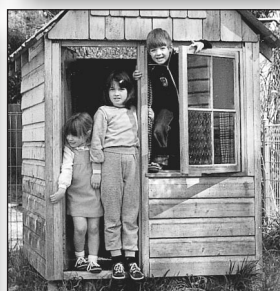




Australian Social Trends 2001



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Australian Social Trends 2001

Dennis Trewin
Australian Statistician

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Preface

Australian Social Trends 2001 is the eighth 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 2001* 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 across articles, including those presented in previous editions of *Australian Social Trends*, connections between issues have also been highlighted. In some articles, the opportunity has been taken to revisit topics covered in previous editions, to provide an expanded and more contemporary picture, by using the most up-to-date data. This edition also includes a number of articles on new topics including drug-related deaths, older mothers, and a comparison of the population characteristics of Australia and New Zealand. However, as described on the contents page, there is a wealth of information on other topics of social concern.

Together with the analytical articles, *Australian Social Trends 2001* 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 wellbeing have been changing over time and how circumstances differ between States. Also provided is a set of tables of international comparisons for 17 countries, including major OECD countries and Australia's nearest neighbours and trading partners. Finally, there is a cumulative index to the 263 articles from all eight editions.

Various organisations have once again assisted in providing information for this publication. These include: the Australian Institute of Health and Welfare, Statistics New Zealand, the Department of Family and Community Services, the Private Health Insurance Administrative Council and the Department of Immigration and Multicultural Affairs. I would also like to thank Mr Gerry Redmond and Ms Sharon Burke of the Social Policy Research Centre at the University of New South Wales for their contribution in writing an article, and Mr Mike Giles, who provided editorial comment on this edition.

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.

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June 2001

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Inquiries about these statistics

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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 available on request or which is historical or compiled from a variety 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. 210).

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
SAR	Special Administrative Region of China
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 subject to sampling variability too high for most practical purposes
..	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

	Page
National and State summary tables	2
Population definitions and references	4

POPULATION CHARACTERISTICS

Populations of Australia and New Zealand: a comparison	7
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Australia and New Zealand have much in common. This article outlines the demographic characteristics of each country. Each is culturally diverse, and has experienced similar trends in fertility and life expectancy.

POPULATION COMPOSITION

Asian-born Australians	12
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This article discusses the characteristics of Australia's one million Asian-born people. As well as discussing their countries of birth, it compares their demographic profile with that of our total overseas-born population and the Australian population as a whole.

POPULATION GROWTH

Coming to Australia	16
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Immigration has shaped the growth and cultural composition of Australia's population. In addition to looking at the fluctuating numbers and changing source countries of immigrants between 1949 and 2000, this article reports on the characteristics of different immigrant cohorts and the impact of recent changes in the Migration and Humanitarian Programs.

Leaving Australia	21
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In recent years there has been a steady increase in the number of people leaving Australia permanently each year. In addition to looking at trends in permanent departures over the last 25 years, this article examines some of the reasons why people leave, and the characteristics, destinations and occupations of emigrants.

POPULATION PROJECTIONS

Population projections for the 21st century	26
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Australia's population is projected to grow from 19 million in 1999 to between 23 and 32 million in 2101, depending on the assumptions made about future fertility and net overseas migration. The population is also projected to age rapidly during the first half of the 21st century and to become increasingly concentrated in the State and Territory capital cities.

Population: national summary

COMPOSITION		Units	1990	1991	1992	1993	1994(a)	1995	1996	1997	1998	1999	2000p
Total population	'000	17 065	17 284	17 495	17 667	17 855	18 072	18 311	18 524	18 730	r18 937	19 157	
Male population	'000	8 511	8 615	8 716	8 798	8 888	8 994	9 108	9 214	9 320	r9 425	9 538	
Female population	'000	8 554	8 669	8 779	8 869	8 967	9 078	9 203	9 310	9 411	r9 512	9 619	
Indigenous population(b)	'000	na	345.4	352.9	360.7	368.8	377.1	386.0	394.2	402.4	r410.6	418.8	
Overseas born population	%	22.8	22.9	23.0	22.9	22.9	23.0	23.3	23.3	23.3	r23.3	23.6	
Born in United Kingdom and Ireland	%	7.3	7.2	7.1	7.0	6.9	6.8	6.7	6.7	6.5	r6.4	6.3	
Born in Europe including former USSR	%	14.2	14.0	13.8	13.6	13.5	13.3	13.2	13.1	12.9	r12.7	12.5	
Born in East and Southern Asia	%	3.8	4.2	4.4	4.5	4.7	4.9	5.1	5.2	5.3	r5.4	5.6	
Population living in capital cities	%	63.6	63.6	63.5	63.5	63.5	63.5	63.6	63.7	63.7	63.8	63.9	
Population aged 0–14	%	22.0	21.9	21.8	21.7	21.6	21.5	21.4	21.2	20.9	20.7	20.5	
Population aged 15–64	%	66.9	66.8	66.7	66.6	66.6	66.6	66.6	66.7	66.9	r67.0	67.2	
Population aged 65 and over	%	11.1	11.3	11.5	11.6	11.8	11.9	12.0	12.1	12.2	r12.3	12.3	
Population aged 80 and over	%	2.2	2.2	2.3	2.4	2.5	2.6	2.6	2.7	2.7	2.8	2.9	
Median age of total population	years	32.1	32.4	32.7	33.0	33.4	33.7	34.0	34.3	34.6	34.9	35.2	
Median age of Indigenous population(b)	years	na	19.8	19.8	19.9	20.0	20.0	20.1	20.1	20.1	20.2	20.2	
Sex ratio of population 0–64	ratio	103.1	103.0	102.8	102.7	102.6	102.5	102.4	102.3	102.4	102.4	102.4	
Sex ratio of population aged 65 and over	ratio	74.5	75.0	75.5	75.9	76.3	76.7	77.1	77.5	77.9	r77.5	78.6	

POPULATION GROWTH		Units	1990	1991	1992	1993	1994(a)	1995	1996	1997	1998	1999	2000p
Population growth	'000	250.7	218.9	210.6	172.4	187.6	217.0	239.0	213.4	206.2	r206.8	219.9	
Births	'000	257.5	261.2	259.2	260.0	258.3	258.2	250.4	253.7	249.1	r250.0	248.5	
Deaths	'000	125.1	119.6	120.8	121.3	123.5	126.2	126.4	127.3	129.3	r128.3	127.7	
Natural increase	'000	132.4	141.6	138.4	138.6	134.8	132.0	124.0	126.4	119.9	r121.7	120.8	
Net overseas migration	'000	124.6	86.4	68.6	30.0	46.5	80.1	104.1	87.1	86.4	r85.1	99.1	
Population growth rate	%	1.49	1.28	1.22	0.99	1.06	1.22	1.32	1.17	1.11	r1.10	1.16	
Net overseas migration to total growth	%	49.7	39.5	32.6	17.4	24.8	36.9	43.6	40.8	41.9	r41.2	45.1	

MIGRATION		Units	1990	1991	1992	1993	1994(a)	1995	1996	1997	1998	1999	2000
Total settler arrivals(c)	'000	121.2	121.7	107.4	76.3	69.8	87.4	99.1	85.8	77.3	84.1	92.3	
Skilled settler arrivals	%	35.3	39.8	37.6	29.0	18.3	23.1	20.2	23.0	33.6	33.2	35.1	
Family settler arrivals	%	41.2	44.3	45.3	42.1	48.1	42.4	46.9	42.6	27.3	25.6	21.6	
Humanitarian settler arrivals	%	9.9	6.4	6.7	14.3	16.3	15.6	13.9	11.5	11.4	10.4	7.9	

PROJECTIONS — SERIES II(d)		Units	2006	2011	2016	2021	2026	2031	2036	2041	2046	2051	2101
Total population	'000	20 395	21 289	22 132	22 926	23 648	24 254	24 713	25 034	25 253	25 409	25 254	
Population aged 0–14	%	19.0	17.7	16.8	16.1	15.8	15.5	15.1	14.8	14.5	14.4	14.4	
Population aged 15–64	%	68.0	68.0	66.9	65.5	63.7	62.3	61.2	60.4	60.0	59.6	58.6	
Population aged 65 and over	%	13.0	14.3	16.4	18.4	20.5	22.3	23.7	24.8	25.5	26.1	27.0	
Population aged 80 and over	%	3.4	3.9	4.0	4.4	5.1	6.3	7.2	8.2	8.8	9.4	10.1	
Median age of total population	years	36.9	38.6	40.0	41.2	42.4	43.4	44.3	45.1	45.6	46.0	46.1	
Population living in capital cities	%	64.5	64.8	65.1	65.4	65.8	66.1	66.5	66.8	67.2	67.5	n.a.	

(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.

(d) Data are drawn from the most recent series of population projections, based on the 1999 estimated resident population, and therefore differ from those published previously.

Reference periods: Population composition and projection figures are at 30 June. Growth 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	2000	6 464	4 766	3 566	1 498	1 884	470	196	311	19 157
Male population	'000	2000	3 215	2 359	1 784	741	949	232	103	155	9 538
Female population	'000	2000	3 249	2 407	1 783	757	935	239	92	156	9 619
Indigenous population(a)	'000	2000	118.9	24.2	115.9	23.9	60.4	16.4	55.5	3.5	418.8
Overseas born population	%	1996(b)	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(b)	5.4	5.5	6.0	10.0	13.2	5.4	4.9	6.7	6.7
Born in Europe including former USSR	%	1996(b)	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(b)	6.7	5.8	2.8	2.7	5.3	1.0	4.5	5.6	5.1
Population living in capital cities	%	2000	63.2	72.7	45.6	73.2	73.3	41.3	46.1	99.9	63.9
Population aged 0–14	%	2000	20.4	19.9	21.1	19.5	21.1	21.0	26.0	20.6	20.5
Population aged 15–64	%	2000	66.8	67.4	67.4	66.1	68.2	65.4	70.5	71.1	67.2
Population aged 65 and over	%	2000	12.8	12.8	11.5	14.5	10.7	13.6	3.5	8.3	12.3
Population aged 80 and over	%	2000	3.0	3.0	2.7	3.6	2.5	3.3	0.6	1.7	2.9
Median age of total population	years	2000	35.5	35.3	34.6	37.1	34.2	36.6	29.0	32.8	35.2
Median age of Indigenous population	years	2000	19.8	21.0	19.8	20.4	20.5	20.0	21.5	20.8	20.2
Sex ratio of population 0–64	ratio	2000	102.5	101.5	102.7	101.8	104.3	100.4	112.3	101.3	102.4
Sex ratio of population aged 65 and over	ratio	2000	77.8	77.2	81.8	77.0	80.6	77.5	108.7	78.9	78.6

POPULATION GROWTH	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Total population growth	'000	1999–2000	66.8	58.3	59.5	5.2	26.3	-0.4	2.7	1.5	219.9
Births	'000	1999–2000	87.0	58.0	46.9	18.0	25.1	5.8	3.7	4.0	248.5
Deaths	'000	1999–2000	45.3	31.2	22.7	11.5	11.0	3.7	0.9	1.3	127.7
Natural increase	'000	1999–2000	41.7	26.8	24.2	6.5	14.0	2.2	2.7	2.6	120.8
Net overseas migration	'000	1999–2000	40.6	24.8	16.3	3.5	12.9	0.4	0.9	-0.3	99.1
Net interstate migration	'000	1999–2000	-15.6	6.7	19.0	-4.8	-0.7	-3.0	-0.9	-0.8	..
Population growth rate	%	1999–2000	1.0	1.2	1.7	0.4	1.4	-0.1	1.4	0.5	1.2
Net interstate migration rate	%	1999–2000	-0.2	0.1	0.5	-0.3	—	-0.6	-0.5	-0.3	..

PROJECTIONS - SERIES II(c)	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Total population	'000	2051	8 248	5 547	6 101	1 411	3 038	319	370	372	25 409
Population aged 0–14	%	2051	14.4	13.5	14.8	12.8	15.0	12.5	20.5	14.4	14.4
Population aged 15–64	%	2051	59.3	58.7	60.5	56.0	60.6	53.5	69.3	62.3	59.6
Population aged 65 and over	%	2051	26.3	27.8	24.7	31.1	24.3	34.0	10.3	23.3	26.1
Population aged 80 and over	%	2051	9.4	10.4	8.5	12.2	8.5	13.2	2.1	8.4	9.4
Median age of total population	years	2051	46.1	47.1	45.3	50.2	44.5	53.2	34.7	43.3	46.0
Population living in capital cities	%	2051	71.0	79.2	46.9	78.1	73.5	45.8	52.0	n.a.	67.5

(a) Population projections.

(b) Only available in Census years.

(c) Data are drawn from the most recent series of population projections, based on the 1999 estimated resident population, and therefore differ from those published previously.

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* (ABS Cat. no. 3301.0).

Deaths

deaths occurring in that year.
Reference: *Deaths, Australia* (ABS 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* (ABS Cat. no. 1269.0).
Reference: *Migration, Australia* (ABS 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* (ABS 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 2000*, Department of Immigration and Multicultural Affairs.

Humanitarian settler arrivals

comprise: 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 2000*, 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* (ABS 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* (ABS 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* (ABS Cat. no. 3201.0).

Natural increase

the excess of births over deaths during the year.
Reference: *Australian Demographic Statistics* (ABS 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* (ABS 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* (ABS 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* (ABS Cat. no. 3412.0).

Population

estimated resident population (ERP). ERP is an estimate of the Australian population 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* (ABS 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* (ABS 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 1.6 by 2008, and then remaining constant; low levels of overseas migration (annual net gain of 90,000 from 2001–2002); and medium levels of interstate migration. The base year for these projections is 1999.
Reference: *Population Projections, 1999 to 2101* (ABS Cat. no. 3222.0).

Population definitions and references continued

Sex ratio

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

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 2000*,
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 2000*,
Department of Immigration and Multicultural Affairs.

Populations of Australia and New Zealand: a comparison

POPULATION CHARACTERISTICS

Australia and New Zealand experienced similar declines in fertility between 1960 and 2000 and notable improvements in life expectancy during the twentieth century.

Australia and New Zealand have many common links. Both countries were recently settled by Europeans, are predominantly English speaking and in that sense, share a common cultural heritage. Although in close proximity to one another, both countries are geographically isolated and have small populations by world standards. They have similar histories and enjoy close relations on many fronts.

In terms of population characteristics, Australia and New Zealand have much in common. Both countries have minority indigenous populations, and during the latter half of the 20th century have seen a steady stream of migrants from a variety of regions throughout the world. Both countries have experienced similar declines in fertility since the high levels recorded during the baby boom, and alongside this have enjoyed the benefits of continually improving life expectancy. One consequence of these trends is that both countries are faced with an ageing population, and the associated challenge of providing appropriate care and support for this growing group within the community.

Population size, growth and distribution

At 30 June 2000, Australia's population was 19.2 million people, while New Zealand's was 3.8 million. Between 1992 and 2000, Australia and New Zealand experienced similar average annual growth rates of 1.1%. However, while Australia's population growth rate was relatively steady over the decade, New Zealand's growth rate declined from 1.6% in 1995-96 to 0.5% in 1998-99, largely because

Population data

Information relating to Australia's population has been drawn from *Australian Demographic Statistics, June 2000* (ABS Cat. no. 3101.0), *Births, Australia, 1999* (ABS Cat. no. 3301.0), *Deaths, Australia, 1999* (ABS Cat. no. 3302.0), *Migration, Australia, 1999-2000* (ABS Cat. no. 3412.0) and the 1996 Census of Population and Housing.

Information relating to New Zealand's population has been drawn from Statistics New Zealand, *Demographic Trends, 2000* and the *New Zealand Official Yearbook 2000*.

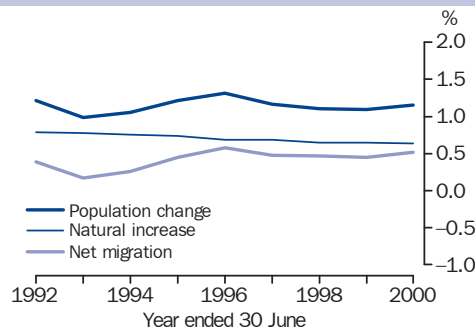
Australia and New Zealand use the same method to derive their resident populations. Post-censal estimates of the number of Australian and New Zealand residents are based on the Census date estimates (adjusted for Census undercounts and residents temporarily overseas) and then adjusted for natural increase (excess of births over deaths) and net overseas migration.

The ABS and Statistics New Zealand use similar approaches to identifying their indigenous populations. People belonging to the New Zealand Maori ethnic group are those who self-identify as Maori. Aboriginal and Torres Strait Islanders are those who identify as being of Aboriginal or Torres Strait Islander origin.

of declining levels of net overseas migration. From a peak gain of 29,500 in 1996-97, New Zealand's net overseas migration decreased to losses of 11,400 in 1998-99 and 9,800 in 1999-00. Most emigration in these years was to Australia.

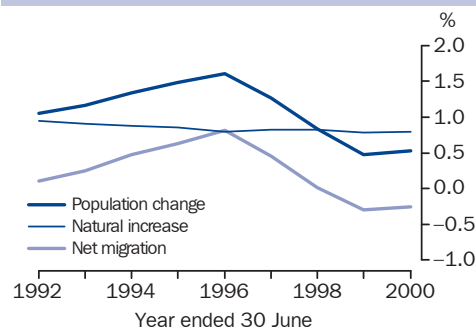
Although both countries have their roots in agriculture, and a century ago had about half their populations living in rural areas, they are now among the most highly urbanised

Population growth rates, Australia



Source: Australian Demographic Statistics (ABS Cat. no. 3101.0).

Population growth rates, New Zealand



Source: Statistics New Zealand, *Demographic Trends, 2000*, Wellington.

Recent population characteristics

		Australia	New Zealand
Population (million)	June 2000	19.2	3.8
0–14 years (%)	June 2000	20.5	22.9
15–64 years (%)	June 2000	67.2	65.3
65 years and over (%)	June 2000	12.3	11.8
Median age (years)	June 2000	35.2	34.3
Population growth (%)			
1999–2000 (%)	June 2000	1.2	0.5
1992–2000 (average annual %)	June 2000	1.1	1.1
Net overseas migration ('000)	1999–2000	99.1	–9.8
Total fertility rate (babies per woman)	1999	1.75	2.00
Life expectancy			
Males (years)	1997–99	76.2	75.2
Females (years)	1997–99	81.8	80.4

Sources: *Australian Demographic Statistics, June 2000* (ABS Cat. no. 3101.0); *Births, Australia, 1999* (ABS Cat. no. 3301.0); *Deaths, Australia, 1999* (ABS Cat. no. 3302.0); *Statistics New Zealand, Demographic Trends, 2000*, Wellington.

countries in the world. In 1996, 86% of Australians and 85% of New Zealanders were living in urban areas of 1,000 or more people.

The indigenous people of Australia and New Zealand are a relatively small group within each country's population. In June 1996, Australia's Aboriginal and Torres Strait Islander population numbered 386,000, while New Zealand's Maori population was 523,400. As Maori people make up a greater proportion of the total population than the Aboriginal and Torres Strait Islander population (15% compared with 2% in 1996), they have a greater impact on the dynamics of New Zealand's population.

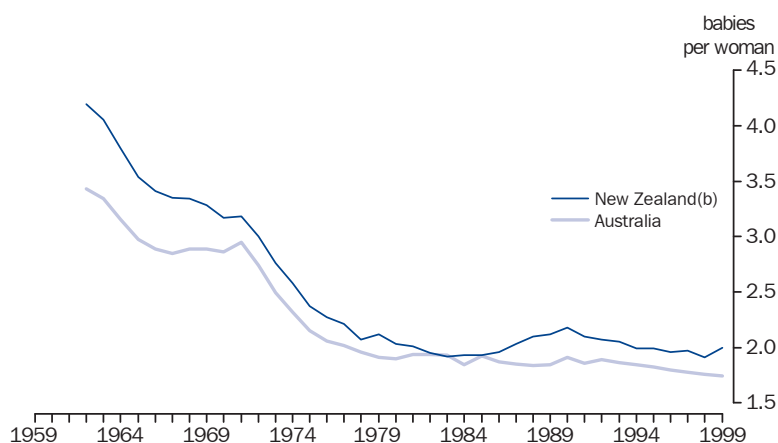
Fertility

Since the early 1960s, the total fertility rates of both Australian and New Zealand women have declined, although the rates for New Zealand have generally been slightly higher than for Australia. Between 1962 and 1999, the total fertility rate of Australian women fell from 3.4 to 1.7 babies per woman, compared with 4.2 to 2.0 babies per woman for New Zealand women. Over this period, similar social changes affected the level of fertility in both countries, with couples marrying later, having fewer children and later in life, or foregoing parenthood altogether (see *Australian Social Trends 2001*, Older mothers, pp. 55–58).

In common with other developed countries, fertility has fallen below replacement level (the number of babies a woman would need to replace herself and her partner, that is, about 2.1 on average) in both countries. This occurred in 1976 in Australia and 1980 in New Zealand. Despite this, in 2000 the number of births exceeded the number of deaths in both countries, because the age structure of each population was still relatively young. Natural increase will continue to contribute to population growth for the first 30 to 40 years of this century in each country. However, in the longer term, as the population ages and deaths eventually outnumber births, any population growth in either country would stem from net overseas migration gains.

The higher fertility levels of New Zealand women compared with Australian women over the period can be attributed to the higher proportion of Maori and Pacific Islands women in New Zealand's population. The fertility patterns of the indigenous

Total fertility rates(a)



- (a) The total fertility rate is the number of babies a woman would bear during her life if she experienced current age-specific fertility rates at each age of her reproductive life.
- (b) Figures prior to 1991 refer to the de facto population (all people in New Zealand at a given time, including overseas visitors), whereas figures from 1991 refer to the resident population of New Zealand.

Source: *Births, Australia, 1999* (ABS Cat. no. 3301.0); *Statistics New Zealand, Demographic Trends, 2000*, Wellington.

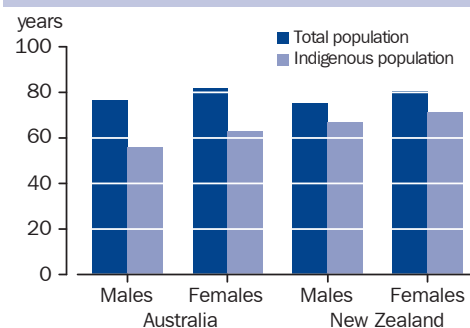
populations of Australia and New Zealand show that while indigenous women tend to have more children at younger ages than the non-indigenous population, they too have experienced a decline in fertility over the last 40 years. The total fertility rate of Australian Aboriginal and Torres Strait Islander women fell from about 5.8 babies per woman in the 1960s to 2.1 babies per woman in 1999. Similarly, the total fertility rate for Maori women fell from about 5.8 babies per woman in the 1960s to 2.6 in 1999 (these figures need to be interpreted with caution because of question and definitional changes between 1960 and 1999).

Mortality

The people of Australia and New Zealand experienced substantial gains in life expectancy throughout the 20th century. An Australian baby boy and girl born during the years 1997–1999 could be expected to live for 76 and 82 years respectively, based on current patterns of mortality. New Zealand boys and girls had slightly lower life expectancies (75 years and 80 years respectively) for the same period. These levels ranked among the highest in the world, behind Japan and some European countries.

The life expectancies of indigenous people in both countries are lower than those of the total population. In 1997–1999, Aboriginal and Torres Strait Islander Australians had a life expectancy about 20 years lower than that of the Australian population as a whole. In comparison, the life expectancy of New Zealand Maoris was about 10 years lower than that of the total New Zealand population, based on 1995–1997 life tables.

Life expectancy, 1997–1999(a)



(a) Maori life expectancy data is from 1995–97 life tables.

Source: Deaths, Australia, 1999 (ABS Cat. no. 3302.0); Statistics New Zealand, Demographic Trends, 2000, Wellington.

Mortality indicators

Life expectancy at birth is the average number of years a child at birth may live if the age-specific death rates of the given period continued throughout his/her lifetime.

The *infant mortality rate* is the number of deaths of children under one year of age in a calendar year per 1,000 live births in that calendar year.

The major causes of death in both Australia and New Zealand are cancer, ischaemic heart disease and stroke. In 1997, cancer was the leading cause of death in both countries, accounting for over a quarter of deaths. Ischaemic heart disease accounted for 23% of deaths in both countries and stroke for 9%.

Gains in life expectancy over the last century can be attributed in part to improvements in the infant mortality rate. The infant mortality rate is an indicator of population health and living conditions. The world infant mortality rate was projected to be 57 infant deaths per 1,000 live births for the year 2000. Australia's and New Zealand's rates of 5.7 and 5.6 respectively in 1999, ranked among the lowest in the world. However, the rates for the indigenous populations were notably higher than for the total population of each country. In 1999, the infant mortality rate for Aboriginal and Torres Strait Islanders was 15.5 deaths per 1,000 live births for male infants and 12.7 for female infants. In the same year, the Maori infant mortality rates were 10.2 and 5.9 respectively.

External migration

Both Australia and New Zealand are countries open to immigration, although over time the source countries of migrants have varied. Migration has had a major impact on the size, growth and composition of each country's population, particularly since the end of World War II. Over the second half of the 20th century, the levels of migration were characterised by large fluctuations, often in response to changing economic conditions and shifts in government policy.

Migrants from the United Kingdom and Ireland dominated flows into both countries from colonial days until the end of World War II, and continued to do so in New Zealand until the 1970s. After World War II, Australia's migrant stream continued to be mainly from the United Kingdom, but expanded to include refugees from Eastern Europe and people from Mediterranean countries such as Italy, Greece and Yugoslavia.

Leading source countries of migrants to Australia and New Zealand, 1996–2000

Australia(a)		New Zealand(b)	
Previous country of residence	%	Previous country of residence	%
New Zealand	14.9	UK	13.4
United Kingdom	11.0	Australia	9.8
Indonesia	5.4	Japan	8.5
Hong Kong (SAR of China)	5.4	China	8.0
China	5.2	(excludes SARs and Taiwan Province)	8.0
(excludes SARs and Taiwan Province)	5.2	South Africa	5.1
United States of America	4.9	India	4.1
Average arrivals 1996–2000(c)	100.0	Average arrivals 1996–2000(c)	100.0
	no.		no.
Average arrivals 1996–2000(c)	194 986	Average arrivals 1996–2000(c)	44 841

(a) Permanent and long-term arrivals, excluding Australian residents.

(b) Permanent and long-term arrivals, excluding New Zealand citizens.

(c) Includes permanent and long-term arrivals from all countries.

Source: ABS Overseas Arrivals and Departures Collection; Data supplied by Statistics New Zealand.

Since the 1970s, Australia and New Zealand have allowed migration from a wider range of countries. This has led to an increasing proportion of migrants to both countries coming from Northeast and Southeast Asia, and, for New Zealand, from the Pacific Islands. Between 1996 and 2000, residents of Indonesia, Hong Kong and China made up 16% of all permanent and long-term arrivals to Australia. Over the same period, residents of Japan made up 9% of permanent and long-term arrivals to New Zealand, while residents of China made up 8%.

As a result of these historical and more recent movements, each country has become more culturally diverse. A quarter of Australia's population in 2000 had been born overseas compared with about a fifth of New Zealand's population in 1996.

Population movement between Australia and New Zealand has occurred since European settlement began in the two countries, but has increased substantially over the last three decades with the introduction of travel by air and intergovernmental agreements promoting closer economic relations. Both the level and direction of movement have been associated with relative economic conditions in the two countries.¹

Between 1996 and 2000, 15% of permanent and long-term arrivals to Australia were New Zealand residents, the largest group in each year. Over the same period, although Australian residents accounted for 10% of permanent and long-term arrivals to New Zealand, the United Kingdom was the largest source country (13% of arrivals). Because of the difference in the volume of immigration to Australia and New Zealand, there was a

substantial net gain in trans-Tasman migration to Australia of approximately 25,000 per year over the period.

Age structure

The age structure of a population encapsulates the effects of past changes in fertility, mortality and migration patterns. In 2000, although Australia had a slightly older age profile than New Zealand, both countries had a high proportion of the population aged 35–54 years. These were a combination of people born during the post World War II baby boom and migrants of the same ages who arrived during this period.

The gradual fertility decline which occurred during the 1990s was evident in a smaller proportion of children in each population than in the past — 21% of Australia's population and 23% of New Zealand's were under 15 years of age in 2000 (compared with 27% and 30% respectively in 1976). At the other end of the age range, the growing number of people living to older ages reflects improvements in life expectancy. The proportion of the population aged 65 years and over was 12% in both countries in 2000 (compared with 9% for both in 1976).

Along with other developed countries, Australia and New Zealand populations are ageing and this is set to continue in the future as the baby boomers move into older age groups. Between 1991 and 2000, the median age increased from 32 to 35 years for Australia and 31 to 34 years for New Zealand. Population projections for each country suggest that by 2051 the median ages will be about 46 and 45 years respectively.²

Age profile of indigenous populations, June 2000

	Australia	New Zealand
Age group (years)	%	%
0–14	39.0	36.5
15–64	58.5	60.2
65 and over	2.5	3.3
	years	years
Median age	20.2	21.3

Source: *Experimental projections of the Indigenous population, 1996 to 2006* (ABS Cat. no. 3231.0); Statistics New Zealand website: <URL:http://www.stats.govt.nz/domino/external/web/prod_serv.nsf/htmldocs/Maori+Population+Estimates+Tables> (accessed 2 April 2001).

