19.13**	**0.89**	**–0.02**

(a) Change between 1994 and 1999.

Source: Unpublished data, 1994 Survey of Weekly Earnings of Employees (Distribution); 1999 Survey of Employee Earnings, Benefits and Trade Union Membership.

Some researchers argue the full extent of gender earnings differentials can only be assessed at the level of individual jobs.[7]

Industry

As with occupations, women tend to be more highly represented in some industries, and rates of pay vary by industry. There is, however, no clear relationship between female/ male earnings ratios and the proportion of women working in different industries. It is likely that the overall industry differentials are more affected by differences in the occupation mix between different industries.

In August 1999 in health and community services, and education, the two industry groups with the highest representation of women, the earnings ratios were at or below average. These industries have high proportions of occupations traditionally deemed to be 'women's work' – for example nurses and teachers. It has been argued (for example, in the comparable worth case for nurses brought before the Commonwealth Arbitration Commission in the 1980s) that the skills needed in these occupations are underpaid compared to the skills used in traditionally male occupations.[1]

The finance and insurance industry also employs a high proportion of women, though not as high a proportion as health, community and education services. The finance and insurance industry had a very high rate of earnings growth between 1994 and 1999: indeed it is the one industry with more than 50% female employees which enjoyed an above average increase in hourly earnings. The female/male earnings ratio improved slightly, albeit from a very low level of 0.66. This industry encompasses a variety of specific jobs, including a small number of extremely highly paid jobs (such as those involved in corporate floats). At the other extreme, there are many low-paid jobs such as bank tellers and call centre operators.

While there is no consistent pattern to the proportion of women employed in an industry and the female/male earnings differential, there is an observable relationship between changes in average hourly earnings of all employees and the representation of women in different industries. Between 1994 and 1999, the period during which women's earnings have declined relative to men's, average hourly earnings appear to have been rising at a more rapid rate in industries with relatively high proportions of male employees. Of the eight most male-dominated industries (with one third or less female employees), five had earnings increases at least six percentage points above average, and only one (agriculture forestry and fishing) had below-average earnings increases.

Changes in earnings within industries are attributed to a wide range of factors, of which one is the relative strength of trade unions. The traditionally male industries are also among those which are most heavily unionised (see *Australian Social Trends 2000,* Trade union members, pp. 134–137). In the new industrial environment in which pay rises are increasingly determined at the enterprise level, the old flow-through of wage increases to less well organised sectors is far more limited.

For the five industries in which the majority of employees were female in August 1999, only finance and insurance industry employees received an above average increase in hourly earnings between 1994 and 1999. No other industry employing 40% or more women had an above average earnings increase in this period.

Endnotes

1 Short, C. 1986, 'Equal pay – what happened?', *Journal of Industrial Relations,* vol. 86, no. 3, pp. 315–335.

2 See, for example, Department of Employment, Workplace Relations and Small Business 1998, *Collective agreement-making under the Workplace Relations Act, January to June 1998: Update to the 1997 Report on Agreement-Making under the Workplace Relations Act*, DEWRSB, Canberra.

3 Preston, A. and Crockett, G. 1999, 'State of Pay: Female Relative Earnings in Australia', *Labour and Industry,* vol. 10, no. 2, pp. 129–146.

4 Wooden, M. 1998, 'Gender Pay Equity and Comparable Worth in Australia: A Reassessment', *The Australian Economic Review*, vol. 32, no. 2, pp. 157–71.

5 Gregory, R.G. 1999, 'Competing with Dad: changes in the intergenerational distribution of male labour market income', *Australian Social Policy,* vol. 1, pp. 115–132.

6 Australian Bureau of Statistics 1999, *Employee Earnings and Hours, Australia, May 1998*, Cat. no. 6306.0, ABS, Canberra.

7 Tomaskovic-Devey, D. 1993, 'The gender and race composition of jobs and the male/female, white/black pay gaps', *Social Forces*, vol. 72, no. 1, pp. 45–76.

Interstate income inequality

Differences in average income unit incomes between Australia's States and Territories are largely due to differences in employment levels and workforce composition (occupation, industry and educational qualifications) in each State and Territory.

There are considerable differences in average income unit incomes between Australia's States and Territories – largely associated with differences in employment levels as well as differences in the composition of the workforce (occupation, industry, educational qualifications) in each State and Territory. However, living costs also vary between different parts of Australia and this should be taken into account when considering the implications of interstate income inequality on living standards.

Wide disparity in State and Territory incomes

Among the States, in 1997–98, Western Australia had the highest mean weekly disposable income unit income (4% above the national average of $526); followed by New South Wales (2% above the national average); Queensland and Victoria (around average); Tasmania (13% below the national average); and South Australia (14% below the national average).

Among Australia's capital cities, Canberra and Darwin had the highest mean weekly disposable incomes (around 20% above the national average); followed by Sydney and Brisbane (10% above the national average); while Adelaide and Hobart had the lowest (8% and 11% below the national average).

With the exception of Western Australia, mean weekly disposable incomes were substantially higher in the capital city than in the rest of the State. The greatest disparities

Income

The statistics on income unit income, and other characteristics of income units, used in this article are derived from the 1997–98 ABS Survey of Income and Housing Costs.

Income unit – a person or group of related persons within a household whose command over income is assumed to be shared. Income sharing is assumed to take place between partners in a couple relationship, and between parents and their dependent children.

Income – regular and recurring cash receipts including monies received from wages or salary; government pensions and allowances; profit or loss from own business or partnership; property income; and other regular receipts such as superannuation, worker's compensation, child support and scholarships.

Disposable income – sum of income from all sources after income tax and Medicare levy are deducted.

Henderson equivalent income using true housing costs – the weekly disposable income (minus weekly housing costs) of income units has been adjusted (using the detailed equivalence scale developed by Professor Henderson and his associates) to facilitate comparison between income units of different size and composition. (See *Poverty in Australia: Government Commission of Inquiry into Poverty, First Main Report, April 1975* (Appendix F) for more information about Henderson equivalence scales.)

Principal source of income – source from which the most income is received. For income units with no positive source of income, only losses, the principal source is undefined.

Mean weekly disposable income of income units, States and Territories, 1997–98

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT(a)*	*ACT(a)*	***Aust.***
Disposable income	$	$	$	$	$	$	$	$	**$**
Capital city	580	550	581	483	536	470	628	632	**558**
Balance of State	453	463	488	366	573	453	n.a.	n.a.	**468**
Total	534	527	529	451	545	460	628	632	**526**
Relative disposable income(b)	%	%	%	%	%	%	%	%	**%**
Capital city	110.3	104.6	110.5	91.8	101.9	89.4	119.4	120.2	**106.1**
Balance of State	86.1	88.0	92.8	69.6	108.9	86.1	n.a.	n.a.	**89.0**
Total	101.5	100.2	100.6	85.7	103.6	87.5	119.4	120.2	**100.0**

(a) Separate estimates for capital city and balance of State are not available. Northern Territory estimates relate to predominantly urban areas and are shown here as a proxy for Darwin. There is no significant difference between Canberra and total ACT estimates since 99.9% of the ACT population resides in Canberra.
(b) Mean weekly disposable income of each area expressed as a percentage of mean weekly disposable income for total Australia.

Source: Unpublished data, 1997–1998 Survey of Income and Housing Costs.

Selected factors contributing to differences in income levels, 1997–98

	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT(a)	**Aust.**
	%	%	%	%	%	%	%	%	**%**
Employment/population ratio									
Capital city	59.7	59.1	60.4	54.3	60.7	54.4	66.8	66.0	**59.4**
Balance of State	51.9	54.6	58.1	56.0	64.1	51.3	n.a.	n.a.	**55.3**
Total	56.8	57.9	59.2	54.8	61.6	52.6	66.8	66.0	**57.9**
Unemployment rate									
Capital city	6.3	8.2	8.2	10.1	7.2	9.6	5.0	7.5	**7.6**
Balance of State	10.2	9.3	9.6	9.3	6.5	12.0	n.a.	n.a.	**9.6**
Total	7.6	8.5	9.0	9.8	7.0	11.0	5.0	7.5	**8.3**
Principal source of income unit income									
Government pensions and allowances									
Capital city	24.9	25.2	26.3	35.7	26.5	34.6	16.7	15.9	**26.2**
Balance of State	39.9	36.9	31.3	38.5	27.5	39.4	n.a.	n.a.	**35.9**
Total	30.3	28.4	29.1	36.4	26.8	37.4	16.7	15.9	**29.6**
Population aged 65 and over(b)									
Capital city	11.7	12.0	10.8	14.4	10.8	13.2	3.7	7.8	**11.7**
Balance of State	14.4	14.3	11.7	13.8	9.6	13.1	3.0	8.0	**13.0**
Total	12.7	12.6	11.3	14.3	10.5	13.2	3.3	7.8	**12.2**

(a) Separate estimates for capital city and balance of State are not available. Northern Territory estimates relate to predominantly urban areas and are shown here as a proxy for Darwin. There is no significant difference between Canberra and total ACT estimates since 99.9% of the ACT population resides in Canberra.
(b) At June 1998.

Source: Unpublished data, Labour Force Survey, July 1997 to June 1998; *Income Distribution, Australia, 1997–98* (Cat. no. 6523.0); *Population by Age and Sex, June 1998* (Cat. nos. 3201.0 and 3235.1–8).

were in South Australia and New South Wales, where capital city incomes were around 30% higher than in the rest of the State.

Factors contributing to differences in income

Differences in average income levels between areas are partly due to differences in employment, unemployment, principal source of income and, for those in paid employment, differences in average earnings.

Those areas with the highest incomes in 1997–98 tended to have relatively high employment to population ratios; relatively low unemployment rates; and low levels of dependence on government pensions and allowances. Those areas with the lowest incomes tended to have relatively low employment to population ratios; high unemployment rates; and high levels of dependence on government pensions and allowances (generally associated with an older population profile).

For example, Canberra and Darwin, which had the highest capital city disposable incomes in 1997–98 (around $630 per week), also had the youngest populations (proportion aged 65 years and over, 8% and 4% respectively); the highest employment to population ratios (66% and 67% respectively); relatively low unemployment rates (7.5% and 5.0% respectively); and the lowest proportion of income units deriving most of their income from government pensions and allowances (16% and 17% respectively).

At the other end of the capital city income spectrum, Hobart and Adelaide (with mean weekly disposable incomes of $470 and $483 respectively), had the oldest populations (proportion aged 65 years and over, 13% and 14% respectively); the lowest employment to population ratios (around 54%); the highest unemployment rates (10%); and the highest proportion of income units deriving most of their income from government pensions and allowances (35% and 36% respectively).

In general, those areas with higher average earnings (among individuals in paid employment) also had higher average income unit incomes. For example, in 1997–98, the Australian Capital Territory had the highest mean weekly earnings (20% higher than the national average) and the highest mean weekly disposable incomes (also 20% higher than the national average).

Conversely, those areas with lower average employee earnings, generally had lower income unit incomes. For example, Tasmania and South Australia which ranked sixth and

fifth respectively among the States in average weekly earnings also had the lowest mean weekly disposable incomes.

In some parts of Australia, however, there was not such a close correspondence between income and earnings. For example, Western Australia ranked only fourth among the States in average earnings (4% below the national average) but first in mean weekly disposable incomes (4% above the national average). The effect of moderate earnings on income levels was offset by relatively high employment levels and low levels of dependence on government pensions and allowances (associated with low unemployment and a relatively young population). Among the States, in 1997–98, Western Australia had the highest employment to population ratio (62%); the lowest unemployment rate (7%); the lowest proportion of population aged 65 years and over (11%); and the lowest proportion of income units dependent on government pensions and allowances (27%).

Factors contributing to differences in earnings

Differences in average earnings of employees between areas are largely attributable to differences in the composition of the work force (eg skill levels, qualifications, industry mix). For example, employees in the Australian Capital Territory, who received the highest average earnings in Australia in 1997–98, also had the highest proportion with a bachelor degree or higher educational qualification, and the highest proportion employed in the higher skilled (and higher paid) occupational groups i.e. managers, administrators and professionals. Relatively high average earnings in New South Wales and Victoria were also associated with work forces with higher than average levels of educational attainment and above average representation in the higher skilled occupation groups.

Western Australia's high 'balance of State' incomes in 1997–98 can be largely attributed to the relatively high levels of employment in the mining industry, and the associated high average employee earnings. In May 1998, 4% of employees in Western Australia worked in the mining industry compared to 1% for the whole of Australia.[1] At the same time, mean weekly earnings in the mining industry ($1,273) were more than double the average for all industries ($610).[2]

Relatively low average earnings in South Australia and Tasmania in 1997–98 were associated with workforces with lower than average levels of educational attainment;

Earnings

Earnings (wages and salaries) statistics used in this article relate to individuals (employees), rather than income units, and are derived from the May 1998 ABS Survey of Employee Earnings and Hours.

Weekly total earnings – refers to one week's earnings in the reference period. Comprises ordinary time earnings (i.e. payment for award, standard or agreed hours of work) plus overtime earnings (i.e. payment for hours in excess of award, standard or agreed hours of work which has been reported as overtime pay).

Mean weekly earnings and selected factors contributing to interstate differences in earnings

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	***Aust.***
Mean weekly total earnings, May 1998	$	$	$	$	$	$	$	$	**$**
All employees	642	600	588	568	586	554	643	734	**610**
Relative earnings(a), May 1998	%	%	%	%	%	%	%	%	**%**
All employees	105.2	98.2	96.4	93.0	96.1	90.7	105.4	120.3	**100.0**
Proportion of employed in	%	%	%	%	%	%	%	%	**%**
Highest skill occupations(b), August 1998	26.7	26.3	22.8	23.7	23.2	21.2	(d)23.8	32.4	**25.2**
Lowest skill occupations(c), August 1998	19.4	19.7	20.9	21.8	21.1	22.9	(d)20.7	18.0	**20.1**
Educational attainment, May 1998 (proportion of population aged 15–64)									
With post school qualifications	44.2	41.0	40.0	38.3	42.8	37.1	(d)42.3	50.6	**41.9**
Bachelor degree or higher	15.1	15.2	13.1	10.7	13.8	10.1	(d)15.0	25.4	**14.3**

(a) Mean weekly total earnings of each area expressed as a percentage of mean weekly total earnings for total Australia.
(b) Australian Standard Classification of Occupations Skill Level 1.
(c) Australian Standard Classification of Occupations Skill Level 5.
(d) Estimates relate to predominantly urban areas.

Source: Employee Earnings and Hours, Australia, May 1998 (Cat. no. 6306.0); *Australian Social Trends, 1999* (Cat. no. 4102.0) – State summary tables.

Relative disposable income(a) of income units, States and Territories, 1997–98

	NSW	Vic.	Qld	SA	WA	Tas.	NT(b)	ACT(b)	**Aust.**
Relative disposable income	%	%	%	%	%	%	%	%	**%**
Capital city	110.3	104.6	110.5	91.8	101.9	89.4	119.4	120.2	**106.1**
Balance of State	86.1	88.0	92.8	69.6	108.9	86.1	n.a.	n.a.	**89.0**
Total	101.5	100.2	100.6	85.7	103.6	87.5	119.4	120.2	**100.0**
Relative disposable income after housing (c)									
Capital city	108.0	104.6	110.3	92.0	103.0	91.3	119.9	117.8	**105.5**
Balance of State	86.8	89.7	92.9	71.0	111.6	90.4	n.a.	n.a.	**90.0**
Total	100.2	100.7	100.5	86.3	105.0	90.6	119.9	117.8	**100.0**
Relative Henderson equivalent income(d)									
Capital city	110.3	104.5	103.3	94.0	101.7	91.7	107.5	110.2	**105.0**
Balance of State	87.6	90.0	94.6	76.2	107.6	88.0	n.a.	n.a.	**90.8**
Total	102.1	100.6	98.5	89.2	103.2	89.6	107.5	110.2	**100.0**

(a) Mean weekly income for each area expressed as a percentage of mean weekly income for total Australia.
(b) Separate estimates for capital city and balance of State are not available. Northern Territory estimates relate to predominantly urban areas and are shown here as a proxy for Darwin. There is no significant difference between Canberra and total ACT estimates since 99.9% of the ACT population resides in Canberra.
(c) Mean weekly disposable income minus mean weekly housing costs.
(d) Henderson equivalent income using true housing costs. See box on page 154.

Source: Unpublished data, 1997–1998 Survey of Income and Housing Costs.

lower than average representation in the higher skilled occupation groups; and higher than average representation in the lower skilled occupation groups.

Income and living standards

When considering the implications of income unit income differences for living standards between areas it is important to look at factors which affect the amount of income needed to achieve an equivalent standard of living, and how these differ between areas. One key factor is 'the cost of living' which can vary significantly between areas, primarily reflecting differences in the prices of goods and services between areas but also reflecting differences in expenditure patterns. For example, households living in colder parts of Australia need to spend more on home heating than households in warmer areas.