The indigenous populations of both countries have a considerably younger age structure than that of the total population, resulting from their higher fertility and mortality rates. In 2000, 39% of the Aboriginal and Torres Strait Islander population and 37% of the Maori population were aged under 15 years (compared with 21% and 23% of all people in Australia and New Zealand respectively), while only 3% of each group were aged 65 years and over (compared with 12% of all people in both countries). Consequently, in 2000 the indigenous populations had low median ages — 20 years and 21 years respectively (compared with 35 years and 34 years for the total populations of Australia and New Zealand).

Trans-Tasman links

Trans-Tasman links go back to the early years of European settlement. The two colonies traded in flax and agricultural products from as early as the 1790s, and sealing ships from Sydney and Hobart visited New Zealand waters around 1800.³ In 1885, New Zealand, along with several colonial governments, formed the Federal Council of Australasia. This body had the power to make suggestions for common legislation in a range of matters.⁴

Australia and New Zealand soldiers fought alongside one another in both World Wars and in a number of other military engagements during the last century. The long-standing defence links between the two countries were formalised in the Canberra Pact in 1944 and the ANZUS treaty in 1952.⁵

The Trans-Tasman Travel agreement signed by Australia and New Zealand in 1973, allows most citizens of both countries to move freely between the two countries without visa restrictions.

Australia and New Zealand are major trading partners. The Australia New Zealand Closer Economic Relations (CER) Trade Agreement was signed in 1983. Complete free trade of goods was achieved in 1990.⁵

Endnotes

- 1 Carmichael, G.A. (ed) 1993, *Trans-Tasman Migration: Trends, Causes and Consequences*, AGPS, Canberra.
- 2 Australian Bureau of Statistics 2000, *Population Projections, Australia, 1999 to 2101*, Cat. no. 3222.0, ABS, Canberra.
- 3 Oliver, W.H. and Williams, B.R. (eds) 1981, *The Oxford History of New Zealand*, Oxford University Press, Auckland.
- 4 *The Federation Story*, The Official Website of the National Council for the Centenary of Federation <URL:http://www.centenary.gov.au/resources/history/federation_story.php> (accessed 30 January 2001).
- 5 Statistics New Zealand, 2000, *New Zealand Official Yearbook 2000*, PrintLink, Wellington.

Asian-born Australians

POPULATION COMPOSITION

Australia's Asian-born population reached one million in 1999, almost four times that of twenty years ago.

Compared with other countries, Australia has a relatively large proportion of immigrants — 24% in 2000, a quarter of whom were born in Asia. Between 1981 and 2000 the Asian-born population of Australia grew steadily, from 276,000 to over a million, and now makes up 6% of Australia's people.

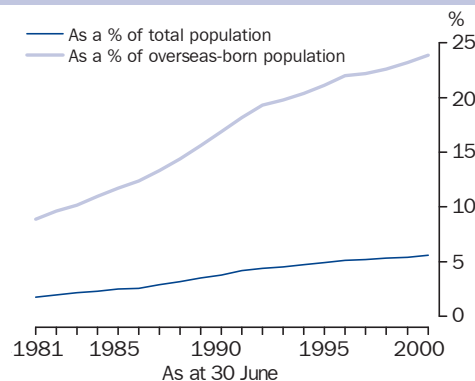
This relatively large number of Asian-born people contribute to many aspects of Australian society. The Asian regions account for over half the world's population and are characterised by huge economic, cultural and social diversity. Consequently, Australians born in Asia are a diverse group, whose contributions reflect their varied backgrounds and cultures.

While the children of Asian-born Australians are not discussed elsewhere in this article, they make up a large group in Australian society (286,000 in 1996). These children inherit elements of their parents' background and culture and, having being born here, are likely to further integrate these into the wider Australian society.

Movement to Australia

Although limited earlier in the 20th century, immigration from Asian regions increased following the relaxation in the early 1970s of Australia's Immigration Restriction Act (1901). This period has also seen a shift in the focus of our economic and cultural links away from Europe and towards the Asia-Pacific region (see *Australian Social Trends* 1996, Expanding Links with Asia, pp. 10–16). Since 1981, most settler arrivals, including the Asian born, have entered Australia under the

Asian-born Australians



Source: ABS Estimated Resident Population by Country of Birth, 1981–2000.

Country of birth

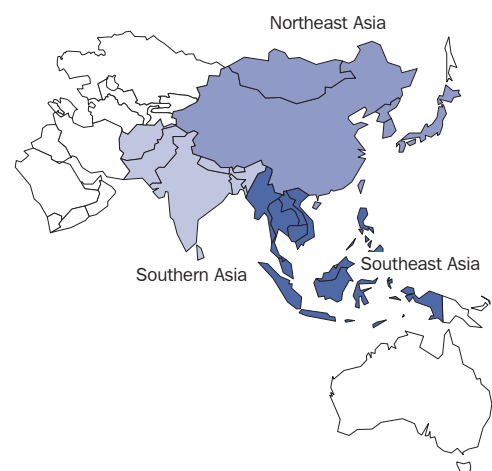
Statistics on the size and composition of Australia's Asian-born population presented in this article are drawn from the ABS Estimated Resident Population by Country of Birth series, produced annually since 1981 and available in *Migration, Australia* (ABS Cat. no. 3412.0).

Data on usual area of residence and proficiency in spoken English are from the ABS 1999 Labour Force Status and Other Characteristics of Migrants Survey, which has been conducted every three years since 1984. The scope of this survey is limited to immigrants aged 18 years and over who arrived in Australia after 1980.

In this article *Asian-born Australians* refer to residents of Australia (i.e. persons who have lived or intend to live in Australia for one year or more) who were born in any of the three Asian regions as classified in the 1998 Australian Standard Classification of Countries for Social Statistics (ABS Cat. no. 1269.0). These are:

- ◆ *Southeast Asia* – comprising Brunei, Burma (Myanmar), Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand and Viet Nam;
- ◆ *Northeast Asia* – comprising China, Hong Kong, Japan, the Koreas, Macau, Mongolia and Taiwan; and
- ◆ *Southern Asia* – comprising Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka.

Although the term Asia applies to a broad range of countries including some in the Middle East and the former USSR, the data in this article are limited to people born in the countries outlined above.



Asian-born Australians: main source countries and regions of birth

1981			1990			2000		
Country of birth	'000	%	Country of birth	'000	%	Country of birth	'000	%
India	43.7	1.4	Viet Nam	114.3	2.9	Viet Nam	174.4	3.9
Viet Nam	43.4	1.4	China (excludes SARs and Taiwan Province)	76.1	2.0	China (excludes SARs and Taiwan Province)	168.1	3.7
Malaysia and Brunei	32.5	1.0	Malaysia and Brunei	75.7	1.9	Philippines	123.0	2.7
China (excludes SARs and Taiwan Province)	26.8	0.9	Philippines	71.3	1.8	India	110.2	2.4
Sri Lanka	17.9	0.6	India	61.5	1.6	Malaysia and Brunei	97.6	2.2
Indonesia	16.4	0.5	Hong Kong and Macau(a)	51.5	1.3	Indonesia	67.6	1.5
Hong Kong and Macau(a)	16.3	0.5	Sri Lanka	36.3	0.9	Hong Kong and Macau(a)	56.3	1.2
Philippines	15.8	0.5	Indonesia	33.7	0.9	Sri Lanka	56.0	1.2
Singapore	12.4	0.4	Singapore	25.0	0.6	Korea	41.4	0.9
Myanmar	7.7	0.2	Cambodia	18.9	0.5	Singapore	30.7	0.7
Southeast Asia	157.7	5.1	Southeast Asia	371.2	9.6	Southeast Asia	564.8	12.5
Northeast Asia	56.8	1.8	Northeast Asia	175.3	4.5	Northeast Asia	313.1	6.9
Southern Asia	61.6	2.0	Southern Asia	109.2	2.8	Southern Asia	200.0	4.4
All Asian regions	276.0	8.9	All Asian regions	655.7	16.9	All Asian regions	1,077.8	23.9
Total overseas-born	3 110.9	100.0	Total overseas-born	3 885.6	100.0	Total overseas-born	4 517.3	100.0

(a) Special Administrative Region of China.

Source: ABS Estimated Resident Population by Country of Birth, 1981–2000.

Migration or Humanitarian Programs. The balance are New Zealand citizens and others such as the overseas-born children of Australian citizens.

The proportion of settler arrivals in Australia who were born in Asia increased from 24% in 1981 to 34% in 2000, peaking at 51% in 1991. Asian-born settler arrivals outnumbered those born in Europe for the first time in 1984.¹

Which countries have Asian-born Australians come from?

Of the one million Asian-born Australians in 2000, just over half were born in Southeast Asia, almost a third in Northeast Asia and one fifth in Southern Asia. Since 1981 the populations from Southeast and Southern Asia have increased threefold, while that from Northeast Asia has increased fivefold.

In 2000, the three most common countries of birth of Asian-born Australians were Viet Nam (174,400), China (168,100) and the Philippines (123,000). Together these three groups comprised 43% of Asian-born and 10% of all overseas-born Australians.

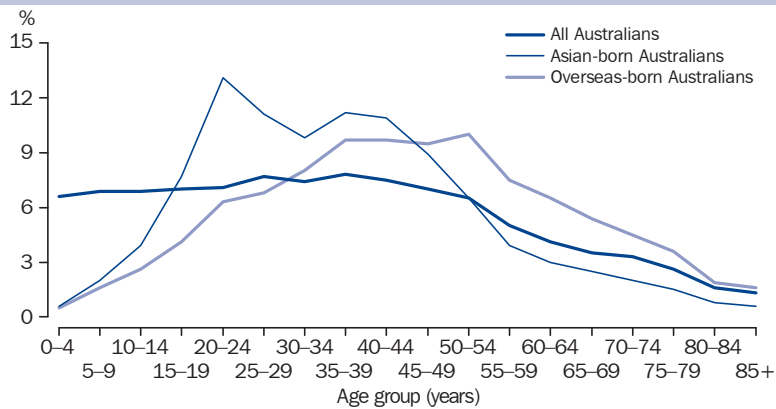
The countries which make up the ten most common countries of birth of Asian-born Australians have remained virtually unchanged since 1981, with the population for each increasing over the past 20 years. However, some have grown faster than others.

The population born in the Philippines has experienced the fastest growth, with the current population almost eight times that of 1981. In 2000, it was the third most common country of birth of Asian-born Australians. Many of the Philippines-born in Australia were women who married Australian men.² Many also left the Philippines for Australia because of political instability during the period of martial law in the 1970s and 1980s. In some cases these immigrants were later followed by their families, to reunite in Australia.

The China-born population in Australia has increased sixfold since 1981. Most of this increase came in two waves and can be traced to the political situation in China in the late 1980s, when many Chinese in Australia studying on temporary visas were granted permanent residency. The second wave occurred with these people sponsoring their families to join them. The return of Hong Kong to Chinese rule may also have added to growth, because some Hong Kong-born may now name China as their country of birth.

The Viet Nam-born population in Australia quadrupled in the two decades to 2000, making Viet Nam the most common country of birth of Asian-born Australians. This increase was largely the result of the arrival of many refugees following the Viet Nam War, who subsequently brought out their families, and the recent resettlement of more refugees.

Age distribution, 2000



Source: ABS Estimated Resident Population by Country of Birth, 2000.

Age/sex profile

The Asian-born population is concentrated heavily in the 20–44 years age group. This is partly because of the large proportion of immigrants who arrive as young adults and the recent increase in immigration from Asian regions to Australia. The total overseas-born population includes groups from other regions who have been settling in Australia over a much longer period. As a result, the age distribution of the total overseas-born population is older than that of the Asian-born population.

Both the Asian-born and total overseas-born populations have low proportions of children, which can be partly attributed to

many immigrants having their children once in Australia. These children are included in the Australian-born population.

While the median age of the total Asian-born population (35.9 years) is similar to the national median (35.2 years), there is considerable variation between individual Asian countries of birth. Populations which have been established in Australia over a longer period (such as those from Sri Lanka and India) have median ages over 40 years. On the other hand, the median ages of more recently arrived groups such as those born in Indonesia, Singapore and Hong Kong, are under 30 years. Their relatively young age profiles may also be related to the large numbers of students from these countries currently studying in Australia on a long-term basis (12 months or more).

Females outnumber males for most countries of birth of Asian-born Australians, to a greater extent than in the total population. This is most evident among the Philippines-born, where the males are outnumbered by almost two to one. The populations from Singapore and Malaysia also have relatively low proportions of males.

Where do they live?

Asian-born Australians are highly urbanised. In 1999, 91% of the Asian-born people who arrived in Australia after 1980 and were aged

Selected characteristics, Asian-born and all Australians, 2000

Country of birth	Median age years	Males per 100 females ratio
Sri Lanka	41.3	103.2
China	41.1	93.1
India	40.2	118.3
Philippines	38.0	59.0
Viet Nam	36.5	98.7
Malaysia	30.9	88.8
Korea	30.0	98.3
Indonesia	27.3	95.6
Singapore	26.0	87.1
Hong Kong	25.4	93.5
Southeast Asia	34.4	84.4
Northeast Asia	36.2	92.0
Southern Asia	38.9	115.5
All Asian regions	35.9	91.8
Total Australian population	35.2	98.5

Source: ABS Estimated Resident Population by Country of Birth, 2000.

Usual region of residence, Asian-born and all Australians(a), 1999

Country of birth	Capital city %	Balance of State %
Singapore	98.3	1.7
Viet Nam	97.5	2.5
Hong Kong	93.6	6.4
China	92.8	7.2
Malaysia	92.2	7.8
India	91.9	8.1
Sri Lanka	91.1	8.9
Indonesia	81.5	18.5
Philippines	78.0	22.0
Japan	73.4	26.6
Southeast Asia	89.5	10.5
Northeast Asia	92.9	7.1
Southern Asia	90.7	9.3
All Asian regions	90.9	9.1
Total Australian population	63.0	37.0

(a) Asian-born populations are limited to migrants aged 15 and over who arrived in Australia after 1980.

Source: ABS 1999 Labour Force Status and Other Characteristics of Migrants Survey.

15 and over, lived in capital cities, compared with 84% of all overseas-born, and 63% of all Australians in this age group. Those born in Singapore and Viet Nam were most likely to live in the capital cities (98%). Those born in Indonesia, the Philippines and Japan had the highest proportions living outside the capital cities, ranging from 19% to 27%.

New South Wales and Victoria both have high proportions of the Asian-born population. Almost half of Asian-born Australians aged 15 years and over, and who arrived after 1980, lived in NSW, where the most common countries of birth were China, Viet Nam and the Philippines. Victoria's Asian-born population is also large (over a quarter of Australia's Asian-born population) and comes mainly from China, Viet Nam and Sri Lanka.⁵

Proficiency in spoken English

People's proficiency in English can affect their ability to access services and education, find employment and participate more fully in Australian society. However, continuing the use of one's home language can also be important, for reasons of cultural continuity and identity.

In 1999, 31% of Asian-born Australians aged 15 years and over who arrived after 1980 usually spoke only English at home. Many of these people were born in India, Malaysia and the Philippines. This may be linked to greater use of English and access to higher education in their country of birth, as well as their propensity to live with Australians who speak only English.

Almost 24% of the Asian-born population who did not usually speak English at home reported they could not speak English well and a further 7% did not speak any English. One third of those who either did not speak any English, or could not speak English well, were born in Viet Nam. Of all Viet Nam-born, 20% spoke no English. Consistent with this, they also had the lowest proportion who usually spoke English at home at just 2%.³ This could be explained in part by the high proportion of Viet Nam-born in Australia who have come as refugees or to reunite with their families, rather than having entered via the skilled stream, for which English language proficiency is one of the criteria.

International Comparison

Proportionally, Australia has one of the world's largest Asian-born populations (comprising 6% of the total Australian population in 2000), although greater numbers of people who were born in Asia are found in countries such as the USA and Canada. European nations tend to have far smaller Asian-born populations.

Asian-born(a) populations in selected countries

Country(b)	Proportion of Asian-born in:		Total Asian-born '000
	Total population %	Immigrant population %	
Australia	5.6	23.9	1 077.8
USA	2.0	25.2	4 979.0
Canada	5.2	31.4	1 562.8
UK	0.8	23.7	490.0
France	0.4	6.3	227.0
Italy	0.4	18.2	225.5
New Zealand	3.3	15.3	117.8
Sweden	1.0	17.3	90.3

(a) Data for the UK, France, Italy and Sweden refers to Asian nationals who may not have been born in Asia.
(b) Data for Australia refers to 2000, data for the UK, Italy and Sweden refers to 1997, data for Canada and New Zealand refers to 1996 and data for the USA and France refers to 1990.

Source: Organisation for Economic Co-operation and Development, *Trends in International Migration*, 1999; Statistics New Zealand, *New Zealand Official Yearbook 1998*; *Australian Demographic Statistics*, September 2000 (ABS Cat. no. 3101.0); Eurostat, *Eurostat Yearbook*, 1998–1999.

Endnotes

- 1 Australian Bureau of Statistics, *Overseas Arrivals and Departures*, Cat. no. 3401.0, ABS, Canberra.
- 2 Australian Bureau of Statistics 1997, *Migration Australia, 1995–96*, Cat. no. 3412.0, ABS, Canberra.
- 3 Australian Bureau of Statistics, *Labour Force Status and Other Characteristics of Migrants Survey*, November 1999.

Coming to Australia

POPULATION GROWTH

In the five years to 1999–2000, skilled migration increased from 20,000 to 32,400 immigrants, while family migration decreased from 46,500 to 19,900.

During the 20th century, immigration has strongly influenced the size and cultural composition of Australia's population. Until the late 1940s, most migration was from the United Kingdom and Ireland. In the post-war period until the 1960s, growing numbers of migrants arrived from a variety of European countries. Since the 1970s, migrants have come to Australia from all regions of the world, contributing to Australia's development and growing cultural diversity. While this increased diversity is largely due to changes in government immigration policy, it has also been shaped by events and conditions in Australia and overseas.

Trends in permanent arrivals

Migration contributes to Australia's population growth because each year there are more people settling permanently in the country than there are leaving permanently. Since the Second World War, around 5.7 million people have migrated to Australia.¹

In 1999–2000, 92,300 immigrants came to Australia. The last two years have witnessed modest increases in the numbers of immigrants, due largely to immigration of New Zealand citizens rising from 19,400 in 1997–98 to 31,600 in 1999–2000.

Over the past 40 years, the number of permanent arrivals has ranged from a high of 185,100 in 1969–70 to a low of 52,700 in 1975–76. Levels have tended to be higher following buoyant economic conditions, and lower following economic downturn.

Immigrants

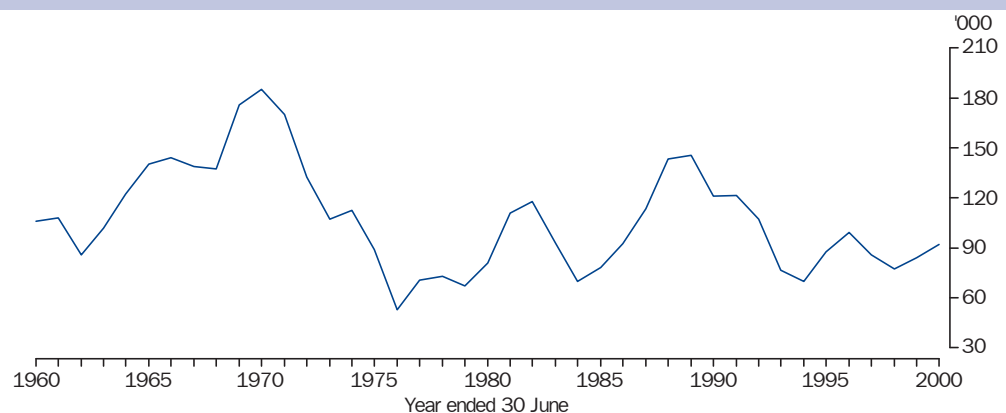
The ABS produces statistics on migration based on information collected by the Department of Immigration and Multicultural Affairs from passenger cards and visa applications. Where this data source is used, *immigrants* are defined as people arriving in Australia with permanent migration visas, New Zealand citizens who indicate an intention to stay permanently, and people who are otherwise eligible to stay permanently (e.g. overseas-born children of Australian citizens). Data are available in the ABS publication *Migration* (Cat. no. 3412.0).

Data showing selected demographic and socio-economic characteristics of immigrants are available from the 1999 Characteristics of Migrants Survey, which has been conducted by the ABS every three years since 1984. Where this data source is used, *immigrants* are defined as people who were born outside Australia, were aged 18 years and over on arrival, and had obtained permanent Australian resident status.

Age profile

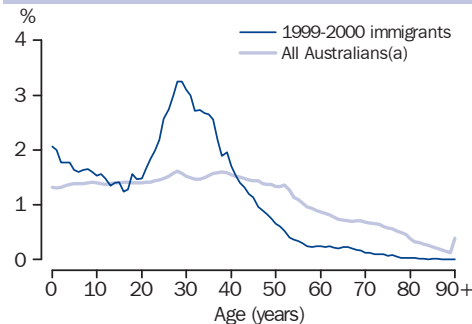
Immigrants in 1999–2000 tended to be younger than the Australian population they joined on arrival. They were more likely than Australians in general to be in their 20s or 30s, some with young children. This partly reflects the current immigration policy which targets younger immigrants. Further, there is a global pattern for younger people to be more likely to migrate permanently to another country (see *Australian Social Trends 2001*, Leaving Australia, pp. 21–25).

Permanent arrivals



Source: Department of Immigration and Multicultural Affairs, *Australian Immigration: Consolidated Statistics*, various nos., various years; Department of Immigration and Multicultural Affairs, *Immigration Update: June Quarter 2000*.

Age distribution of all Australians and of 1999–2000 immigrants



(a) Preliminary estimate of population, December 1999.

Source: ABS 2000 Overseas Arrivals and Departures; ABS 2000 Estimated Resident Population.

Changing source countries

The closing decades of the 20th century saw decreasing immigration from European countries and increasing immigration from the geographically closer countries of the Asia-Pacific region. In recent years,

immigrants have become more than twice as likely to have come from New Zealand than from the United Kingdom and Ireland, which had traditionally been the largest single source of migrants to Australia. In 1999–2000, one in four immigrants came from New Zealand. The other largest sources of immigrants were the United Kingdom and Ireland (11%), China (7%), South Africa (6%) and India (5%).

The cultural mix of people migrating permanently to Australia has diversified over the past five decades. During the 1950s and 1960s, the high proportion of immigrants from Europe reflected the role Australia played in resettling people displaced by WWII. At the end of the 1960s, the growing proportion of immigrants born in the United Kingdom and Ireland was accompanied by substantial migration from Southern Europe (Yugoslavia, Greece and Italy in particular). During the late 1970s and the 1980s, immigrants became increasingly likely to have been born in countries of the Asia-Pacific region, such as New Zealand, Viet Nam and the Philippines.

Main sources of immigrants(a)

Countries of origin(a)	1949–50	1959–60	1969–70	1979–80	1989–90	1999–00
	%	%	%	%	%	%
New Zealand	1.9	1.3	2.7	16.3	9.2	23.7
United Kingdom and Ireland	28.2	36.1	41.6	21.5	21.1	10.8
China (excludes SARs and Taiwan Province)	0.8	0.4	0.2	1.6	2.5	7.4
South Africa	0.3	0.4	0.5	3.4	2.0	6.2
India	0.7	0.4	2.1	1.0	2.5	5.0
Former Yugoslavia	0.8	6.0	14.2	2.1	1.6	4.6
Philippines	n.a.	n.a.	0.1	2.5	5.0	3.5
Malaysia	0.4	0.2	0.5	2.0	5.3	1.9
Viet Nam	n.a.	n.a.	n.a.	16.0	9.2	1.6
Hong Kong (SAR of China)	0.3	0.0	0.2	1.0	6.6	1.6
Germany	34.6	9.0	2.2	1.5	0.9	0.8
Netherlands	1.7	8.9	1.5	1.5	0.4	0.5
Poland	3.0	1.8	0.3	1.7	1.4	0.2
Italy	9.3	15.4	5.6	1.3	0.3	0.2
Austria	3.7	1.9	0.5	0.3	0.2	0.1
Greece	1.1	5.9	5.9	1.1	0.3	0.1
Other	13.3	12.2	21.9	25.4	31.5	31.7
Total(b)	100.0	100.0	100.0	100.0	100.0	100.0
Total(c)	184.9	105.9	185.1	80.7	121.2	92.3

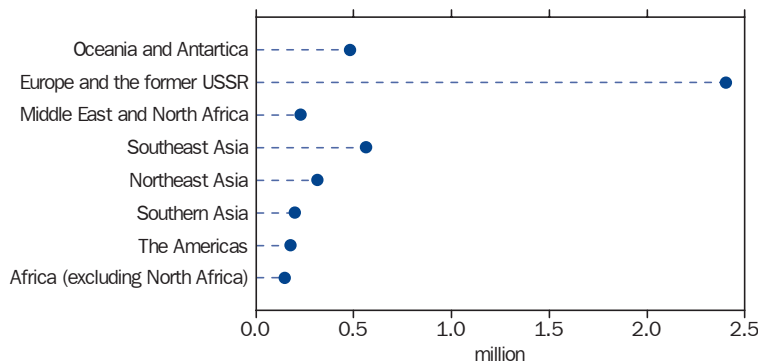
(a) Countries of birth of permanent arrivals except for the 1949–50 column which is the country of last residence for at least one year of permanent and long-term arrivals.

(b) Immigrants whose country of origin was not known were excluded prior to the calculation of percentages.

(c) Includes immigrants whose country of origin was not known.

Source: Department of Immigration and Multicultural Affairs, *Australian Immigration: Consolidated Statistics*, various nos., various years; Department of Immigration and Multicultural Affairs, *Immigration Update: June Quarter 2000*.

Countries of birth of the overseas-born population, June 2000p



Source: Australian Demographic Statistics, September Quarter 2000 (ABS Cat. no. 3101.0).

A diverse population

The outcome of many years of immigration from a wide range of countries is that Australian society has become culturally diverse. Illustrating this breadth of diversity, the 1996 Census showed that Australians had been born in more than 200 countries.

In 2000, there were an estimated 4.5 million overseas-born residents, constituting almost one-quarter (24%) of the population. More than half of these (53%) had been born in Europe or the former USSR (predominantly in the United Kingdom, Italy, the former Yugoslavia, Greece and Germany). Nearly one in four (24%) had been born in Asian regions, with greatest representation from Viet Nam,

China, the Philippines and India. Smaller proportions had been born in Oceania and Antarctica (mainly from New Zealand), Africa and the Middle East (largely from South Africa, Lebanon, Egypt and Turkey) and the Americas (mostly from the United States of America, Canada and Chile).

Geographic distribution

Immigrants are more highly urbanised than the Australian-born population. In 1999, of Australians aged 15 years and over, 80% of those born overseas and 57% of those born in Australia were living in one of the eight capital cities.

In 1999, 83% of people who migrated to Australia as an adult between 1997 and 1999 were living in one of the capital cities. These recent immigrants were more likely to have been living in a capital city than those who arrived before 1981 (76%), although they were slightly less likely than people who migrated to Australia earlier in the 1990s (86%), and in the 1980s (84%).

In 1999, most immigrants aged 15 years and over lived in either New South Wales (37%) or Victoria (26%) — higher proportions than the Australian born at 33% and 25% respectively. However, recent immigrants were more concentrated than longer established immigrants in New South Wales, Queensland and Western Australia.

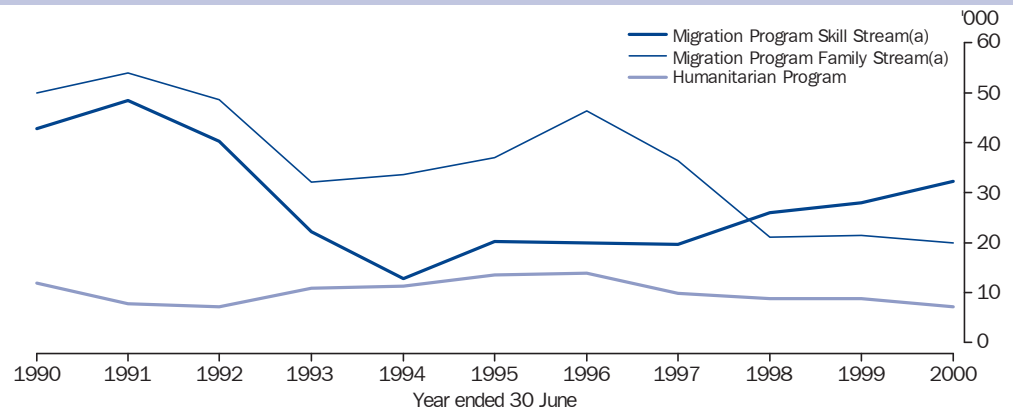
Geographic distribution of Australians aged 15 years and over, 1999

	Overseas born					All overseas born	Born in Australia	
	Year arrived in Australia							
	Before 1981	1981–1989(a)	1990–1996(a)	1997–1999(a)				
Area of usual residence	%	%	%	%	%	%		
Capital city	75.5	84.2	85.6	82.6	79.5	56.7		
State or Territory of usual residence								
New South Wales	33.7	38.6	44.2	41.7	37.0	32.9		
Victoria	28.2	25.6	23.5	15.5	26.2	24.9		
Queensland	13.0	16.0	15.3	20.6	14.1	19.9		
South Australia	10.1	3.7	3.5	5.3	7.6	8.0		
Western Australia	11.2	13.3	11.1	14.9	11.8	8.9		
Tasmania	1.4	*0.6	*0.5	**0.1	1.0	3.1		
Northern Territory	0.7	*0.7	*0.7	*0.9	0.7	0.7		
Australian Capital Territory	1.7	1.5	*1.1	*1.1	1.5	1.6		
Total	100.0	100.0	100.0	100.0	100.0	100.0		
	'000	'000	'000	'000	'000	'000		
Total	2 387.0	574.7	410.9	178.0	4 074.0	10 620.9		

(a) Limited to those who were aged 18 years or over on arrival and who had obtained permanent Australian resident status.

Source: ABS 1999 Characteristics of Migrants Survey.

Selected entry streams of immigrants



(a) Data for 1997–98 and subsequent financial years are not strictly comparable with earlier years because of the transformation of the Concessional category of the Family Stream into the Skilled-Australian Linked category of the Skill Stream on 1 July 1997.

Source: Department of Immigration and Multicultural Affairs, *Australian Immigration Consolidated Statistics Number 20 1997–98*; Department of Immigration and Multicultural Affairs, *Immigration Update: June Quarter 2000*.

Increasing focus on skills

Most immigrants are New Zealand citizens or people entering under the Migration Program or the Humanitarian Program. The two main eligibility categories in the Migration Program are the Family Stream and the Skill Stream. In recent years, there has been a shift in emphasis within the Migration Program from the Family Stream to the Skill Stream. This change aims 'to ensure that the positive benefits of migration for the economy are maintained and that there are minimal costs to the wider community.'²

There has been a steady rise in the number of skilled immigrants and their family members, from 12,800 in 1993–94 to 32,400 in 1999–2000. Conversely, the number of Family Stream immigrants generally declined throughout the 1990s, with falls in the two years following the 1990–91 recession and again in the late 1990s more than offsetting the increase between 1992–93 and 1995–96.

In 1999–2000, there were fewer Family Stream immigrants (19,900) than in any year of the previous decade, comprising a considerably lower proportion (33%) of all people who migrated to Australia with a Migration or Humanitarian Program visa during that year.

Through the Humanitarian Program, Australia resettles refugees and fulfils some of its international obligations.³ In recent years, fewer people have been migrating to Australia with visas granted overseas under the Humanitarian Program. The number of these immigrants decreased from 13,800 in 1995–96 to 7,300 in 1999–2000.

People are recorded as immigrants (also referred to as 'settler arrivals' or 'permanent arrivals') if they have been granted a visa for permanent residency prior to arriving in Australia. However, visas for permanent residence granted under the Migration and Humanitarian programs may also be applied for and obtained once in Australia. In total, 76,000 permanent visas are planned to be granted under the 2000–01 Migration

Characteristics of adult immigrants prior to and on arrival, 1999

Selected characteristics	Year of arrival in Australia		
	1981–1989	1990–1996	1997–1999
	%	%	%
Just before migration to Australia			
Had a job	64.4	64.3	68.8
Had family or friends in Australia	70.5	74.0	79.3
On arrival in Australia			
Had post-school qualifications	50.9	56.8	61.1
Aged less than 45 years	87.5	84.9	83.2

Source: ABS 1999 Characteristics of Migrants Survey.

Selected characteristics of recent(a) adult immigrants, 1999

	%
Spoke English well or very well	80.0
Main source of income was an Australian government payment	16.3
Proportion of those aged 18–64 years who were employed	60.6
Unemployment rate	10.3
Proportion of those with an overseas qualification whose qualification was recognised in Australia	49.4

(a) Those who arrived in Australia between January 1997 and November 1999.

Source: ABS 1999 Characteristics of Migrants Survey.

Program, including 40,000 via the Skill Stream (4,700 more than were granted visas during 1999–2000). An additional 15,100 places are available under Australia's 2000–01 Humanitarian Program.³

Recent immigrant characteristics

Increased emphasis on the Skill Stream of the immigration program has meant more focussed targeting of people with employable skills and good English language comprehension and expression. Immigrants who arrived in Australia between 1997 and 1999 were more likely than earlier arrivals to

have had a job just before migrating, and to have had post-school qualifications on arrival in Australia. In 1999, most recent immigrants (80%) spoke English well or very well.

Despite the trend away from Family Stream migration, immigrants have become increasingly likely to have family or friends in Australia prior to migration. In 1999, adults who migrated to Australia between 1997 and 1999 were more likely than earlier immigrants to have had family or friends in Australia just prior to migration (79% compared with 74% of those who arrived earlier in the 90s, and 71% of those who arrived between 1981–1989).

In 1999, approximately one in six recent adult immigrants relied on an Australian government payment for their main source of income, and most of those who were aged 18–64 years were employed (61%). The unemployment rate was relatively high at 10%, and only 49% of those with overseas qualifications had those qualifications recognised in Australia.

This relatively high rate of unemployment among recent adult immigrants is partly due to the difficulties experienced by all new entrants to the Australian labour market. The likelihood of an immigrant being unemployed tends to diminish the longer he or she has been living in Australia, to the extent that a long established immigrant is less likely to be unemployed than someone born in Australia.³

Illegal immigration

Most of the people in Australia without authority enter legally but then stay on after their visa has expired. During 1999–2000, a total of 5,871 people entered Australia illegally.

Main avenues of illegal immigration

Year	People overstaying their visa at end of period no.	Illegal entrants	
		Boat no.	Air no.
1989–90	(a)90 000	224	n.a.
1990–91	(a)78 000	158	n.a.
1991–92	(a)81 500	78	529
1992–93	79 800	194	452
1993–94	69 600	194	409
1994–95	51 300	1 071	485
1995–96	45 100	589	663
1996–97	46 200	365	1 350
1997–98	50 950	157	1 550
1998–99	53 143	926	2 106
1999–00	58 748	4 175	1 695

(a) At 30 April.

Source: Department of Immigration and Multicultural Affairs, *Population Flows: Immigration Aspects* (December 1999 & 2000 editions), *Fact Sheet 81, Protecting the Border: Immigration Compliance* (2000 edition), and Compliance data.

Endnotes

- 1 Australian Department of Immigration and Multicultural Affairs, *DIMA Fact Sheet 2* <URL: <http://www.immi.gov.au/facts/>> 2000 (Accessed 18 December 2000).
- 2 Australian Department of Immigration and Multicultural Affairs, *DIMA Fact Sheet 3* <URL: <http://www.immi.gov.au/facts/>> 2000 (Accessed 16 October 2000).
- 3 Australian Department of Immigration and Multicultural Affairs 2000, *Population Flows: Immigration Aspects 2000 edition*, DIMA, Canberra.

Leaving Australia

POPULATION GROWTH

Over the past five years, the number of Australian-born people leaving Australia permanently has doubled.

With a population of over 4 million people who were born in overseas countries, and high levels of immigration since the Second World War, Australia is regarded as an immigrant nation that draws people from almost all regions of the world. As numbers leaving the country annually (consistently well under half a per cent of the total population since 1975) have been considerably smaller than those arriving, issues related to emigration have not generated the same level of concern in Australia as those relating to immigration. However, in recent years there has been a steady increase in the number of people leaving Australia permanently each year, and in particular, an increased number of Australian-born people stating their intention to permanently leave Australia.

Emigration has a number of potential benefits. Emigrants can establish overseas networks for Australian goods and services exports and identify opportunities for Australian investment abroad. Furthermore, some emigrants subsequently return to Australia, bringing with them new skills and extended experience.¹

In recent years, interest in emigration has shifted to its impact on the composition of the workforce. The recent higher levels of emigration are causing concern that skill shortages are being created or exacerbated in some fields.

Permanent movement

Information available from the Department of Immigration and Multicultural Affairs serves as a source for statistics of overseas arrivals and departures. Persons arriving in, or departing from, Australia provide this information in the form of incoming and outgoing passenger cards. Incoming persons also provide information in visa applications, apart from people travelling as Australian and New Zealand citizens.

Emigrants are Australian residents (including those born overseas) who on departure from Australia state that they intend to settle permanently in another country.

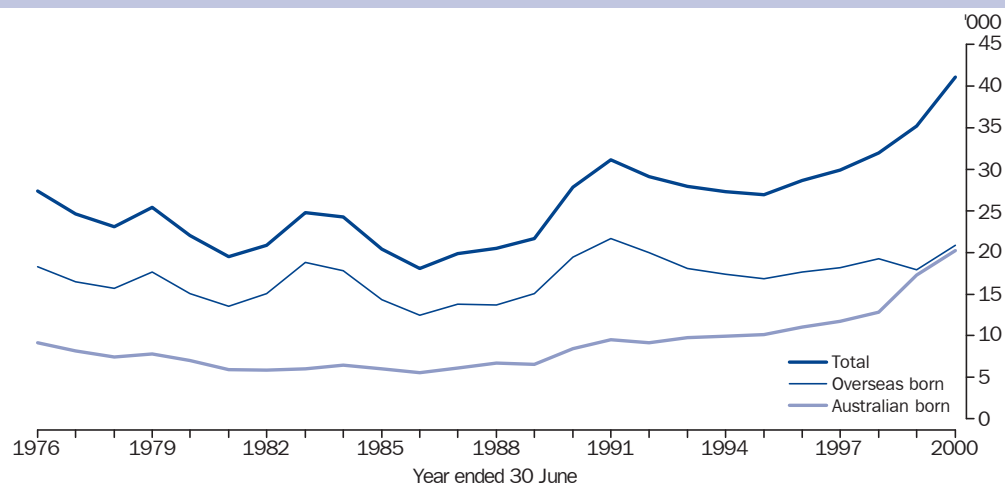
Immigrants are persons arriving in Australia holding permanent migration visas, New Zealand citizens who indicate an intention to settle, and those who are otherwise eligible to settle (e.g. overseas-born children of Australian citizens).

Emigration levels

Since 1975–76, permanent departures have fluctuated from a low of 18,100 in 1985–86 to a high of 41,100 in 1999–2000. The pattern of permanent departures has tended to shadow that of permanent arrivals, although at substantially lower levels and with a time lag of about two years. However in the last few years, this relationship has been less apparent because of the successively higher proportions of Australian born emigrating.

In 1999–2000, the number of Australian-born emigrants was the highest ever recorded. They represented a 17% increase on the

Permanent departures from Australia



Source: ABS Overseas Arrivals and Departures Collection.

previous year and a 58% increase on the year before that. People born in Australia comprised almost half (49%) of all permanent departures in 1999–2000, compared with 30% in 1988–89. Despite the increasing numbers of Australian-born departures, overseas-born residents were still more likely to emigrate than Australian-born residents. This was true for males and females in all age groups.

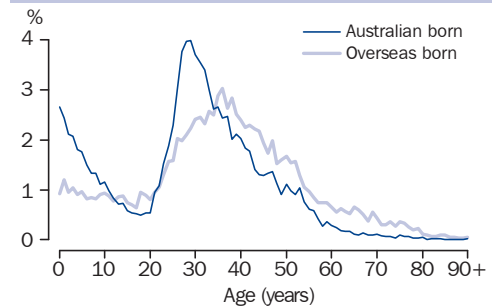
Reasons for leaving permanently

There are many and varied reasons why emigrants might decide to leave Australia, with the main reasons differing between Australian-born and overseas-born emigrants. It has been argued that, for Australian-born persons, emigration is more likely to be a result of increasing internationalisation of labour markets and increasing global demand for skilled workers. In contrast, overseas-born emigrants often leave permanently to return to their former country of birth because of feelings of homesickness or insecurity. Older emigrants often depart after they retire from the workforce, while widowhood and divorce can also motivate departures among the overseas born.²

Age profiles

Reflecting their different mix of reasons for leaving, Australian-born emigrants tended to be younger than those born overseas. While both groups had a younger age profile than

Age distribution of Australian-born and overseas-born emigrants, 1999–2000



Source: ABS Overseas Arrivals and Departures Collection.

the total Australian population, Australian-born emigrants were more likely than overseas-born emigrants to be adults aged 25 to 34 years (33% compared with 22%) or to be children younger than 10 years (18% compared with 9%). The comparatively high proportion of Australian-born emigrants who were children may partly be due to the departure of families comprising overseas-born parents and their Australian-born children.

In contrast, most overseas-born emigrants (55%) were aged 35 years and over (compared with 35% of Australian-born emigrants) and a higher proportion of overseas-born than Australian-born emigrants were aged 55 years and over (13% and 5% respectively). A partial explanation for this age difference may be associated with pension portability. Since 1973, Australians entitled to receive a pension have been able to receive that pension while residing overseas. Over the years, some former immigrants have chosen to return to their country of birth with income support from Australia.³

Destinations

In their intended countries of future residence, Australian-born and overseas-born emigrants in 1999–2000 shared some similarities. New Zealand and the United Kingdom were the countries that attracted the largest numbers of both groups of emigrants. Close cultural links forged by consistently high levels of immigration over a long period are likely to have contributed to the popularity of the United Kingdom as an emigration destination. Proximity, recent high levels of immigration and reciprocal rights agreements are collectively likely to have facilitated New Zealand-bound emigration.

Yet there were also differences between the intended destinations of Australian-born and overseas-born emigrants during 1999–2000.

Emigration destinations, 1999–2000

	Australian-born emigrants	Overseas-born emigrants	All emigrants(a)
Intended country of future residence	%	%	%
New Zealand	19.0	24.5	21.8
United Kingdom	20.7	15.7	18.2
United States of America	17.9	7.0	12.4
Hong Kong (SAR of China)	4.9	11.3	8.1
Singapore	4.9	2.8	3.8
China (excludes SARs and Taiwan Province)	1.9	5.5	3.7
Canada	2.9	1.7	2.3
Other	27.8	31.5	29.7
Total permanent departures(b)	100.0	100.0	100.0
	'000	'000	'000
Total permanent departures(c)	20.2	20.8	41.1

(a) Includes people whose country of birth was not known.

(b) People with qualifications whose fields were not stated, not codeable or inadequately described were excluded prior to the calculation of percentages.

(c) Includes people with qualifications whose fields were not stated, not codeable or inadequately described.

Source: ABS Overseas Arrivals and Departures Collection.

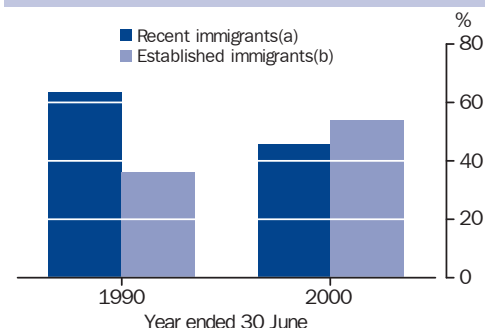
Consistent with their younger age profile, Australian-born emigrants chose destinations that indicated employment as a major motivation for leaving in 1999–2000. In particular, Australian-born emigrants (18%) were more likely than their overseas-born counterparts (7%) to have been bound for the United States of America. The Australian born were also comparatively more likely to have been moving to Singapore (5%) and Canada (3%).

In contrast, a high proportion of overseas-born emigrants returned to their place of birth. The overseas born were relatively more likely to have been heading for Hong Kong (11%) and other regions of China (6%), both of which were major sources of recent migrants.

Length of residence

The pattern of overseas-born emigration has changed over the last ten years. In contrast to 1989–90, when most overseas-born emigrants (63%) were also recent immigrants (i.e. had lived in Australia for less than five years), the majority of those who emigrated during 1999–2000 were established immigrants (at least five years residence in Australia). Of the overseas-born who emigrated during 1999–2000, 23% had lived in Australia for less than two years, 24% for between two and four years, and 54% for between five and nine years. Very few (less than 1%) had lived in Australia for ten years and over. This implies that in 1999–2000 only a small proportion of

Distribution of overseas-born emigrants by length of residence



(a) Overseas-born emigrants who had lived in Australia for less than five years.

(b) Overseas-born emigrants who had lived in Australia for at least five years.

Source: ABS Overseas Arrivals and Departures Collection.

older overseas-born emigrants departed after retiring from a long period in the Australian workforce.

The amount of time spent living in Australia varied among overseas-born emigrants according to their country of birth. Among overseas birthplaces with the largest number of emigrants during 1999–2000, people born in Viet Nam (63%) and New Zealand (58%) were those most likely to have lived in Australia for five years or more prior to their departure. Much lower proportions of

Indonesian-born (29%) and Taiwan-born emigrants (33%) had become established immigrants.

Length of Australian residency of overseas-born emigrants in 1999–2000

Country of birth(a)	Years resident in Australia				Total %	Total '000	Median length of residence years	Emigration rate(b)
	Under 2 %	2–4 %	5–9 %	10 and over %				
New Zealand	19.0	23.4	57.3	0.3	100.0	4.5	5.1	13
United Kingdom	21.1	24.6	53.5	0.8	100.0	4.0	4.6	3
China (excludes SARs and Taiwan Province)	32.0	25.9	41.8	0.4	100.0	1.8	3.8	11
Hong Kong (SAR of China)	21.6	26.3	52.1	0.1	100.0	1.6	4.2	31
Taiwan	34.8	32.6	32.3	0.3	100.0	0.7	1.9	n.a.
United States of America	24.3	26.7	49.0	—	100.0	0.6	3.9	10
Viet Nam	14.8	22.7	61.8	0.7	100.0	0.5	5.3	3
Indonesia	43.8	27.2	28.8	0.2	100.0	0.4	1.4	7
Total overseas born	22.5	23.5	53.5	0.5	100.0	20.8	4.6	5

(a) Listed countries of birth are those with the most emigrants during 1999–2000.

(b) Permanent departures during 1999–2000 per 1,000 preliminary estimated population of the same country of birth resident in Australia on 30 June 1999.

Source: ABS Overseas Arrivals and Departures Collection; *Australian Demographic Statistics, March Quarter 2000* (ABS Cat. no. 3101.0).

Occupation of people aged 15 years and over

Major group (of occupation)(Skill level(a))	1999–2000 emigrants		1999–2000 immigrants		August 1999 employed civilian population	
	'000	%	'000	%	'000	%
Managers and administrators (1)	4.6	18.2	5.5	12.2	637.9	7.3
Professionals (1)	9.0	35.5	17.1	37.7	1 543.4	17.7
Associate professionals (2)	2.9	11.3	4.1	9.0	993.2	11.4
Tradespersons and related workers (3)	1.8	7.3	6.1	13.4	1 172.8	13.4
Advanced clerical and service workers (3)	1.0	3.9	1.4	3.1	376.6	4.3
Intermediate clerical, sales and service workers (4)	3.5	13.8	5.5	12.1	1 494.1	17.1
Intermediate production and transport workers (4)	0.6	2.2	1.5	3.4	775.0	8.9
Elementary clerical, sales and service workers (5)	1.5	5.8	2.6	5.8	868.9	10.0
Labourers & related workers (5)	0.5	2.1	1.5	3.2	869.6	10.0
Total(b)	(c)25.4	(d)100.0	(c)46.9	(d)100.0	8 731.6	100.0

(a) Occupations are based on the *Australian Standard Classification of Occupations (ASCO) Second Edition* (ABS Cat. no. 1220.0), which classifies occupations by skill level ranked from 1 (the highest) to 5 (the lowest).

(b) Emigrants and immigrants who recorded a usual occupation on their passenger card, and the employed civilian population of Australia.

(c) Includes people with qualifications whose fields were not stated, not codeable or inadequately described.

(d) People with qualifications whose fields were not stated, not codeable or inadequately described were excluded prior to the calculation of percentages.

Source: ABS Overseas Arrivals and Departures Collection; *Labour Force Australia, August 1999* (ABS Cat. no. 6203.0).

High return emigration rates among birthplaces are associated with the country of origin having good social services, relatively strong economies or cultures characterised by strong family ties. Rates are lower among settlers from countries with unsettled political conditions and/or with poor economies. Such settlers would find it either impossible or undesirable to return to their country of origin, even in times of economic downturn in Australia.⁴

High levels of immigration in recent years and improving political and economic conditions in some overseas countries may have contributed to the relatively brief Australian residence and the relatively high emigration rates experienced by some birthplaces. For example, approximately 31 persons per 1,000 of Australia's Hong Kong-born community left Australia permanently in 1999–2000. Against an average overseas-born emigration rate during 1999–2000 of 5 emigrants per 1,000 residents in Australia at the start of the period, emigration rates were also above average among Chinese-born Australians (11 per 1,000). The above average rate witnessed among the New Zealand born (13 per 1,000) is likely to be a function of the largely unrestricted migration of permanent residents of Australia and New Zealand between the two countries, which is permitted under the Trans-Tasman Travel Arrangement.

Brain drain or brain gain?

In recent years, interest in emigration has often focussed on the perception of a 'brain drain' caused by the departure of some of Australia's most skilled and highly educated workers. One of the dimensions of the 'brain drain' issue is the concern that in some highly skilled fields, immigrants have been unable to readily and fully replace the quality and potential of those who have emigrated.

A comparison of the overall numbers of immigrants and emigrants does not take into account differences in labour force participation, field of qualifications, specialisation, talent and experience. That said, Australians aged 15 years and over who emigrated during 1999–2000 were more likely than other Australians of the same age group to have reported a usual occupation, and if so, to have reported a highly skilled usual occupation. Of these 1999–2000 emigrants, those born in Australia were more likely than those born overseas to have reported a usual occupation (82% compared with 70%).

Yet the total number of 1999–2000 emigrants aged 15 years and over who reported having a usual occupation represented a very small proportion of the total Australian workforce aged 15 years and over. Furthermore, their loss (in terms of numbers) was more than compensated for by the gain of immigrants in highly skilled occupations during this same period. Specifically, although 13,600 Managers and administrators, and

Professionals departed permanently during the year, substantially more (22,600 in total) arrived to settle permanently.

Despite this considerable net gain of people with a highly skilled occupation through international migration, the broad occupational composition of the Australian workforce is likely to be barely altered as a result. Immigrating and emigrating Managers and administrators, and Professionals during 1999–2000 both represented around 1% of the 2.2 million people employed in these occupations in Australia in August 1999. Like Managers and administrators, and Professionals, immigrants outnumbered emigrants in other occupations.

Incoming and outgoing migration of lesser skilled occupations tended to constitute smaller proportions of the respective occupations employed in the Australian workforce. This difference in proportions, and even more so the difference in actual numbers, indicate that people with a highly skilled occupation are more likely than people with a lesser skilled occupation to permanently relocate to another country.

Involuntary departure

While most people leaving Australia permanently do so by choice, some leave involuntarily. One of the services provided by the Department of Immigration and Multicultural Affairs (DIMA) is locating, detaining and removing unlawful non-citizens.⁵

During 1999–2000, 8,480 unlawful non-citizens departed Australia either as a monitored departure, a supervised departure or a removal, and 1,212 were granted a substantive visa and allowed to remain in Australia.⁶

In 1999–2000, 573 people who arrived without authorisation on boats were removed, and close to four in every five (1,340) of the 1,695 people who arrived without authorisation by air were removed within 72 hours. DIMA also repatriated 330 Indonesian fishermen during 1999–2000.⁶

People found working illegally are subject to immediate detention and removal from Australia.⁷ In 1999–2000, DIMA located 2,519 illegal workers.⁶ Criminal deportation can be considered against permanent residents who, in their first ten years of residence, commit an offence for which they are sentenced to imprisonment for at least one year. In 1999–2000, 74 such criminals were deported.⁵

Endnotes

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Population projections for the 21st century

POPULATION PROJECTIONS

Australia's population is projected to grow from 19 million in 1999 to between 23 and 32 million in 2101, depending on the assumptions made about future fertility and net overseas migration.

Future changes in the size, distribution and composition of the population can have far reaching implications for economic and social wellbeing. For example, steady population growth may help to fuel economic growth and subsequently maintain or improve our material living standards. On the other hand, unlimited population growth could undermine the objectives of environmental protection and ecologically sustainable development, and ultimately the living standards and quality of life of future generations. Continued ageing of the population has implications for the labour market as well as many areas of social policy and planning, including the provision of income support, health care, housing, and community support services for rapidly growing numbers of older people.

Population change impacts on economic and social policy and planning at the national, State and regional levels. However, the extent and nature of the impact will vary greatly between different areas depending on the amount and type of population change experienced.

Australia's population growth

Australia's population is projected to grow from 19 million in 1999 to between 22 and 24 million in 2021, 24–28 million in 2051, and 23–32 million in 2101. Based on assumptions of relatively high fertility combined with high net overseas migration, Series I projects continuous growth, at declining rates, throughout the 21st century. In Series II (low fertility, medium migration) the population peaks at around 26 million in 2064, then

Population projections

This article is based on ABS population projections. These projections span the period 1999 to 2101 for Australia and 1999 to 2051 for the States, Territories and regions. The base population for the projections is the estimated resident population at 30 June 1999.

Population projections are not predictions or forecasts. They simply show what would happen to Australia's population if a particular set of assumptions about future levels of births, deaths, net overseas migration and, for States and Territories, net internal migration, were to hold for the next 50 to 100 years. The assumptions about levels of future fertility, mortality and migration are based on long-term trends, current debate, and possible future scenarios arising from research in Australia and elsewhere.

For the sake of simplicity, this article limits analysis to three main series which cover three sets of possible future population growth outcomes; high (Series I), medium (Series II) and low (Series III). For State, Territory and regional analysis, only Series II is used.

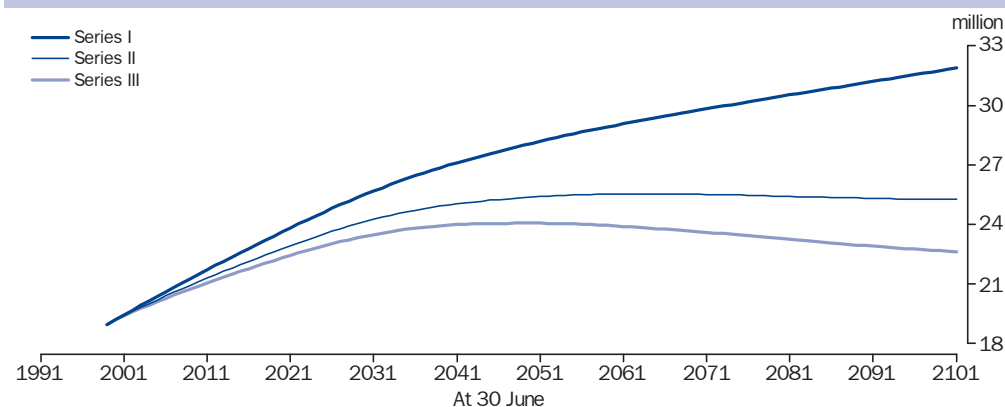
Assumptions used(a)—Australia

	Total fertility rate (per female)	Net overseas migration (per year)
Series I	1.75	110 000
Series II	1.60	90 000
Series III	1.60	70 000

(a) One mortality assumption is used for all series – that life expectancy at birth increases, at a declining rate, from 75.9 years for males and 81.5 years for females to 83.3 years and 86.6 years respectively in 2051.

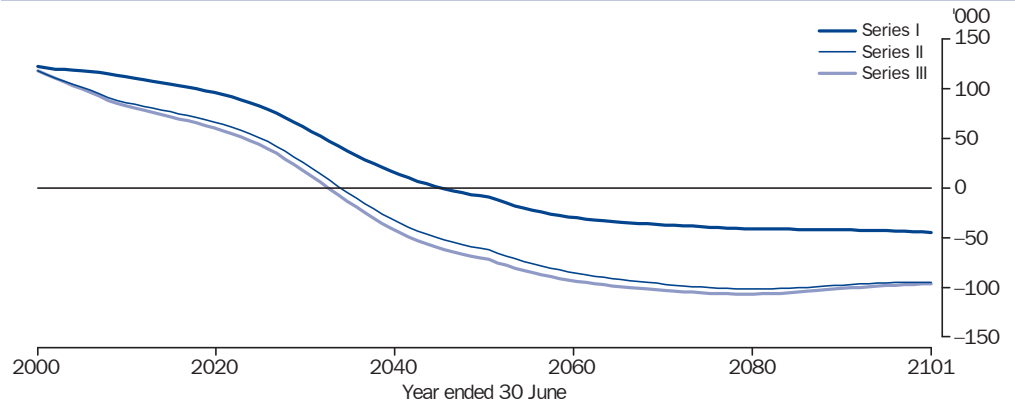
Source: *Population Projections, Australia, 1999 to 2101* (ABS Cat. no. 3222.0).

Projected population, Australia



Source: *Population Projections, Australia, 1999 to 2101* (ABS Cat. no. 3222.0).

Projected natural increase, Australia



Source: *Population Projections, Australia, 1999 to 2101* (ABS Cat. no. 3222.0).

declines gradually. In Series III (low fertility, low migration) the population peaks earlier (in 2049) and lower (at 24 million), then declines more rapidly than in Series II.

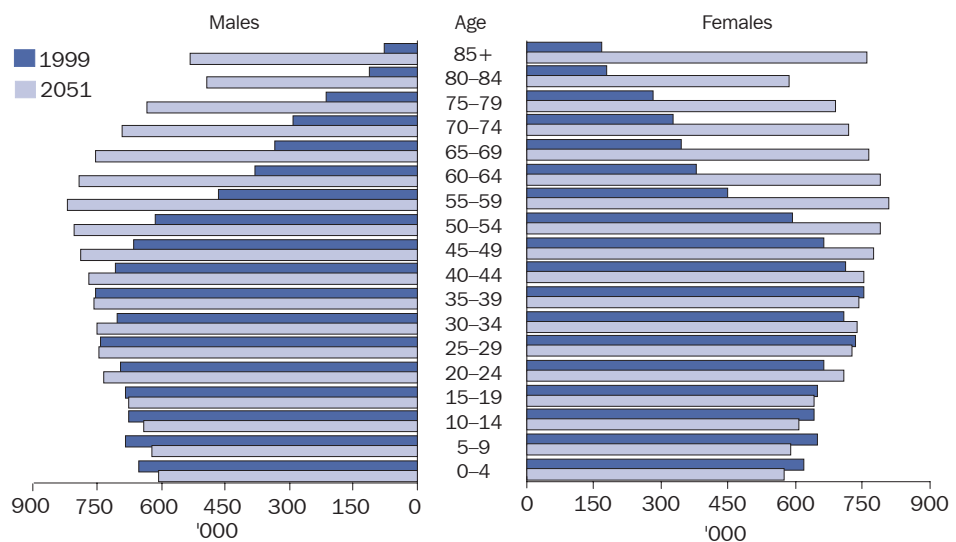
The growth rate, and ultimate size, of each of these projected populations reflects the interaction of two components of growth: natural increase (excess of births over deaths) which is determined by the combination of assumptions about fertility and mortality; and net overseas migration.