As yet, there are no reliable measures available of overall cost of living differences between States or smaller areas of Australia. However, the amount spent on housing (e.g. rent, mortgage, rates) is a major component of the total living costs of most income units. Housing costs vary considerably between areas (see *Australian Social Trends 2000,* Housing costs, pp. 171–174) and can have a significant impact on an income unit's potential 'after housing' living standards.

Subtracting housing costs from disposable income has the effect of increasing the relative income level of income units in those areas that spent the lowest proportions of their income on housing (Perth, Hobart and most balance of State areas) and reducing the relative income level in those areas with the highest proportions of income spent on housing (Canberra and Sydney). Since income units in higher income areas, tended to spend a higher proportion of their disposable income on housing than those in lower income areas, the overall effect of this adjustment is to slightly reduce the gap between the higher and lower income areas.

Differences in income unit composition between areas should also be considered when comparing income levels between areas. This is because the amount of income that different types of income unit need to attain an equivalent standard of living varies according to the number of members, and the characteristics of each member, in the unit. For example, a person living alone would generally need less income than a couple, who would need less than a couple with children. Also, costs associated with children generally increase as children get older while, among adults, those in paid employment incur additional costs associated with working outside the home.

When disposable income after housing is further adjusted to take account of differences in income unit composition (Henderson equivalent income using true housing costs) it has the effect of further reducing the gap between higher and lower income areas. In general, there is an improvement in the relative income of those areas with older populations, lower labour force participation and higher proportions of one or two person income units (Hobart,

Adelaide and most balance of State areas). The relative income of Sydney also improves, offsetting the drop due to housing costs. On the other hand, relative incomes decline for areas with younger populations, high employment levels and higher proportions of income units with dependent children (e.g. Darwin, Canberra and Brisbane).

Among Australia's capital cities in 1997–98, Sydney and Canberra had the highest average equivalent incomes (10% above the national average), followed by Darwin (8% above the national average). Hobart and Adelaide had the lowest average equivalent incomes (8% and 6%, respectively, below the national average). In 1997–98, average equivalent 'balance of State' incomes were highest in Western Australia (8% above the national average) and lowest in South Australia (24% below the national average).

Endnotes

1 Australian Bureau of Statistics, unpublished data, Labour Force Survey, May 1998.

2 Australian Bureau of Statistics 1999, *Employee Earnings and Hours, Australia, May 1998*, Cat. no. 6306.0, ABS, Canberra.

Income support for children

INCOME SUPPORT

Income support for families with children began when Child Endowment was introduced in 1941.

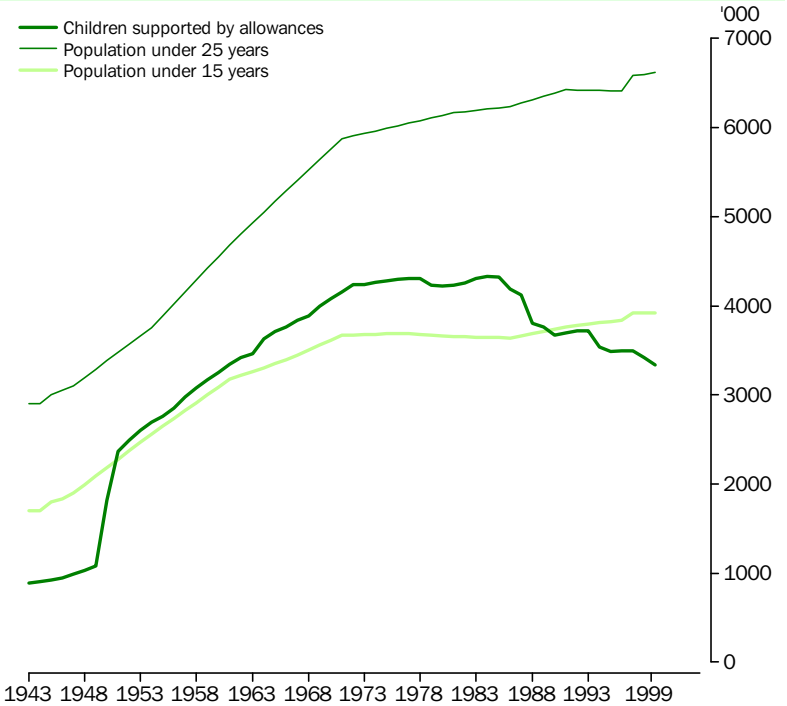
Assistance has since changed from a low-level universal payment to a higher, means-tested payment.

During the course of the 20th century, governments in most high-income countries have developed various forms of financial support for those in need. In Australia the main social security income transfers (age and disability pensions, unemployment allowances and pensions for sole parents) provide a minimum income level for all Australians (see *Australian Social Trends 1994*, Social security transfer payments, pp. 147–153). These benefits and pensions transfer income vertically, from those better off to those less well off.

Assistance to families provides a different form of transfer. From 1941 until 1987 assistance with the costs of children was not assets or income tested. It was a simple horizontal transfer recognising that there are additional costs to raising children and taking the view that at least part of these costs should be borne by all taxpayers.

Many significant social and economic changes have occurred since 1941. These changes have influenced the nature and level of assistance to families.

Number of children supported by family allowances, 1943 to 1999



Source: Census of Population and Housing, 1947 to 1996; Year Book Australia, various issues, (Cat. no. 1301.0); *Australian Demographic Statistics, June Quarter 1999*, (Cat. no. 3101.0).

Large family sizes characterised the early period, up to the end of the 1960s. Then levels of fertility fell and women's labour force participation rates increased. Single-parent families became more common. Unemployment started increasing and has remained well above the low levels of the 1960s. Although there has been a large general increase in prosperity, including a greater proportion of two-income families, there has also been a growth in low-income working families. Children now stay longer at school, in part to ensure better prospects in the labour market.

Along with these economic and social changes have been shifts in the philosophies influencing the development of social policy, both in Australia and overseas. A major change has been from universal provision of social security assistance to a view of social security as a safety net. The consequent shift to greater targeting and increased levels of assistance to poorer families has been the dominant change in assistance for children.

Other key changes made to income support arrangements for children are: recognition that the costs associated with children differ with age; increased assistance to children in families with just one income earner; a shift in payment from the principal breadwinner to the principal carer; and clear bench marking of the value of payments to ensure that they provide real, rather than symbolic, assistance in meeting the costs of children.

Number of recipients

Insights into the extent to which targeting has taken place are obtained by tracking the number of children in receipt of family allowances since Child Endowment was introduced in July 1941. Initially, Child Endowment was paid for dependent children aged under 16 years, except for the first.

The child population (represented for convenience in the adjacent graph by two series – those aged under 15 years and those under 25 years) grew steadily between 1947 and 1971. This underlying demographic trend (the 'baby boom') was clearly responsible for the growth in family allowance recipients, from 2.4 million in 1951 to 4.2 million in 1971.

Nonetheless, against this backdrop, policy changes have had sharper influences. Most dramatic was the extension of endowment

payments to first children in 1950. The number of recipients more than doubled: from 1.1 million in 1949 to 2.4 million in 1951.

The 1950s and 1960s were decades of relatively high fertility, low female labour force participation and increasing prosperity. Only one change to Child Endowment policy occurred: in 1964 it was extended to provide support for students up to the age of 21. The number of children supported increased by 5%. From then to 1975, the average annual increase in the numbers supported was only 1.5%, much in line with the growth in the target population.

In 1976 the Dependent Child Tax Rebate and Child Endowment were rolled into a single new payment: Family Allowance. Eligibility was extended to cover students under age 25. In spite of this extension in eligibility to full-time students aged 22 to 24, the number of recipients remained virtually constant.

Greater targeting from 1979

Unemployment started to increase in the 1970s. The *Family Law Act 1976* provided for no-fault divorce and the number of one-parent families increased. At the same time, continued economic growth meant many other families were increasingly well off. Philosophies that had earlier underpinned the provision of universal social benefits began to be questioned. Over the next two decades the family allowances target population narrowed considerably.[1]

Changes to eligibility resulted in a substantial drop in the number of recipients, from 4.3 million in 1978 to 3.3 million in 1999. This 22% decrease occurred despite a small increase in the dependent child population. The number of children aged under 15 grew by 4% between 1976 and 1996.

Changes to the eligibility criteria contributing to the decline included exclusion of students receiving other forms of government studies assistance (1979); and income testing, first in respect of 16 and 17 year olds and then for all family allowance payments (1987). The impact of the assets test introduced in 1992 (then with a threshold of $600,000, excluding the family home) was marginal. Tightened income and assets tests in 1994 led to a further sharp fall in the number of recipients.

Focusing on low income families

Another feature of this greater targeting was a move to greater provision for lower-income families – not just social security recipients, but also low-income working families.

Name Changes: From Child Endowment to Family Tax Benefit

Since Child Endowment was introduced in 1941, there have been several name changes, and new programs with similar goals have been introduced. The table below sets out these name changes, indicating if the new name refers to a new program or what old programs (shown in brackets) are subsumed into the new name.

1941	*Child Endowment.*
1976	*Family Allowance* (Child Endowment plus Dependent Child Tax Rebate).
1983	*Family Income Supplement* – new payment for low income working families only.
1987	*Family Allowance Supplement* (Family Income Supplement).
1988	*Family Allowance Supplement* (Family Allowance plus Family Income Supplement) – still for low income working families only.
1993	*Basic Family Payment* (Family Allowance) – only those not receiving Family Allowance Supplement. *Additional Family Payment* (Family Allowance Supplement) – for low income working families. *Additional Family Payment* (Family Allowance Supplement plus additional social security payments for children) – only social security recipients.
1996	*Family Payment* (Basic Family Payment plus Additional Family Payment).
1997	*Family Tax Initiative* – new program providing additional help to families with children through the tax system (*Family Tax Assistance*) or by direct payment (*Family Tax Payment*) for those earning too little to benefit fully through the tax system.
1998	*Family Allowance* (Family Payment).
2000	*Family Tax Benefit* (simplifies the various other programs that had been developed to assist children). These other programs are more restricted in eligibility. One set of programs provides assistance to single income families, while another assists with the costs of formal child care. For details see box 'A new structure for a new decade'.

Because of concerns about the welfare of children in low-income working families, a new payment (Family Income Supplement) was announced in the 1982 Budget and implemented in May 1983. Many of the subsequent changes (see box 'Name Changes: From Child Endowment to Family Tax Benefit') increased the level of support for lower-income families.[1] A significant expansion occurred when Family Income Supplement became Family Allowance Supplement(FAS) in 1987. Rates of pay for all recipients (low-income working families and those dependent on income support payments) were increased. The income test

Children supported by minimum and above minimum family allowance payments, 1980 to 1998

	All children supported by family allowances	Those supported by above minimum allowances as percentage of all children supported by family allowances		
		Parents on income support(a)	Living in low-income working families	Total
	'000	%	%	%
1980	4 233.9	12.4	..	12.4
1985	4 323.5	18.0	1.7	19.7
1990	3 672.5	19.4	11.9	31.3
1995	3 486.3	28.2	19.7	47.9
1998	3 418.9	35.7	16.9	52.6

(a) Prior to 1993, these data refer to the number of children for whom additional pension or benefit was paid.

Source: *Year Book Australia, 2000* (Cat. no. 1301.0).

for receiving FAS among low-income working families was also relaxed. In fact these changes underpinned the subsequent integration of payments for the two groups (in 1993) into a single low-income family child supplement known as Additional Family Payment.

The combined effects of greater targeting and greater concern for children in low-income families can be seen in the data. Between 1980 and 1998 the number (and proportion) of children supported by family allowances fell substantially. However, among such children, the proportion supported by above minimum payments increased from 12% to 53%. Seen from another perspective, the number of children supported by minimum family allowance fell from 3.7 to 1.6 million between 1980 and 1998, while the number supported by more than the minimum family allowance increased from 0.5 to 1.8 million children.

The general increase in children supported by above minimum payments (shown as a proportion of all children supported by family payments) occurred for children whose parents received social security pensions or allowances as well as for those in low-income working families. However, after rising through the early 1990s, the number of children in low-income working families supported by above minimum family payments decreased from 687,900 in 1995 to 579,000 in 1998.

How much per child?

The differential costs of teenage children were not recognised until 1987. New rates for payments for children in low income families or families receiving pensions or allowances distinguished between children aged under 13, 13 to 15, and over 15. By the first quarter of 2000, the maximum rate of Family Allowance had a four-tier system, remaining highest for 13–15 year olds.

For minimum family payments, the story has been different. Over most of the history of family allowances, the minimum rate of pay increased with the number of children. In 1989 it became a flat rate for the first three children, and a higher rate for fourth and subsequent children. By the first quarter of 2000 it had become an age-related payment, though with only two rates: a flat rate was paid for dependent children up to age 17 and a higher rate for those aged 18–24 (though there was a small additional payment for fourth and subsequent children).

A further refinement in assistance for children was introduced in 1997. A new (tax based) family assistance scheme was introduced, providing $200 a year assistance for all families with dependent children, and an additional payment of $500 a year for single-income families with a child under 5. For families not able to benefit fully from this scheme through the tax system, the same amount of assistance was paid through the Centrelink agency.

Changes in value

The value of income support payments for children has changed significantly over time. Between 1976 and 1983, rates of family allowance were only increased once despite relatively high rates of inflation. As a result the real value of family allowance decreased by about 24%.[1] Over this period, the payment was universal.

To help target family allowances to those in need, and ensure that it provided effective assistance, in 1987 benchmarks were established for the adequacy of maximum level family payments (i.e. payments to social security recipients and low-income working families). These were set at percentages of the pension rate, and thus indirectly linked to Average Weekly Earnings. From a value of 11.9% of the combined married pension rate, the value of FAS was set to rise to 15% for children under 13 and to 20% for children aged 13 to 15. These benchmarks were increased in 1992 and again in 1995 to reach 16.6% and 21.6% respectively.

Between 1964 and 1994 increased assistance to dependent children, plus changes in personal income tax, led to a real increase (allowing for changes in prices) in the material welfare of families. This was particularly marked among families with dependent children with incomes less than male average weekly earnings.[3] There is also

Who gets the cheque?

Social security policy is based on a concept of a family whose members are assumed to share resources. This is close to the ABS concept of an income unit, that is, couples (or lone parents) and dependent children. However, it is recognised that income is not always shared within families.[2] Partly because of this, and partly because of increasing recognition of women as individuals rather than as dependants of their partners, payments for children have been redirected from the 'principal breadwinner' in the family to the primary carer of the children.

The change began in 1976. The principal earner in the family, usually the father, received the dependent child tax rebate. The new Family Allowance went to the principal caring parent, usually the mother. The change was reinforced in 1987 when Family Allowance Supplement payments for children were transferred from the father to the mother. In 1993, changes to the social security system saw additional payments for children rolled into Family Allowance and paid to the principal caring parent (usually the mother).

evidence that there has been a decrease (between 1982 and 1995–96) in the percentage of children living in poverty, although the estimates are sensitive to where the poverty line is set.[4]

The significance of payments for children to families in certain situations is illustrated below using data from the first quarter of 2000. For families with income at the limit for maximum rate assistance, the addition to family income was 15% for a family with one child aged 13–15. For a similar family with four children it could be around 50%. Only where the child(ren) were aged 16 or more was the contribution from Family Allowance and Family Tax Payment low.

Rates of minimum family allowance have changed as well. The real value of minimum level family assistance also fell during the 1980s, but new rates were introduced in 1989, and the rates have been indexed since 1990. As a result, this assistance could be quite significant where income is low. For example, by the first quarter of 2000, for a single-income family with two children under five and an income of $32,000 per annum, this assistance would form an increase in gross income of nearly 7%.

Illustration of levels of family assistance provided in respect of children, January to March 2000(a)

	Receives minimum rate Family Allowance (FA)		*Receives above minimum rate Family Allowance (FA)*			
				Receives maximum rate		
	If annual family income is less than:	*Annual income support (FA and Family Tax Benefit)*	*If annual family income is less than:*	*If annual family income is less than:*	*Annual income support (FA and Family Tax Benefit)*	*Percentage increase in family income(b)*
Number of dependent children by age (years)	$	$	$	$	$	%
One child aged:						
under 5	67 134	1 324	27 835	23 800	3 342	14.0
5–12	67 134	824	27 835	23 800	2 842	11.9
13–15	67 134	824	29 426	23 800	3 637	15.3
16–17	67 134	824	23 800	23 800	824	3.5
18–24	67 134	1 300	23 800	23 800	1 300	5.5
Two children:						
both under 5	70 493	2 148	32 494	24 424	6 183	25.3
both aged 13–15	70 493	1 648	35 677	24 424	7 274	29.8
one aged 16–17; one 18–24	70 493	2 124	24 424	24 424	2 124	8.7
Three children: one under 5; one 5–12; one 13–15	73 852	2 972	38 745	25 048	9 820	39.2
Four children: two 5–12; two 13–15	77 211	3 296	44 995	25 672	12 958	50.5

(a) Annual Family Allowance is calculated as 26 times fortnightly benefits, i.e. what is actually received by a family in a typical year. There is a 50 cents per dollar taper between maximum and minimum Family Allowance. Family Tax Benefit Part A is $200 p.a. for dependent children under 16 or dependent full-time secondary students under 18 years. Where there are children aged under 5 years, it is also assumed (to illustrate the effect of Family Tax Benefit Part B) that there is only one income earner. There is a $205.40 Large Family Supplement for fourth and subsequent children.
(b) Maximum rate Family Allowance as a percentage of family income, where family income is (as shown) the highest at which maximum Family Allowance is paid.

Source: Centrelink, *Commonwealth Government Payment Rates, 1 January to 19 March 2000*.

Distribution of income units with dependent children(a) by proportion of income from government cash transfers: 1997–98

	% of gross income from government cash transfers					
	Nil	*Under 10%*	*10% to <50%*	*50% to <90%*	*90% or more(b)*	*Number of income units*
	%	%	%	%	%	'000
Equivalent income quintiles(c):						
lowest 20%	11.5	5.5	18.1	9.0	55.8	517.4
second	8.5	25.1	31.7	19.0	15.7	517.2
third	15.9	54.1	23.3	6.0	0.9	515.9
fourth	33.9	55.3	10.0	0.8	**	517.6
highest 20%	66.6	31.1	2.3	**	**	516.5
Couples:						
no earners(d)	6.8	1.9	3.5	7.3	80.5	201.1
one earner(d)	19.0	41.1	34.2	4.9	0.8	743.2
two earners(d)	43.8	46.0	8.2	0.8	1.2	1 123.5
all couples	31.3	39.9	17.1	2.9	8.8	2 067.7
Lone parents:						
no earners(d)	2.6	0.5	2.4	27.6	67.0	279.4
one earner(d)	21.4	23.8	34.0	18.1	2.6	237.5
all lone parents	11.2	11.2	16.9	23.2	37.4	517.0
All income units with dependent children	27.3	34.2	17.1	7.0	14.5	2 584.7
	'000	'000	'000	'000	'000	'000
Number of children	1 222.3	1 654.3	971.3	372.1	730.0	4 950.0

(a) Dependent children are persons aged under 15 years and persons aged 15–24 years who are full-time students, live with a parent, guardian or other relative and do not have a spouse or offspring of their own living with them.
(b) Includes those reporting negative gross income before government cash transfers.
(c) Henderson Equivalence Scales have been used to adjust income for family composition. See *Australian Social Trends 1998*, Poverty: different assumptions, different profiles, pp. 125–129 (Cat. no. 4102.0).
(d) Earners are defined as persons (excluding dependent children) who receive income from wages or salary, or who are engaged in (or are silent partners in) their own business or partnership.

Source: Unpublished data, 1997–1998 Survey of Income and Housing Costs.

Overall income assistance to families with children

A snapshot of the pattern of income support (of all types) provided to families with dependent children, obtained from the 1997–98 Survey of Income and Housing Costs, shows the extent to which delivery of income support for children has been targeted to those most in need.

Among all 2.6 million income units with dependent children (that is, family units among whom income is assumed to be shared), 27% received no government cash transfers. A further 34% received less than 10% of their income from cash transfers: this group would include many who received the minimum level of family assistance.[5]

The remaining 39% of income units with dependent children received over 10% of their income from cash transfers. Nearly 15% of income units (almost all on lower incomes) received more than 90% of their income from such cash transfers. A high dependence on government cash transfers was more prevalent among lone parents (37%) than among couples (9%).

Of the 4.9 million dependent children in Australia in 1997–98, 1.2 million lived in income units reporting they received no income transfers from government. A further 1.7 million children lived in income units where government cash transfers provided less than 10% of family income. At the other end of the scale, 1.1 million children lived in income units where over 50% of gross income came from government cash transfers.

A new structure for a new decade

A large array of financial assistance programs for families with dependent children, administered as direct cash payments or concessions through the taxation system, has developed. These programs will be simplified from 1 July 2000. At the same time rates of assistance will increase, the assets test will be abolished and assistance reduction rates and income tests will be made more generous, to compensate for the costs of the Goods and Services Tax. The new structure of family payments will have 3 basic payment types, instead of the present 12.

Family Tax Benefit Part A

To provide basic assistance for all children. This benefit incorporates:

- Minimum Family Allowance;
- Family Allowance;
- Family Tax Payment Part A; and
- Family Tax Assistance Part A.

Family Tax Benefit Part B

To assist single income families (including sole parents). Merges:

- Basic Parenting Payment;
- Guardian Allowance;
- Family Tax Payment Part B;
- Dependent Spouse Rebate (with children);
- Sole Parent Rebate; and
- Family Tax Assistance Part B.

Child Care Benefit

To help families with the cost of formal child care. Incorporates:

- Childcare Cash Rebate; and
- Child Care Assistance.

Special circumstance payments

In addition to the major payments listed above, there are also several special circumstances payments which are not affected by the above changes. These are:

- Maternity Allowance, which provides lump sum of $750 at the birth of a child. It is payable to families who are eligible for Family Allowance. Maternity Immunisation Allowance of $200 is payable when the child reaches 18 months on proof of age-specific immunisation.
- Multiple Birth Allowance is payable with Family Allowance in respect of multiple births (three or more) until the children are six years old. From January to March 2000 the rate was $95.70 per fortnight for triplets ($127.70 per fortnight for quadruplets or more).
- For the approximately 1,500 children with no living parents the Double Orphan Pension provides additional financial assistance.

Source: Centrelink, *Centrelink Information: A Guide to Payments & Services 1999–2000*, pp. 91–94; Centrelink, *A Guide to Commonwealth Government Payments*, 1 January to 19 March 2000, pp. 7–9.

Endnotes

1 Stanton, David and Fuery, Michael 1995, 'Developments in Family Payments 1983–1996', *Social Security Journal*, December, pp. 120–154.

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3 Beer, Gillian 1995, *Impact of Changes in the Personal Income Tax and Family Payment Systems of Australian Families: 1964 to 1994*, Discussion Paper No. 8, National Centre for Social and Economic Modelling, University of Canberra, Canberra.

4 Harding, Ann and Szukalska, Aggie 1999, *Trends in Child Poverty in Australia: 1982 to 1995–96*, Discussion Paper No. 42, National Centre for Social and Economic Modelling, University of Canberra, Canberra.

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Housing

Housing: national summary

HOUSING STOCK	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Number of occupied private dwellings	'000	n.a.	n.a.	6 173	6 302	6 446	6 579	6 690	6 762	6 956	7 056	n.y.a.
Size of new public sector houses	m^2	114	110	121	122	130	141	141	150	r155	r157	156
Size of new private sector houses	m^2	190	189	188	187	189	192	197	205	r210	r213	215
Average persons per household	no.	n.a.	2.8	2.8	2.7	n.a.	2.6	2.6	2.6	2.6	2.6	n.y.a.
Average bedrooms per dwelling	no.	n.a.	2.9	2.9	n.a.	n.a.	2.9	2.9	2.9	2.9	3.0	n.y.a.
Public sector dwellings completed	'000	11.0	12.5	11.5	9.7	11.1	9.9	7.8	6.8	6.0	4.4	5.4
Private sector dwellings completed	'000	139.4	147.5	122.9	123.0	145.2	157.3	162.4	129.1	r113.4	127.2	136.7
Dwelling structure(a)												
Separate house	%	n.a.	80.7	n.a.	78.2	n.a.	79.4	79.3	78.6	79.5	78.8	n.y.a.
Semi-detached/townhouse	%	n.a.	7.1	n.a.	7.0	n.a.	7.9	7.9	8.1	7.9	8.8	n.y.a.
Flat/apartment/unit	%	n.a.	11.5	n.a.	12.5	n.a.	12.5	11.9	12.4	11.9	11.7	n.y.a.
Tenure type(b)												
Owner without a mortgage	%	n.a.	42.4	n.a.	41.6	n.a.	41.8	41.3	41.7	40.9	39.4	n.y.a.
Owner with a mortgage	%	n.a.	29.2	n.a.	27.6	n.a.	28.3	29.8	28.2	28.0	30.4	n.y.a.
State housing authority renter	%	n.a.	5.8	n.a.	5.6	n.a.	6.2	4.9	5.9	5.4	5.6	n.y.a.
Private landlord renter	%	n.a.	17.1	n.a.	18.9	n.a.	19.0	17.8	20.0	21.0	20.5	n.y.a.

HOUSING COSTS	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Housing interest rate	%	15.3	16.9	15.1	11.9	9.9	8.9	10.0	10.3	8.3	6.7	6.6
Affordability index	index no.	110.1	100.0	111.7	133.9	152.1	162.8	140.9	141.7	169.0	r169.0	164.8
First home buyers: average loan size	$'000	n.a.	n.a.	n.a.	73.3	78.5	86.3	92.9	94.6	104.6	109.9	127.6
Average weekly earnings index	index no.	93.5	100.0	106.6	111.5	113.5	116.9	121.7	127.2	132.1	137.6	142.7
Mean weekly public rent	$	n.a.	58	n.a.	66	n.a.	62	59	62	64	63	n.y.a.
Mean weekly private rent	$	n.a.	133	n.a.	127	n.a.	141	138	148	153	157	n.y.a.
Government-owned rental cost index	index no.	94.5	100.0	105.0	110.0	112.5	115.3	118.5	119.3	122.5	123.8	126.8
Privately-owned rental cost index	index no.	92.7	100.0	104.7	106.3	106.7	107.1	108.1	112.4	115.8	119.6	122.7
Project home price index	index no.	91.4	100.0	102.1	102.1	103.0	105.8	108.1	109.5	109.2	110.3	113.1
Established home price index	index no.	92.2	100.0	100.8	104.6	106.0	109.1	112.6	112.7	115.1	122.8	130.4
Materials used in house building price index	index no.	92.9	100.0	104.6	104.9	106.9	112.0	115.4	115.7	116.1	118.2	119.5
Finance commitments												
Number for construction or purchase of new dwellings	'000	95	77	80	94	111	124	103	85	89	97	94
Value for construction or purchase of new dwellings	$m	r5 262	4 621	r5 142	r6 466	8 200	r10 524	r9 502	r8 263	r9 302	11 287	12 158
Number for purchase of established dwellings	'000	265	203	214	285	342	420	348	r366	393	385	395
Value for purchase of established dwellings	$m	r17 526	14 339	15 634	r22 073	28 578	r37 309	32 806	35 414	r40 677	43 374	49 343
Value for alterations and additions	$m	r997	r906	r981	1 359	r1 641	2 899	3 477	r3 510	3 039	2 779	2 821

HOUSING ASSISTANCE	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Public sector rental dwelling stock	'000	338	352	362	370	377	384	389	393	400	381	386
Applicants on housing waiting lists	'000	201	195	202	216	232	235	235	236	221	218	n.y.a.
Applicants accommodated	'000	49	53	52	49	54	55	53	51	47	42	41
Persons receiving private rental assistance	'000	651	674	646	868	941	976	931	1 042	1 049	979	1 016

(a) Components do not total 100% because other dwellings (caravans or cabins in a caravan park, houseboats and houses or flats attached to shops) are not included.
(b) Components do not total 100% because other renters (paying rent to the manager of a caravan park, an employer, a housing cooperative, or a church or community group), as well as other types of tenure (rent free and others), are not included.

Reference periods: Data are for the year ending 30 June except: average number of persons per household and bedrooms per dwelling; dwelling structure; tenure type; mean weekly rent and applicants on housing waiting lists, which vary according to the timing of the surveys within each year. Data for average loan size of first home buyers are at June 30.

Housing: State summary

HOUSING STOCK	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
Number of occupied private dwellings	'000	1998	2 337.7	1 734.7	1 314.9	605.6	694.0	185.8	63.7	119.3	7 055.6
Size of new public sector houses	m^2	1999	199	119	175	153	139	n.p.	163	92	156
Size of new private sector houses	m^2	1999	234	218	224	211	225	194	199	208	215
Number of dwellings completed	'000	1999	46.3	34.0	31.9	7.0	17.7	1.5	2.2	1.5	142.0
Dwelling structure(b)											
Separate house	%	1998	74.0	81.2	82.2	78.5	81.9	84.4	74.6	79.3	78.8
Semi-detached/townhouse	%	1998	9.1	7.2	5.8	13.2	12.9	9.1	11.8	12.4	8.8
Flat/apartment/unit	%	1998	16.3	11.2	10.8	7.5	5.0	5.8	11.6	8.0	11.7
Tenure type(c)											
Owner without a mortgage	%	1998	41.1	41.4	36.9	37.8	37.3	42.4	15.0	29.0	39.4
Owner with a mortgage	%	1998	26.7	33.7	30.3	31.3	33.5	30.7	27.7	33.9	30.4
State housing authority renter	%	1998	5.8	3.6	3.9	10.4	5.7	6.5	20.4	12.4	5.6
Private landlord renter	%	1998	21.7	18.2	24.5	15.7	19.6	16.4	22.7	20.8	20.5

HOUSING COSTS	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
Affordability index(d)	index no.	1999	110.4	161.3	175.5	226.9	188.3	238.0	n.a.	180.6	164.8
First home buyers: average loan size	$'000	1999	163.4	120.8	113.8	91.1	108.3	70.9	112.8	117.5	127.6
Mean weekly public rent	$	1998	61	70	59	59	62	57	66	80	63
Mean weekly private rent	$	1998	184	146	143	131	138	118	211	166	157
Project home price index(d)	index no.	1999	115.2	112.5	113.4	117.0	106.1	123.3	139.0	124.4	113.1
Established home price index(d)	index no.	1999	137.9	126.8	141.0	114.1	118.9	123.2	193.6	128.2	130.4
Materials used in house building price index(d)	index no.	1999	121.6	118.0	118.2	125.0	116.1	122.2	n.a.	n.a.	119.5
Finance commitments											
Number for construction or purchase of new dwellings	'000	1999	26.6	27.9	17.0	5.8	13.4	1.1	0.8	1.2	93.6
Value for construction or purchase of new dwellings	$m	1999	4 136	3 383	2 111	563	1 601	106	105	152	12 158
Number for purchase of established dwellings	'000	1999	135.0	94.2	60.5	30.9	52.6	8.8	4.6	8.1	394.5
Value for purchase of established dwellings	$m	1999	20 786	10 992	6 913	2 757	5 718	725	477	970	49 343
Value for alterations and additions	$m	1999	1 127	813	329	142	288	54	25	49	2 821

HOUSING ASSISTANCE	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Public sector rental dwelling stock	'000	1999	132.0	73.3	55.1	56.9	35.7	13.9	7.4	12.0	386.2
Applicants on housing waiting lists	'000	1998	93.1	49.5	24.0	32.0	11.1	1.9	3.4	3.1	217.9
Applicants accommodated	'000	1999	8.5	8.8	8.8	5.0	4.6	2.5	1.1	1.1	40.5
Persons receiving private rental assistance	'000	1999	348.0	226.4	246.7	67.4	86.6	25.2	6.1	9.2	1 015.7

(a) Estimates for dwelling structure, tenure type and mean weekly public and private rent for Northern Territory relate to mainly urban areas only.
(b) Components do not total 100% because other dwellings (caravans or cabins in a caravan park, houseboats, and houses or flats attached to shops) are not included.
(c) Components do not total 100% because other renters (paying rent to the manager of a caravan park, an employer, a housing cooperative, or a church or community group), as well as other types of tenure (rent free and others), are not included.
(d) State and Territory data refer to capital cities only.

Reference periods: Data are for year ended 30 June. Data for average loan size of first home buyers are at June 30.

Housing definitions and references

Affordability index
the ratio of average household income to the average income needed to meet the repayments for an average established dwelling purchased by a first home buyer. A value of 100 indicates that a household with average income would meet the average income requirements to service the average mortgage. An increase in the index represents an improvement in affordability.
Reference: Commonwealth Bank of Australia and the Housing Industry Association, Housing Report.

Alterations and additions
all approved structural and non-structural changes which are integral to the functional and structural design of the dwelling, e.g. garages, carports, pergolas, reroofing, recladding etc., but excluding swimming pools, ongoing repairs, landscaping, and maintenance and home improvements not involving building work.
Reference: *Housing Finance for Owner Occupation, Australia* (Cat. no. 5609.0).

Applicants accommodated
the number of public rental applicants accommodated in a year.
Reference: Department of Family and Community Services, *Housing Assistance Act 1996 Annual Report*.
For data after 1998 Steering Committee for the Review of Commonwealth/State Service Provision (SCRCSSP) 2000, *Report on Government Services 2000,* Ausinfo, Canberra.

Applicants on housing waiting lists
the number of applicants (households) waiting for public rental accommodation on 30 June.
Reference: Department of Family and Community Services, *Housing Assistance Act 1996 Annual Report*.
For data after 1998, SCRCSSP.