Throughout the twentieth century, natural increase has been the main component of population growth, contributing about two thirds of total growth during the period. However, natural increase is projected to fall rapidly during the first half of the 21st century, reaching zero between 2033 and 2046, depending on the series used.

The projected decline in natural increase is mainly the result of increasing numbers of deaths rather than decreasing numbers of births, though Series II and III do project some decline in the number of births. In all three series, the number of deaths is projected to increase rapidly between 2031 and 2051 as the large cohort of post World War II 'baby boomers' moves into the 85 years and over age group.

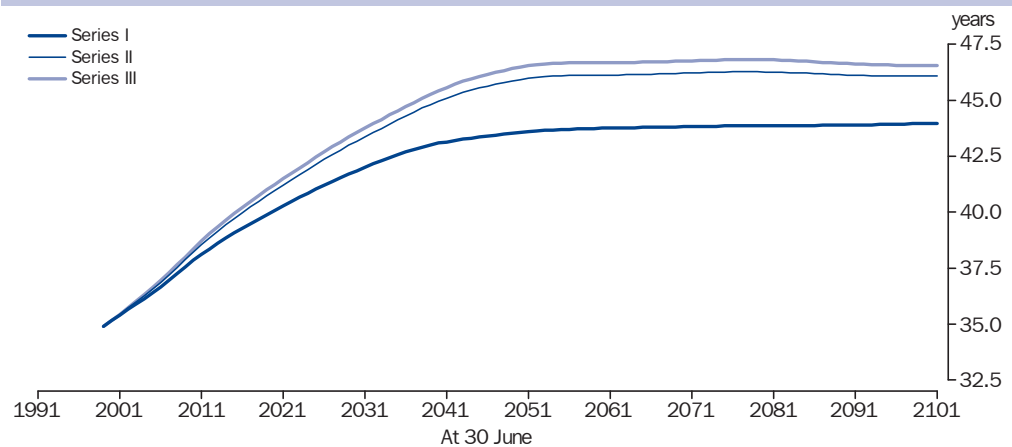
As the projected levels of natural increase continue to decline, the assumed levels of net overseas migration, make an increasingly important contribution to either maintaining population growth (Series I) or moderating population decline (Series II and III). As well as the immediate effect on population numbers, overseas migration also contributes to births, deaths and consequently, to natural

Age structure of the projected population, Australia—Series II



Source: *Population Projections, Australia, 1999 to 2101* (ABS Cat. no. 3222.0).

Median age of projected population, Australia



Source: Population Projections, Australia, 1999 to 2101 (ABS Cat. no. 3222.0).

increase. The difference in natural increase between Series II and Series III, which have the same assumptions of fertility and mortality, can be attributed entirely to the natural increase contributed by the 20,000 per year difference in assumed net overseas migration between the two series.

Population ageing

The structural ageing of Australia's population, evident since the 1970s, can be attributed to the sustained decline in fertility which followed the post-war baby boom. Based on assumptions of continuing low fertility (even the 'high' fertility assumption of 1.75 births per woman is below replacement level) and a small increase in life expectancy, Australia's population is projected to continue ageing into the next century.

As the large baby boom generation ages, the number of older people is projected to increase rapidly. In Series II, as the youngest of the surviving baby boomers reaches 65 years of age in 2031, the population aged 65 years and over is projected to reach 5.4 million (more than double the number in 1999) and represent 22% of the total population (compared with 12% in 1999). As the youngest baby boomers reach 85 years of age in 2051, the population aged 85 years and over is projected to reach 1.3 million (more than five times the number in 1999) and represent 5% of the total population.

Reflecting their longer life expectancy, women outnumber men in the older age groups, particularly in the group aged 85 years and over. In 1999, women made up 69% of the 85 years and over age group. In all series this proportion is projected to fall to 59% by 2051, based on the assumption that

the current trend for men's life expectancy to improve more rapidly than women's will continue into the future.

Reflecting the large increases in the numbers of people aged 45 years and over, and slight declines in the numbers of children, the median age of the population is projected to rise rapidly from 35 years in 1999 to between 44 and 47 years in 2051. Beyond this point, there is little change in the median age, reflecting the relatively static age structure which is a result of assumptions of fertility, mortality and migration being held constant to the end of the projection period (2101).

Because immigrants have a younger age profile than the total population, the initial effect of any migrant intake on the population is to slightly lower its median age. However, because migrants age over time with the rest of the population, the long-term effect of net overseas migration on population ageing is minor compared with its effect on population size. For example, the difference in assumed net overseas migration between Series II and Series III (20,000 per year), results in only half a year difference in median age between the two series in 2051, while the difference in population size is 1.3 million.

State and Territory population growth

Projected population growth varies considerably across Australia's States and Territories and reflects the interaction of three components: natural increase; net overseas migration; and net interstate migration. In each of the three fastest growing populations (i.e. the Northern Territory, Queensland and Western Australia), growth is dominated by different components.

In the Northern Territory natural increase contributes over 80% of projected population growth. This results from assumptions of relatively high fertility applied to a relatively young age structure, both of which are influenced by the large Indigenous population (Aboriginal and Torres Strait Islander people made up 29% of the Northern Territory population in 1996). Series II projects that the Northern Territory population will almost double in the next 50 years to 370,000 in 2051.

In Queensland, net population gains from interstate migration make the largest contribution to projected population growth. This is based on the assumption that Queensland will continue the long-term trend of attracting large flows of people from other States, mainly New South Wales and Victoria. Series II projects that, in 2038, Queensland will replace Victoria as the second most populous State and that almost one in four Australians (over six million) will be living in Queensland in 2051.

Western Australia receives a relatively large share of overseas settlers in relation to its population size. Net overseas migration is projected to become the main driver of its population growth within the next 10 years as the contribution of natural increase declines. Western Australia's population is projected to grow by more than one million (63%) in the next 50 years.

While moderate population growth is projected for New South Wales, Victoria and the Australian Capital Territory, the populations of Tasmania and South Australia are projected to decline over the next 50 years. Tasmania's population is projected to decline by 32% between 1999 and 2051. For the first thirty years, the main contributor to population loss is net interstate migration,

State and Territory projections, assumptions used(a)—Series II

	Total fertility rate (per female)	Net overseas migration (per year)	Net internal migration (per year)
NSW	1.64	38 295	-15 000
Vic.	1.52	20 603	-9 000
Qld	1.64	14 650	25 000
SA	1.55	3 168	-2 500
WA	1.61	12 335	3 500
Tas.	1.65	129	-2 000
NT	1.97	574	0
ACT	1.41	246	0
Aust.	1.60	90 000	..

(a) It is assumed that the mortality differentials existing between States and Territories and Australia during 1996-1998 will remain constant throughout the projection period.

Source: Population Projections, Australia, 1999 to 2101 (ABS Cat. no. 3222.0).

as young people continue to move to the mainland for education and work reasons. These losses of young adults result in fewer young families so that in the following twenty years, losses from negative natural increase are projected to exceed losses from interstate migration.

Following a period of slow growth to 2023, the population of South Australia is also projected to drop below its current level by the end of the projection period. Steady losses through interstate migration are offset by gains from overseas migration, so this pattern of growth and decline largely follows the projected trend in natural increase.

Projected population growth and distribution, States and Territories—Series II

	Population at 30 June			Population growth 1999-2051 %
	1999 '000	2021 '000	2051 '000	
New South Wales	6 411.7	7 600.4	8 247.8	28.6
Victoria	4 712.2	5 419.0	5 547.3	17.7
Queensland	3 512.4	4 808.7	6 101.3	73.7
South Australia	1 493.1	1 562.8	1 410.5	-5.5
Western Australia	1 861.0	2 468.2	3 037.8	63.2
Tasmania	470.3	442.0	319.3	-32.1
Northern Territory	192.9	265.0	369.5	91.6
Australian Capital Territory	310.2	356.5	371.7	19.8
Australia	18 966.8	22 926.4	25 408.5	34.0

Source: Population Projections, Australia, 1999 to 2101 (ABS Cat. no. 3222.0).

Regional population growth and distribution, Series II

	Population growth 1999–2021		Population living in capital cities at 30 June 2021	
	Capital city	Balance	'000	%
	%	%		
New South Wales	24.7	8.0	5 039.7	66.3
Victoria	19.4	3.3	4 081.8	75.3
Queensland	38.3	35.7	2 215.5	46.1
South Australia	7.3	-2.4	1 172.3	75.0
Western Australia	33.2	31.0	1 817.5	73.6
Tasmania	-3.7	-7.7	187.1	42.3
Northern Territory	46.8	29.6	129.3	48.8
Australian Capital Territory(a)	14.9	n.a.	356.5	n.a.
Australia	23.9	15.6	14 999.5	65.4

(a) Separate projections are not available for the balance of ACT.

Source: Population Projections, Australia, 1999 to 2101 (ABS Cat. no. 3222.0).

Regional population change

All capital cities are projected to experience greater rates of population growth than their respective State/Territory balances, but the degree to which this occurs varies considerably. For example, Melbourne's projected rate of growth between 1999 and 2021 is six times greater than for the rest of Victoria while Sydney's projected rate of growth is three times greater than for the rest of New South Wales. However, in Queensland, Western Australia and the Northern Territory there is relatively little difference, with strong growth projected across the whole State or Territory.

Overall, Australia's population is projected to become slightly more concentrated within its capital cities. Series II projects that 65% of all Australians will be living in capital cities in 2021, compared with 64% in 1999. Sydney and Melbourne are projected to remain our

two largest cities, and home to over 9.1 million Australians (40% of the total population) in 2021.

Ageing in States and Territories

While population age profiles vary throughout Australia as a result of past differences in fertility, mortality and migration trends, all of the State and Territory populations are projected to continue ageing into the next half century. Those with the oldest age profiles in 1999 and the lowest growth rates are projected to age the most.

Tasmania's population is projected to age most rapidly, overtaking South Australia as the 'oldest state' by 2021, and reaching a median age of 53 years by 2051. This rapid ageing is associated with very large declines among the younger age groups together with increases in the older age groups. Tasmania experiences large net losses of young people,

Projected ageing in States and Territories, Series II

	Median age at 30 June			Increase in median age	Population aged 65 years and over		
	1999	2021	2051	1999–2051	1999	2021	2051
	years	years	years	years	%	%	%
New South Wales	35.3	41.3	46.1	10.8	12.8	18.6	26.3
Victoria	35.1	42.0	47.1	12.0	12.7	19.3	27.8
Queensland	34.2	40.3	45.3	11.1	11.4	17.1	24.7
South Australia	36.7	44.2	50.2	13.5	14.4	22.1	31.1
Western Australia	33.9	40.0	44.5	10.6	10.5	16.9	24.3
Tasmania	36.1	45.1	53.2	17.1	13.4	22.6	34.0
Northern Territory	28.6	32.6	34.7	6.1	3.4	6.7	10.3
Australian Capital Territory	32.4	38.9	43.3	10.9	8.0	16.2	23.3
Australia	34.9	41.2	46.0	11.1	12.2	18.4	26.1

Source: Population Projections, Australia, 1999 to 2101 (ABS Cat. no. 3222.0).

as well as small net gains of older people, as a result of interstate migration. This trend, already evident for some time in Tasmania, is assumed to continue throughout the projection period, accelerating the natural ageing associated with continued low fertility.

The pattern of ageing associated with population loss is similar, but less marked, in South Australia which experiences a smaller decline in the numbers of younger people. Between 1999 and 2051, the median age in Tasmania and South Australia is projected to increase by 17 years and 14 years respectively (compared with 11 years for Australia). By 2051 over 30% of the projected population in both States will be aged 65 years and over, compared with 26% for Australia.

In contrast, the Northern Territory which has Australia's youngest population, and the highest projected rate of population growth, also has the lowest projected increase in median age (6 years) between 1999 and 2051. While all age groups are projected to increase in size, continued strong growth in the numbers of younger people maintains a relatively youthful age structure in the Northern Territory population.

Similarly, but to a lesser extent, continued growth in the numbers of younger people in the high growth States of Queensland and Western Australia will moderate the ageing effect of large increases in the numbers of older people.

Regional ageing

In all States except Western Australia, the balance of State populations are projected to age more rapidly than their respective capital city populations. Greater ageing in these areas is associated with their having older populations to start with and lower projected growth rates. It is also linked to the assumption that younger people will continue to gravitate to the capital cities for education and employment reasons, while some retirees will leave the capitals to live in coastal and rural towns. The greatest intra-State disparity in population ageing occurs in New South Wales and Victoria.

In Series II, the median age of the population living outside our capital cities is projected to reach 43 years in 2021, ranging from 32 years in the Northern Territory to 46 years in Tasmania and South Australia. The proportion of the population aged 65 years and over living outside capital cities is projected to reach 20% in 2021, ranging from 6% in the Northern Territory to 23% in Tasmania and South Australia.

Projected age of regional populations, 2021—Series II

	Median age		Increase in median age 1999–2021		Population aged 65 years and over	
	Capital city	Balance	Capital city	Balance	Capital city	Balance
	years	years	years	years	%	%
New South Wales	40.0	44.4	5.5	7.7	16.8	22.2
Victoria	41.1	45.0	6.5	8.5	18.3	22.3
Queensland	39.3	41.2	5.8	6.4	16.2	18.0
South Australia	43.7	45.7	7.1	8.8	21.8	23.1
Western Australia	40.5	38.7	6.3	5.7	17.3	15.6
Tasmania	44.3	45.7	8.4	9.5	21.6	23.3
Northern Territory	33.5	31.7	3.6	4.2	7.4	5.9
Australian Capital Territory(a)	38.9	n.a.	6.5	n.a.	16.2	n.a.
Australia	40.4	42.8	5.9	7.1	17.5	20.1

(a) Separate projections are not available for ACT balance.

Source: Population Projections, Australia, 1999 to 2101 (ABS Cat. no. 3222.0).

Family

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FAMILY SERVICES

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During the 1990s, about half the children aged under 12 years received some form of child care, mainly because their parents were employed. Along with increased use of child care for work-related reasons, the 1990s saw increases in the use of child care for other purposes. This article reports on the trends in child care arrangements from 1984 to 1999.

Caring in the community	46
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With the trend away from institutionalised care, informal carers such as family members, friends and neighbours are becoming an increasingly important source of assistance to people with a disability. This article addresses the characteristics of carers, their relationship with the recipients of their care, and the impact of caring on people's lives.

LIVING ARRANGEMENTS

Future living arrangements	51
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Reflecting the diverse range of lifestyles pursued by Australians, living arrangements are becoming more varied and this is projected to continue into the future. This article examines some projected trends in living arrangements over the next 20 years and discusses the social and demographic shifts associated with them.

FAMILY FORMATION

Older mothers	55
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In 1999, almost half the babies born were to women aged 30 years and over. The trend to older motherhood can be seen largely as a consequence of later timing of the events in people's lives which generally lead to family formation. This article outlines changing patterns of fertility since 1969 and the social trends underlying them.

Family: national summary

LIVING ARRANGEMENTS		Units	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total households	'000	n.a.	6 173	6 302	6 446	6 579	6 690	6 762	6 956	7 056	7 186	n.y.a.	
Lone-person households	%	n.a.	21.1	21.8	22.3	22.7	22.8	23.0	23.8	23.8	24.2	n.y.a.	
Households with three or more persons	%	n.a.	47.0	46.3	45.5	44.8	44.5	44.5	43.6	43.2	42.8	n.y.a.	
Total families	'000	4 456	4 502	4 587	4 638	4 709	4 791	4 834	4 899	5 027	5 056	5 116	
Families with children under 15	'000	1 999	2 002	2 048	2 038	2 041	2 100	2 092	2 130	2 160	2 166	2 172	
Couple families	'000	3 812	3 849	3 883	3 929	3 998	4 051	4 080	4 090	4 158	4 197	4 265	
De facto couple families (of all couple families)(a)	%	n.a.	8.2	n.a.	n.a.	n.a.	n.a.	10.1	n.a.	n.a.	n.a.	n.a.	
Couple-only families (of all couple families)	%	48.2	48.9	48.7	49.3	51.0	51.1	51.9	51.1	51.8	52.3	52.6	
Couple-only families with female partner aged under 40 (of all couple only families)	%	22.5	22.0	22.1	22.3	22.7	21.6	21.3	20.9	21.3	21.3	21.5	
Couple families with children under 15 (of all families with children under 15)	%	85.2	84.0	83.5	83.0	82.8	81.5	81.6	80.0	78.4	78.8	79.1	
Lone father families with children under 15 (of all families with children under 15)	%	1.6	1.8	1.5	1.7	1.8	1.9	2.0	2.3	2.0	1.9	2.3	
Lone mother families with children under 15 (of all families with children under 15)	%	13.2	14.2	14.9	15.3	15.4	16.6	16.3	17.7	19.5	19.3	18.6	
Families with at least one child aged under 5 (of all families with children under 15)	%	46.8	47.4	47.4	47.8	47.8	47.4	47.8	47.8	46.2	45.0	46.1	
Average family size (persons)	no.	3.2	3.2	3.2	3.2	3.1	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)	%	12.7	13.6	14.4	14.8	15.3	16.4	16.3	18.0	19.5	19.0	18.2	
Persons aged 20–24 living with parents (of all persons aged 20–24)	%	46.8	47.2	47.4	46.1	44.7	45.2	44.5	46.2	48.0	47.2	45.5	
Persons aged 25–34 living with parents (of all persons aged 25–34)	%	9.5	10.7	10.5	10.7	10.5	10.6	10.7	11.5	12.4	11.8	12.3	
Persons aged 15–64 who live alone (of all persons aged 15–64)	%	5.7	6.0	6.3	6.8	7.0	7.4	7.6	7.9	8.1	8.2	8.2	
Persons aged 65 and over who live alone (of all persons aged 65 and over)	%	29.0	29.4	29.3	31.0	29.4	29.3	29.8	30.7	29.0	29.5	30.9	

FAMILIES AND WORK		Units	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Couple families with children under 15, both parents employed (of all couple families with children under 15)	%	54.7	51.8	51.7	50.6	51.1	56.2	54.5	54.4	55.6	54.9	56.3	
Couple families with children under 15, neither parent employed (of all couple families with children under 15)	%	6.3	8.1	9.8	10.8	10.0	8.4	7.9	8.6	8.5	7.9	7.5	
One-parent families with children under 15, parent employed (of all one-parent families with children under 15)	%	44.2	43.2	40.6	41.4	41.8	43.2	42.7	42.9	42.1	44.0	47.3	
Children under 15 living in families where no parent is employed (of all children under 15)	%	n.a.	n.a.	n.a.	18.8	18.5	17.1	17.2	18.1	19.7	18.3	16.8	

(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 couple are at census date.

Family: national summary continued

FAMILY FORMATION		Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Registered marriages													
Number of marriages	'000	117.2	117.0	113.9	114.8	113.3	111.2	109.4	106.1	106.7	110.6	114.3	
Crude marriage rate (per 1,000 population)	rate	7.0	6.9	6.6	6.6	6.4	6.2	6.1	5.8	5.8	5.9	6.0	
Marriages where both partners married for the first time (of all marriages)	%	67.3	67.4	67.5	67.2	67.1	67.5	67.5	66.4	66.6	66.7	66.9	
Median age of men at first marriage	years	26.3	26.5	26.7	26.9	27.0	27.2	27.3	27.6	27.8	27.9	28.2	
Median age of women at first marriage	years	24.2	24.3	24.5	24.7	24.8	25.1	25.3	25.7	25.9	26.2	26.4	
Median age at remarriage (divorced men)	years	39.3	39.6	39.7	40.1	40.4	40.9	41.1	41.6	41.8	42.0	42.2	
Median age at remarriage (divorced women)	years	35.6	36.0	36.1	36.5	36.8	37.4	37.6	38.0	38.2	38.4	38.6	
Divorce													
Number of divorces	'000	41.4	42.6	45.6	45.7	48.4	48.3	49.7	52.5	51.3	51.4	52.6	
Crude divorce rate (per 1,000 population)	rate	2.5	2.5	2.6	2.6	2.7	2.7	2.8	2.9	2.8	2.7	2.8	
Median duration between marriage and final separation	years	7.3	7.3	7.4	7.4	7.6	7.6	7.6	7.6	7.7	7.8	7.9	
Divorces involving children under 18 (of all divorces)	%	55.3	55.6	54.2	52.9	52.6	52.4	n.a.	53.6	54.0	53.4	53.9	
Children under 18 affected by divorce	'000	43.3	44.9	46.7	45.7	48.1	47.5	n.a.	52.5	51.7	51.6	53.4	
Fertility													
Births	'000	250.9	262.6	257.2	264.2	260.2	258.1	256.2	253.8	251.8	249.6	248.9	
Total fertility rate (per woman)	rate	1.84	1.91	1.86	1.89	1.86	1.85	1.83	1.80	1.78	1.76	1.75	
Births to mothers aged under 20 (of all births)	%	5.7	5.8	5.7	5.4	5.1	5.0	4.9	4.9	4.9	4.7	4.7	
Births to mothers aged 35 and over (of all births)	%	9.6	10.0	10.7	11.4	11.9	12.9	13.7	14.6	15.3	16.1	16.8	
Births outside marriage (of all births)	%	20.2	21.9	23.0	24.0	24.9	25.6	26.6	27.4	28.1	28.7	29.2	
Births outside marriage acknowledged by father (of all births outside marriage)	%	75.9	77.1	79.5	81.0	81.7	82.2	83.3	84.2	85.5	87.1	88.2	
Women aged 35 and over giving birth for the first time (of all births to women 35 and over)	%	n.a.	n.a.	12.7	19.9	19.8	20.8	20.8	21.2	22.4	23.3	n.a.	
Median age of mothers at first birth	years	n.a.	n.a.	26.3	26.5	26.6	26.8	26.9	27.1	27.3	27.5	n.a.	
CHILD CARE		Units	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Children aged under 3 using formal care (of all children under 3)	%	14.0	n.a.	n.a.	17.0	n.a.	n.a.	21.6	n.a.	n.a.	22.3	n.a.	
Children aged under 3 using informal care (of all children under 3)	%	44.8	n.a.	n.a.	40.4	n.a.	n.a.	39.3	n.a.	n.a.	43.0	n.a.	

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	36.9	41.1	39.5	49.3	42.0	42.8
Total families	'000	2000	1721	1278	957	416	497	131	36	80	5 116
Families with children under 15 years	'000	2000	740	524	419	164	216	56	19	34	2 172
Couple families	'000	2000	1439	1066	796	346	416	109	29	64	4 265
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)	%	2000	52.1	52.4	52.4	57.7	51.2	54.9	47.2	51.5	52.6
Couple-only families with female partner aged under 40 (of all couple only families)	%	2000	22.4	21.2	21.1	20.5	20.2	18.2	34.2	27.9	21.5
Couple families with children under 15 (of all families with children under 15)	%	2000	79.6	80.3	78.7	76.9	78.6	76.7	76.3	74.5	79.1
Lone father families with children under 15 (of all families with children under 15)	%	2000	2.2	2.0	2.5	2.7	2.3	2.8	3.8	2.3	2.3
Lone mother families with children under 15 (of all families with children under 15)	%	2000	18.1	17.7	18.9	20.5	19.1	20.5	19.9	23.2	18.6
Families with at least one child aged under 5 (of all families with children under 15)	%	2000	46.7	45.8	46.3	43.8	46.6	46.3	44.6	45.3	46.1
Average family size (persons)	no.	2000	3.1	3.1	3.0	2.9	3.1	3.0	3.2	3.0	3.1
Children under 15 living in one-parent families (of all children under 15)	%	2000	18.2	16.4	19.0	19.9	18.4	20.5	21.3	24.0	18.2
Persons aged 20–24 living with parents (of all persons aged 20–24)	%	2000	48.5	52.2	35.4	42.9	43.5	34.1	20.1	43.6	45.5
Persons aged 25–34 living with parents (of all persons aged 25–34)	%	2000	12.8	16.8	8.5	10.3	9.7	8.2	*2.4	10.3	12.3
Persons aged 15–64 who live alone (of all persons aged 15–64)	%	2000	7.9	7.6	8.0	10.5	8.9	10.2	*10.1	8.6	8.2
Persons aged 65 and over who live alone (of all persons aged 65 and over)	%	2000	31.7	29.1	30.9	32.2	31.3	32.4	*18.7	32.1	30.9

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)	%	2000	57.9	56.4	53.9	52.1	56.6	52.5	61.7	72.7	56.3
Couple families with children under 15, neither parent employed (of all couple families with children under 15)	%	2000	7.0	7.9	7.9	8.1	6.8	11.2	8.3	2.8	7.5
One-parent families with children under 15, parent employed (of all one-parent families with children under 15)	%	2000	47.1	47.6	47.4	42.0	49.1	43.3	53.9	60.9	47.3
Children under 15 living in families where no parent is employed (of all children under 15)	%	2000	16.3	16.1	17.8	19.1	16.5	20.8	16.2	13.2	16.8

(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	1999	41.0	27.3	22.4	8.2	10.2	2.5	0.9	1.8	114.3
Crude marriage rate (per 1,000 population)	rate	1999	6.4	5.8	6.4	5.5	5.5	5.3	4.6	5.8	6.0
Marriages where both partners married for the first time (of all marriages)	%	1999	68.1	69.2	64.5	64.7	64.6	62.1	61.5	66.4	66.9
Median age of men at first marriage	years	1999	28.1	28.4	28.0	28.1	28.5	28.2	29.5	28.3	28.2
Median age of women at first marriage	years	1999	26.3	26.8	26.1	26.2	26.5	26.2	26.9	26.5	26.4
Median age at remarriage (divorced men)	years	1999	42.1	41.8	42.3	42.9	42.9	43.1	41.4	43.3	42.2
Median age at remarriage (divorced women)	years	1999	38.3	38.3	38.7	39.5	39.1	39.2	38.2	39.5	38.6
Divorce											
Number of divorces	'000	1999	15.5	12.7	11.5	4.3	5.3	1.4	0.4	1.5	52.6
Crude divorce rate (per 1,000 population)	rate	1999	2.4	2.7	3.3	2.9	2.8	3.0	2.1	(a)	2.8
Median duration between marriage and final separation	years	1999	7.1	8.1	8.2	8.7	8.1	8.9	6.9	8.4	7.9
Divorces involving children under 18 (of all divorces)	%	1999	51.5	53.9	56.3	57.3	51.2	59.2	52.6	55.8	53.9
Children under 18 affected by divorce	'000	1999	14.6	12.9	12.5	4.6	5.1	1.6	0.4	1.6	53.4
Fertility											
Births	'000	1999	86.8	58.9	46.5	18.0	24.8	6.0	3.6	4.3	248.9
Total fertility rate (per woman)	rate	1999	1.81	1.62	1.76	1.70	1.76	1.87	2.15	1.68	1.75
Births to mothers aged under 20 (of all births)	%	1999	4.6	2.9	6.1	4.2	5.6	7.6	13.3	3.2	4.7
Births to mothers aged 35 and over (of all births)	%	1999	17.3	18.7	14.4	17.3	15.7	13.5	12.2	19.0	16.8
Births outside marriage (of all births)	%	1999	27.2	23.4	33.6	31.2	33.8	40.1	60.0	27.0	29.2
Births outside marriage acknowledged by father (of all births outside marriage)	%	1999	87.8	93.3	86.3	89.8	89.4	88.8	67.0	85.6	88.2
CHILD CARE											
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* (ABS 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* (ABS 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* (ABS 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* (ABS Cat. no. 3301.0).

Child under 15

a related or unrelated person aged under 15 years who forms a parent-child relationship with one person aged 15 years or over resident in the household. Reference: *Labour Force Status and Other Characteristics of Families, Australia* (ABS 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* (ABS 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* (ABS 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* (ABS 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* (ABS 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 aged under 18 years 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* (ABS Cat. no. 3310.0).

Employed

persons aged 15 years 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* (ABS 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* (ABS Cat. no. 3101.0).

Family

two or more persons, one of whom is aged 15 years or over, 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* (ABS 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* (ABS 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* (ABS 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* (ABS Cat. no. 4402.0).

Family definitions and references continued

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* (ABS Cat. no. 6224.0).

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* (ABS 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* (ABS Cat. no. 6224.0).

Registered marriages

refer to formally registered marriages for which the partners hold a certificate.

Reference: *Marriages and Divorces, Australia* (ABS 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* (ABS 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 (1998)*.

Child care arrangements

FAMILY SERVICES

Throughout the 1990s about half of children aged under 12 years received some form of child care, mainly because of their parents' work-related activities.

To raise children requires a significant amount of time and care over many years. Parents are the main providers of this care throughout the child's life. However, children also spend a good deal of time at school and often participate in sporting and community activities. Through these activities they are in the care of school teachers and other adults.

In addition to these types of care, many children are also in receipt of some type of formal or informal care. For working parents in particular, obtaining adequate and affordable child care is a primary concern. In the 1980s, the need for work-related child care increased considerably, commensurate with the increasing labour force participation of women. In 1990, Australia ratified the International Labour Organisation Convention 156 on workers with family responsibilities,¹ and since then government expenditure on child care has quadrupled.