Average number of bedrooms per dwelling
the average number of bedrooms in occupied private dwellings.
Reference: Income and Housing Surveys; 1991 Census of Population and Housing; 1994 Australian Housing Survey; and Surveys of Income and Housing Costs.

Average number of persons per household
the average number of usual residents in occupied private dwellings.
Reference: Income and Housing Surveys; 1991 Census of Population and Housing; 1992 Family Survey; 1994 Australian Housing Survey; and Surveys of Income and Housing Costs.

Average weekly earnings index
the total weekly ordinary time (before tax) earnings of full-time adult employees divided by the total number of full-time adult employees and expressed as an index, with base year 1989–90=100.
Reference: *Average Weekly Earnings, States and Australia* (Cat. no. 6302.0).

Established house price index
the price of detached residential dwellings on their own block of land, regardless of age (i.e. including new houses sold as a house/land package as well as second-hand houses) expressed as an index, with base year 1989–90=100. Price changes therefore relate to changes in the total price of dwelling and land.
Reference: *House Price Indexes: Eight Capital Cities* (Cat. no. 6416.0).

First home buyers: average loan size
first home buyers are persons entering the home ownership market for the first time. Their average loan is calculated by dividing the total value of lending commitments per month by the total number of dwellings financed per month.
Reference: *Housing Finance for Owner Occupation, Australia* (Cat. no. 5609.0).

Finance commitments
firm offers to provide finance for owner-occupation or alterations and additions which have been, or are normally expected to be, accepted. Commitments to provide housing finance to employees and commitments accepted and cancelled in the same month are included. Owner-occupied dwellings being purchased can be either established (completed for more than 12 months or previously occupied) or new (completed for less than 12 months with the borrower being the first occupant).
Reference: *Housing Finance for Owner Occupation, Australia* (Cat. no. 5609.0).

Flat, unit or apartment
Includes all self-contained dwellings in blocks of flats, units or apartments. These dwellings do not have their own private grounds and usually share a common entrance foyer or stairwell. This category includes houses converted into flats and flats attached to houses such as granny flats. A house with a granny flat attached is regarded as a separate house.
Reference: Income and Housing Surveys; 1992 Family Survey; 1994 Australian Housing Survey; and Surveys of Income and Housing Costs.

Government-owned rental cost index
the average rent of government authority dwellings, including Defence Housing Authority, in metropolitan areas expressed as an index, with base year 1989–90=100.
Reference: *Consumer Price Index, Australia* (Cat.no. 6401.0).

Household
a person living alone or a group of related or unrelated people who usually reside and eat together.

Housing interest rate
the financial year annual average of the interest rate applicable on the last working day of each month to standard variable rate loans for owner-occupation extended by large bank housing lenders. It is the predominant or representative rate of major banks, although some banks may quote higher or lower rates.
Reference: *Reserve Bank of Australia, Bulletin*.

Materials used in house building price index
prices of selected materials used in the construction of dwellings expressed as an index, with base year 1989–90=100. Data for national total is a weighted average of the six state capital cities.
Reference: *Price Index of Materials Used in House Building, Six State Capital Cities* (Cat. no. 6408.0).

Mean weekly public/private rent
the average weekly rent paid by renters of public/private dwellings.
Reference: Income and Housing Surveys; 1992 Family Survey; 1994 Australian Housing Survey; and Surveys of Income and Housing Costs.

Housing definitions and references continued

Occupied private dwellings
the premises occupied by a household. For population estimation purposes, the total number of occupied private dwellings is treated as being equal to the total number of households of the usually resident population.
Reference: *Australian Demographic Statistics* (Cat. no. 3101.0).

Owner with a mortgage
a household where the reference person or partner owes an amount on a mortgage or loan secured against the dwelling. Includes persons who have an outstanding mortgage amount but who are not making any payments. Prior to 1995 known as 'being purchased', and excluded dwellings with mortgages for alteration/addition or other purposes.
Reference: Income and Housing Surveys; 1992 Family Survey; 1994 Australian Housing Survey; and Surveys of Income and Housing Costs.

Owner without a mortgage
a household where the reference person or partner does not owe any amount on a mortgage or loan secured against the dwelling. Includes persons who have repaid a mortgage or loan but have not formally discharged the associated mortgage. Prior to 1995 known as 'owned', and included dwellings whose only mortgage was for alteration/addition or other purposes.
Reference: Income and Housing Surveys; 1992 Family Survey; 1994 Australian Housing Survey; and Surveys of Income and Housing Costs.

Persons receiving private rental assistance
persons on low incomes who pay rent or similar payments for private accommodation and receive a rental assistance payment from the government. Rent assistance may be payable to pensioners without children, families receiving above the minimum family payment and people already receiving a government allowance or benefit.
Reference: Unpublished data from Centrelink.

Private/public sector dwellings completed
when building activity has progressed to the stage where the building can fulfil its intended function. The ABS regards buildings as completed when notified as such by the respondents (builders) to the survey.
Reference: *Building Activity, Australia* (Cat. no. 8752.0).

Private landlord renter
a household paying rent to a landlord who is a real estate agent, a parent or other relative not in the same household or another person not in the same household, to reside in the dwelling.
Reference: Income and Housing Surveys; 1992 Family Survey; 1994 Australian Housing Survey; and Surveys of Income and Housing Costs.

Privately-owned rental cost index
the average rent of privately-owned dwellings (rented through real estate agents in each capital city) expressed as an index, with base year 1989–90=100.
Reference: *Consumer Price Index* (Cat. no. 6401.0).

Project home price index
the price of dwellings available for construction on a client's block of land expressed as an index, with base year 1989–90=100. Price changes therefore relate only to the price of the dwelling (excluding land).
Reference: *House Price Indexes: Eight Capital Cities* (Cat. no. 6416.0).

Public sector dwelling stock
those rental dwellings held by State and Territory housing authorities.
Reference: Department of Family and Community Services, *Housing Assistance Act 1996 Annual Report*. For data after 1998 Steering Committee for the Review of Commonwealth/State Service Provision (SCRCSSP) 2000, *Report on Government Services 2000,* Ausinfo, Canberra.

Semi-detached/row or terrace house/townhouse
occupied private dwellings with their own private grounds and no dwelling above or below. A key feature is that they are attached in some structural way to one or more dwellings, or separated from neighbouring dwellings by less than half a metre.
Reference: Income and Housing Surveys; 1992 Family Survey; 1994 Australian Housing Survey; and Surveys of Income and Housing Costs.

Separate house
occupied private dwellings which are self-contained and separated from other structures by a space of at least half a metre to allow access on all sides. Includes houses with an attached flat.
Reference: Income and Housing Surveys; 1992 Family Survey; 1994 Australian Housing Survey; and Surveys of Income and Housing Costs.

Size of new private/public sector houses
average floor area of houses intended for private/public ownership at building approval.
Reference: ABSDB (database), Building Approvals Dataset: New houses by SLA, Materials and Floor Area.

State housing authority renter
a household paying rent to a State or Territory housing authority or trust to reside in the dwelling.
Reference: Income and Housing Surveys; 1992 Family Survey; 1994 Australian Housing Survey; and Surveys of Income and Housing Costs.

Housing costs

In 1997–98 there were 702,400 low income households with housing costs of more than 30% of their gross income. These represented 10% of all Australian households.

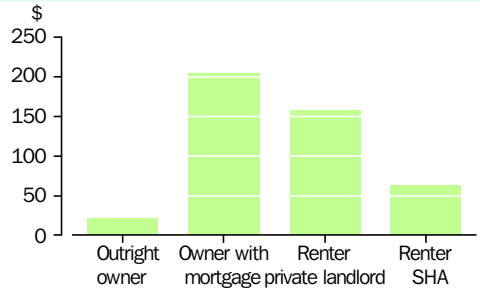
Housing costs consume a sizable proportion of household income for many households. In 1997–98, the mean weekly housing costs for all owner and renter households was $110. This represented 13% of their mean gross weekly income.

Not all households have the same expenses. Housing costs vary according to a number of factors such as tenure type (whether owners, purchasers or renters), income, life-cycle stage and location. Some of these factors are strongly interrelated, for example both income and tenure type are interrelated and both are closely linked to life-cycle stage.

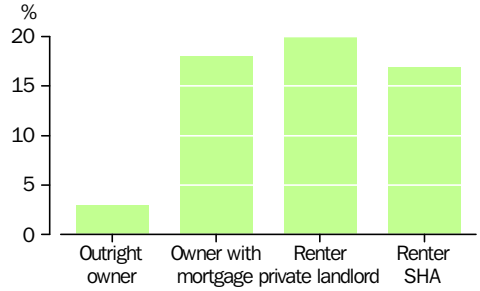
Tenure type

In 1997–98, 40% of Australia's 6.9 million owner and renter households owned their home outright. For these households, housing costs which only include payments of rates, were typically low. Their average weekly expenditure on housing costs was $21 (3% of their gross income).

Mean weekly housing costs, 1997–98



Mean housing costs as % of gross income, 1997–98



Source: Housing Occupancy and Costs, 1997–98, (Cat. no. 4130.0).

Measuring Housing Costs

The main source of data for this review is the 1997–98 Survey of Income and Housing Costs.

Housing costs include loan interest and principal repayments (purchasers only), rates payments and, for renters, rent payments.

The tenure types for which data are given are:

- *Outright owner* – a household where the reference person has no outstanding loan amount secured against the dwelling.
- *Owner with mortgage (purchaser)* – a household where the reference person has an outstanding loan amount secured against the dwelling.
- *Renter, State Housing Authority (SHA) or public renter* – a household which pays rent to a State or Territory housing authority or trust.
- *Renter, private landlord:* – a household which pays rent to a landlord who is a real estate agent or a person not in the same household.

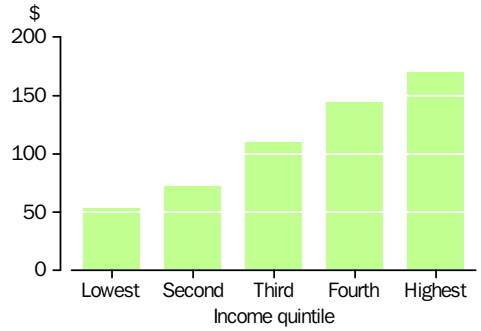
Other renters (2% of owner and renter households) are included only in totals. Households who live rent free are not included.

Gross income includes cash receipts that are of a regular and recurring nature, before tax or any other deductions are made. When calculating housing costs as a proportion of income, households with nil and negative income have been excluded.

Other tenure types, particularly home owners paying off a mortgage (31% of all households) and those renting from a private landlord (21%) had much higher housing costs. Those purchasing their home had average weekly housing costs of $205, compared to $157 for those renting privately. Public renters (6% of all households) had lower housing costs ($63 per week) reflecting the provision of low cost housing to assist households with lower incomes.

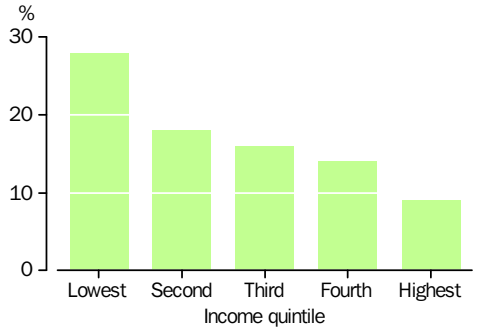
Despite the differences in average costs, the proportion of income spent on housing was similar for public and private renters (17% and 20% respectively) and for those purchasing their home (18%). Clearly income level, tenure type and housing costs are interrelated in a particular way. The patterns suggest that households (excluding outright owners) tend to choose a tenure type according to their income, such that the proportion of their income spent on housing is close to societal norms (with private renters paying slightly more on average and public renters paying slightly less).

Mean weekly housing costs by income quintile, 1997–98



Source: Housing Occupancy and Costs, 1997–98, (Cat. no. 4130.0).

Mean housing costs as % of income by income quintile, 1997–98



Source: Housing Occupancy and Costs, 1997–98, (Cat. no. 4130.0).

Although the actual dollar costs have changed, statistics from Housing Surveys conducted during the 1980s show that the patterns observed in 1997–98 have been relatively stable over time. For example, in 1982 home buyers spent 17% of their income and public and private renters spent 16% and 18%, respectively, of their income on housing.[1]

Income

Overriding the patterns just observed is the fact that households with higher incomes, who can afford to spend more on their housing, generally do so. In 1997–98 households in the lowest income quintile spent an average of $53 per week on housing costs. This increased to $170 for households in the top quintile. In contrast, expenditure on housing costs as a proportion of income was inversely related to income. Households in the lowest income quintile spent an average of 28% of their income on housing, compared to 9% among those in the highest quintile. Explaining these patterns is helped by looking at the associations between income, housing tenure and life-cycle stage.

Life cycle

As both housing needs and preferences, and household incomes, change with the formation and dissolution of families over the

Life-cycle groups, 1997–98

	Outright owners	*Mean weekly housing costs*	*Mean weekly income*	*Income spent on housing*
Selected life-cycle groups	%	$	$	%
Lone person, under 35	*6	133	527	25
Couple only, reference person under 35(a)	*4	212	1 130	19
Couple with dependent children only				
Eldest child under 5	14	182	989	18
Eldest child 5–14	20	163	1 040	16
Eldest child 15–24	43	122	1 256	10
Lone parent with dependent children	15	107	515	21
Couple with dependent and non-dependent children only	41	132	1 492	9
Couple with non-dependent children only	64	71	1 452	5
Couple only, reference person 55–64(a)	77	49	718	7
Couple only, reference person 65 and over(a)	90	25	461	5
Lone person, 65 and over	75	26	254	10
All households(b)	**40**	**110**	**863**	**13**

(a) The person used as the reference point for household relationships and whose demographic characteristics (such as age) are used for household level information. In couple households, this is either the husband or wife.
(b) Also includes life-cycle groups not defined above.

Source: Housing Occupancy and Costs, 1997–98, (Cat. no. 4130.0).

life cycle, it can be seen that housing costs are related to the household's current life-cycle stage. Lower housing costs later in the life cycle reflect the proportion of households who are outright home owners. Outright ownership increases steadily with age and peaks at 90% of couples aged 65 and over. In general, the proportion of income spent on housing decreases as households move through progressive life-cycle stages.

In 1997–98, young singles (those aged under 35 years) had relatively low average household incomes and had relatively low housing costs (an average of $133 per week). Young singles also spent the greatest proportion of their income on housing of any life cycle group (25% compared to an average of 13% for all households).

When couples form a stable relationship they are more likely to purchase a home and their housing costs rise accordingly. This reflects the greater incomes and space requirements of couple households. Average costs for couples with children were lower than for young childless couples, despite their greater space requirements, partly because many couples commence purchasing their home before having children. However as couples and their children grow older, shown by the age of the eldest child, costs typically decrease.

After children leave home and as retirement approaches, housing costs tend to decrease further. This is largely because many couples have paid off their mortgage, or perhaps moved into cheaper dwellings. Retirement aged couples (65 years and over) spent an average of $25 per week on housing, just 5% of their income. Average costs for lone persons in the same age group were almost the same in dollar terms.

Location

In 1997–98, mean weekly housing costs were typically higher in capital cities than in other areas within each State. Of the State capitals, costs were highest in Sydney, at $138 per week, Brisbane ($122) and Melbourne ($117). Hobart was the cheapest, with mean housing costs of $83 per week. Outside the capital cities, Queensland had the highest average housing costs ($101 per week). This could be associated with housing costs in areas such as the Gold Coast. The lowest housing costs were in the balance of South Australia, where the average costs were just $64 per week.

The differences in housing costs between capital cities and other areas can be partly attributed to higher incomes (see *Australian Social Trends 2000*, Interstate income inequality, pp. 154–158) and higher dwelling values (see *Australian Social Trends 1998*, Wealth in the family home, pp. 154–156) in capital cities. In addition, outright ownership is more prevalent outside the capital cities.[2]

Despite considerable variations in housing costs, the average proportion of income spent on housing varied little, being about 12–13%, regardless of the location, although this was slightly lower outside the capital cities in Western Australia and Tasmania.

Housing-related income stress

Many households suffer housing-related income stress, which results from the combination of having a low income and spending a high proportion on housing. There is no standard measure for identifying households with housing-related income stress, however a measure often used is that

Mean housing costs by State by capital city and balance of State, 1997–98

	Mean weekly housing costs			*Mean housing costs as proportion of income*		
	Capital city	*Balance of State*	*Total*	*Capital city*	*Balance of State*	*Total*
State	$	$	$	%	%	%
NSW	138	91	120	13	13	13
Vic.	117	83	107	13	12	12
Qld	122	101	110	13	13	13
SA	98	64	88	13	13	13
WA	106	98	104	12	11	12
Tas.	83	68	74	12	10	11
Total	**(a)122**	**90**	**(a)110**	**(a)13**	**13**	**(a)13**

(a) Includes all households in NT and ACT.