Along with increased use of child care for work-related reasons, the 1990s saw increases in the use of child care for other purposes. Parents' personal reasons are being cited more often as the main reason for using child care. This is particularly so for informal care, the most commonly used type of care.

Formal and informal child care

	1984	1999
Type of care used	%	%
Formal care only	8.6	14.0
Informal care only	25.6	27.7
Formal and informal care	3.7	9.5
Total formal and/or informal care	37.9	51.2
Total formal care	12.4	23.5
Total informal care	29.9	37.2
Neither formal nor informal(a)	61.5	48.8
Total children	100.0	100.0
	'000	'000
Total children	2 897.4	3 122.9

(a) Parental or other care, such as school or sporting activities, whose purpose is not primarily child care.

Source: ABS Child Care Arrangements, Australia, 1984 (ABS Cat. no. 4402.0); Child Care, Australia, 1999 (ABS Cat. no. 4402.0).

Formal and informal child care

Data presented in this article are from the ABS Child Care Survey which has been conducted periodically throughout Australia since 1969. The latest survey, conducted as a supplement to the June 1999 ABS Monthly Population Survey, continues the triennial series established in 1984.

Child care refers to arrangements made for the care of children under 12 years of age. This does not include parental care or those occasions when the child is under someone else's care for other reasons, such as school or sporting activities. The various types of care used can be grouped into two main categories, *formal care* and *informal care*.

Formal care is regulated child care away from the child's home, including: preschool or kindergarten; long day care; family day care; before and after school care; and other arrangements such as crèches in shopping centres.

Informal care is non-regulated child care either in the child's home or elsewhere. It includes care given by family members (such as the child's brothers or sisters, grandparents or other relatives), friends or neighbours, and paid baby-sitters.

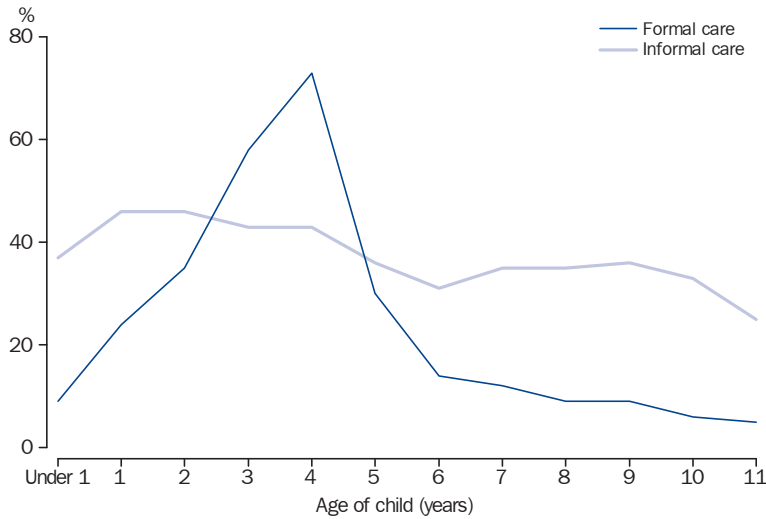
Trends in child care

In 1999, just over half of all children aged under 12 years (1.6 million) received some type of formal and/or informal child care. While the proportion of children receiving child care has increased markedly since 1984 (38%), it has fluctuated around 50% since 1990.

Between 1984 and 1999, the proportion of children receiving formal care doubled (12% to 24%). Although the increase was greatest among 0–2 year olds (8% to 22%) it occurred across all age groups. For children aged under 5 years, growth in the number of children attending long day care centres was the main contributor to this increase (from 99,400 in 1990 to 225,900 in 1999). For children aged 5–11 years, the number attending before and after school care trebled (from 44,000 in 1990 to 152,500 in 1999). This was the main contributor to the growth in formal care for this age group.

The proportion of children receiving informal care increased from 30% in 1984 to 37% in 1999 and this remains the most commonly used form of child care. For 28% of children in 1999, this was the only form of child care arrangement used.

Type of child care, 1999



Source: Child Care, Australia, 1999 (ABS Cat. no. 4402.0).

Type of care

The pattern of formal child care varies considerably with age. Among children aged 0–2 years, 22% received some type of formal care in 1999, with more than half of these attending long day care centres. In contrast, 66% of 3–4 year olds received some type of formal care. Preschool was the major type of care received, with 36% of children in this age group attending, followed by long day care

(24%). Children aged 5–11 years were less likely to receive formal care (12%) than younger children, and were most commonly attending before and after school care programs (8% of this age group).

The use of informal care arrangements varies less with age than formal care. In 1999, of children aged under 5 years, 43% received informal care, compared with 33% of children aged 5–11 years. Grandparents were the main providers of informal care (caring for 21% of children and providing more than half of all informal care in 1999). Grandparents were more likely to be the providers of informal care for very young children, providing nearly three quarters of informal care to children aged 0–2 years, compared with just under half of all informal care for children aged 5–11 years.

Reasons for using child care

The main reasons for using child care vary with the type of care provided, the age of the child and the labour force status of parents. In 1999, the main reason most commonly given for using both formal and informal care (46% and 45% respectively) was work-related. The benefit to the child was given as the next most common main reason reported for children attending formal care (36%). In particular, this reflects the high proportion of children attending preschool for this reason

Type of child care by age of child, 1999

Type of care	Age of child (years)			Total %
	0–2	3–4	5–11	
	%	%	%	%
Formal care				
Before and after school care	..	0.3	8.2	4.9
Long day care	13.6	23.8	0.7	7.7
Family day care	5.0	6.7	0.8	2.8
Occasional care	3.2	3.4	*0.1	1.4
Preschool	..	35.8	2.5	7.4
Other formal care	1.4	2.6	0.3	0.9
Total formal care(a)	22.3	65.7	12.1	23.5
Informal care				
Grandparent	31.0	27.5	15.5	21.2
Brother/sister	1.1	*0.8	3.3	2.4
Other relative	6.8	8.4	6.9	7.1
Other person	6.8	10.3	10.2	9.4
Total informal care(a)	43.0	43.2	33.2	37.2
Total children receiving care(a)	56.2	79.5	41.2	51.2
	'000	'000	'000	'000
Total children	755.1	519.1	1 848.8	3 122.9

(a) Children could receive more than one type of care and therefore components do not add to total.

Source: Child Care, Australia, 1999 (ABS Cat. no. 4402.0).

Main reason for using child care

	1984		1999	
	Formal care	Informal care	Formal care	Informal care
Main reason for using care	%	%	%	%
Work-related	25.8	40.1	46.2	44.9
Personal	7.9	38.3	11.7	42.3
Beneficial for child	62.4	6.0	35.9	3.5
Other	4.0	15.5	6.2	9.3
Total children receiving care	100.0	100.0	100.0	100.0
	'000	'000	'000	'000
Total children receiving care	358.9	864.9	733.2	1 162.1

Source: *Child Care Arrangements, Australia, 1984* (ABS Cat. no. 4402.0); *Child Care, Australia, 1999* (ABS Cat. no. 4402.0).

(71%). In aggregate, personal reasons such as study or training not related to work, shopping, entertainment, social or sporting activities and giving parents a break, were the second most commonly reported main reason for children receiving informal care.

The parents of older children were more likely to use child care for work-related reasons than those of younger children. In 1999, work-related reasons were reported by parents of children aged 5–11 years as the most common main reason for using both formal and informal care (67% and 49% respectively). In contrast, younger children in formal care were more likely than older children to be receiving care for their own benefit (44% of 0–4 year olds compared with 18% of 5–11 year olds), while for children aged 0–4 years receiving informal care,

parents' personal reasons were the most common main reason for receiving care (49%).

Over the 15 years from 1984 to 1999, work-related reasons for using child care have increased, consistent with the increased labour force participation of women over this period (see *Australian Social Trends 2001, Work: national summary*, pp. 118–121). In 1984, the majority of children attending formal care did so for the benefit of the child (62%), with work-related reasons given as the main reason for 26% of children. In 1999, the proportions were 36% and 46% respectively. This is reflected in the growth in the number of children attending formal care other than preschool, particularly long day care centres. Over this period, of those receiving formal care, the proportion of children attending preschool declined from 57% to 32%. However, the number of children attending preschool, which is primarily used for the benefit of the child, has changed little over this time (206,400 children in 1984 compared with 231,600 in 1999). While receipt of formal care for parents' personal reasons remains proportionally low, the number of children involved has trebled since 1984.

Hours of care

The amount of child care that children receive varies considerably with the type of care. In 1999, just under half (49%) of all children attending care, did so for less than ten hours per week. Children attending long day care centres and family day care were

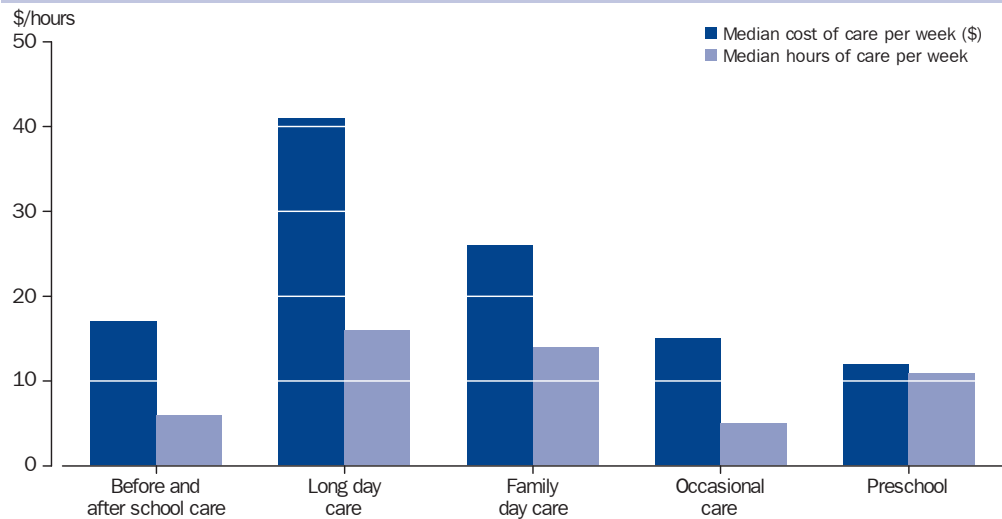
Weekly hours of child care, 1999

Type of care used	Hours			Total children	
	Less than 10	10–19	20 or more	%	'000
Formal care					
Before and after school care program	79.0	16.7	4.3	100.0	154.1
Long day care centre	29.7	33.9	36.4	100.0	242.0
Family day care	38.0	29.2	32.8	100.0	87.1
Occasional care	89.0	10.0	*1.0	100.0	42.9
Preschool	43.0	52.2	4.8	100.0	231.6
Other formal care	81.0	14.6	4.4	100.0	29.4
<i>Total formal care(a)(b)</i>	<i>46.1</i>	<i>33.2</i>	<i>20.7</i>	<i>100.0</i>	<i>733.2</i>
<i>Total informal care(b)</i>	<i>61.9</i>	<i>18.2</i>	<i>19.9</i>	<i>100.0</i>	<i>1 162.1</i>
Total children receiving care(a)(b)	48.5	25.4	26.1	100.0	1 599.3

(a) Children could receive more than one type of care and therefore components do not add to total.
(b) Where a child attended more than one type of care, the hours have been added together.

Source: *Child Care, Australia, 1999* (ABS Cat. no. 4402.0).

Cost and hours of formal child care, 1999



Source: Child Care, Australia, 1999 (ABS Cat. no. 4402.0).

more likely to attend for 20 or more hours per week (36% and 33% respectively) than children receiving other forms of care.

Receipt of formal care varies with family income. Children in higher income families were more likely to attend formal care than other children and, among children attending formal care were more likely to attend for 20 hours or more per week. This reflects the higher proportion of these families with both parents employed. One third of children in families with an income of \$1,400 or more per week attended formal care, compared with 26% of those with \$800–\$1,399 per week and 21% of those with less than \$800 per week. Of those children receiving formal care, the proportions, across these weekly income ranges, receiving 20 hours or more per week were 26%, 20% and 17% respectively. Hours spent in informal care varied little with family income.

Cost of child care to parents

The cost of child care varies considerably according to type of care and hours used. In 1999, the median weekly cost to families using formal child care was \$22. The majority of these families (79%) used less than 20 hours of care per week.

Children attending long day care centres incurred the highest median cost (\$41 per week) followed by family day care (\$26), reflecting the longer median hours of attendance at these types of care (16 hours and 14 hours respectively). Before and after school care, occasional care and preschool

were less expensive, with the median cost being \$17, \$15 and \$12 per week respectively.

Informal care was far less expensive with the vast majority of children (89%) incurring no cost. This reflects the fact that relatives are the main providers of informal care.

Work arrangements used by either parent to care for children

	1993	1999
Work arrangements	%	%
Flexible hours	27.4	32.5
Permanent part-time work	17.7	23.0
Shiftwork	7.4	9.3
Work at home	14.4	13.5
Job sharing	2.0	2.7
Other	1.5	3.1
<i>Total families where either parent used work arrangements(a)</i>	50.5	52.9
<i>Total families where neither parent used work arrangements</i>	49.5	47.1
Total families with at least one parent employed	100.0	100.0
	'000	'000
Total families with at least one parent employed	1 407.6	1 462.6

(a) Parents could use more than one type of work arrangement and therefore components do not add to total.

Source: Child Care, Australia, 1999 (ABS Cat. no. 4402.0).

Balancing work and family

Increasingly, employers acknowledge the need for workers to balance work and family responsibilities and have introduced a range of provisions over the years to help families do this. These provisions include flexible working hours, permanent part-time work, home-based work and job sharing. In 1999, over half (53%) of families with children aged under 12 years, and at least one parent employed, used one or more arrangements based on these provisions to help them care for children.

The most frequently used arrangements were flexible hours (33%) and permanent part-time work (23%) which have both increased slightly since 1993. Employed mothers were more likely to make use of work arrangements (68%) than employed fathers (27%).

Government spending on child care

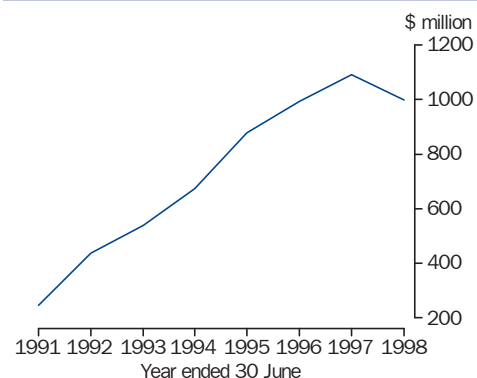
Over the last decade, the number of Commonwealth Government funded child care places increased from 122,600 in 1990,² to 422,100 in 1999.³

Commonwealth government spending increased in line with this from \$291 million in 1990–91 to \$1,011 million in 1997–98.⁴

This was largely due to an increase in Childcare Assistance to providers, particularly long day care centres (\$105 million in 1990–91 compared with \$481 million in 1997–98). Funding for Childcare Assistance to providers of family day care also increased over this period from \$51 million to \$126 million. The Childcare Rebate, introduced in the mid 1990s and available to families to subsidise work-related child care costs, accounted for a further \$121 million in 1997–98.⁵

Comparable figures for 1998–99 are not available due to a change in the government portfolio responsible for child care. However, the Commonwealth provided an estimated \$1 billion for child care services in that year.⁶ This included an estimated \$650 million on Childcare Assistance and \$117 million on Childcare Rebate payments. In 1999–2000, \$1.3 billion was spent on child care services.⁷

Commonwealth expenditure(a) on children's services



(a) In constant 1996–97 prices.

Source: Australian Institute of Health and Welfare, *Australia's Welfare 1999: Services and Assistance*.

Endnotes

- 1 International Labour Organisation 1996, *International Labour Conventions and Recommendations 1919–1995*, International Labour Organisation, Geneva.
- 2 Australian Institute of Health and Welfare, 1997, *Australia's Welfare 1997: Services and Assistance*, Australian Institute of Health and Welfare, Canberra.
- 3 Department of Family and Community Services 2000, *Annual Report 1999–2000*, Canberra.
- 4 Data in this paragraph is in constant 1996–97 prices. This adjustment allows for comparison over time, excluding the effect of inflation.
- 5 Australian Institute of Health and Welfare, 1999, *Australia's Welfare 1999: Services and Assistance*, Australian Institute of Health and Welfare, Canberra.
- 6 Department of Family and Community Services 1999, *Annual Report 1998–99*, Canberra.
- 7 Department of Family and Community Services 1999, *Annual Report 1999–2000*, Canberra.

Caring in the community

FAMILY SERVICES

In 1998, three quarters of carers lived in the same household as the person for whom they provided care.

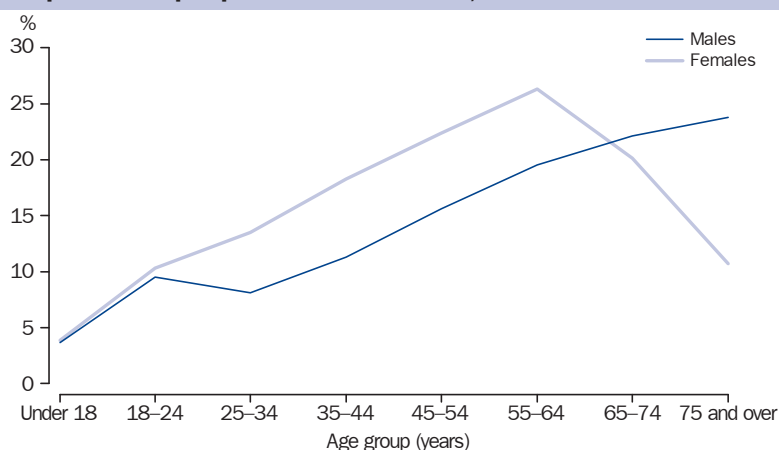
With the trend away from institutionalised care (and the consequent increased emphasis on community care), informal carers such as family members, friends and neighbours are becoming an increasingly important source of assistance to people with a disability. While caring for family and friends can be a satisfying experience, it can also affect carers financially, physically and emotionally, and may impact on their capacity to pursue education, employment, social and leisure opportunities.

In 1998, there were 2.3 million carers in Australia, representing approximately 13% of the population. Most informal care is given to family members living in the same household. In 1998, three quarters of carers provided care to someone living in the same household.

Age and sex

Caring for a child, partner or parent who has an activity restriction is predominantly a family role that many people may perform during the course of their lifetime, with the focus of care changing as people grow older. Overall, women were more likely than men to be a carer in 1998 (14% compared with 11%). However, the likelihood of being a carer differed widely between men and women for some stages of life. While boys and girls (4%) were just as likely to be carers, as were 18–24 year old men and women (around 10%), men's and women's likelihood of being a carer was quite different after their mid 20s.

Proportion of people who were carers, 1998



Source: *Caring in the Community, Australia, 1998* (ABS Cat. no. 4436.0).

Carers and care recipients

The data presented in this article are from the ABS Survey of Disability, Ageing and Carers conducted between March and May 1998. More details can be found in *Caring in the Community, Australia, 1998* (ABS Cat. no. 4436.0).

A *carer* is a person of any age who provides help or supervision with everyday activities to any person with a disability or long-term health condition, or to any person aged 60 years and over. The help or supervision has to be ongoing, or likely to be ongoing, for at least six months.

A *primary carer* is a person of any age who provides the most help or supervision to a person with one or more disabilities. The assistance has to be ongoing, or likely to be ongoing, for at least six months and to be provided for self care, mobility or communication. A small proportion of primary carers (less than 1% in 1998) are younger than 15 years of age. For purposes of simplicity and consistency, this article focuses on primary carers aged 15 years and over.

Primary carers usually care for someone who has a profound or severe level of core activity restriction. For people with a disability, the severity of their disability can be assessed by the degree to which they are restricted in performing the three core activities of self care, mobility and communication. In order of decreasing severity, the four levels of core activity restriction are profound, severe, moderate and mild.

People with a *profound core activity restriction* are unable to do, or always need help or supervision with self care, mobility or communication.

People with a *severe core activity restriction* sometimes need help with self care, mobility or communication, have difficulty understanding or being understood by family or friends, or can communicate more easily using sign language or other non-spoken forms of communication.

For men, the likelihood of being a carer decreased to 8% of those aged 25–34 years, but then increased with age to peak at 24% of men aged 75 years and over. Among women, the likelihood of being a carer continued to rise with age until 55–64 years (26%) and then diminished with increasing age. Older carers tend to be caring for their partner. Women generally live longer than men and tend to be younger than their male partners, so beyond 64 years are increasingly more likely than men of the same age to be widowed, and as a result, are less likely to have a partner to care for.

In 1998, carers aged 65 years and over (83%) and carers aged under 35 years (79%) were more likely to be caring for someone they lived with than were carers aged between 35 and 64 years (70%). A comparatively high proportion of carers in this middle age group (35%) were caring for at least one person who was living elsewhere. This age range represents the phase of life during which people are most likely to be caring for their parents.

Primary carers

In 1998, one fifth of all carers were primary carers who cared mainly for people who had a profound or severe core activity restriction. Of the 447,900 primary carers who were aged 15 years and over, 352,200 (79%) were living with the main recipient of their care. Most (62%) of these co-resident primary carers were caring for someone whose main impairment was physical. Less common were those caring for someone whose main impairment was intellectual (12%), sight or hearing loss (10%), psychological (7%), and speech difficulty (4%).

The majority of co-resident primary carers (58%) were caring for a person who had a profound core activity restriction (that is, they always need help with self care, mobility or communication). A smaller proportion (35%) were caring for someone with a severe core activity restriction (that is, they sometimes need help) and the remainder were caring for someone who had a schooling or employment restriction, or who did not have a specific restriction.

Relationship between primary carers and main care recipients

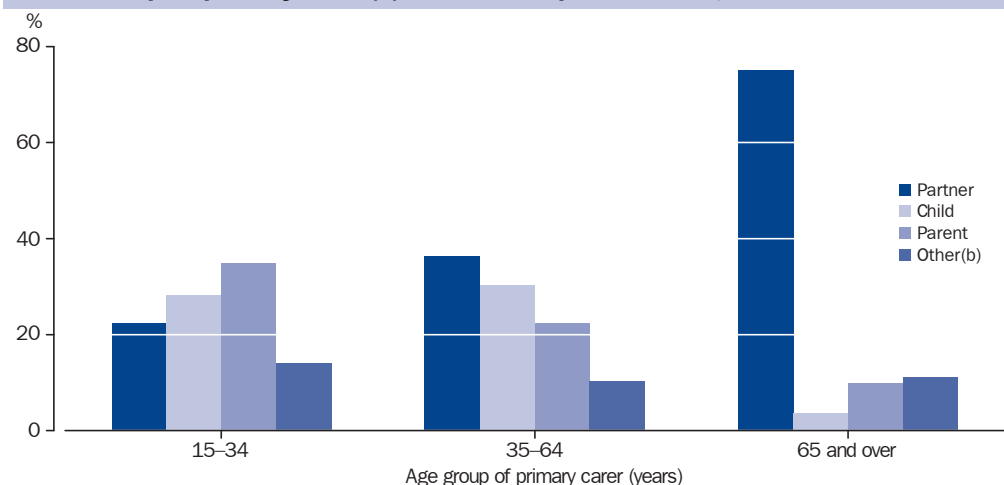
In 1998, 43% of primary carers were caring mainly for their partner, 24% for one of their parents, and 22% for one of their children. At different ages, primary carers were more likely to be caring for a particular member of their family. Those aged 15–34 years were most likely to be a parent who was the main caregiver for a child (35%), while those aged 35–64 years were most likely to be caring for their partner (36%). Similarly, three quarters of primary carers aged 65 years and over were caring for their partner.

The likelihood of living in the same household varies according to the relationship of the carer to their main care recipient. More than 99% of those caring for their partner, and 96% of those caring for a child, were living with that family member. In contrast, less than half (45%) of those who were caring for a parent, or for someone other than their parent, partner or child (39%), were living with that person.

Impact of primary caring role

The physical, emotional and financial consequences of providing primary care can be beneficial or adverse. In 1998, while some primary carers felt satisfied as a result of their caring role, some felt weary, felt lacking in energy, or frequently felt worried, depressed, angry or resentful, and some had been diagnosed as having a stress-related illness as a result of their caring role. For some carers, time and energy spent caring limited

Relationship of primary carer(a) to main recipient of care, 1998



(a) Limited to those living in a household.

(b) Comprises primary carers caring for a friend, or for a family member other than a partner, parent or child.

Source: *Caring in the Community, Australia, 1998* (ABS Cat. no. 4436.0).

participation in other activities or impacted on their personal relationships, sleep, or financial wellbeing.

...on relationships

The impact of providing primary care on relationships was mixed. For 42%, the primary carer's relationship with the main recipient of care was not affected by performance of the primary carer role. Of those whose relationship had changed, the result was more likely to have been a closer relationship with the main care recipient (35% of primary carers) than placing a strain on that relationship (23% of primary carers).

While a third of relationships with main care recipients became closer as a consequence of providing primary care, concurrent relationships with partners and other family members (12% and 11% respectively) were less likely to have become closer. Although relatively high proportions of those with partners and other co-resident family members (both 47%) had not had their relationships with these family members affected, more than 40% reported strained relationships or less time together.

Friendships were also unchanged for most (59%), although one quarter of primary carers reported losing touch with existing friends. Others (13%) experienced a changed circle of friends, and a small proportion (3%) widened their circle of friends.

...on sleep

Almost half of primary carers experienced sleep interruption as part of their caring role. Sleep interruption occurred occasionally for 24%, and frequently for 23%.

...on finances

While about half (49%) of primary carers had not undergone any change in their financial position because of their caring role, 49% had experienced an adverse impact on their financial wellbeing. Reduced income was the main effect for 22%, while 27% reported extra expenses.

Primary carers are more likely to be reliant on government pensions and allowances than people who are not carers. In 1998, pensions and allowances were the principle source of cash income for 49% of primary carers aged 15–64 years and for 20% of 15–64 year olds not providing care.

Selected effects of caring role on primary carers(a), 1998

Main effect caring role has had on:		%
Relationship with main recipient of care		
Brought closer together		34.7
Relationship unaffected		42.0
Relationship strained		23.4
Relationship with partner(b)		
Brought closer together		12.2
Relationship unaffected		47.3
Lack time alone together		18.7
Relationship strained		21.8
Relationship with other family members(c)		
Brought closer together		10.9
Relationships unaffected		47.0
Less time to spend with them		24.7
Relationships strained		15.8
Other		*1.4
Friendships		
Increased circle of friends		3.2
No change		58.7
Changed circle of friends		12.8
Lost or losing touch with existing friends		25.3
Sleep		
Not interrupted		52.9
Interrupted occasionally(d)		23.8
Interrupted frequently(d)		23.3
Financial position		
Increased income		2.5
Unchanged		48.7
Extra expenses incurred		27.2
Reduced income		21.5
All primary carers(e)		100.0
		'000
All primary carers(f)		447.9

- (a) Aged 15 years and over living in households.
- (b) Of those with a partner who is not the main recipient of care.
- (c) Of those living in the same household with at least one family member other than the main recipient of care and/or the primary carer's partner.
- (d) Primary carers whose sleep was interrupted and who did not state the frequency of their sleep interruption were excluded prior to the calculation of percentages.
- (e) Non-response to each selected effect was excluded prior to the calculation of percentages.
- (f) Includes non-response to each selected effect.

Source: *Caring in the Community, Australia, 1998* (ABS Cat. no. 4436.0).

...on time

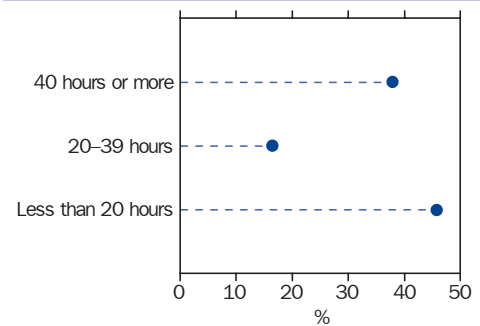
For many primary carers, the amount of time spent caring for their main recipient was equivalent to that spent on a full-time job. 38% spent an average of 40 hours or more per week, 16% spent between 20 and 39 hours, and almost half (46%) spent less than 20 hours a week on average.

Among primary carers who were living with the main recipient of their care, time spent caring tended to increase with the severity of the main care recipient's disability, and also varied according to the recipient's main impairment type. Most of those caring for someone whose main impairment was psychological (71%), speech difficulty (69%), or intellectual (54%), spent an average of 40 hours or more per week caring for that person. Smaller proportions of those caring for a person whose main impairment was physical (43%), or sight or hearing loss (37%), spent an average of 40 hours or more per week caring for him or her.

...and on paid work

Time spent caring may impact upon a carer's capacity to engage in paid employment. In 1998, less than half (45%) of all primary carers of working age (15–64 years) were employed. Most of these employed primary carers had not changed their weekly number of hours of paid work since taking on their caring role. However, approximately one fifth were working fewer hours. Almost one in every four employed primary carers aged

Average weekly hours(a) primary carers spent caring for the main recipient of their care, 1998



(a) Non-response was excluded prior to calculation of percentages.

Source: *Caring in the Community, Australia, 1998* (ABS Cat. no. 4436.0).

15–64 years often needed time off from work because of the role, and 7% had chosen to temporarily leave their job for at least three months to provide care to their main recipient.

Most 15–64 year old primary carers (55%) were not employed in 1998. Nearly 6% of all primary carers of working age had left work mainly to begin to take on the role of carer to their main recipient, and had not subsequently regained employment. A further 6% of 15–64 year old primary carers were not employed, and had left their job mainly to provide additional care to their main recipient.