Source: Housing Occupancy and Costs, 1997–98, (Cat. no. 4130.0); unpublished data, 1997–1998 Survey of Income and Housing Costs.

Households with housing-related income stress, 1997–98

	Households with housing-related income stress(a)		All households		Proportion with stress(b)
Selected characteristics	'000	%	'000	%	%
Household composition					
Lone person	272.7	38.8	1 619.5	23.6	16.8
Lone parents(c)	123.8	17.6	405.3	5.9	30.5
Couple with children(c)	127.2	18.1	1 900.1	27.7	6.7
Couple only	100.8	14.4	1 607.7	23.4	6.3
Other	77.9	11.1	1 336.7	19.5	5.8
Tenure type					
Renters, private landlord	434.7	61.9	1 437.7	20.9	30.2
Renters, SHA	18.0	2.6	389.4	5.7	4.6
Owner with a mortgage	195.2	27.8	2 129.8	31.0	9.2
Owner without a mortgage	44.1	6.3	2 762.0	40.2	1.6
Location					
Capital city	398.5	56.7	4 353.3	63.4	9.2
Balance of State	303.9	43.3	2 516.0	36.6	12.1
Age of reference person					
Under 25 years	86.0	12.2	363.8	5.3	23.6
25–64 years	532.1	75.8	5 132.2	74.7	10.4
Over 64 years	84.3	12.0	1 373.3	20.0	6.1
Principal source of income					
Government pensions and allowances	400.3	57.0	1 934.1	28.2	20.7
All households	**702.4**	**100.0**	**6 869.3**	**100.0**	**10.2**

(a) Households in the lowest two income quintiles who spent more than 30% of their gross weekly income on housing costs.
(b) The proportion of all households with that characteristic who are at risk of housing related income stress.
(c) Includes single-family households with at least one dependent child.

Source: Housing Occupancy and Costs, 1997–98, (Cat. no. 4130.0); unpublished data, 1997–1998 Survey of Income and Housing Costs.

of households in the bottom two income quintiles who spend more than 30% of their income on housing costs.[3]

In 1997–98, there were 702,400 low income households that spent more than 30% of their income on housing (10% of all households). Included in the 702,400 households who experienced housing-related income stress were 266,500 households who spent more than half their income on housing costs.

Some household types were more likely to experience housing-related income stress than others. Lone parents were at greatest risk, with 31% of these households experiencing such stress, closely followed by private renters (30%). Other households at high risk included young households in which the reference person was under 25 (24%) and lone persons (17%). Households receiving a government pension or benefit as their main income were also more likely to experience such stress (21%), reflecting the relatively low incomes of this group.

While households in capital cities accounted for 57% of those with housing-related income stress, households outside the capital cities were over represented among those under stress: these households made up 37% of all households compared with 43% of those experiencing housing-related income stress. Their lower incomes might help account for their increased likelihood of experiencing such stress (12% compared to 9% of those in capital cities).

Endnotes

1 Australian Bureau of Statistics 1992, *Social Indicators, Australia No. 5*, Cat. no. 4101.0, ABS, Canberra.

2 Australian Bureau of Statistics, unpublished data, 1997–1998 Survey of Income and Housing Costs.

3 National Housing Strategy 1991, *The Affordability of Australian Housing*, Issues paper no. 2, AGPS, Canberra.

Housing in remote Aboriginal and Torres Strait Islander communities

HOUSING STOCK

In 1999, 1 in 8 of all dwellings in remote Indigenous communities were temporary dwellings, such as caravans, tin sheds or humpies.

Having a home that provides adequate shelter and basic services is an expectation of most Australians. The lack of such housing, or difficulties with the supply of drinking water, electricity and sewerage systems, has a major impact on the quality of life of many Aboriginal and Torres Strait Islander communities.

This review uses information from the 1999 Community Housing and Infrastructure Needs Survey, conducted by the ABS on behalf of the Aboriginal and Torres Strait Islander Commission. It describes the housing circumstances of people living in discrete Indigenous communities located in remote parts of Australia. Remoteness has been determined by an index based on the road distance to service centres (see box).

In 1999, 81% of the Indigenous population living in discrete communities lived in remote area communities, over half of them (54%) in the Northern Territory. Together, the 88,700 people living in discrete Indigenous communities located in remote areas represented close to 22% of all Indigenous people in Australia.[1] Many of the communities had small populations: of the 1,187 communities involved, 914 (77%) had fewer than 50 people, while only 121 communities, (10%), had 200 or more people.

Discrete Indigenous communities

Data provided in this article was collected from discrete Aboriginal and Torres Strait Islander communities in Australia. A discrete Indigenous community is defined as a geographic location, bounded by physical boundaries, and inhabited or intended to be inhabited predominantly by Indigenous people.

The remoteness of a community was measured using the Accessibilitiy/Remoteness Index of Australia (ARIA). The index represents a generic measure of the relative degree of remoteness of all parts of non-metropolitan Australia.[2] The index groups areas into five categories, from *highly accessible* to *very remote*. In this article 'remote' has been defined as a combination of the ARIA categories *remote* and *very remote*. A view of the areas of Australia deemed to be remote using these categories is given in the map on page 16.

Housing tenure

A large proportion of Australians either own or are purchasing their own home (see *Australian Social Trends 2000,* Housing: national summary table, pp. 166–167). However, this pattern of tenure is not the norm in remote Indigenous communities. Most of the land is owned by the community as a whole, rather than by an individual. The 1999 Survey showed that 78% of all dwellings

Dwellings in remote indigenous communities, 1999

	Number of people in community			
	Fewer than 50	*50 to 199*	*200 or more*	*Total*
	%	%	%	%
Permanent dwellings				
Community owned or managed	66.2	81.3	81.3	78.1
State owned and managed	—	3.2	8.7	5.8
Privately owned dwellings	0.1	1.4	1.9	1.4
All permanent dwellings(a)	66.3	86.2	94.3	86.9
Occupied temporary dwellings	33.7	13.8	5.7	13.1
Total dwellings	100.0	100.0	100.0	100.0
	'000	'000	'000	'000
Total dwellings	3.2	2.9	9.1	15.2
Total persons	13.9	14.8	60.0	88.7
	no.	no.	no.	no.
Occupancy ratio(b)	4.3	5.1	6.6	5.8

(a) Includes permanent dwellings owned and managed by other organisations.
(b) Occupancy ratio equals the average number of persons per dwelling.

Source: Unpublished data, 1999 Community and Housing Infrastructure Needs Survey.

in these communities were owned or managed by community organisations, with only 1% of dwellings privately owned.

Housing conditions

Research has found that two of the major problems with living conditions of Indigenous people are with the inadequate supply of houses and with the poor quality of much of the housing that is available, both being regarded as unacceptable by general community standards.[3] It may be for these reasons that some Indigenous people share their dwellings with other people, increasing the level of crowding in their household. However many also prefer to live, or at least sleep, near to their close kin.[3] As a result dwellings occupied by Indigenous people tend to have more people than those of other Australians. In remote Indigenous communities, the average occupancy ratio was 5.8 people per dwelling, compared to the national average of 2.6 (see *Australian Social Trends 2000*, Housing: national summary table, pp. 166–167).

Not all residents of the communities surveyed lived in permanent dwellings. In 1999, 13% of all the dwellings in remote communities were temporary dwellings such as caravans, tin sheds or humpies, housing a population of over 7,000 people. Temporary dwellings were particularly prevalent in small communities: 27% of the population in remote small communities of fewer than 50 people occupied temporary dwellings.

The condition of permanent dwellings in terms of the extent of repairs required provides further insight into the quality of housing. One third of all community owned or managed dwellings in these communities needed either major repairs or replacement.

Dwellings and their condition

- *Permanent dwellings* are buildings designed for people to live in, with fixed walls, a roof and doors.
- *Temporary dwellings* are caravans, tin sheds without internal dividing walls, humpies, dongas, or other makeshift shelters.
- Housing conditions refers to the condition of permanent dwellings owned or managed by an Indigenous housing organisation, as assessed and categorised by community housing officers, in terms of the costs of repairs needed.
  Minor or no repairs: repairs of less than $20,000;
  Major repairs: repairs of $20,000 to less than $60,000;
  Replacement: repairs of $60,000 or more.
  These ranges were higher in high-cost areas.

The need for this level of repair was more common in dwellings located in communities of 50 people or more.

The reliability of the infrastructure provided is also important. The provision and maintenance of basic essential services such as water, sewerage and power, are critical elements in the development of a healthy living environment.[4] While the large majority of people living in remote Indigenous communities have access to these services, many communities experienced problems in their operation.

Availability of drinking water, electricity and sewerage systems

In this review, the availability of drinking water, electricity and sewerage systems are examined as a measure of the infrastructure available in these remote Indigenous communities.

Housing condition of dwellings owned by community organisations in remote Indigenous communities, 1999

	Number of people in community			
	Fewer than 50	*50 to 199*	*200 or more*	*Total*
	%	%	%	%
Permanent dwellings				
Minor or no repairs required	79.4	64.4	64.7	67.3
Major repairs required	14.9	26.5	23.6	22.7
Replacement required	3.9	9.1	11.6	9.8
Total dwellings(a)	100.0	100.0	100.0	100.0
	'000	'000	'000	'000
Total dwellings(a)	2.1	2.4	7.4	11.9

(a) Includes those for which the amount of repairs needed was not stated.

Source: Unpublished data, 1999 Community and Housing Infrastructure Needs Survey.

The supply of water to a community can determine the viability of that community. Without investments in constructing permanent storage and delivery systems, communities can have a precarious existence. In 1999, only 16 communities did not have an organised water supply. These communities were very small, with few inhabitants.

The majority of communities (65%) reported that bore water was the most common form of organised drinking water in their community. This was true for communities of all sizes.

Although other fuels can be used for cooking and lighting, the supply of electricity is generally considered a basic amenity for a wide range of purposes. The supply of electricity to remote Indigenous communities was not as extensive as it was for water, with 11% of communities not having a supply of electricity. Virtually all of these communities had a population of fewer than 50 people (98%). Among all the remote communities domestic generators (29%) and community generators (25%) were the main sources of electricity supply.

The proper disposal of sewage is an important environmental health issue. In 1999, 69 communities (6% of all remote Indigenous communities), had no sewerage system. Once again, almost all of these communities (97%) had a population of fewer than 50 people.

The most common main form of sewerage system was septic tanks with a leach drain, which were present in 46% of these communities. Pit toilets were also a common form of sewage disposal (25% overall), but they were less common in larger communities.

Availability of drinking water, electricity and sewerage systems in remote Indigenous communities

	%
Main source of drinking water	
Bore water	64.9
Connected to town supply	10.4
Rain water tank	9.1
Other sources	14.2
No organised supply	1.3
Main source of electricity supply	
Domestic generators	28.6
Community generators	24.9
Town supply or State grid	15.6
Other sources	19.7
No electricity supply	11.2
Main sewerage system	
Septic tanks with leach drain	45.7
Pit toilet	25.2
Septic tanks (common effluent disposal)	8.8
Other systems	14.5
No sewerage system	5.8
Total	100.0

Source: Unpublished data, 1999 Community and Housing Infrastructure Needs Survey.

Problems experienced with infrastructure

Providing accommodation appropriate to the weather conditions and other aspects of the environment, and maintaining the existing facilities, is a difficulty in all remote communities.[5] It is important that the equipment and infrastructure be properly constructed, particularly for the circumstances in which such facilities are required. It has also been suggested that taking into account the high cost of repairs in remote areas, much of the equipment is not sufficiently robust or durable.[3]

This view is illustrated by the problems associated with water restrictions, power interruptions, and sewerage overflows and leakages. Remote communities of 50 or more Aboriginal or Torres Strait Islander people were surveyed for problems with the operation of these services.

In the 12 months prior to the survey, water restrictions were experienced in 36% of remote Indigenous communities of 50 people or more. The most common reason for having water restricted was the breakdown of equipment (reported by 19% of communities). These breakdowns happened more frequently in larger communities (22% of communities of 200 or more) than smaller communities (16% of communities of 50–199 people). Natural causes such as a normal dry season (9%), or drought (2%) were also reported as reasons for water restrictions.

Any interruption to the supply of electrical power will have an impact in many ways, particularly in the refrigeration of food, washing of clothes and contact with the outside world in the form of television. In 1999, power interruptions occurred in 85% of communities. Equipment breakdown was again a major problem, with 52% of remote Indigenous communities of 50 or more people having this experience. Interruptions caused by storms, which occurred in 37% of

Problems with infrastructure(a)

	%
Reasons for water restrictions(b)	
Equipment breakdown	19.0
Normal dry season	8.8
Lack of storage containment	3.7
Poor water quality	3.7
Drought	2.2
Other reasons	11.8
Total communities with restrictions	36.3
Reasons for power interruptions(b)	
Equipment breakdown	51.6
Storms	36.6
Planned outage for maintenance	28.6
No fuel	7.7
Vandalism	2.9
Other reasons	11.0
Total communities with interruptions	85.0
Reasons for sewerage overflows or leakages(b)	
Blocked drains	34.4
Equipment failure	22.3
Insufficient capacity of septic	17.6
Wet season	8.4
Population increases	7.3
Design or installation	2.2
Other reasons	4.4
Total communities with overflows	59.0

(a) In the 12 months prior to the Survey, in remote Indigenous communities with 50 or more people.
(b) More than one reason may be chosen by a community. The percentage is calculated for all communities, whether they suffered a restriction or not.

Source: Unpublished data, 1999 Community and Housing Infrastructure Needs Survey.

these communities, was the only natural cause reported for producing power interruptions.

Any overflow or leakage of sewerage can impact on the health of a community by providing conditions where disease spreads rapidly. In 1999, 59% of the communities examined reported that they had experienced sewerage overflows or leakages. Nearly all the reported reasons for difficulties related to maintenance and support problems: blocked drains (34%); equipment failure (22%); insufficient capacity of the septic system (18%); and design or installation problems (2%).

Natural reasons played only a small part in causing sewerage overflows or leakages. The main natural cause reported for overflows or leakages of sewerage for remote Aboriginal and Torres Strait Islander communities was the annual wet season, which caused difficulties in 8% of these communities.

Endnotes

1 This was calculated by dividing the population of remote Indigenous communities by the projected total Indigenous population (Low series) for 1999. Australian Bureau of Statistics 1998, *Experimental Projections of the Aboriginal and Torres Strait Islander Population,* Cat no. 3231.0, ABS, Canberra.

2 Commonwealth Department of Health and Aged Care 1999, *Accessibility/Remoteness Index of Australia (ARIA)*, Occasional papers series no. 6, Commonwealth Department of Health and Aged Care, Canberra.

3 Neutze, M. 1998, *Housing and Infrastructure for Indigenous Australians,* Urban Research Program working paper no. 65, Research School of Social Sciences, Australian National University, Canberra.

4 Aboriginal and Torres Strait Islander Commission 1997, *Community Housing and Infrastructure Program Policy 1997–2000*, ATSIC, Canberra.

5 The National Housing Strategy 1991, *Aboriginal and Torres Strait Islander housing: Discussion package,* NHS, Canberra.

Caravan park residents

HOUSING STOCK

The number of caravan park residents decreased by 32% between the 1991 and 1996 censuses.

There were 10,000 fewer family households in caravan parks in 1996 than in 1991.

Caravan park residents began to attract the attention of Australian social policy analysts towards the end of the 1970s, when mobile home living was a topical subject in the United States, and caravan sales increased in Australia. Caravan park living was seen as a form of housing which had the potential to socially marginalise the residents.[1] It was argued that, as a very low cost form of housing, caravan parks would tend to attract disadvantaged people, many of whom had special needs. Their problems might then be compounded by living in a caravan park, even though it was probably their least expensive housing option.[2]

In Australia, caravan parks had been regulated mainly as tourist accommodation, which for various reasons, it was thought, made them unsuitable for permanent residence.[1] Zoning restrictions meant they were located away from residential areas and associated services. Residents lacked tenancy and other consumer rights. Caravans were not covered by residential building codes and, furthermore, the amenities of parks were not necessarily designed for long-term residence. In addition, there was a degree of social stigma attached to caravan park living. Residents reported difficulty in obtaining goods and services on credit, and in using local community services, such as libraries, through being seen as itinerant and lacking in assets.[2]

Caravan park residents, by State and Territory, 1991 and 1996

	Residents in 1991(a)	*Residents in 1996*	*Decrease in number of residents 1991 to 1996*	*Proportion of population 1996(b)*
	no.	no.	%	%
NSW	34 040	22 810	33.0	0.4
Vic.	12 270	8 550	30.3	0.2
Qld.	36 570	23 630	35.4	0.7
SA	4 120	2 570	37.7	0.2
WA	9 870	7 960	19.4	0.5
Tas.	800	630	21.8	0.1
NT	3 540	2 350	33.4	1.3
ACT	550	340	38.0	0.1
Australia	**101 800**	**68 850**	**32.3**	**0.4**

(a) Includes residents of boats in marinas, whereas in 1996 Census data marina residents can be enumerated separately and are not included here. In 1996 there were 1,600 such residents.
(b) Caravan park residents as a proportion of the Australian population.

Source: Unpublished data, 1991 and 1996 Censuses of Population and Housing.

Counting caravan park residents

Caravan park residents can be identified in 1996 Census data on the basis that: their dwelling type was 'caravan, cabin, houseboat'; their dwelling location was a caravan park; and they indicated that the dwelling was their usual residence. People who indicated that their usual residence was elsewhere in Australia were classified as visitors to caravan parks.

Visitors to caravan parks

There were 61,300 visitors counted at the 1996 Census, similar to the count of 62,300 in 1991. As the number of residents decreased while the number of visitors remained about the same, the ratio of residents to visitors fell, from 1.6 to 1.1. Ratios were much lower in the Northern Territory, Queensland and Western Australia than in other States in both censuses. In 1996 the Northern Territory had the lowest ratio (0.4). The Australian Capital Territory had the highest (8.9). However, this was an extreme case: the ACT had few caravan park residents and even fewer visitors. The second highest ratio was 2.9 (in Victoria).

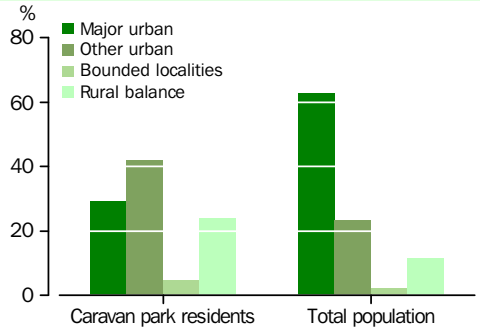
Various inquiries into caravan-park living were held at this time, and policies were developed across a diverse range of agencies.[1] There was naturally an interest in the demographic characteristics of caravan park residents. The 1986 Census was the first in which residents were distinguished from visitors in caravan parks. It was found that around 105,600 people (about two thirds of those in caravan parks on 1986 Census night) were residents, making up 0.7% of the Australian population. By 1991 their number had decreased by 4%, to 101,800 (see *Australian Social Trends 1994*, Caravan park residents, pp. 163–166).

Fewer people live in caravan parks

A much more substantial decrease (32%) was recorded between the 1991 and 1996 Censuses. The number of caravan park residents decreased from 101,800 to 68,800. Decreases were recorded in all States and Territories, ranging from 19% in Western Australia to 38% in South Australia and the Australian Capital Territory.

The distribution of caravan park residents by State and Territory was not greatly affected by these decreases. As in previous censuses, the warmer climate States, Queensland and

Geographic distribution, 1996



Source: Unpublished data, 1996 Census of Population and Housing.

Western Australia and the Northern Territory, had a greater share of caravan park residents than they did of the total population, while the reverse was true in the cooler southern States. New South Wales' share of caravan park residents (33%) was roughly in line with its share of the total population (34%).

In contrast to the total population, caravan park residents tended to be located away from major urban areas (those with a population of at least 100,000). Although about 29% of caravan park residents did live in such areas, a much larger group (42%) lived in other urban areas (those with populations from 1,000 to 99,999). Also, the number living in major urban areas was matched by the 29% who lived either in small towns (bounded localities with populations from 200 to 999) or other rural areas. In each of these latter three areas, caravan park residents made up a larger proportion of the total population (about 0.8% in each case) than they did in major urban areas (0.2%).

The number of caravan park residents decreased in all four areas between 1991 and 1996. The decreases in bounded localities (47%) and the balance of rural areas (44%) were higher than in major urban areas (26%) or other urban areas (26%). The decrease in the rural balance made the largest contribution to the overall decrease (39%).

Types of households, 1991 and 1996

	Households in caravan parks			*Households in total population*
	1991	*1996*		*1996*
Household type	no.	no.	%(a)	%(a)
Lone persons	27 220	24 690	58.6	22.8
Family households(b)	*26 000*	*15 970*	37.9	72.9
Couple-only family	14 880	10 130	24.0	24.0
Couple & dependent child/children(c)	5 770	2 360	5.6	25.7
Lone parent & dependent child/children(c)	2 880	1 860	4.4	5.9
Group households	2 440	1 500	3.6	4.2
Total(a)	**58 010**	**43 960**	**100.0**	**100.0**

(a) The total number includes some households which were not classifiable by type. These have been excluded when calculating proportions.
(b) Includes other family types, therefore specified family types will not add to total family households. There were a small number of households of more than one family, in these cases the family type is that of the primary family.
(c) Dependent children include any child under 15 years and dependent students under 25. These families may include other members in addition to the parent/s and dependent children.

Source: Unpublished data, 1991 and 1996 Censuses of Population and Housing.

Fewer family households

In both 1986 and 1991, different types of households predominated in caravan parks compared to the total population. There were proportionally more males living alone, and more older couple-only households than among the total population, and proportionally fewer couples with dependent children. This pattern has been accentuated since 1991, as most types of family households living in caravan parks recorded greater proportional decreases than other household types.

There were about 10,000 fewer family households in caravan parks in 1996 than in 1991, a decrease of 39%. Households of couples with dependent children decreased by 59%, and lone parents with dependent children fell by 35%. The large group of couple-only households decreased by 32%, from about 15,000 to about 10,000. The decrease in group households (38%) was similar to that for family households, but the decrease in lone-person households was considerably lower (9%).

As a result, the contrast between household types in caravan parks and the total population was sharper in 1996. For example, lone persons made up 59% of households in caravan parks, compared to 23% in the total population, whereas they had made up 47% in 1991.

Age and sex composition of residents

In line with the greater proportional decrease in the number of people living in families than other residents, were changes in the age and sex composition of residents. Between 1991 and 1996, the larger proportional decreases were among younger people and females.

The age group 35–44 years decreased by about the same proportion as did total caravan park residents (just over 32%). Age

Sex, age and living arrangements of caravan park residents, 1991 and 1996

	1991		1996		Decrease 1991 to 1996
	no.	%(a)	no.	%(a)	%
Males	57 900	56.9	41 180	59.8	28.9
Females	43 860	43.1	27 670	40.2	36.9
Age group (years)					
Under 15	13 950	13.7	6 820	9.9	51.1
15–24	15 420	15.2	8 060	11.7	47.7
25–34	16 100	15.8	8 820	12.8	45.2
35–44	13 520	13.3	9 100	13.2	32.7
45–54	14 000	13.8	11 340	16.5	19.0
55–64	14 190	13.9	11 620	16.9	18.1
65–74	10 530	10.4	9 340	13.6	11.4
75–84	3 610	3.5	3 390	4.9	6.2
85 and over	430	0.4	370	0.5	15.0
Living alone	27 220	28.0	24 690	37.7	9.3
In a family	64 840	66.8	37 660	57.5	41.9
In a group	5 040	5.2	3 110	4.7	38.3
Total(a)	**101 800**	**100.0**	**68 850**	**100.0**	**32.3**

(a) Total number includes some residents who could not be classified by living arrangement, so components do not add to total. Proportions by living arrangements have been calculated with unclassifiable residents excluded from the total.

Source: Unpublished data , 1991 and 1996 Censuses of Population and Housing.

groups younger than this recorded decreases ranging from 45% to 51% (with the greatest decreases among children). Older age groups recorded decreases ranging from 6% to 19%.

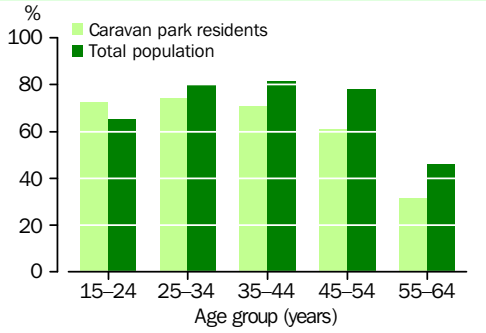
The number of female residents decreased by 37% while the number of male residents decreased by 29%. Males aged 75–84 years were the only group to increase in caravan parks (by 2%). In other age groups the number of both males and females decreased, and in each age group over 14 years there was a greater proportional decrease among females than males.

These changes in age and sex composition also increased the contrast with the total population. In 1996, males made up 60% of caravan park residents, compared to 57% in 1991 and to about 49% of the total population at both censuses. People aged 45 years and over made up 52% compared to 42% in 1991 and to just under a third of the total population at both censuses.

Labour force status, occupation and education

In 1996, 47% of caravan park residents were in the labour force (that is, either working or looking for work). This was a lower

Labour force participation rates, 1996



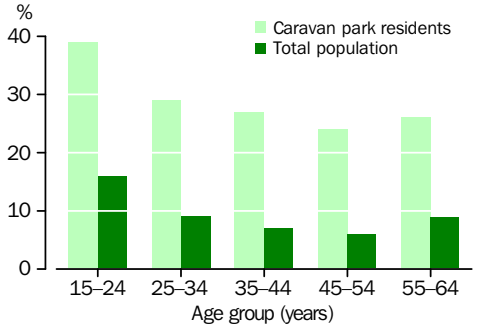
Source: Unpublished data, 1996 Census of Population and Housing.

proportion than in the total population (62%), partly because caravan parks contain relatively more people in the retirement or early retirement age ranges (over 50 years). However, labour force participation was lower for caravan park residents than for the total population in all age groups except youth (ages 15–24 years). Youth in caravan parks had a higher labour force participation rate than the total population, consistent with their lower participation in full-time study (12% compared to 42%).

The labour force participation rate was lower in 1996 than 1991 among male caravan park residents in each ten-year age group, while among females it was lower in younger age groups but slightly higher in older age groups (over 45 years).

Of caravan park residents in the labour force, 71% were employed. The more common occupations among employed males were tradesmen and related workers (25%), production or transport workers (23%) and labourers and related workers (20%). Employed females included many clerical, sales and service workers (45%) and labourers and related workers (21%).

Unemployment rates(a), 1996



(a) Unemployed persons as a proportion of all those in the labour force.

Source: Unpublished data, 1996 Census of Population and Housing.

The majority of caravan park residents (78%) either had no post-school qualifications or did not describe them sufficiently for classification. The most common highest qualification that residents had attained was a skilled vocational qualification (13%), with the remaining 9% spread across the several other types of post-school qualification.

The unemployment rate of 29% among caravan park residents was much higher than the rate of 9% recorded for the total population at the Census. The unemployment rates were similar for male and female residents. The youth unemployment rate (i.e. the proportion of those aged 15–24 years in the labour force who were unemployed) was particularly high in caravan parks (39% compared to 16% of youth in the total population).

Household income

The median weekly household income of households in caravan parks was $293, less than half the median of $637 for all households in Australia. One main reason for the lower median income is that caravan parks include a much greater proportion of lone-person households (who have single incomes), and households of retired people (many of whom receive the aged pension as their main income). However, not only do caravan park residents include proportionally more of these types of lower-income households, but for each household type, caravan park residents had lower median incomes than the total population. For example, the median income of lone people in caravan parks ($217) amounted to 77% of that of the equivalent group in the total population. The proportional difference in median income was greatest for working-age couple-only households.

Tenure type

Outright owners made up the majority of caravan park resident households (62%), followed by renters (31%). A small proportion were buying their caravans (5%). Over 60% of family and lone-person households owned their caravans, while group households were more likely to live in a rented (51%) than a fully owned (42%) van. There were differences by family type: 79% of couple-only households were owners, compared to 46% of couples with dependent children and 29% of lone parents with dependent children.

The pattern by household type is consistent with the clear pattern by age: 82% of park residents aged 45 years and over lived in a fully owned caravan, compared to 38% of those under 45 years. Half of those under 45 were in a rented caravan.

Rent

Of caravan park households who were renting, 55% paid between $50 and $99 per week in rent and a further 34% paid between $100 and $149 per week. Rents paid by caravan park households were more highly concentrated within these two ranges than were those paid by all other households in Australia. About 7% of caravan park households paid more than $149 per week, compared to 37% of households in the general community. The proportion of caravan park households paying less than $50 per week was also lower than in the general community (3% compared to 11%). Dwellings rented for less than $50 per week in the

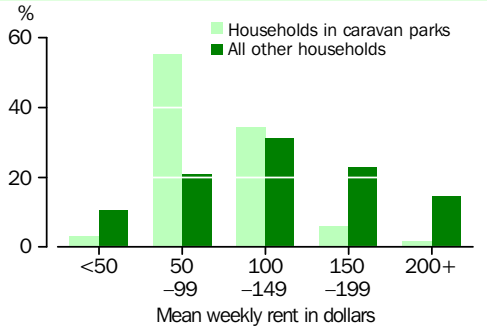
Median household income, by household type, 1996

Household type	*Households in caravan parks* $	*All households* $	*Ratio(c)*
Lone persons	217	282	0.77
Lone persons aged 15–64 years	251	435	0.58
Lone persons aged 65 years and over	191	193	0.99
Total family households(a)	396	766	0.52
Couple-only aged 15–64 years(b)	436	860	0.51
Couple-only aged 65 years and over(b)	310	368	0.84
Couples with dependent children	533	900	0.59
Lone parent with dependent children	310	424	0.73
Group households	454	796	0.57
Total	**293**	**637**	**0.46**

(a) Includes family households other than the types specified.
(b) Age refers to age of household reference person.
(c) Median income of households in caravan parks divided by median income of all households in Australia.

Source: Unpublished data, 1996 Census of Population and Housing.

Mean weekly rent, 1996



Source: Unpublished data, 1996 Census of Population and Housing.

general community included a large proportion which were rented from a State and Territory housing authority (69%) and a further 12% rented from employers. However, it should be noted that low-income households, including those in caravan parks, are eligible for government support in the form of rental assistance payments.

Vehicle ownership

Not having a car may be particularly inconvenient for caravan park residents, as zoning restrictions mean that caravan parks tend to be located away from residential areas and their associated services. Of all caravan park households, 29% had no car on Census night 1996, compared to 12% of households in the total population. Proportions of caravan park households with no car were higher for renters (49%), households of lone parent and dependent children (47%), people living alone (38%) and group households (31%). Proportions were lower for couple-only households (9%), and couples with dependent children (17%). While 24% of caravan park residents lived in a household with no car on Census night, proportions were higher for unemployed people (40%) and people aged 15 to 24 years (37%).

Mobility

Caravan park residents were more likely to have moved within the previous year than people in the total population. Nevertheless, the majority of caravan park residents had been at the same address for a year or more, confirming that for most residents, caravan parks are not a stop-gap measure. Of caravan park residents, 64% had been at the same address a year previously, compared to 82% of the total population.

The proportion of residents who said they had been at the same address a year previously was highest in New South Wales (72%) and the ACT (70%) and lowest in the Northern Territory (43%) and Western Australia (55%). The remaining States recorded proportions at about the national level. The proportion who had been at the same address a year ago increased with age, from 33% of those aged 15–24 years to 87% of those aged 65 or over.

Residents who were more likely to have been at the same address for at least one year were: couple-only families (72%), people living alone (69%), people who fully owned their caravans (79%) and people who were not in the labour force (75%). Those less likely to have been at the same address for at least one year were: lone-parent families (41% at the same address); couples with dependent children (51%); renters (35%) and unemployed people (45%).

More than a third of caravan park residents had been at the same address five years previously (36%).

Manufactured home estates

In addition to the 68,000 people living in caravans or cabins in caravan parks, there was a small number (240) living in caravans or cabins which were located in retirement villages. Another 2,200 lived in caravans or cabins located in manufactured home estates. These two types of locations were first classified separately in the 1996 Census. (However, caravans in such locations would not have been included in totals for caravan parks in 1991.)

Developing land specifically to provide sites for manufactured homes is relatively new in Australia. Sites in these estates can be sold but more often they are rented. Planning guidelines state that such developments should have reticulated water, sewerage, drainage and electricity connected to each lot. Further, some community and transport facilities should be available, as well as reasonable access to medical care and other services.[3] In 1996 there was a total of 9,700 people living in manufactured home estates, whether in caravans or cabins, or more commonly, in houses.

Manufactured home estates seem to attract older couples. Residents tended to be older (82% were aged 45 years or more) than the total population, even more so than were caravan park residents. In contrast to caravan parks, there were more females than males (54% were female). About 70% of manufactured home estate residents lived in families and 27% lived alone, with more women than men living alone (1,600 compared to 1,000).

Endnotes

1 Centre for Urban Research and Action (CURA) 1978, *Long term caravan residents in Melbourne: a case study of housing marginality*, CURA, Fitzroy.

2 Department of Health, Housing and Community Services 1991, *Long-term caravan park residency; a summary compiled from reports and studies in Australia 1978–1991,* Canberra.

3 Commonwealth Department of Health, Housing, Local Government and Community Services and The New South Wales Department of Planning 1993, *Manufactured Homes: a guide to planning and design of manufactured home estates*.