Selected effects(a) on work from providing primary care, 1998

Primary carers aged 15–64 years living in households

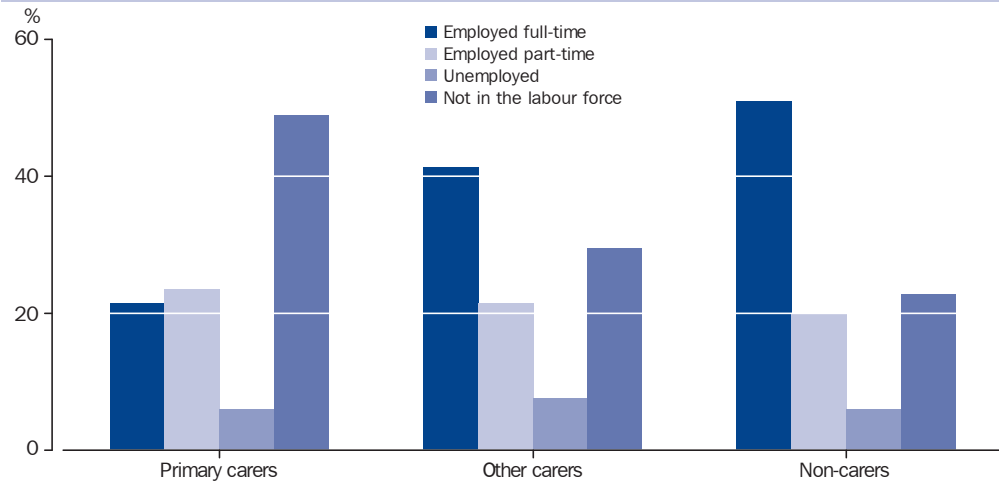
	%
Employed	45.0
Often needs time off from work because of caring role	10.8
Has needed to leave work for at least 3 months to care for main recipient	3.0
Has had to work more hours each week since began caring for main recipient	3.4
Has had to work fewer hours each week since began caring for main recipient	9.8
Not employed(b)	54.9
Left work mainly to begin caring for main recipient	5.8
Left work mainly to provide additional care to main recipient	6.1
Would like to have had a job while still caring for main recipient	21.9
Total	100.0
	'000
Total	351.3

(a) As some of the following selected effects are not mutually exclusive, some primary carers may have experienced more than one effect.

(b) Unemployed or not in the labour force.

Source: *Caring in the Community, Australia, 1998* (ABS Cat. no. 4436.0).

Labour force status of people aged 15–64 years living in households, 1998



Source: *Caring in the Community, Australia, 1998* (ABS Cat. no. 4436.0).

Among people of working age, the greater the caring role, the lesser the likelihood of having a job, particularly a full-time one. Of those who were providing primary care, 22% were working full-time and 49% were not in the labour force. By comparison, those who were providing care other than primary care were more likely to be working full-time (41%) and less likely to be out of the labour force (29%). Those who were not performing a caring role were even more likely to be working full-time (51%) and even less likely to be out of the labour force (23%).

Of all primary carers aged 15–64 years, 22% did not have a job but would like to have had one while still caring for their main recipient. Most of these carers felt it would be difficult to get a job, 29% perceiving the main barrier to be a lack of alternative care or excessive disruption to the main recipient of their care.

Use of respite care

Primary carers can take a break from their caring role through the use of formal respite care services. Such services may be used on a regular basis or in an emergency. They may be accessed in a nursing home, community centre, or at home.

In 1998, around 13% of primary carers had used a formal respite care service at some time in the past, and 8% had done so within the previous three months. Of those who had used respite care in the previous three months, 42% had used residential respite care, 32% had used in-home care and 24% had used a day-care centre. More detail on the use of respite care can be found in last year's publication (see *Australian Social Trends 2000*, Formal respite care, pp. 47–51).

Future living arrangements

LIVING ARRANGEMENTS

Over the next 20 years, households are projected to be smaller, families to diversify and more people to be living alone.

Over the last century the average size of households declined while at the same time, the number of households increased at a faster rate than the population grew. This can be attributed to changes in society which affected living arrangements, such as the trend to have fewer children, increasing numbers of divorces, more young people living alone or in group houses, and the ageing of the population.

Future changes in family and household composition will have implications not only for housing demand, but also for policies relating to income support, accommodation provision, aged care, health and family services. This article discusses how social and demographic trends may impact on living arrangements over the next 20 years.

Households of the future

The number of households in Australia is projected to increase over the next 20 years as a result of both population growth (see *Australian Social Trends 2001*, Population projections for the 21st century, pp. 26–31), and households becoming smaller and more diverse. Individuals are likely to live in a greater number of household types over a lifetime than in the past. Traditionally, three main living arrangements were experienced across a lifetime: living with parents, living with a partner (for some of this period with children), and living alone in old age if that partner died. Now and into the future, living arrangements across a lifetime may also include living alone or in a group household before forming a long-term partnership, or living as a lone parent or alone after divorce.

Household and family projections

This article draws on data from the ABS Household and Family Projections, which show some possible future scenarios for households, families and living arrangements between 1996 and 2021. These projections are not intended to predict where we will be in 2021, but where we may be heading, if current trends continue.

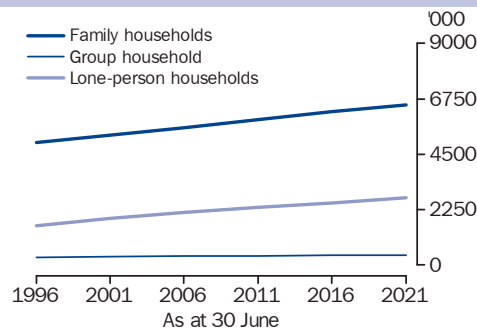
Three household and family projection series have been produced based on trends observed between the 1986, 1991 and 1996 censuses. *Series A* projections assume no change in living arrangements between 1996 and 2021, and that changes observed will only reflect changes in population dynamics. *Series B* projections assume a low rate of change, while *Series C* assume a high rate of change. All three household and family projection series use one population projection series which is based on the 1997 resident population and assumes an annual net overseas migration gain of 90,000, a total fertility rate of 1.6 births per woman and declining mortality.

In this article, a *family* refers to 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.

A *household* refers to a group of people usually resident in the same dwelling who make shared provision for food and other essentials for living, or one person who makes his or her own provision for food and other essentials for living.

For the sake of simplicity, only Series B projections are cited in this article as they represent the middle values of those produced across the three series. For further details, see *Household and Family Projections, Australia, 1996 to 2021* (ABS Cat. no. 3236.0).

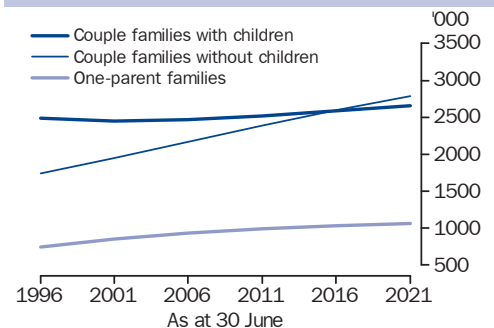
Projected household types(a)



(a) Series B projections.

Source: *Household and Family Projections, Australia, 1996 to 2021* (ABS Cat. no. 3236.0).

Projected main family types(a)



(a) Series B projections.

Source: *Household and Family Projections, Australia, 1996 to 2021* (ABS Cat. no. 3236.0).

While the number of households is projected to increase, the average size of households is projected to continue to decline, from 2.6 people in 1996 to 2.3 people in 2021. Family households are projected to remain the most common household type in 2021 (but are projected to decrease from 73% of households in 1996 to 68% in 2021), followed by lone-person households (increasing from 23% to 28%), and group households (remaining about 4% of all households).

Different life-cycle stages correspond broadly to different living arrangements. As the age structure of the population changes and as trends in marriage, family and work change, living arrangements in Australia will also shift.

Young adults

A number of trends have contributed to make young adulthood a more distinct life-cycle stage than in the past. Individuals aged 18–29 years are now likely to pursue a range of activities before forming partnerships and beginning families of their own. For example,

Household and family types

A *lone-person household* consists of a person who makes provision for his or her essentials for living, without combining with any other person to form part of a multi-person household. He or she may live in a dwelling on his or her own or with others.

A *group household* consists of two or more unrelated people aged 15 years and over who are usually resident in the same household, and there are no reported couple relationships, or parent-child or other blood relationships.

A *couple family with children* contains two people who are in a registered or de facto marriage, and one or more children (of any age) who are all usually resident in the same household. The family may include any number of other related individuals usually resident in the household.

A *couple family without children* contains two people who are in a registered or de facto marriage, who are usually resident in the same household where no children of any age are usually resident. The family may include any number of other related individuals usually resident in the household.

A *one-parent family* consists of a lone parent with at least one child (regardless of age) who is usually resident in the household. The family may also include other related individuals.

Projections of selected living arrangements of people aged 18–29 years

	Age group (years)			Total 18–29
	18–19	20–24	25–29	
1996(a)				
	%	%	%	%
Child(b)	68.2	41.1	15.6	34.4
Partner in a couple family without children	3.4	14.5	25.8	17.6
Partner in a couple family with children	1.6	8.2	28.5	15.9
Group household member	9.4	15.5	10.4	12.4
Lone person	3.0	6.4	8.4	6.7
	'000	'000	'000	'000
Total(c)	513.6	1 396.9	1 418.0	3 328.5
2021(a)(d)				
	%	%	%	%
Child(b)	65.2	43.0	18.6	35.7
Partner in a couple family without children	2.5	10.3	27.3	16.5
Partner in a couple family with children	1.3	4.6	18.3	10.1
Group household member	11.3	18.3	12.4	14.7
Lone person	3.9	7.5	10.2	8.1
	'000	'000	'000	'000
Total(c)	538.1	1 443.1	1 535.0	3 516.2

(a) As at 30 June.

(b) Regardless of age, living with one or both parents.

(c) Includes living as a usual resident of a non-private dwelling, and living as a related or unrelated individual in either a couple family without children, a couple family with children, a one-parent family or an other family.

(d) Series B projections.

Source: ABS 1999 Household and Family Projections, Australia, 1996–2021.

more young adults are participating in school and post-school education, and delaying their departure from the parental home.

Living as a child in a family (with one or both parents) is projected to increase for 18–29 year olds as a whole, from 34% or about 1.1 million in 1996 to 36% or about 1.3 million in 2021. However, within this age group a decline is projected for 18–19 year olds living as a child in a family, from 68% in 1996 to 65% in 2021. Thus, while many young adults are projected to stay in the parental home, others may leave home immediately after school if not undertaking post-compulsory education.

In addition, greater proportions of young adults are projected to be living in more independent arrangements, either before or as an alternative to forming partnerships. The proportion of 18–29 year olds living in group houses is projected to increase from 12% in 1996 to 15% in 2021, and the proportion living alone is projected to increase from 7% to 8% over the same period.

The projected growth in these living arrangements will be accompanied by a corresponding decline in the proportion living as a partner in a couple family (either with or without children). The only exception to this trend is for 25–29 year olds, for whom

living as a partner in a couple family without children is projected to stay much the same (26% in 1996 and 27% in 2021).

Families

Over the next 20 years, couple families without children are projected to become the most common of all family types, overtaking couple families with children in 2016 and comprising 42% of families in 2021. This is mainly associated with the ageing of the population, and the fact that by 2021, the large cohort of post-war “baby-boomers” will have entered old age and will no longer have their children residing with them.

In addition, a growing number of couples are choosing to remain childless at younger ages. The work and family roles of women have changed substantially over the last 20 to 30 years, with increasing numbers participating in higher education and the labour force. As a consequence, women are having children later in life (see *Australian Social Trends 2001, Older mothers*, pp. 55–58), or not at all. Accordingly, while the number of couple families with children is projected to remain much the same between 1996 and 2021 (around 2.5 million), as a proportion of all families they are projected to decline, from 49% to 40%.

The future composition of families is likely to be influenced not only by increasing numbers of couples without children, but also by increasing numbers of divorced people in the population. One-parent families are projected to increase from about 742,000 in 1996 to about 1.1 million in 2021, comprising 16% of all families in 2021. This increase will inevitably affect the living arrangements of children. While living with both parents will continue to be the most common living arrangement for children aged 0–14 years, the proportion of 0–14 year olds in one-parent families is projected to increase, from 17% in 1996 to 22% in 2021.

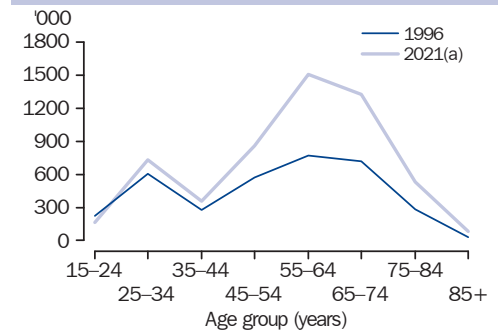
Older people

As a result of population ageing, greater numbers of people are projected to be aged 65 years and over in the future. Consequently, large increases are projected across all living arrangements for people in this age group.

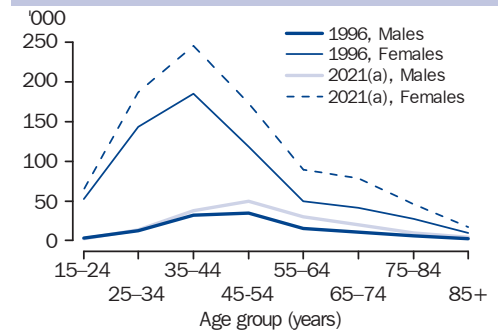
Most commonly, older people are projected to be living in couple families without children in 2021 (48%). This is associated with converging life expectancy at birth of men and women. The gap between men's and women's life expectancy declined from seven

Age distributions of selected living arrangements

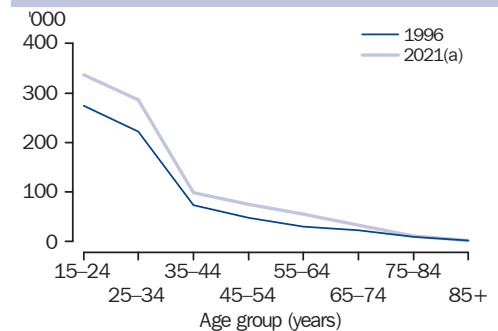
Partners in couple families without children



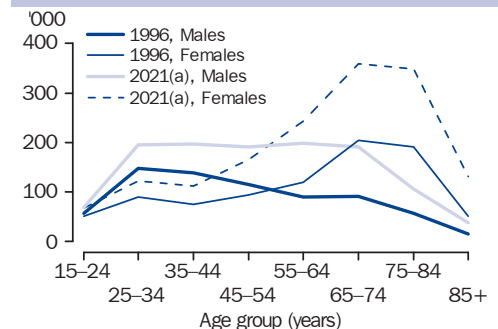
Lone parents



Group household members



Lone persons



(a) Series B projections.

Source: *Household and Family Projections, Australia, 1996 to 2021* (ABS Cat. no. 3236.0).

Projected number of families by family type

Family type	As at 30 June			
	1996		2021(a)	
	'000	%	'000	%
Couple families with children	2 483.8	49.1	2 654.0	40.1
Couple families without children	1 735.1	34.3	2 782.2	42.1
One-parent families	742.3	14.7	1 066.4	16.1
Male parent	114.9	2.3	165.6	2.5
Female parent	627.4	12.4	900.9	13.6
Other families	94.4	1.9	109.1	1.7
Total	5 055.6	100.0	6 611.8	100.0

(a) Series B projections.

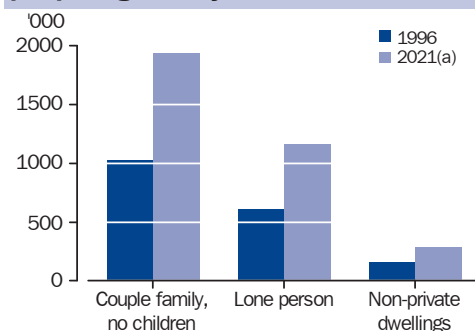
Source: *Household and Family Projections, Australia, 1996 to 2021* (ABS Cat. no. 3236.0).

to six years between 1980–1982 and 1997–1999, which suggests that there will be more older couples in the future.¹

Despite this, a tendency for women to outlive their partners is projected, with 21% of people (around 837,000) aged 65 years and over projected to be women living alone in 2021, compared with 8% (around 334,000) to be men living alone.

The proportion of older people living in non-private dwellings (such as nursing homes and hostels) is projected to stay much the same between 1996 and 2021, at around 7%. In contrast, due to population growth, the number of older people living in non-private dwellings is projected to increase, from about 157,000 in 1996 to around 293,000 in 2021.

Selected living arrangements of people aged 65 years and over



(a) Series B projections.

Source: *Household and Family Projections, Australia, 1996 to 2021* (ABS Cat. no. 3236.0).

Future housing needs

Changing patterns in living arrangements and family composition will have a number of implications for future housing needs. As living arrangements diversify, the demand for housing can be expected to be more diverse.

The ageing of the population, and particularly the projected numbers of older people living alone, may lead to the need for more single unit accommodation suited to older people. Extra public housing may be required to meet this need, as there may be more divorces which may impact on people's economic security in old age.²

In addition, if the average size of households continues to decrease, then there may be an increased demand for smaller houses. However, the proportion of households with four or more bedrooms has increased from 18% to 23% between 1988 and 1999.³ This may be associated with greater proportions of young adults living at home, leading to a growing demand for houses with separate space for parents and children. Equally, it could be associated with lifestyle aspirations for large, spacious housing.

The wellbeing of individuals is tied to the support they receive from family and other social networks. For this reason, communities of the future may ideally have a range of housing types, to allow family members at different stages of the life cycle to live in relatively close proximity to one another.⁴

Endnotes

- 1 Australian Bureau of Statistics 1985, *Deaths, Australia, 1984*, Cat. no. 3302.0, ABS, Canberra; and Australian Bureau of Statistics 2000, *Deaths, Australia, 1999*, Cat. no. 3302.0, ABS, Canberra.
- 2 de Vaus, D. 1997, 'Ageing' in *Australian Family Profiles: Social and Demographic Patterns*, eds de Vaus, D. and Wolcott, I., Australian Institute of Family Studies, Melbourne.
- 3 Australian Bureau of Statistics 1990, *1988 Housing Survey*, Cat. no. 4133.0, ABS, Canberra; and Australian Bureau of Statistics 2000, *Australian Housing Survey, 1999*, Cat. no. 4182.0, ABS, Canberra.
- 4 McDonald, P. 1995, *Families in Australia: A Socio-demographic Perspective*, Australian Institute of Family Studies, Melbourne.

Older mothers

FAMILY FORMATION

In 1979, almost one in four births were to women aged 30 years and over. By 1999 this had increased to almost one in every two births.

Since the late 1970s, an increasing number of women are having children later in life. Older motherhood can largely be seen as a consequence of later timing of the events in people's lives which generally lead to family formation. Young adults are tending to live in the parental home longer and are more likely to be undertaking post-school education (see *Australian Social Trends 2000*, Young adults living in the parental home, pp. 39–42). They are also more likely to enter into de facto relationships which may be short-term or precede marriage, thus marrying or entering into long-term relationships later.¹ Other changes in society, particularly the increased level of participation by women in the labour force and the widespread use of effective contraceptive methods, have also contributed to delayed family formation and subsequent older motherhood.

Changing age profile of mothers

Since the peak in 1961, the total fertility rate of Australian women has been declining. Between 1969 and 1979, the total fertility rate dropped from 2.9 to 1.9 babies per woman. Much of this drop can be attributed to a rapid decline in the fertility rates of women in the 20–24 and 25–29 year age groups, although women of all age groups experienced some decline in fertility rates during this period.

Between 1979 and 1999, the total fertility rate decreased slightly from 1.9 to 1.7 babies per woman. However, this period saw a

Births and fertility

Births data are provided by Registrars in each State and Territory. The data are derived from Birth Registrations which are generally completed by at least one parent.²

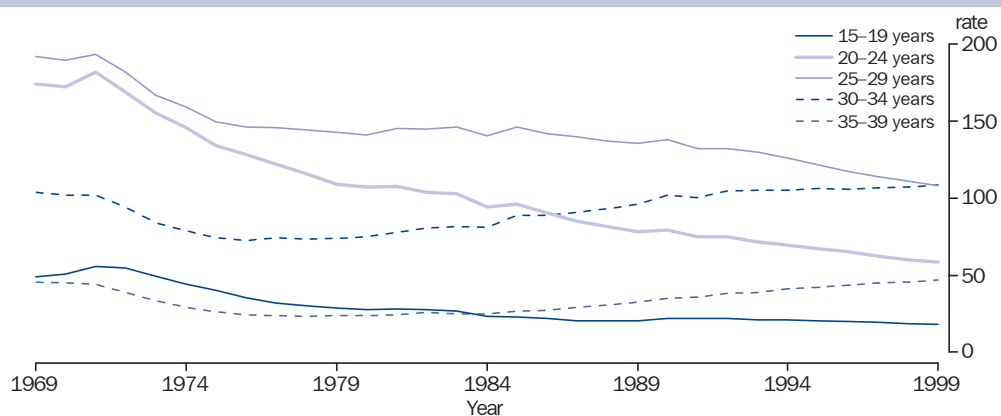
A *birth* is the delivery of a child, irrespective of the duration of pregnancy, who, after being born, breathes or shows any evidence of life, such as a heartbeat.

An *age-specific fertility rate* is the number of live births, according to the age of the mother, per 1,000 of the female resident population at the same age at 30 June.

The *total fertility rate* is the sum of age-specific fertility rates (live births at each age of mother per 1,000 female population of that age). It represents the number of babies a woman would bear during her lifetime if she experienced current age-specific fertility rates at each age of her reproductive life.

noticeable change in the timing of births. The fertility rate of women aged under 30 years continued to decline while that of women aged 30–34 years increased by 47% (from 74 births per 1,000 women in 1979 to 109 per 1,000 in 1999). At the same time, the fertility rate of women aged 35–39 years doubled (from 24 to 47 births per 1,000 women), as did that for women in the 40–44 years age group (from 5 to 9 births per 1,000 women). Nevertheless, the gains made in the older age groups did not make up for the drop in fertility in the younger age groups.

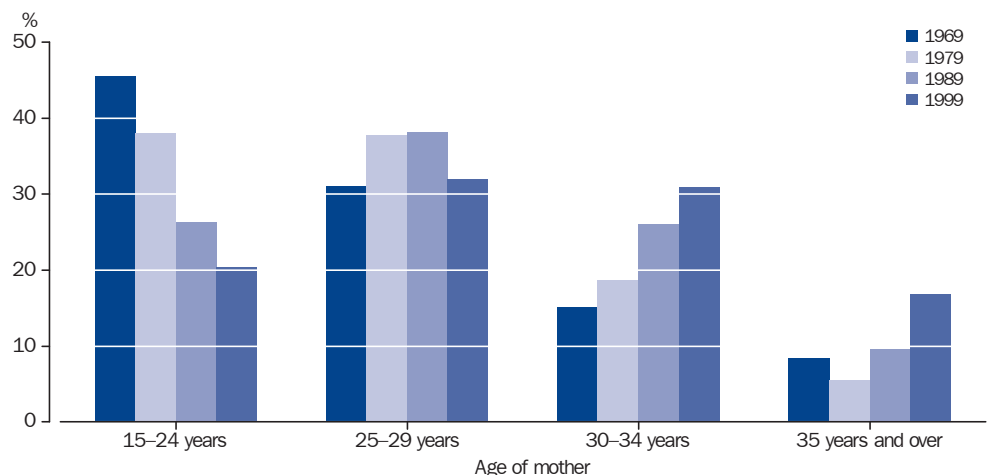
Age-specific fertility rates(a)



(a) Births per 1,000 females.

Source: *Births, Australia, 1999* (ABS Cat. no. 3301.0).

Proportion of all births by age of mother



Source: Births, Australia, 1969, 1979, 1989 and 1999 (ABS Cat. no. 3301.0).

The changes in the proportion of births occurring to women of different age groups further illustrates the shift towards older motherhood. In 1979 nearly one in four births (24%) were to women aged 30 years and over. In 1999, nearly one in two births (47%) were to women aged 30 years and over. The biggest change has occurred in the 15-24 years age group, with the proportion of births declining from 46% of all births in 1969 to 20% in 1999. The proportion of births to women aged 25-29 years remained relatively steady.

Timing of first children

The falling fertility rates of women aged under 30 years and the rising fertility rates of women in their thirties and early forties, are consistent with women having their first and subsequent births later in life.

Although the proportion of first births to all births remained relatively steady between 1993 and 1999, there was a change in the age distribution of mothers having their first birth. Women experiencing their first birth in 1999 tended to be older than women having a first birth in 1993. Approximately 28% of all first births in 1993 were to women aged 30 years and over. By 1999 this had increased to 34%. In contrast, 31% of all first births in 1999 were to women aged 15-24 years (down from 37% in 1993).

Census data on the number of children ever born to a woman provide further evidence that women are tending to have their first child later in life. In 1986, 67% of women aged 20-24 years had not had a child. By 1996 this had increased to 76%. In 1986, 40% of women aged 25-29 years had not had a child. This increased to 53% in 1996.² Not all of these women will give birth later in life as some will remain childless (26% based on 1999 rates).²

The later a woman has her first child, the later she will have other children. Between 1993 and 1999, the proportion of second births to women aged 30 years and over increased from 44% to 52%.

First and second births

	1993	1999
	%	%
Age of mother at first birth		
15-24 years	37.3	31.0
25-29 years	35.2	35.0
30-34 years	20.8	24.1
35 years and over	6.8	9.9
Total	100.0	100.0
Total mothers (no.)	112 906	104 735
First births as a proportion of all births (%)	43.4	42.1
Second births to women aged 30 years and over(a) (%)	44.2	51.6

(a) As a proportion of all second births.

Source: ABS 1993 and 1999 Births Collection.

Later family formation and older motherhood

Between 1979 and 1999, the median age of all women giving birth increased by three years.² The shift towards having children later in life results from young people tending to reach the milestones which usually precede parenthood (leaving the parental home, gaining economic independence, and

Selected indicators relating to later family formation

	1979	1999
Living in the parental home		
Males aged 20–24 years (%)	(a)51.3	53.7
Males aged 25–29 years (%)	(a)17.2	22.1
Females aged 20–24 years (%)	(a)31.6	40.5
Females aged 25–29 years (%)	(a)6.8	11.5
Education participation rates		
Males aged 15–19 years (%)	(b)59.5	77.9
Males aged 20–24 years (%)	(b)20.0	33.9
Females aged 15–19 years (%)	(b)51.6	77.8
Females aged 20–24 years (%)	(b)13.0	34.8
Female's participation in the labour force		
Females aged 20–34 years (%)	57.1	71.7
Married females aged 20–34 years (%)	48.3	65.4
Co-habitation		
Registered marriages preceded by co-habitation (%)	23.0	68.9
Median age at first marriage		
Males (years)	24.1	28.2
Females (years)	21.7	26.4
Median age of females giving birth		
Nuptial (years)	26.9	30.6
Exnuptial (years)	21.6	25.9
All births (years)	26.5	29.7
Median age at remarriage		
Divorced males remarrying (years)	36.1	42.2
Divorced females remarrying (years)	32.6	38.6

(a) June 1986 data.

(b) May 1982 data.

Source: ABS 1979, 1986 and 1999, Labour Force Survey (data have not been revised to reflect definitional changes introduced in April 2001); *Transition from Education to Work, Australia, 1982* (ABS Cat. no. 6227.0); ABS Transition from Education to Work Survey; *Marriages and Divorces, Australia* (ABS Cat. no. 3310.0); *Marriages, Australia, 1979* (ABS Cat. no. 3306.0); *Births, Australia, 1979 and 1999* (ABS Cat. no. 3301.0).

marrying or forming long-term de facto relationships) later than was the case in previous decades.

Those who decide to become partners and parents are more likely to do so after establishing themselves in a job or career.³ A lack of economic independence may therefore constrain family formation. A number of indicators suggest that it is taking young people longer to gain economic independence. These indicators include: a higher proportion of young adults under the age of 25 years in post-school education, a higher proportion of people in this age group living in the parental home and the increased rates of part-time employment and underemployment for persons in this age group (see *Australian Social Trends 1999*, Decline in the standard working week, pp. 105–109).

Social and economic changes occurring in the latter half of the 20th century triggered a shift in attitudes towards family formation,

reproduction and women's participation in the labour force. As a result, women have taken on alternative roles and life styles to motherhood.⁴ Labour force participation rates for women have increased noticeably since the 1970s and much of the increase can be attributed to greater numbers of married women entering the labour force. The labour force participation rates of married women in the 20–34 year age group (the major child-bearing ages during the last two decades) increased from 48% in 1979 to 65% in 1999. Increased access to the oral contraceptive pill from the 1960s (see *Australian Social Trends 1998*, Family planning, pp. 29–32) also enabled women to delay parenthood while participating in the labour force.

The changing nature and permanency of partnerships may also be factors in the timing of parenthood. It is becoming more likely for a person to live with more than one partner over a lifetime, in either a registered marriage or a de facto relationship, some of which are of a temporary nature.¹

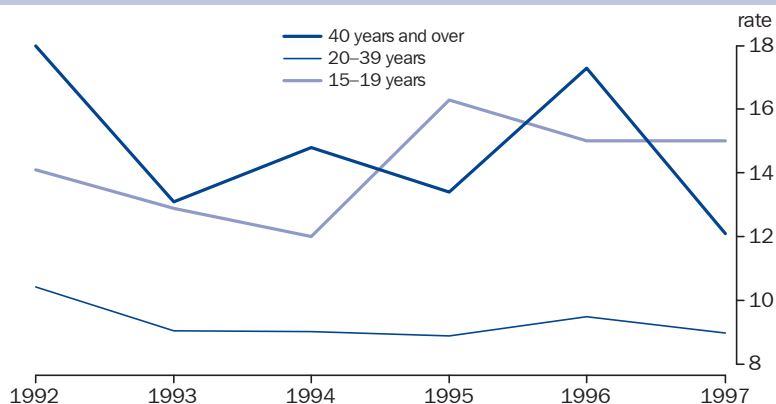
Of marriages registered in 1999, 69% were preceded by a period of cohabitation. If couples form de facto relationships to trial their compatibility or suitability for marriage, they may delay parenthood until they are confident in the permanency of a relationship. Increasing divorce rates (almost one in two marriages will end in divorce based on 1999 rates)⁵ may also contribute to later parenthood if women repartner and begin a second family at older ages.

Health and reproduction issues associated with older motherhood

There are health risks which escalate when a woman has children later in life, particularly if she is aged 35 years or over. These risks can include potentially life-threatening conditions for the mother and/or the baby, and the increased chance of giving birth to a child with a chromosomal disorder. Also, although quite low, the perinatal death rate is higher for babies born to women who are 40 years and over than it is for women in the 20–39 years age group. Between 1992 and 1997 the perinatal death rate for babies born to women aged 40 years and over varied between 12 and 18 deaths per 1,000 births. The perinatal death rate for babies born to women aged 20–39 years varied between 9 and 10 deaths per 1,000 births.

The ability to conceive declines markedly from age 35 years onwards.⁶ The proportion of assisted conception pregnancies to women aged 35 years and over in Australia and

Perinatal(a) death rates(b) by age of mother



(a) A perinatal death is stillbirth or a death recorded within 28 days of birth.
 (b) Deaths per 1,000 births.

Source: Day, P., Sullivan, E.A., Ford, J. and Lancaster, P. 1999, *Australia's Mothers and Babies 1997*, AIHW National Perinatal Statistics Unit: Perinatal Statistics Series no. 9, Sydney.

New Zealand increased from 29% of all assisted conception pregnancies in 1990 to 41% in 1997. During this time the number of assisted conception pregnancies doubled. Given that women aged 35 years and over have a lower overall ability to conceive, the increase is a reflection of the trend towards older motherhood. One of the issues facing women considering assisted conception is the increased likelihood of multiple births. Multiple pregnancies occurred in 20% of IVF (in-vitro fertilisation) pregnancies in 1997. The rate was slightly lower that year for GIFT (gamete intrafallopian transfer) pregnancies.⁷ This is much higher than the overall proportion of multiple births (1.4%) that occurred in Australia in 1997.²

IVF(a) and GIFT(b) pregnancies(c) by age of mother, Australia and New Zealand

	1990		1997	
	no.	%	no.	%
15-24 years	42	2.1	75	1.9
25-29 years	521	26.1	688	17.2
30-34 years	854	42.8	1 588	39.8
35-39 years	485	24.3	1 294	32.4
40 years and over	93	4.7	346	8.7
Total	1 995	100	3 991	100.0

(a) In-vitro fertilisation.
 (b) Gamete intrafallopian transfer.
 (c) Includes ectopic pregnancy, blighted ovum and spontaneous abortion.

Source: AIHW National Perinatal Statistics Unit, *Assisted conception, Australia and New Zealand, 1990 and 1997*.

Endnotes

- 1 Australian Parliament 1998, *To have and to hold*, a report of the inquiry into aspects of family services, House of Representatives Standing Committee on Legal and Constitutional Affairs, Can Print Communications, Pty Ltd, Parliamentary Paper 95, Canberra.
- 2 Australian Bureau of Statistics 2000, *Births, Australia, 1999*, Cat. no. 3301.0, ABS, Canberra.
- 3 Australian Bureau of Statistics 1994, *Focus on Families: Work and Family Responsibilities*, Cat. no. 4422.0, ABS, Canberra.
- 4 Jain, S. and McDonald, P. 'Fertility of Australian Birth Cohorts: Components and Differentials', *Journal of the Australian Population Association*, vol 14, no. 1, 1997, pp. 31-46.
- 5 Australian Bureau of Statistics 2000, *Marriages and Divorces, Australia, 1999*, Cat. no. 3310.0, ABS, Canberra.
- 6 Bourne, G. and Gillard, M. 1995, *Pregnancy*, Pan Books, London.
- 7 Hurst, T., Shafir, E. and Lancaster, P. 1999, *Assisted Conception Australia and New Zealand 1997*, AIHW National Perinatal Statistics Unit, Sydney.

Health

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MORTALITY AND MORBIDITY

Mortality in the 20th century	67
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During the 20th century there has been a consistent decline in death rates in Australia and a shift in the causes of death and the age at which people die. Over the century, infectious diseases were replaced by degenerative diseases, such as heart disease and cancers, as the leading cause of deaths of Australians. This article examines these trends.

Drug-related deaths	71
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This article focuses on deaths which occurred between 1979 and 1999 which were caused by the use of illegal drugs and the misuse use of legal drugs other than alcohol and tobacco. It examines death rates for accidental drug-deaths and suicide by drugs, and looks at the demographic characteristics of people who died from drug-related causes.

HEALTH STATUS

Disability among adults	75
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In 1998, 3.1 million adults living in households had a disability, and over a quarter of these had a profound or severe restriction. This article looks at the age distribution of adults with various restricting impairments. The employment outcomes for those aged 15–64 years and the needs and receipt of assistance of people aged 65 years and over are also discussed.

HEALTH EXPENDITURE

Private health insurance	80
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The decline in the proportion of Australians with private health insurance since 1984 was reversed between March and September 2000. This article outlines the trends in private health insurance coverage, the recent policy changes that have affected coverage levels and the characteristics of those who are insured.

HEALTH SERVICES

Private hospitals	85
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In 1998–99, the 500 private hospitals in Australia provided a third of available hospital beds. This article outlines the increase in the number of private hospitals during the 1990s, the shift to same-day procedures and the associated increase in free-standing day hospital facilities.

Health: national summary

HEALTH STATUS	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Life expectancy												
Male life expectancy at birth	years	73.3	73.9	74.4	74.5	75.0	75.0	75.0	75.2	75.6	75.9	76.2
Female life expectancy at birth	years	79.6	80.1	80.4	80.4	80.9	80.9	80.8	81.1	81.3	81.5	81.8
Male life expectancy at 65 years	years	14.7	15.2	15.4	15.4	15.7	15.7	15.7	15.8	16.1	16.3	16.6
Female life expectancy at 65 years	years	18.7	19.0	19.1	19.2	19.5	19.4	19.5	19.6	19.8	20.0	20.2
Male disability-free life expectancy at birth	years	n.a.	n.a.	n.a.	n.a.	58.4	n.a.	n.a.	n.a.	n.a.	57.5	n.a.
Female disability-free life expectancy at birth	years	n.a.	n.a.	n.a.	n.a.	64.2	n.a.	n.a.	n.a.	n.a.	63.3	n.a.
Mortality												
Total number of deaths	'000	124.2	120.1	119.1	123.7	121.6	126.7	125.1	128.7	129.4	127.2	128.1
Crude death rate (per 1,000 population)	rate	7.4	7.0	6.9	7.1	6.9	7.1	6.9	7.0	7.0	6.8	6.8
Standardised death rate (per 1,000 population)	rate	7.6	7.2	6.9	6.9	6.6	6.7	6.4	6.4	6.3	6.0	5.9
Infant mortality rate (per 1,000 live births)	rate	8.0	8.2	7.1	7.0	6.1	5.9	5.7	5.8	5.3	5.0	5.7
Perinatal mortality rate (per 1,000 live births and fetal deaths combined)	rate	11.0	11.3	10.6	10.7	9.2	9.1	9.4	10.0	9.2	8.3	8.5
Disability												
Disability with specific restrictions (per 100 population)(a)(b)	%	n.a.	n.a.	n.a.	n.a.	13.6	n.a.	n.a.	n.a.	n.a.	16.1	n.a.

CAUSES OF DEATH	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Death rates per 100,000 population —												
Leading causes(a)												
Cancer	rate	183	181	181	181	180	181	177	177	171	168	166
Ischaemic heart disease	rate	200	186	176	177	162	161	151	145	138	128	122
Stroke	rate	78	72	69	67	65	67	63	61	56	53	53
Selected cancers(a)												
Male lung cancer	rate	64	60	60	59	57	59	56	55	52	53	50
Female lung cancer	rate	18	17	18	18	19	19	19	20	19	19	19
Female breast cancer	rate	27	27	27	25	27	27	26	25	24	23	22
Prostate cancer	rate	32	32	31	34	35	35	33	33	29	29	28
Skin cancer	rate	6	7	6	7	7	7	7	7	6	6	6
Heart disease and diabetes(a)												
Male ischaemic heart disease	rate	271	250	237	235	219	216	204	196	183	171	164
Female ischaemic heart disease	rate	145	136	127	130	117	118	109	105	101	93	89
Diabetes mellitus	rate	13	13	13	14	14	15	14	15	14	13	14
Accidents and suicide												
Motor vehicle traffic accident(a)	rate	17	15	13	12	11	11	11	11	10	9	9
Male 15–24 years motor vehicle traffic accident	rate	49	42	38	31	33	30	32	32	29	27	26
Female 15–24 years motor vehicle traffic accident	rate	18	14	12	12	10	10	11	8	10	9	8
Suicide(a)	rate	13	13	14	13	12	13	13	13	15	14	13
Male 15–24 years suicide	rate	24	27	27	27	25	27	25	25	31	27	23
Female 15–24 years suicide	rate	3	4	6	6	4	4	6	4	7	6	5
AIDS(a)												
AIDS-related	rate	2	3	3	4	4	4	4	3	2	1	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	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Immunisation status												
Children not fully immunised aged 3 months to 6 years (of children 3 months to 6 years)	%	n.a.	45.9	n.a.	n.a.	n.a.	n.a.	47.9	n.a.	n.a.	n.a.	n.a.
Drinking and smoking												
Alcohol: apparent consumption per person per day	mls	30.2	29.9	28.6	27.2	26.4	27.1	26.5	26.0	26.2	r26.2	25.8
Tobacco: apparent consumption per person per day	grams	5.5	5.6	5.2	5.3	4.7	4.3	4.1	3.9	3.9	3.8	3.7
Diet and exercise												
Total fats: apparent consumption per person per day	grams	55.4	54.5	53.5	53.3	52.2	53.0	51.8	r52.7	r49.8	r51.2	50.8
Persons who do not exercise for sport, recreation or fitness (of persons 18 years and over)(a)	%	n.a.	35.8	n.a.	n.a.	n.a.	n.a.	34.0	n.a.	n.a.	n.a.	n.a.
SERVICES	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Hospital separations (per 1,000 population)	rate	n.a.	225	n.a.	237	247	260	r263	r276	r283	r291	295
Hospital beds (per 1,000 population)	no.	5.2	5.0	5.0	4.5	4.4	4.2	r4.5	r4.6	r4.3	4.2	4.2
Average length of stay in hospital	days	5.9	5.6	5.1	4.8	4.8	4.7	r4.3	4.3	4.2	4.1	3.9
Doctors (per 100,000 population)	no.	n.a.	n.a.	225	n.a.	n.a.	n.a.	n.a.	241	n.a.	n.a.	n.a.
Residential aged care places (per 1,000 population aged 70 years and over)	no.	97.2	95.1	94.0	93.7	93.1	r92.6	r92.2	r90.6	89.4	87.5	85.7
Medicare usage												
Average Medicare services processed per person(a)	no.	8.5	8.5	8.5	8.9	9.7	10.0	10.3	10.5	10.5	10.6	10.6
Average Medicare services processed per male(a)	no.	6.8	6.9	6.9	7.2	7.8	8.2	8.4	8.7	8.7	8.7	8.7
Average Medicare services processed per female(a)	no.	10.2	10.1	10.1	10.6	11.5	11.8	12.2	12.4	12.4	12.4	12.4
Average Medicare services processed per person aged 65 years and over	no.	15.2	15.3	15.4	16.4	17.9	18.8	19.6	20.5	20.9	21.4	21.9
Proportion of Medicare services used by persons aged 65 years and over	%	19.6	19.9	20.6	21.0	21.4	22.0	22.5	23.0	23.6	24.2	24.6
EXPENDITURE	Units	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Persons with private health insurance	%	45.5	44.5	43.7	41.0	39.4	37.2	34.9	33.6	31.9	30.5	30.6
Total health expenditure per person per year (1997-98 reference year)	\$	n.a.	r1 700	r1 820	r1 902	r1 990	r2 071	r2 170	r2 296	r2 414	2 523	2 671
Total health expenditure as a proportion of GDP	%	7.4	7.5	7.9	8.1	8.2	8.2	8.2	8.2	8.3	8.3	8.5

(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	1999	76.1	76.7	76.0	76.4	76.4	75.4	70.6	77.9	76.2
Female life expectancy at birth	years	1999	81.7	82.0	81.7	82.1	82.1	80.7	75.1	81.8	81.8
Mortality											
Total number of deaths	'000	1999	45.2	31.9	22.8	11.3	10.9	3.8	0.8	1.3	128.1
Crude death rate (per 1,000 population)	rate	1999	7.1	6.8	6.5	7.6	5.9	8.0	4.3	4.3	6.8
Standardised death rate (per 1,000 population)	rate	1999	5.9	5.7	6.0	5.7	5.7	6.5	8.7	5.4	5.9
Infant mortality rate (per 1,000 live births)	rate	1999	5.8	5.6	5.7	4.3	4.7	7.6	11.7	5.6	5.7
Perinatal mortality rate (per 1,000 live births and fetal deaths combined)	rate	1999	8.1	9.2	8.2	6.6	8.3	10.7	16.1	11.7	8.5
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											
Death rates per 100,000 population —											
Leading causes(b)											
Cancer	rate	1999	162	166	169	161	169	180	209	160	166
Ischaemic heart disease	rate	1999	126	112	137	119	113	128	142	103	122
Stroke	rate	1999	56	48	54	51	50	54	65	53	53
Selected cancers(b)											
Male lung cancer	rate	1999	50	48	53	49	55	52	70	33	50
Female lung cancer	rate	1999	19	19	20	17	21	18	32	17	19
Female breast cancer	rate	1999	21	24	21	20	23	28	45	23	22
Prostate cancer	rate	1999	27	30	29	30	26	32	16	22	28
Skin cancer	rate	1999	7	5	8	5	7	5	7	3	6
Heart disease and diabetes(b)											
Male ischaemic heart disease	rate	1999	171	150	178	163	151	173	190	132	164
Female ischaemic heart disease	rate	1999	91	82	102	84	82	95	89	80	89
Diabetes mellitus	rate	1999	11	17	13	13	13	13	39	10	14
Accidents and suicide											
Motor vehicle traffic accident(b)	rate	1999	9	9	9	10	11	14	16	5	9
Male 15–24 years motor vehicle traffic accident(c)	rate	1999	23	22	26	35	32	n.a.	n.a.	n.a.	26
Female 15–24 years motor vehicle traffic accident(c)	rate	1999	9	7	7	8	8	n.a.	n.a.	n.a.	8
Suicide(a)	rate	1999	13	12	14	13	13	17	15	14	13
Male 15–24 years suicide(c)	rate	1999	20	18	26	17	30	n.a.	n.a.	n.a.	23
Female 15–24 years suicide(c)	rate	1999	7	5	4	5	3	n.a.	n.a.	n.a.	5
AIDS(b)											
AIDS-related(d)	rate	1999	1	1	1	n.a.	n.a.	n.a.	n.a.	n.a.	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.

(d) Data for South Australia, Western Australia, Tasmania, Northern Territory and the 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											
Hospital separations (per 1,000 population)	rate	1998-99	276	299	318	318	298	259	348	265	295
Hospital beds (per 1,000 population)	no.	1998-99	4.0	3.9	4.5	4.8	4.6	4.1	3.6	3.4	4.2
Average length of stay in hospital	days	1998-99	4.1	3.6	4.0	3.9	3.7	4.3	3.5	3.7	3.9
Doctors (per 100,000 population)	no.	1996	250	237	233	264	221	220	249	259	241
Residential aged care places (per 1,000 population aged 70 years and over)	no.	1998-99	85.6	81.4	90.0	87.7	86.8	85.0	93.0	83.6	85.7
Medicare usage											
Average Medicare services processed per person(b)	no.	1998-99	11.3	10.7	10.6	9.8	9.5	9.5	6.5	9.3	10.6
Average Medicare services processed per male(b)	no.	1998-99	9.5	8.8	8.6	8.1	7.6	7.5	5.2	7.6	8.7
Average Medicare services processed per female(b)	no.	1998-99	13.1	12.5	12.6	11.4	11.4	11.5	7.9	11.1	12.4
Average Medicare services processed per person aged 65 years and over	no.	1998-99	23.0	22.3	21.8	20.1	20.1	18.7	12.9	19.5	21.9
Proportion of Medicare services used by persons aged 65 years and over	%	1998-99	25.1	25.7	23.0	27.9	22.2	25.4	7.6	17.4	24.6
EXPENDITURE											
Persons with private health insurance(c)	%	1999	30.9	29.7	28.7	31.2	35.0	33.3	23.9	n.a.	30.6

(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 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* (ABS Cat. no. 3303.0).

Alcohol: apparent consumption

millilitres of pure alcohol (not total alcoholic beverages) consumed, divided by the population 15 years 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* (ABS 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* (ABS 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*, (ABS 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: *Australian Hospital Statistics, 1998-99*, 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, 1998-99*.

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 up to 1998, ICD-10 code C50 for 1999).

Reference: *Causes of Death, Australia* (ABS 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 up to 1998, ICD-10 codes C00-C97 for 1999).

Reference: *Causes of Death, Australia* (ABS 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*, (ABS Cat. no. 4364.0).

Causes of death

the causes of death, both underlying and multiple, are classified by the International Classification of Diseases 9th and 10th Revision (ICD-9 up to and including 1998, and ICD-10 for 1999 and onwards).

Reference: *International Classification of Diseases, Ninth Revision*, World Health Organization, Geneva.

International Classification of Diseases, Tenth Revision, World Health Organization, Geneva.

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* (ABS 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* (ABS 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* (ABS 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 up to 1998, ICD-10 Codes E10-E14 for 1999).

Reference: *Causes of Death, Australia* (ABS 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* (ABS 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 six 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 years with a disability.

Reference: *Disability, Ageing and Carers: Summary of Findings, Australia, 1998* (ABS 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.

Health definitions and references continued

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* (ABS 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* (ABS Cat. no. 3303.0).

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* (ABS 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* (ABS Cat. no. 4390.0); *Australian Hospital Statistics, 1998–99*, Australian Institute of Health and Welfare.

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, 1998–99*, 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: ABS 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* (ABS 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* (ABS Cat. no. 4364.0).

Ischaemic 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 up to 1998, ICD–10 codes I20–I25 for 1999).

Reference: *Causes of Death, Australia* (ABS 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 years 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* (ABS 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* (ABS 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 up to 1998, ICD–10 codes C33–C34 for 1999).

Reference: *Causes of Death, Australia* (ABS Cat. no. 3303.0).

Medium/high-risk drinkers

men aged 18 years and over who reported drinking 50–75ml of absolute alcohol (medium-risk) or more than 75ml (high-risk) per day, and women aged 18 years 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* (ABS 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 up to 1998, ICD–10 relevant codes selected from V01–V89 for 1999).

Reference: *Causes of Death, Australia* (ABS 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* (ABS Cat. no. 3303.0).

Residential aged care places

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: *Residential aged care facilities in Australia 1998–99: A statistical overview*, Australian Institute of Health and Welfare.

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. BMI is body weight in kilograms divided by the square of height in metres.

Reference: ABS 1995 National Nutrition Survey.

Health definitions and references continued

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* (ABS Cat. no. 3303.0).

Persons with private health insurance

proportion of the total population with private basic hospital insurance.

Reference: *Annual Reports, Private Health Insurance Administration Council*.

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 up to 1998, ICD-10 code C61 for 1999).

Reference: *Causes of Death, Australia* (ABS Cat. no. 3303.0).

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 up to 1998, ICD-10 codes C43–C44 for 1999).

Reference: *Causes of Death, Australia* (ABS 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* (ABS 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 up to 1998, ICD-10 codes I60–I69 for 1999).

Reference: *Causes of Death, Australia* (ABS Cat. no. 3303.0).

Suicide deaths

deaths where suicide is mentioned on the death certificate as the underlying cause (ICD-9 codes E950–E959 up to 1998, ICD-10 codes X60–X84 for 1999).

Reference: *Causes of Death, Australia* (ABS Cat. no. 3303.0).

Tobacco: apparent consumption

grams of tobacco consumed divided by the population aged 15 years 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: ABS International Trade collection.

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* (ABS Cat. no. 4306.0).

Total health expenditure as a proportion of GDP/per person

total health expenditure as a proportion 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.

Mortality in the 20th century

MORTALITY AND MORBIDITY

During the 20th century, infectious diseases were replaced by degenerative diseases, such as heart disease and cancers, as the leading causes of deaths of Australians.

The causes of deaths, and the ages at which people die, reveal much about the health of a population. Many developed countries, including Australia, have long and well established systems which capture vital statistics including births and deaths. Death records, which can be used to generate death rates by age, sex and according to cause of death, are a commonly used indicator to measure a population's health over time.

Tasmania was the first Australian colony to adopt compulsory registration of deaths in 1839, and by the 1870s all colonies were collecting information on causes of death.¹ It is therefore possible to analyse death rates in Australia for the entire 20th century.

Life expectancy in Australia increased substantially during the 20th century. In the period 1901–1910, the average life expectancy of a new-born boy was 55 years and that of a new-born girl, 59 years.² By the end of the 20th century a new-born boy could expect to live 76 years and a new-born girl nearly 82 years (based on deaths during the period 1997–1999).³

This increase in life expectancy reflects the generally consistent decline in death rates in Australia throughout the last century. A major exception to this decline was an increase in 1919 which can largely be attributed to a global influenza epidemic. In that year, death rates from diseases of the respiratory system almost doubled for both males and females.

Sources and definitions

Causes of death data are compiled by the ABS from information received from State and Territory Registrars of Births, Deaths and Marriages. These data are classified according to the International Classification of Diseases (ICD).

There have been a number of revisions of the ICD during the 20th century. The first revision came into effect in 1898 and was known as the Bertillon Classification of Causes of Death.⁴ Subsequent revisions were as follows:

ICD2	-	1918 - 1921
ICD3	-	1922 - 1930
ICD4	-	1931 - 1939
ICD5	-	1940 - 1949
ICD6	-	1950 - 1957
ICD7	-	1958 - 1967
ICD8	-	1968 - 1978
ICD9	-	1979 - 1998
ICD10	-	1999 -

Source: AIHW Mortality Monitoring System.

Death rates are the number of deaths in a year expressed as a number per 100,000 of the population.

Age standardisation is a demographic technique used to compare estimates for populations which have different age structures. In this case it removes the effect of different age structures on death rates. Death rates in this article have been standardised to the 1991 total population.

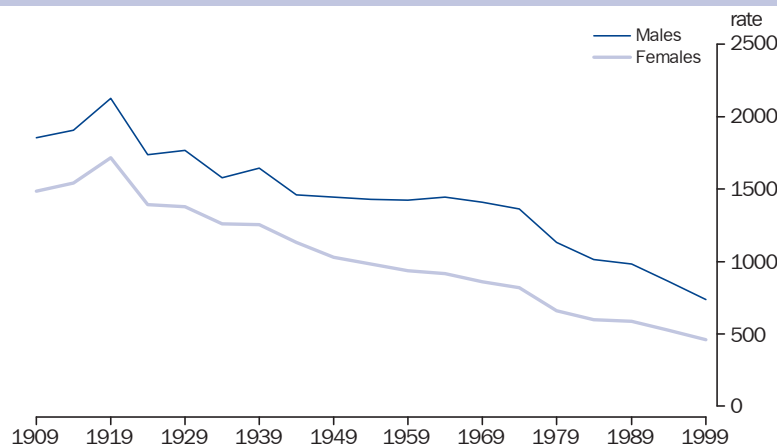
Death rates during the 20th century were characterised by a shift in disease patterns, (or what people were dying from) and the age at which people were dying. In the first half of the century, causes of death were dominated by infectious diseases, which tended to impact on the very young and the very old.⁵

From the 1950s to the 1970s, it was believed that mortality trends had reached their lower limits and that further gains would be minimal.⁶ However, from the early 1970s, death rates continued to decline in all age groups. Over the century, in the older age groups, degenerative diseases such as heart disease, cancer and stroke, replaced infectious diseases as the main causes of death.⁷

Death rates for males and females

While death rates for both sexes declined throughout the 20th century, rates for males were consistently higher than rates for females. During the period from 1909 to

Age-standardised death rates(a)



(a) Rate per 100,000 persons.

Source: AIHW Mortality Monitoring System

1999, the standardised death rate for males declined from 1,857 to 737 deaths per 100,000 and for females from 1,485 to 460. The declines in male and female death rates were similar during this period, although the ratio of male to female deaths converged marginally from 1.4 male deaths for every female death in the 1900s to 1.1 male deaths for every female death in the 1990s.

The exception to this trend was a divergence in the mid 1950s which continued into the 1960s and 1970s. This divergence was largely the result of increased male deaths from cancer of the trachea, bronchus and lungs, and to a lesser extent from circulatory diseases and motor vehicle accidents. The reduction in the mortality gap between the sexes later in the century can be attributed to a decline in motor vehicle accident deaths among young men, a decline in ischaemic heart disease among older men and an increase in lung cancer among older women.⁸

Changing age at death

One of the most notable features of 20th century death rates is the changing age at which deaths were occurring. These changes were greatest for children and the elderly.

In the first half of the century, the greatest gains were made in reducing the death rates of infants, children aged less than 5 years, and young women of child bearing age. The death rate for boys aged 0–4 years declined from nearly 2,300 per 100,000 males in 1909, to 615 in 1959, and subsequently to 149 in 1999. The pattern for females was similar,

with the death rate for girls aged 0–4 years declining from approximately 2,000 deaths to less than 490 per 100,000 females in the first half of the century, to 117 deaths per 100,000 by 1999. In 1909, deaths of children aged 0–4 years comprised 24% of all deaths, whereas by 1999 this had declined to 1%.

Conversely, in the second half of the century, death rates among older persons declined the most. For example, between 1959 and 1999, the death rate for males aged 65–69 years declined by more than 50%, and a similar pattern was evident for females. This shift to a greater proportion of people living to age 65 years and over is highlighted by the fact that in 1909 approximately 31% of all deaths occurred in persons aged 65 years and over, and by 1999, this increased to 78%.

Causes of death

The decline in deaths from infectious diseases, particularly in the younger age groups, was the driving force behind the decline in mortality in the first half of the 20th century. In 1920, infectious diseases accounted for approximately 15% of all deaths for both males and females; the death rate for males from infectious diseases was 189 per 100,000 males, and 147 per 100,000 females. Three of the leading causes of death at this time for males aged under 5 years were infectious diseases; diarrhoea and enteritis, diphtheria and measles.

The decline in deaths from infectious diseases is generally believed to be the result of medical advances and an overall rise in living standards including improved nutrition

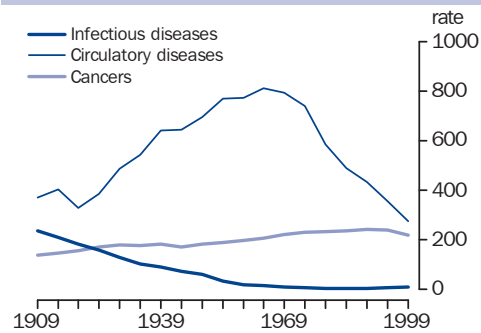
Death rates(a) for selected age groups

	Age group (years)								Total rate
	0–4 rate	25–29 rate	35–39 rate	45–49 rate	55–59 rate	65–69 rate	75–79 rate	85+ rate	
Males									
1909	2 292.9	404.8	596.5	1 176.0	1 982.1	4 482.6	11 630.8	27 411.0	1 856.6
1939	1 233.3	251.5	368.2	772.6	1 796.8	4 216.9	10 576.7	31 454.5	1 641.5
1959	615.6	143.3	243.2	596.1	1 760.3	4 379.3	10 189.7	25 265.3	1 425.3
1979	297.7	139.4	175.4	498.4	1 329.0	3 372.6	8 018.2	20 442.2	1 131.7
1999	149.4	138.2	141.7	250.2	664.9	1 900.1	5 237.9	16 315.1	737.1
Females									
1909	1 913.9	428.6	629.2	822.3	1 316.6	3 474.6	9 606.5	21 977.0	1 484.7
1939	971.2	218.4	340.9	574.7	1 104.4	3 047.3	8 257.1	27 673.9	1 253.1
1959	483.3	71.9	158.8	403.2	876.1	2 243.9	6 598.2	22 326.8	935.8
1979	239.4	53.1	96.2	268.8	645.2	1 602.0	4 510.9	16 317.0	659.1
1999	117.1	42.8	70.3	163.5	383.0	993.6	3 035.1	13 451.7	460.1

(a) Rate per 100,000 persons.

Source: AIHW Mortality Monitoring System.

Selected death rates(a) for males



(a) Rate per 100,000.