Home fire safety

HOUSING STOCK

In 1998, 123 people died from accidental fire or flame injuries. Of these deaths, 70 occurred in a home fire.

While total deaths from fire fell by 47% from 1968 to 1998, deaths in private dwelling fires dropped by only 20%.

Serious house fires can cause extensive property damage and loss of life. They tend to be more prevalent through the colder months of the year: approximately one third of house fires in NSW occur between June and August of each year.[1] Although the number of deaths from house fires is relatively small (representing 1.5% of accidental deaths and 0.06% of all deaths nationally in 1998), all accidental deaths are generally regarded as preventable.

Accordingly, regulations brought into the Building Code of Australia (BCA) by the States has made the installation of smoke alarms in new homes mandatory. Victoria introduced a smoke alarm requirement into the BCA in June 1993, and most other States introduced a similar requirement in November 1994. A national requirement was introduced into the BCA in 1996.[2] Victoria also introduced a retrospective regulation in February 1997 that existing homes built before August 1997 must be equipped with smoke alarms.

The likelihood of death from fire in the home has fallen from 7 people per million in 1968 to 4 people per million in 1998. In 1998, 123 people died in a fire or from flames. Of these, 70 died from a fire in a private dwelling, making up the largest proportion (57%) of all accidental fire-related deaths. In 1968, 232 persons died in fires, and 87 of these (38%) were killed from a fire in a private dwelling. There was a slower decrease of deaths in private dwelling fires across Australia (down by 20%) than of overall deaths by fire (down 47%) between 1968 and 1998.

Fire is more likely to claim the lives of males in the home. In 1998, 63% of private dwelling fire deaths were male, as well as 64% of all accidental fire deaths. In 1968, 61% of those who perished in house fires were male, which was higher than the 56% of all accidental deaths in fires.

Clothing ignition is the second largest recognised cause of death from fire or flames. This cause has been declining, and while it made up 55 accidental fatalities in 1968, it accounted for only 13 in 1998.

Data sources

The primary source of data for this article is the Population Survey Monitor for May 1998 and February 2000, which included a set of questions on the adoption of fire safety measures in the home. Data for this article were also gained from the ABS Causes of Death collection, which classifies deaths according to the International classification of Diseases version 9 (ICD–9), and a statistical paper from the NSW Fire Brigades, *Fires in the home 1987–1995*.[1]

Fire and flame deaths

Private dwelling fire fatalities include deaths in an apartment, boarding house, caravan, house, mobile home, private garage, and tenement. These fatalities can be caused by fires which started in the home as well as fires ignited away from the property (i.e. bush fires);

Deaths from fire in other structure includes deaths in a barn, church, dormitory, factory, hospital, hotel, school, store, and theatre;

Deaths from fire not in building or structure includes deaths due to fire in forest, grass, hay, lumber, mines, transport vehicle (except while in transit), and tunnels;

Death from clothing ignition encompasses heat sources like a cigarette or lighter, burning bedspread, blowtorch, fireplace, or bonfire. Deaths of this kind may also occur in private dwellings and other structures, but are included here only when the fatality occurs with the clothing ignition resulting from a controlled fire. If the dwelling also catches fire it is categorised as a death from a private or other dwelling fire; and

Deaths from inflammable material ignition encompasses death due to the ignition of inflammable material such as benzene, gasoline, fat, kerosene, paraffin, or petrol.

Accidental death from fire or flame, 1968–1998

	1968	*1978*	*1988*	*1998*
Cause of death	no.	no.	no.	no.
Private dwelling fire	*87*	*78*	*73*	*70*
Male	53	44	52	44
Female	34	34	21	26
Fire not in building or structure	18	10	5	10
Fire in other structure	11	3	2	2
Clothing ignition	55	19	17	13
Inflammable material ignition	16	7	7	6
Other fire or flame related	45	41	8	22
Total	**232**	**158**	**112**	**123**
Private dwelling fire deaths per million population	7.2	5.4	4.4	3.7

Sources: *Causes of Death 1968, 1978, 1988* (Cat. no. 3302.1); unpublished data, Causes of Death 1998; *Australian Demographic Trends 1997* (Cat. no. 3102.0); *Australian Demographic Statistics, September 1999* (Cat. no. 3101.0).

Main cause of house fire, NSW 1987 and 1998

Main cause	1987 no.	1998 no.	Change between 1987 and 1998 %
Unattended heat sources	570	1 059	85.8
Undetermined cause	404	592	46.5
Suspicious	173	408	135.8
Short circuit, ground fault	369	279	–24.4
Other electrical failure	158	261	65.2
Falling asleep	114	175	53.5
Abandoned, discarded material	169	164	–3.0
Incendiary	39	160	310.3
Children	155	156	0.6
Combustible too close to heat	147	135	–8.2
All other causes	1 068	1 258	17.8
Total fires	**3 366**	**4 647**	**38.1**

Source: New South Wales Fire Brigades, *Fires in the home 1987–1995*; New South Wales Fire Brigades, unpublished data.

House fire causes

Children refers to those aged 0–16 years responsible for the lighting of a fire in the home, due to the misuse of either heat from ignition or from the material ignited.

Falling asleep includes fires started by a dropped cigarette in bed or asleep with equipment left on.

Incendiary refers to cases where a legal decision or physical evidence indicates the fire was deliberately set.

Suspicious indicates the possibility that the fire may have been deliberately set, separate unrelated fires were found, or there were suspicious circumstances and no accidental or natural ignition factor was found.

All other causes includes all other misuses of heat from ignition, misuses of ignited material, mechanical failure, design, construction and installation deficiency, operational deficiency, natural ignitions and other ignition factors.

Causes of house fires

Information collected by the NSW Fire Brigades shows that fires identified as started by unattended heat sources caused 23% of accidental house fires in NSW in 1998, and increased by 86% between 1987 and 1998.

Although fires known to be started by people falling asleep (4%) made up a relatively small proportion of all house fires in New South Wales in 1998, their number increased between 1987 and 1998 by 54%.

However, the biggest increases belonged to the suspicious (136%) and incendiary (310%) categories. These fires, which may be deliberately set, usually cause more damage than do fires that are ignited accidentally.[1]

Whatever the main cause, many fires are triggered by some failure or malfunction in an appliance or a piece of equipment, whether unattended or not. In 1987, 73% of all house fires had equipment misuse or malfunction as the main contributing factor. This proportion had dropped to 62% in 1998.

In the cooking equipment category (30% increase between 1987 and 1998), fires from ovens rose by 79% from 138 fires in 1987 to

Equipment starting house fires(a), NSW 1987 and 1998

Type of equipment	1987 no.	1998 no.	Change between 1987 and 1998 %
Cooking equipment	1 013	1 317	30.0
Undetermined or unreported	225	479	112.9
Appliances	314	383	22.0
Heating systems	503	353	–29.8
Electrical distribution equipment	287	231	–19.5
Air conditioning, refrigeration	45	68	51.1
Other object(b)	36	41	13.9
Service maintenance equipment	27	19	–29.6
Total	**2 450**	**2 891**	**18.0**

(a) Excludes fires where no equipment was involved in the ignition.
(b) Includes processing and special equipment.

Source: New South Wales Fire Brigades, *Fires in the home 1987–1995*; New South Wales Fire Brigades, unpublished data.

Equipment starting house fires

Heating systems include central heating units, water heaters, indoor open fireplaces, gas vent flues and chimneys and chimney connectors.

Cooking equipment includes stationary ovens and surface units, fixed deep fryers, portable cooking appliances, grease hoods and ducts.

Electrical distribution equipment includes wiring, meters, switches, cords, plugs, lamps and light bulbs.

Appliances include televisions, videos, dryers, washing machines, portable appliances, ceiling and exhaust fans, dishwashers and electronic equipment.

Service maintenance equipment includes torches, welding and cutting equipment.

Other object includes power saws, handheld garden maintenance equipment, electric fencing, flammable liquid transfer equipment and processing equipment.

Proportion of households with fire safety measures, May 1998 and February 2000

	Capital Cities(a)		Other areas		Total	
	May 1998	February 2000	May 1998	February 2000	May 1998	February 2000
	%	%	%	%	%	%
Fire safety measure						
Smoke alarm or detector	57.6	71.0	57.7	65.6	57.6	69.0
Safety switch/circuit breaker	46.3	51.5	51.6	53.6	48.3	52.3
Fire extinguisher	21.8	22.3	26.4	26.5	23.5	23.9
Removal of external fuel source	13.0	12.4	25.7	23.3	17.7	16.4
External sprinkler	13.0	14.3	21.3	18.3	16.1	15.8
Fire evacuation plan	12.1	13.6	14.3	15.3	12.9	14.3
External water supply	5.7	5.6	21.3	23.5	11.5	12.2
Fire blanket	6.3	10.5	8.9	11.4	7.2	10.9
Total households(b)	**79.4**	**87.7**	**85.5**	**88.0**	**81.7**	**87.8**

(a) Refers to the capital city statistical divisions.
(b) The sum of the components may be greater than the total as some households may have employed more than one type of fire safety measure.

Source: Population Survey Monitor, May 1998 and February 2000 (Cat. no. 4103.0).

247 fires in 1998. While not a major cause, fires from portable cooking and warming units also rose sharply by 119%, from 27 fires in 1987 to 59 fires in 1998.

Fire safety measures

In general, a high proportion of Australian households have some protection against fire in their home. The proportion with at least one fire safety measure in place increased from 82% in May 1998 to 88% in February 2000. This increase was mainly attributable to a rise in the proportion of homes in capital cities with a fire safety measure (from 79% to 88%). Already the most common form of protection in May 1998, smoke alarms or detectors recorded the biggest increase of all fire safety measures by February 2000 (up 13 percentage points in capital cities and 8 percentage points in other areas).

The location of a dwelling (in a capital city or not) does not appear to have a bearing on whether or not a fire safety measure was adopted in the home. While there was a 7 percentage point difference between capital cities (79%) and other areas (86%) in May 1998, there was virtually no difference (88% in both areas) by February 2000.

Fire safety in different households

Separate houses were the most likely dwelling type to have a fire safety measure in place (90%), while flats, units and apartments were the least likely (68%). Yet a fire in a flat, unit or apartment could have the greater potential for loss of life due to the closer

Fire safety measures

Smoke detectors/smoke alarms are used for the detection and warning of smoke from fires and not for the detection of cigarette smoke.

Safety switch/circuit breaker is a device intended to isolate electricity supply to protected circuits, socket outlets or electrical equipment in the event of a current flow to earth which exceeds a predetermined value.

Fire extinguisher is a container that contains either water, carbon dioxide or foam and is designed to spray at and extinguish fires.

Fire blankets are used to extinguish small fires, and fires involving cooking oils and fats. The blankets may also be used as a thermal barrier against radiated heat and to control clothing fires.

Fire evacuation plan refers to any plan set out in case of an emergency (e.g. how residents should evacuate the building, and what they should do once they have evacuated the building).

External water supply refers to a non-mains external water supply which is suitable for fighting fire. It includes pools, dams and creeks.

Removal of external fuel source refers to the removal of all possible sources of fuel for a bushfire. This includes such measures as removing overhanging trees, removing dry leaves/firewood from around the home etc.

External sprinkler is a heavy duty sprinkler capable of wetting the home externally in order to help it become fire resistant.

Prevalence of fire safety measures in Australian homes, February 2000

	Internal installation(a)	External measure(b)	Other measure(c)	Any safety measure	Total households(d)
	%	%	%	%	'000
Dwelling Type					
Separate house	87.0	35.2	16.4	90.5	5 561.8
Semi-detached/row/terrace house	85.1	16.5	9.3	88.2	704.0
Flat/unit/apartment	67.2	9.2	6.8	68.1	746.5
Other	81.2	31.7	20.8	81.8	25.2
Tenure Type					
Owner without a mortgage	86.5	34.8	13.6	90.2	2 953.6
Owner with a mortgage	90.1	35.5	20.1	92.7	2 041.5
Renter					
Private landlord/real estate agent	72.8	18.1	11.9	75.5	1 432.3
Public housing authority	91.2	18.7	7.5	93.3	343.3
Other	92.2	14.5	5.7	92.6	118.9
Other tenure type	69.8	28.4	10.9	75.4	206.0
Household Type					
Family household					
With dependent child(ren)	88.9	32.5	21.8	91.3	2 362.0
Without dependent children	85.8	34.0	12.2	89.4	2 741.8
Non-family household					
Lone person	79.0	24.5	9.9	83.0	1 509.3
Group household	74.4	18.4	8.6	76.1	424.3

(a) Comprises smoke alarms, smoke detectors, safety switches, circuit breakers, fire extinguishers, and fire blankets.
(b) Comprises external water supplies, external sprinklers, and the removal of external fuel sources.
(c) Comprises fire evacuation plans and other non-specified measures.
(d) Includes households that did not state whether they had any fire safety measures.

Source: Unpublished data, Population Survey Monitor, February 2000.

proximity of other dwellings. The installation of fire safety measures would therefore be just as important (if not more so) in higher density areas as in separate homes.

Properties rented from a private landlord or real estate agent were less likely to have a fire safety measure (76%) than those from a public housing authority (93%) or those which were privately owned (93% with a mortgage and 90% without).

The presence of dependent children in a family household made little difference to the implementation of a fire safety measure in the home, though 90% of family households had a fire safety measure in the home compared to 81% of non-family households. Group households were the least likely (76%) to adopt a fire safety measure in the home.

Endnotes

1 New South Wales Fire Brigades 1996, *Fires in the home 1987–1995*, Statistical Research Paper, Issue 3, New South Wales Fire Brigades, Sydney.

2 Australian Building Codes Board 1996, *Building Code of Australia 1996*, Australian Building Codes Board, Canberra.

International comparisons

Caution

Statistics presented in this chapter have been reproduced from international statistical compendia. National statistical systems differ from country to country and therefore caution should be exercised when comparing international data. Details of national differences can be found in the country notes in the source publications.

Population composition

Country	Reference year	Total population	0–14 years	15–59 years	60 years and over
		'000	%	%	%
Australia	**1998**	**18 730**	**21**	**63**	**16**
Canada	1998	30 563	19	64	17
China(a)	1998	1 255 698	26	64	10
France	1998	58 683	19	61	20
Greece	1998	10 600	16	61	23
Hong Kong	1998	6 660	18	68	14
Indonesia	1998	206 338	32	61	7
Italy	1998	57 369	14	62	24
Japan	1998	126 281	15	63	22
Korea (Republic of)	1998	46 109	22	68	10
Malaysia	1998	21 410	35	59	6
New Zealand	1998	3 796	23	62	15
Papua New Guinea	1998	4 600	39	56	5
Singapore	1998	3 476	22	68	10
Sweden	1998	8 875	19	59	22
United Kingdom	1998	58 649	19	60	21
United States of America	1998	274 028	22	62	16
Viet Nam	1998	77 562	35	58	7

(a) Excludes Hong Kong and Taiwan Province.

Source: United Nations *World Population 1998; Population by Age and Sex, Australian States and Territories* (Cat. no. 3201.0).

Population growth

Country	Reference year	Annual average growth rate	Crude birth rate(a)	Crude death rate(a)	Total fertility rate
		%	rate	rate	rate
Australia	**1995–2000**	**1.0**	**13**	**8**	**1.8**
Canada	1995–2000	1.0	12	7	1.5
China(b)	1995–2000	0.9	16	7	1.8
France	1995–2000	0.4	12	9	1.7
Greece	1995–2000	0.3	9	10	1.3
Hong Kong	1995–2000	2.1	10	6	1.3
Indonesia	1995–2000	1.4	23	8	2.6
Italy	1995–2000	0.0	9	10	1.2
Japan	1995–2000	0.2	10	8	1.4
Korea (Republic of)	1995–2000	0.8	15	6	1.6
Malaysia	1995–2000	2.0	25	5	3.2
New Zealand	1995–2000	1.0	15	8	2.0
Papua New Guinea	1995–2000	2.2	32	10	4.6
Singapore	1995–2000	1.4	15	5	1.7
Sweden	1995–2000	0.2	10	11	1.6
United Kingdom	1995–2000	0.2	12	11	1.7
United States of America	1995–2000	0.8	14	8	2.0
Viet Nam	1995–2000	1.6	22	7	2.6

(a) Per 1,000 population.
(b) Excludes Hong Kong and Taiwan Province.

Source: United Nations *World Population 1998.*

Population projections(a)

Country	Population			Median age			0–14 years			65 years and over		
	2000	2020	2050	2000	2020	2050	2000	2020	2050	2000	2020	2050
	million	million	million	years	years	years	%	%	%	%	%	%
Australia(b)	**18.9**	**22.3**	**25.8**	**35.3**	**39.8**	**42.2**	**20.6**	**18.2**	**17.2**	**12.1**	**16.8**	**22.6**
Canada	31.1	36.6	42.3	36.8	41.6	42..6	18.9	16.8	17.0	12.8	18.2	23.8
China(c)	1 277.6	1 454.5	1 477.7	30.0	37.3	43.7	24.9	19.1	16.3	6.8	11.5	22.6
France	59.1	61.5	59.9	37.6	42.3	43.9	18.7	17.3	16.8	15.9	20.1	25.5
Greece	10.6	10.1	8.2	39.4	46.6	52.5	14.9	12.6	12.6	17.9	22.7	34.3
Hong Kong	6.9	7.8	6.7	35.9	44.5	52.2	17.2	14.0	12.3	10.5	17.0	33.3
Indonesia	212.1	262.3	311.9	24.8	31.6	38.0	30.7	23.6	19.9	4.7	7.2	16.5
Italy	57.3	52.9	41.2	40.6	49.0	53.2	14.3	11.6	12.0	18.2	24.1	34.9
Japan	126.7	123.9	104.9	41.2	46.9	49.0	14.8	13.9	13.8	17.1	26.2	31.8
Korea (Republic of)	46.8	51.9	51.3	31.4	39.7	44.4	21.5	17.7	16.0	6.7	12.3	24.7
Malaysia	22.2	29.3	37.0	23.3	29.9	38.1	34.0	23.8	19.6	4.1	7.7	15.9
New Zealand	3.9	4.5	5.2	34.0	37.8	40.6	22.7	19.7	18.5	11.6	15.6	20.8
Papua New Guinea	4.8	7.0	9.5	20.5	24.3	34.5	38.7	31.8	22.3	3.0	4.0	10.0
Singapore	3.6	4.1	4.1	34.4	42.4	45.5	22.1	16.4	15.5	7.2	16.1	25.6
Sweden	8.9	9.1	8.7	39.9	44.9	46.3	18.2	15.1	15.9	17.4	23.1	26.7
United Kingdom	58.8	59.8	56.7	38.2	42.6	44.5	18.8	16.6	16.2	16.0	19.8	24.9
United States of America	278.4	317.1	349.3	35.8	39.0	42.1	21.5	18.4	17.1	12.5	16.6	21.7
Viet Nam	79.8	102.5	126.8	23.1	30.9	38.5	33.2	24.2	19.6	5.3	6.2	17.2

(a) Medium-variant projection.
(b) United Nations projections for Australia may not agree with ABS projections owing to differences in assumptions and methodology.
(c) Excludes Hong Kong and Taiwan Province.

Source: United Nations *World Population Prospects: The 1998 Revision*.

Health status

Country	Reference year	Infant mortality rate(a)	Life expectancy at birth		Reference year	Disability adjusted life expectancy at birth(b)	
			Males	Females		Males	Females
		rate	years	years		years	years
Australia	**1995–2000**	**6**	**75.5**	**81.1**	**1999**	**70.8**	**75.5**
Canada	1995–2000	6	76.1	81.8	1999	70.0	74.0
China(c)	1995–2000	41	67.9	72.0	1999	61.2	63.3
France	1995–2000	6	74.2	82.0	1999	69.3	76.9
Greece	1995–2000	8	75.6	80.6	1999	70.5	74.6
Hong Kong	1995–2000	6	75.8	81.4	1999	n.a.	n.a.
Indonesia	1995–2000	48	63.3	67.0	1999	58.8	60.6
Italy	1995–2000	7	75.0	81.2	1999	70.0	75.4
Japan	1995–2000	4	76.8	82.9	1999	71.9	77.2
Korea (Republic of)	1995–2000	10	68.8	76.0	1999	62.3	67.7
Malaysia	1995–2000	11	69.9	74.3	1999	61.3	61.6
New Zealand	1995–2000	7	74.1	79.7	1999	67.1	71.2
Papua New Guinea	1995–2000	61	57.2	58.7	1999	45.5	48.5
Singapore	1995–2000	5	74.9	79.3	1999	67.4	71.2
Sweden	1995–2000	5	76.3	80.8	1999	71.2	74.9
United Kingdom	1995–2000	7	74.5	79.8	1999	69.7	73.7
United States of America	1995–2000	7	73.4	80.1	1999	67.5	72.6
Viet Nam	1995–2000	38	64.9	69.6	1999	56.7	59.6

(a) Per 1,000 live births.
(b) Disability adjusted life expectancy at birth summarises the expected number of years to be lived in what might be termed the equivalent years of 'full health'.
(c) Excludes Hong Kong and Taiwan Province.

Source: United Nations *World Population Prospects: The 1998 Revision;* World Health Organisation Statistical Information System at http://www.who.int/whosis.

Standardised death rates(a) for selected causes of death

Country	Reference year	Malignant neoplasms (cancer)	Ischaemic heart disease	Cerebro-vascular disease (stroke)	Motor vehicle traffic accidents	Suicide and self-inflicted injury(b)	All causes
		rate	rate	rate	rate	rate	rate.
Australia	**1994**	**126.2**	**95.8**	**37.2**	**10.0**	**11.2**	**440.6**
Canada	1995	126.1	81.4	26.2	9.8	11.6	428.8
China (rural)(c)	1994	111.9	26.5	110.2	13.8	25.8	698.7
China (urban)(c)	1994	119.4	57.6	125.0	10.1	5.9	594.7
France	1994	130.8	33.2	26.7	12.9	15.8	423.9
Greece	1995	109.4	57.5	69.2	19.8	2.7	449.0
Hong Kong	1994	125.9	40.0	39.8	4.5	10.3	392.9
Indonesia	..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Italy	1993	133.7	55.0	48.5	12.4	5.8	450.0
Japan	1994	106.2	21.7	44.5	8.9	12.2	364.0
Korea (Republic of)(d)	1995	123.1	14.6	90.9	36.2	9.8	585.8
Malaysia	..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
New Zealand	1993	142.2	119.7	44.0	16.8	11.7	509.9
Papua New Guinea	..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	1995	130.8	96.7	57.0	7.6	12.0	517.7
Sweden	1995	106.6	94.1	34.7	4.9	11.8	408.6
United Kingdom	1995	137.1	112.2	43.1	5.6	6.2	495.8
United States of America	1994	130.8	96.1	28.4	14.9	10.3	521.9
Viet Nam	..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

(a) Standardised death rates are the overall death rates per 100,000 population that would have prevailed in a standard population if it had experienced at each age the death rates of the population being studied. The standard population used in this table is the World Health Organisation world standard population. Standardised death rates for Australia presented in the Health chapter of this publication or elsewhere in ABS publications are not comparable owing to the use of a different standard population and different reference periods.

(b) It is generally acknowledged that suicides are under-reported as a cause of death. The degree of under-reporting varies from country to country, partly for social and cultural reasons, but also because of differences in legal requirements and administrative procedures in arriving at a verdict of suicide.

(c) Excludes Hong Kong and Taiwan Province.

(d) Causes of death have been coded to the tenth edition of the International Classification of Diseases (ICD10). For all other countries, causes of death have been coded to the ninth edition (ICD9).

Source: World Health Organisation *World Health Statistics Annual 1996;* World Health Organisation *World Health Statistics Annual 1995*.

Health services and expenditure

Country	Reference year	Health expenditure as % of GDP	Health expenditure per capita at PPP(a)	Reference year	Doctors per 1,000 population	Reference year	Acute hospital beds per 1,000 population
		%	$US '000		no.		no.
Australia	**1997**	**8.4**	**1.9**	**1997**	**2.5**	**1997**	**4.0**
Canada	1997	9.2	2.2	1997	2.1	1993	3.6
China(b)	..	n.a.	n.a.	..	n.a.	..	n.a.
France	1997	9.6	2.0	1997	3.0	1997	4.3
Greece	1997	8.6	1.2	1996	4.0	1992	3.9
Hong Kong	..	n.a.	n.a.	..	n.a.	..	n.a.
Indonesia	..	n.a.	n.a.	..	n.a.	..	n.a.
Italy	1997	7.6	1.6	1997	5.8	1996	5.5
Japan	1997	7.2	1.8	1996	1.8	..	n.a.
Korea (Republic of)	1997	6.0	0.9	1997	1.2	1997	4.2
Malaysia	..	n.a.	n.a.	..	n.a.	..	n.a.
New Zealand	1997	7.6	1.4	1997	2.2	1991	7.1
Papua New Guinea	..	n.a.	n.a.	..	n.a.	..	n.a.
Singapore	..	n.a.	n.a.	..	n.a.	..	n.a.
Sweden	1997	8.6	1.8	1996	3.1	1997	2.7
United Kingdom	1997	6.8	1.4	1996	1.7	1996	2.0
United States of America	1997	13.9	4.1	1997	2.7	1996	3.3
Viet Nam	..	n.a.	n.a.	..	n.a.	..	n.a.

(a) PPP (purchasing power parities) are the rates of currency conversion which eliminate the differences in price levels between countries.
(b) Excludes Hong Kong and Taiwan Province.

Source: Organisation for Economic Co-operation and Development, *OECD Health Data 99: a comparative analysis of 29 countries,* 1999.

Distribution of persons aged 25–64 by level of educational attainment(a)

Country	Reference year	Below upper secondary education	Upper secondary education	Non-university tertiary education	University level education	Total
		%	%	%	%	%
Australia	**1996**	**43**	**32**	**10**	**15**	**100**
Canada	1996	24	29	31	17	100
China	1996	n.a.	n.a.	n.a.	n.a.	100
France	1996	40	41	9	10	100
Greece	1996	56	25	7	12	100
Hong Kong	1996	n.a.	n.a.	n.a.	n.a.	100
Indonesia	1996	81	15	2	2	100
Italy	1996	62	30	(b)	8	100
Japan	1996	n.a.	n.a.	n.a.	n.a.	100
Korea	1996	39	42	(b)	19	100
Malaysia	1996	67	26	(b)	7	100
New Zealand	1996	40	35	14	11	100
Papua New Guinea	1996	n.a.	n.a.	n.a.	n.a.	100
Singapore	1996	n.a.	n.a.	n.a.	n.a.	100
Sweden	1996	26	47	14	13	100
United Kingdom	1996	24	55	9	13	100
United States	1996	14	52	8	26	100
Viet Nam	1996	n.a.	n.a.	n.a.	n.a.	100

(a) The levels of education used are defined with reference to the International Standard Classification of Education of 1976.
(b) Data is included in another column of the table.

Source: Organisation for Economic Co-operation and Development, *Education at a glance OECD Indicators, 1998*.

Educational participation(a) and expenditure

Country	Reference year(b)	Net enrolment in public and private tertiary education for persons aged 17–34: Non–university tertiary education	Net enrolment in public and private tertiary education for persons aged 17–34: University level education	Net enrolment in public and private tertiary education for persons aged 17–34: Total	Reference year(b)	Direct public expenditure as a proportion of GDP(c)	Total public and private expenditure as a proportion of GDP(d)
		%	%	%		%	%
Australia	**1996**	**5.1**	**9.9**	**14.9**	**1995**	**4.5**	**5.6**
Canada	1996	6.9	10.0	16.9	1995	5.8	7.0
China	1996	n.a.	n.a.	n.a.	1995	n.a.	n.a.
France	1996	n.a.	n.a.	13.9	1995	5.8	6.3
Greece	1996	3.5	8.0	11.5	1995	3.7	3.7
Hong Kong	1996	n.a.	n.a.	n.a.	1995	n.a.	n.a.
Indonesia	1996	1.4	n.a.	n.a.	1995	n.a.	n.a.
Italy	1996	n.a.	n.a.	n.a.	1995	4.5	4.7
Japan	1996	n.a.	n.a.	n.a.	1995	3.6	4.7
Korea	1996	4.3	9.4	13.7	1995	3.6	6.2
Malaysia	1996	3.5	1.8	5.2	1995	4.9	5.1
New Zealand	1996	3.2	9.5	12.6	1995	5.3	n.a.
Papua New Guinea	1996	n.a.	n.a.	n.a.	1995	n.a.	n.a.
Singapore	1996	n.a.	n.a.	n.a.	1995	n.a.	n.a.
Sweden	1996	n.a.	9.9	9.9	1995	6.6	6.7
United Kingdom	1996	2.0	7.3	9.4	1995	4.6	n.a.
United States	1996	6.0	10.2	16.2	1995	5.0	6.7
Viet Nam	1996	n.a.	n.a.	n.a.	1995	n.a.	n.a.

(a) Participation rates are based on head counts of enrolments and do not differentiate between full-time and part-time enrolments.
(b) 1 January of the reference year is considered a good proxy for the mid-point of the school year except for Australia and Korea where 1 July is used as the mid-point of the reference period.
(c) Direct public expenditure includes both purchases by the government agency itself on educational resources and also appropriations by the government agency to educational institutions which have been given responsibility to purchase educational resources themselves.
(d) Public expenditure refers to the spending of public authorities at all levels. Private expenditure refers to expenditure funded by private sources i.e. households, private business firms and non-profit organisations of religious, charitable or business and labour associations.

Source: Organisation for Economic Co-operation and Development, *Education at a glance OECD Indicators, 1998*.

Labour force

Country	Reference year	Economically active population(a)	Participation rate of persons aged 15 and over(a)		
			Total	Men	Women(b)
		'000	%	%	%
Australia	**1998**	**9 343.1**	**63.3**	**72.9**	**53.9**
Canada	1998	15 631.5	65.1	72.4	58.1
China(c)	1990	647 244.7	79.2	85.0	73.0
France	1998	26 403.7	55.0	62.3	48.1
Greece	1997	4 292.7	49.2	63.1	36.7
Hong Kong	1998	3 359.4	62.0	75.5	48.5
Indonesia	1998	92 734.9	65.3	81.2	49.9
Italy	1997	22 889.0	47.5	61.3	34.8
Japan	1998	67 950.0	63.3	77.3	50.1
Korea (Republic of)	1998	21 388.0	60.7	75.2	47.0
Malaysia	1998	13 802.7	64.4	83.3	44.4
New Zealand	1998	1 864.1	63.6	71.9	55.8
Papua New Guinea	..	n.a.	n.a.	n.a.	n.a.
Singapore	1998	1 931.9	63.9	77.5	51.3
Sweden	1998	4 255.0	76.5	79.0	73.9
United Kingdom (UK)	1998	28 713.0	62.3	71.3	53.8
United States of America (USA)	1998	137 674.0	67.1	74.9	59.8
Viet Nam	1989	29 525.5	77.2	81.5	73.6

(a) For most countries data are presented for the economically active population aged 15 and over. However, the age range varies for some countries: Malaysia — 15–64; Sweden — 16–64; UK, USA — 16 and over. Definitions also vary in terms of the inclusion or exclusion of certain other segments of the population such as the armed forces.
(b) Participation rates for women are frequently not comparable internationally since, in many countries, relatively large numbers of women assist on farms or in other family enterprises without pay. There are differences between countries in the criteria used to count economically active workers.
(c) Excludes Hong Kong and Taiwan Province.

Source: International Labour Office, *Year Book of Labour Statistics*, 1998 and 1999.

Employment and unemployment(a)

Country	Reference year	Employment	Reference year	Unemployment	Unemployment rate
		'000		'000	%
Australia	**1998**	**8 553.1**	**1998**	**746.5**	**8.0**
Canada	1998	14 326.4	1998	1 305.1	8.3
China(b)(c)	1998	699 570.0	1998	5 710.0	3.1
France	1998	22 705.0	1998	3 050.2	11.8
Greece	1997	3 854.1	1997	440.4	10.3
Hong Kong	1998	3 201.0	1998	157.6	4.7
Indonesia	1998	87 672.4	1998	5 062.5	5.5
Italy	1997	20 087.0	1997	2 805.0	12.3
Japan	1998	65 140.0	1998	2 769.0	4.1
Korea (Republic of)	1998	19 926.0	1998	1 463.0	6.8
Malaysia	1998	8 599.6	1997	214.9	2.5
New Zealand	1998	1 725.0	1998	139.1	7.5
Papua New Guinea	..	n.a.	..	n.a.	n.a.
Singapore	1998	1 869.7	1998	62.1	3.2
Sweden	1998	3 979.0	1998	276.0	6.5
United Kingdom (UK)	1998	26 947.4	1998	1 765.6	6.1
United States of America (USA)	1998	131 463.0	1998	6 210.0	4.5
Viet Nam	1997	36 994.0	..	n.a.	n.a.

(a) For most countries the employed and unemployed populations are aged 15 and over. However, the age range varies for some countries: China and Viet Nam— Not specified; Greece — 14 and over; Indonesia — 10 and over; Malaysia — 15–64; Sweden — 16–64; UK and USA — 16 and over. Definitions also vary in terms of the inclusion or exclusion of certain other segments of the population such as the armed forces.
(b) Employment relates to total economy; unemployment relates to urban areas only.
(c) Excludes Hong Kong and Taiwan Province.

Source: International Labour Office, *Year Book of Labour Statistics*, 1998 and 1999.

Cumulative topic list

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