Source: AIHW Mortality Monitoring System.

levels, better sanitary, water and sewerage control, and better control of infection in hospitals.⁹

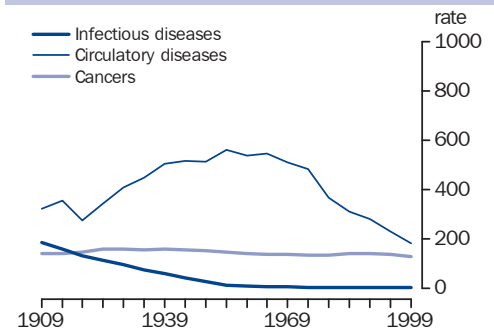
Death rates from infectious diseases were at their lowest in the early to mid 1980s, when the death rate for males was less than 6 per 100,000 and the rate for females was less than 4. By 1999, deaths from infectious diseases had increased to 9 males per 100,000 and 6 for females, mainly due to an increase in septicaemia-related deaths. However, infectious diseases still accounted for only 1% of all deaths in the 1990s.

As in other developed countries, as infectious diseases in Australia declined following World War I, degenerative diseases, in particular diseases of the circulatory system, began to rise as a proportion of the causes of all deaths. The emergence and dominance of diseases of the circulatory system was evident throughout most of the 20th century for both males and females, although the impact was greater for males. The age-standardised death rates for diseases of the circulatory system peaked for males in the late 1960s at 843 per 100,000, and for females in the early 1950s at 558 per 100,000.

Death rates for diseases of the circulatory system showed a significant improvement in the 1970s due in part to lifestyle changes such as a reduction in smoking (particularly among middle-aged men), and the consumption of less animal fats and increased fitness levels. In addition, there were a number of medical advances, such as improved methods of diagnosing coronary artery disease, increased use of medical services and more intensive and coronary care units.¹⁰ By 1998, the death rate for this group of diseases had declined to 285 males per 100,000 and 188 females per 100,000.

By the 1970s, cancer was a leading cause of deaths in Australia. Cancer is not a single disease but rather a collection of diseases which share the common feature of

Selected death rates(a) for females



(a) Rate per 100,000.

Source: AIHW Mortality Monitoring System.

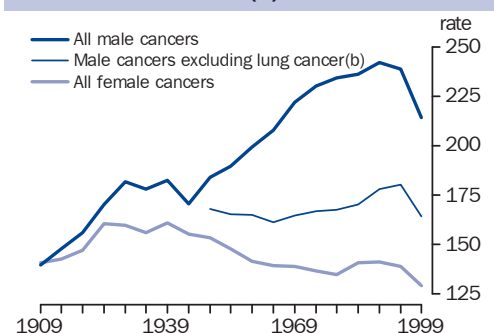
uncontrolled growth of body cells.⁸

Paradoxically, a greater proportion of cancer deaths in a population often reflects the higher longevity of that population, as cancer is predominantly a disease of the elderly. As a proportion of all deaths, cancer deaths increased considerably during the 20th century. In 1909, cancer accounted for 7% of all male deaths and 8% of female deaths. By 1999, cancer had increased to become the cause of approximately 27% of all deaths among both males and females.

In 1909, the age-standardised death rate for cancer was similar for males and females (140 and 141 per 100,000). The rates for each sex began to diverge in the 1950s, and by 1985 the age-standardised male death rate from cancer was 248 compared with the female death rate of 146 per 100,000.

The rise in deaths related to male cancers during this period can largely be explained by the increase in cancers of the trachea, bronchus and lung. Tobacco smoking has been linked with 85% of male lung cancers and 55% of female lung cancers.¹¹ Although cancer death rates for males have recently

Cancer death rates(a)



(a) Rate per 100,000.

(b) Lung cancer data only available from 1945.

Source: AIHW Mortality Monitoring System.

Selected causes of death, 1999

	Indigenous(a)		Non-Indigenous(b)	
	no.	%	no.	%
Cancers	281	14.2	33 832	27.7
Diabetes mellitus	128	6.5	2 762	2.3
Mental and behavioural disorders	50	2.5	2 658	2.2
Diseases of the circulatory system	603	30.5	49 155	40.2
Diseases of the respiratory system	150	7.6	9 134	7.5
Diseases of the digestive system	98	5.0	3 983	3.3
Conditions originating in the perinatal period	66	3.3	542	0.4
External causes of injury and poisoning	311	15.7	7 742	6.3
Other deaths	289	14.6	12 460	10.2
Total	1 976	100.0	122 268	100.0

a) 1999 coverage of Indigenous deaths Australia-wide has been estimated at 85% on 1991 Census-based projections and 56% on 1996 Census-based projections.

(b) Excludes Indigenous status not stated.

Source: ABS 1999 Causes of Death.

declined, there is still a large disparity between the death rates for males and females from this disease.

Indigenous mortality

In 1999, there were 1,976 deaths registered where the deceased was identified as being of Aboriginal or Torres Strait Islander origin. In contrast to the non-Indigenous population, Indigenous people have lower life expectancy, higher death rates and different patterns of causes of deaths. More detailed information on the health disadvantage of Indigenous people can be found in *Australian Social Trends 2000*, Social conditions of Aboriginal and Torres Strait Islander people, pp. 21–26.

Indigenous life expectancy, based on experimental life tables for the period 1997–1999, indicated that Indigenous males born during this period could expect to live 56 years, 20 years less than the overall male population. An Indigenous female born in the same period could be expected to live 63 years, which was approximately 18 years less than the life expectancy of all females. Indigenous life expectancies at birth based on the period 1997–1999 are similar to those experienced by the total male population in 1901–1910 (55 years) and the total female population in 1920–1922 (63 years).

Compared with non-Indigenous deaths in 1999, a smaller proportion of Indigenous deaths were caused by cancers or diseases of

Indigenous deaths

This article includes data on Aboriginal and Torres Strait Islander deaths for all States and Territories. However, while all States and Territories have provisions in place for the identification of Indigenous deaths on their death registration forms, the undercoverage of Indigenous deaths varies greatly from State to State.

the circulatory system. However, this reflects the younger age profile of the Indigenous population (using age-standardised mortality rates, Indigenous people were actually much more likely to die from these causes).¹¹ In 1999, the proportions of Indigenous deaths from diabetes, deaths in the perinatal period and external causes of injury and poisoning, were higher than for non-Indigenous people. In the 1990s, injury and poisoning mortality rates among Indigenous people were nearly three times higher than overall rates.¹²

Endnotes

- 1 United Nations, 1982, Country monograph series no. 9, *Population of Australia*, Volume 1, New York.
- 2 Australian Bureau of Statistics 1995, *Australian Social Trends, 1995*, ABS Cat. no. 4102.0.
- 3 Australian Bureau of Statistics 2000, *Deaths Australia, 1999*, ABS Cat. no. 3302.0.
- 4 World Health Organisation, 1977, *Manual of the international statistical classification of diseases, injuries, and causes of death*, Volume 1, Geneva.
- 5 Omran, A.R., 1971, The epidemiologic transition, a theory of the epidemiology of population change, *The Milbank Quarterly*, vol.XLIX, No.4, October 1971.
- 6 National Population Inquiry (Australia) 1975, *Population and Australia: a demographic analysis and projection* (W.D. Borrie, Chairman) Australian Government Publishing Service, Canberra.
- 7 Olshansky, S.J., Ault, B.A., 1986, The fourth stage of the epidemiologic transition: the age of delayed degenerative diseases, *The Milbank Quarterly*, Vol. 64, No. 3.
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- 9 Australian Institute of Health and Welfare, 2000, *Australia's Health*, Australian Government Publishing Service, Canberra.
- 10 Hugo, G., 1986, *Australia's changing population, trends and implications*, Oxford University Press, Melbourne.
- 11 Australian Bureau of Statistics 1999, *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples, 1999*, ABS Cat. no. 4704.0.
- 12 Hetzel, D.M.S., 2001, Death, disease and diversity in Australia, 1951 to 2000, *Medical Journal of Australia*,. Volume 174.

Drug-related deaths

MORTALITY AND MORBIDITY

Between 1979 and 1999, the rate of drug-related deaths increased by 79%, driven by a sixfold rise in the accidental drug-related deaths of males, due largely to increases in deaths from opiates such as heroin.

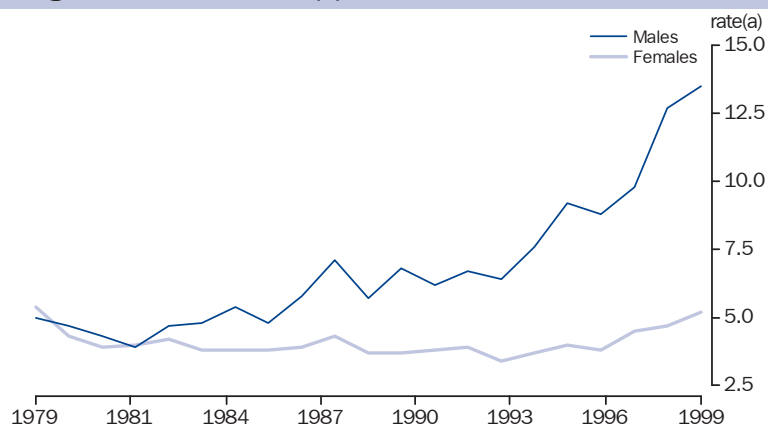
Drug abuse is often considered to be an indicator of general social dysfunction, a particularly serious consequence of which is the premature deaths of drug users. The number and nature of drug-related deaths in a community are the result of numerous social forces, including the prevalence of illicit drug use, the types of drugs being used, and the response of government and society to the issue of drug abuse. This article focuses solely on deaths occurring between 1979 and 1999 which were caused by the use of illegal drugs and the misuse of legal drugs other than tobacco and alcohol.

In 1998, 3.3 million Australians, or 23% of people aged 14 years and over reported they had used illicit drugs in the previous 12 months.¹ Cannabis was the most prevalent drug used (by 18% of people in this age group), with the more potentially lethal illicit drugs being used by much smaller proportions of people. Amphetamines were used by 4% of people aged 14 years and over, ecstasy by 2% and heroin by less than 1%.

Trends in drug-related deaths

In 1999, there were 1,737 deaths where the underlying cause was identified as drug-related, representing 1.4% of all deaths in that year. The number of drug-related deaths in 1999 was almost two and a half times the number in 1979 (734). Over the 1979–1999 period, the standardised drug-related death rate increased by 79%, from 5 to 9 deaths per 100,000 population.

Drug-related death rates(a)



(a) Standardised rate per 100,000 persons.

Source: ABS Causes of Death collection.

Drug-related deaths

The source of data in this article is the ABS Causes of Death collection, compiled from data provided by the Registrar of Births, Deaths and Marriages in each State and Territory.

Drug-related deaths are those caused directly by drug abuse, including deaths from organ damage caused by drugs. They include deaths from illegal drugs as well as the misuse of legal drugs.

Excluded from the article are: deaths directly attributable to alcohol and tobacco use; deaths from poisoning or exposure to volatile organic compounds (such as petrol); and murder where drugs were the weapon. Also excluded are deaths such as some road traffic accidents or AIDS deaths where drug use partially contributed to the death.

Deaths from 1979 to 1998 were classified according to the International Classification of Disease Ninth Edition (ICD-9), while deaths in 1999 were classified according to the Tenth Edition (ICD-10). The drug-related deaths from these different classifications have been matched to facilitate comparisons over time.

In this article, drug-related deaths include the following categories from the ICD-10:

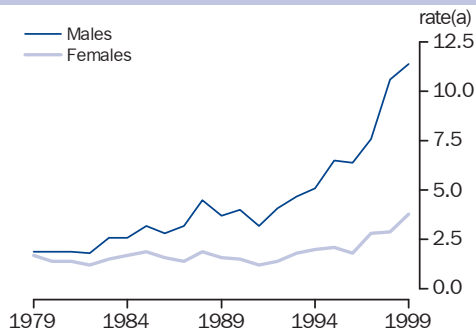
- ◆ *suicide by drugs* (X60–X64);
- ◆ *accidental drug-related deaths* which includes two components: accidental poisoning by drugs (x40–X44) and mental and behavioural disorders due to drug use (F11–F16, F19 & F55); and
- ◆ drug deaths where the intent of the poisoning was undetermined (Y10–Y14).

Death rates are the number of deaths in a year expressed per 100,000 of the population.

Standardised death rates enable the comparison of death rates between populations with differing age structures by relating them to a standard population. Death rates in this article have been standardised to the 1991 total population.

The overall increase in drug-related deaths over this 20 year period was driven primarily by increases in drug-related deaths of males. In 1979, males and females had similar standardised drug-related death rates (around five deaths per 100,000 population). By 1999, the rate for males had grown to almost 14 deaths per 100,000 while the rate for females was still around 5 per 100,000. Consequently, males accounted for 72% of drug-related deaths in 1999 compared with 48% in 1979.

Accidental drug-related death rates(a)



(a) Standardised rate per 100,000 persons.

Source: ABS Causes of Death collection.

Accidental drug-related deaths

Drug-related deaths are usually the result of an unintentional overdose or the effects of prolonged misuse of drugs. The rates of accidental deaths due to drugs increased more rapidly between 1979 and 1999 than those for all drug-related deaths, a fourfold increase from 2 to 8 deaths per 100,000 population. Of the total drug-related deaths in 1999, 81% were accidental, 16% were suicides and 3% were of undetermined intention. In contrast, accidental drug-related deaths comprised just 35% of all drug-related deaths in 1979.

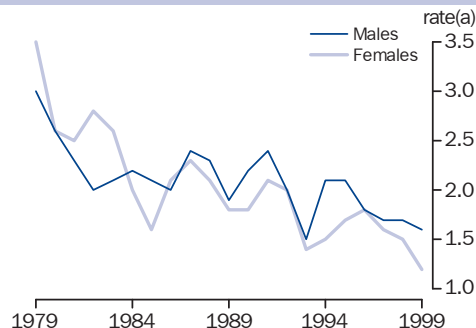
The accidental drug-related death rate for males increased sixfold over the period to 11 deaths per 100,000 population, with 80% of this increase occurring since 1989. In comparison, the death rate for females increased from 2 to 4 deaths per 100,000 between 1979 and 1999. Consequently, despite having similar death rates in 1979, by 1999 the rate for males was almost three times that for females.

Increases in the use and availability of heroin (an opiate) have been a focus of public debate over the 1990s. Opiates were the cause of 31% of accidental drug-related deaths in 1979. By 1999, this had increased to 63%.

Suicide by drugs

In contrast to accidental drug-related deaths, suicides by drugs decreased over the 1979–1999 period. Furthermore, the death rates from suicides by drugs were more equally distributed between males and females. Rates for both males and females declined from 3 per 100,000 in 1979 to around half that in 1999.

Rates of suicide by drugs(a)



(a) Standardised rate per 100,000 persons.

Source: ABS Causes of Death collection.

The suicide rate for non-drug-related methods for males increased from 15 to 20 deaths per 100,000 population over the 1979–1999 period, while the corresponding rate for females increased from 3 to 4 deaths per 100,000 population. Consequently, the proportion of all suicides from drugs has halved; from 16% to 8% of male suicides, and from 49% to 24% of female suicides.

Demographic characteristics

The tendency of people to die from drug-related causes varies across the population, according to people’s ages, marital status and place of residence. In addition, the demographic characteristics of people who died accidentally from drug-related causes differed substantially from those who suicided using drugs.

In 1999, rates of accidental drug-related deaths were highest among young adults, peaking among 25–29 year olds at 20 deaths per 100,000 population, gradually falling with age before stabilising at around 2 deaths per 100,000 for people aged 55 years and over.

Over the last two decades there has been a steady increase in the age at which people die from accidental drug-related causes, due to the large increase in the death rate from this cause of men aged in their 30s and 40s. This may reflect the ageing of the population of illicit drug users over the period.

Accidental drug-related death rates were highest for people who had never married (25 deaths per 100,000) and for those who were divorced (16 per 100,000 population). In contrast, the death rate for people who were married was 2 deaths per 100,000 in 1999. The comparatively low rate for married people suggests they may be less likely to use drugs, especially more lethal drugs such as heroin.

Drug-related deaths, selected characteristics, 1999

	Accidental drug-related deaths	Suicide by drugs	All suicides	Proportion of all suicides due to drugs
	rate per 100,000	rate per 100,000	rate per 100,000	%
Age specific rates				
0–19 years	1.4	0.1	2.7	3
20–34 years	17.8	2.0	20.7	10
35–49 years	10.8	2.2	17.7	12
50 years and over	2.3	1.8	13.8	13
Sex(a)				
Males	11.4	1.6	21.2	8
Females	3.9	1.2	5.1	25
Registered marital status(a)				
Never Married	24.8	5.1	38.0	14
Married	2.2	0.9	10.0	9
Widowed	9.9	7.7	29.6	26
Divorced	15.7	4.4	23.2	19
Part of State(a)				
Capital city	8.4	1.5	12.1	12
Balance of State	5.5	1.2	14.2	9
	deaths	deaths	deaths	%
Total	1 403	278	2 492	11.0

(a) Standardised.

Source: ABS 1999 Causes of Death collection.

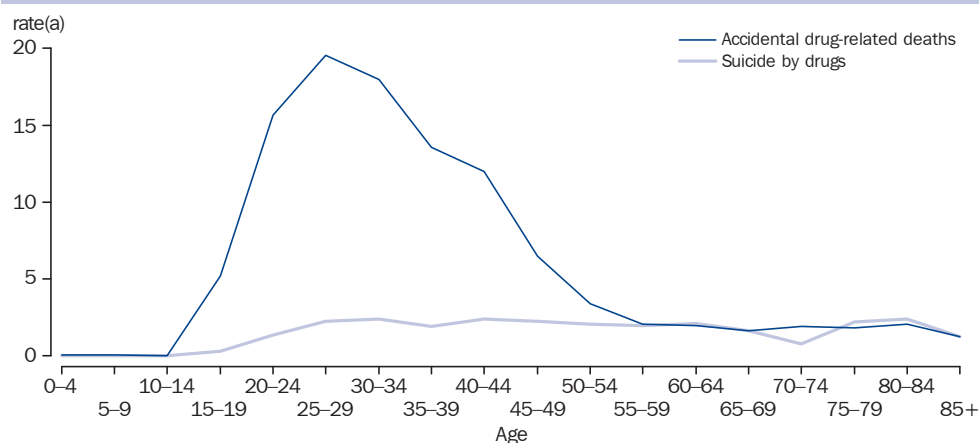
Accidental drug-related death rates in capital cities were around 50% higher than those in the rest of the country, with particularly high rates in Melbourne and Sydney. The highest rates tended to be in the inner suburbs of capital cities.

The demographic characteristics of people who committed suicide using drugs were very different to those of people who died accidentally from drug-related causes. They also had quite different characteristics to those who suicided using other methods.

In 1999, there were 278 suicides by drugs, accounting for 11% of all suicides in that year. Drugs were used in 25% of the suicides of females, making it the second most common method after hanging and strangulation (33%). Drugs were used in 8% of the suicides of males, making it the fourth most common method after hanging and strangulation (43%), exposure to gases (mostly carbon monoxide from motor vehicle exhaust) (24%), and firearms (13%).

Rates of suicide by drugs were relatively constant among all ages from 25 years on, with age-specific death rates around 2 deaths per 100,000 population. In contrast, the rate for all suicides peaked among 20 to 34 year olds and declined with increasing age. However, as a proportion of all suicides, drug suicides increased with age, with 13% of suicides of people aged 50 years and over from drugs, compared with 3% for those aged less than 20 years.

As with accidental drug-related deaths, unmarried people were more likely to die from drug-related suicides than married people. In 1999, the drug-related suicide rates for people who had never married, or who were divorced or widowed were five, four and eight deaths per 100,000 population respectively, compared with one death per 100,000 of people who were married.

Age-specific drug-related death rates(a), 1999

(a) Rate per 100,000 persons.

Source: ABS 1999 Causes of Death collection.

Types of drugs(a) contributing to drug-related deaths, 1999

	ICD-10 Code	Example/ common name	Suicide by drugs		Accidental drug-deaths	
			Males	Females	Males	Females
Drug poisoning			%	%	%	%
4-Aminophenol derivatives	T391	Paracetamol	8	18	3	10
Opiates	T400-402	Heroin/morphine	34	32	67	50
Methadone	T403	Methadone	6	2	8	10
Other Narcotics & Hallucinogens	T404-409	Pethedine	10	8	15	18
Benzodiazepines	T424	Valium/tranquillisers	34	33	25	35
Antidepressants	T430-432	Antidepressants	23	46	10	28
Psychostimulants	T 436	Methylamphetamines	—	—	5	5
Alcohol(b)	T51	Alcohol	22	14	16	10
Total(c)			100	100	96	96
Long term organ damage			—	—	5	2
Total(c)			100	100	100	100
			no.	no.	no.	no.
Deaths			158	120	1 043	357

(a) Drugs mentioned on the medical certificate. These drugs may be the underlying cause, or may be a contributing part of a mixture of drugs which lead to the death.

(b) Alcohol is not included in the scope of accidental poisoning in this article. Therefore alcohol is not the underlying cause of death, but taken in conjunction with other drugs, has led to these deaths.

(c) Death may be caused by more than one drug and therefore components do not add to total.

Source: ABS 1999 Causes of Death collection.

In 1999, capital cities had a standardised death rate for suicides by drugs of 1.5 deaths per 100,000 population, compared with 1.2 outside capital cities. However, non-drug methods of suicide were more common outside the capital cities where the standardised rate was 13 deaths per 100,000 population (compared with 11 in the capitals).

Types of drugs

Because of the pharmacological interactions between different drugs, having a mixture of drugs is more likely to result in adverse health effects including death, than use of a single type of drug. For example, alcohol increases the effects of some drugs, and was present in 14% of accidental drug-related deaths as a contributing factor rather than as the drug that ultimately caused the death.

In 1999, opiates were involved in 63% of accidental drug-related deaths, while benzodiazepines were involved in 27%. Opiates were involved in the highest proportions of accidental drug-related deaths of both males and females (67% and 50% respectively). However, the accidental deaths of females were more likely to involve benzodiazepines (35%) and antidepressants (28%) than those of males (25% and 10% respectively).

The drugs used most commonly in suicides were benzodiazepines, antidepressants and opiates, with each involved in a third of all suicides by drugs. Antidepressants were more likely to be used by females who suicided than males (46% and 23% respectively), as were drugs such as paracetamol (18% and 8% respectively). Alcohol was also used in combination with other drugs in 19% of suicides by drugs, although was not the underlying cause of the death.

Endnotes

- 1 Australian Institute of Health and Welfare 2000, *1998 National Drug Strategy Household Survey: Detailed findings (Drug Statistics Series)*, Cat. no. PHE 27, AIHW, Canberra.

Disability among adults

HEALTH STATUS

In 1998, around one in five adults had a disability (21%). Of these, almost three quarters were restricted by a physical impairment and almost a third by a sensory impairment or speech loss.

Disability can occur at any stage of a person's life and, depending on when it occurs, may affect an individual's participation in a range of everyday activities. Disability is strongly age-related and, as a result, the support requirements of older people with disabilities are a major focus of issues relating to people with disabilities. However, disability also occurs in younger people and the effects of this may impact on important issues such as employment opportunities and career choices.

The rate of disability among people aged 65 years and over is much higher than it is for younger age groups. In addition, as people grow older the severity of their disability is likely to increase, particularly for those aged 75 years and over. Consequently, people in this age group are more likely to need assistance with health-related and other activities of their personal life.

Disability among adults

In 1998, around 3.1 million adults living in households had a disability. The probability of a person developing a disability and possibly requiring assistance with everyday activities increases with age. The rate of disability was lowest for 15–34 year olds (9%), increasing to 21% of those aged 35–64 years and to 52% of those aged 65 years and over.

Of particular concern are those disabilities which result in a specific restriction and affect core activities, such as mobility or self care, or which affect schooling or employment activities. As with disability, the proportion of people with a specific restriction also increased with age, rising from 7% for people aged 15–34 years to 43% for those aged 65 years and over.

Impairment, disability and restriction

The ABS collects data on people with disabilities in surveys of disability, ageing and carers, the last conducted in 1998. Findings from this survey are published in a summary of findings: *Disability, Ageing and Carers, Australia: Summary of Findings, 1998* (ABS Cat. no. 4430.0) and a thematic publication: *Disability, Ageing and Carers, Australia: Disability and Long-Term Health Conditions, 1998* (ABS Cat. no. 4433.0).

In 1998, 95% of people with disabilities lived in households and the remaining 5% were in cared accommodation such as hospitals and nursing homes. This topic focuses on the adult population aged 15 years and over living in households.

Impairment is defined as any loss or abnormality of psychological, physiological or anatomical structure or function. Examples of impairment are loss of sight or a limb, weakness that causes difficulty gripping or holding things, or impairment of mood or emotion.

Disability is defined as any restriction or lack (resulting from an impairment) of ability to perform an activity in a manner or within the range considered normal for a human being.

Specific restrictions refers to the core activities of self care, mobility and communication; or schooling or employment restrictions. The levels of severity of these restrictions are: profound, severe, moderate and mild.

People with a *profound core activity restriction* always need help or supervision with self care, mobility or communication or are unable to perform these tasks.

People with a *severe core activity restriction* sometimes need help with self care, mobility or communication, have difficulty understanding or being understood by family or friends, or can communicate more easily using sign language or other non-spoken forms of communication.

Disability status of adults(a)(b)

Age group (years)	1988		1998	
	All with specific restrictions(c) %	All with a disability %	All with specific restrictions(c) %	All with a disability %
15–34	5.3	7.0	7.0	8.9
35–64	15.0	17.8	16.5	20.9
65 and over	42.5	50.1	43.0	52.3
Total	15.6	18.7	17.0	21.2

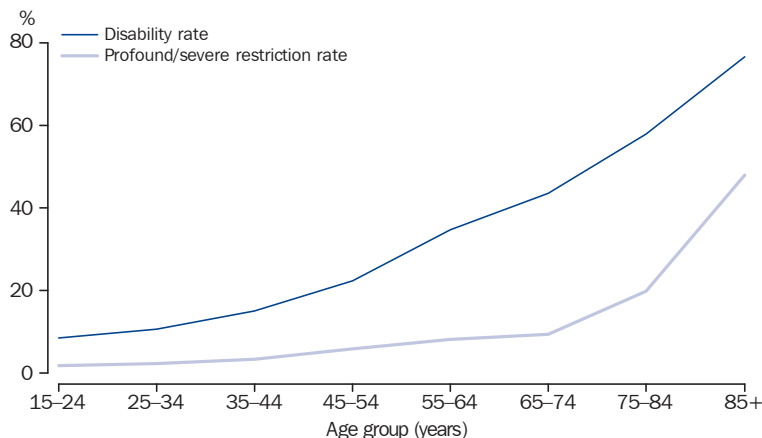
(a) The 1988 and 1998 surveys have been adjusted for comparability.

(b) Age standardised to the estimated resident population for March, 1998.

(c) A restriction in a core activity, schooling or employment.

Source: ABS 1988 Survey of Disability and Handicap; ABS 1998 Survey of Disability, Ageing and Carers.

Proportion of adults with disabilities and profound or severe restrictions, 1998



Source: Disability, Ageing and Carers, Australia, 1998 (ABS Cat. no. 4430.0).

On an age standardised basis, disability rates among the adult population have generally increased over the last 10 years, from 19% in 1988 to 21% in 1998. Removing the effect of population ageing, there are a number of reasons for these increases, such as changes in attitude to, and increased diagnoses of, disability.¹ The rate of specific restriction also increased over the same period (from 16% to 17%).

Impairment groups

All people with disabilities have been identified as having an impairment which restricts them in some aspect of everyday life. These impairments relate to specific functions or areas of the body or mind. The type and number of impairments and the level of restriction a person has, determines the extent to which their everyday life is affected by their disabilities. For example, employment opportunities or participation in social activities may be reduced by having a higher level of restriction or more than one impairment.

In 1998, 26% of adults with a disability had a profound or severe restriction – that is, their condition either completely restricted them from undertaking everyday activities such as dressing or walking, or they sometimes or always required assistance from others to do these things, or they had difficulty communicating. Unlike disability rates which increase gradually with age, the likelihood of being profoundly or severely restricted remains relatively low until fairly late in life. Less than 10% of adults aged under 75 years had a profound or severe restriction, compared with almost half of those aged 85 years and over.

Restricting impairment groups

Impairments are grouped by type as follows:

Sensory: loss of sight (not corrected by glasses or contact lenses); loss of hearing where communication is restricted, or an aid used; and speech difficulties, including loss;

Intellectual: difficulty learning or understanding things;

Physical: shortness of breath or breathing difficulties that restrict everyday activities; blackouts, fits or loss of consciousness; chronic or recurrent pain that restricts everyday activities; incomplete use of arms or fingers; difficulty gripping or holding things; incomplete use of feet or legs; restriction in physical activities or in doing physical work; and disfigurement or deformity;

Psychological: nervous or emotional condition that restricts everyday activities; and mental illness or condition requiring help or supervision; and

Head injury, stroke or other brain damage: with long term effects that restrict everyday activities.

Among people with disabilities, certain impairment types are more common than others. In 1998, 2.3 million or 74% of adults with a disability were restricted by a physical impairment and almost a million by a sensory impairment or speech loss. Lower numbers of people with disabilities were restricted by psychological impairments, intellectual impairments or by head injury, stroke or brain damage (less than 300,000 for each).

Some impairment types are more likely to have a greater severity of restriction than others and consequently are more likely to

Restricting impairment groups of adults with a disability, 1998

Restricting impairment group	Proportion with	
	With a disability '000	a profound or severe restriction %
Sensory and speech	953.0	29.4
Intellectual	250.3	45.3
Physical	2 330.3	31.4
Psychological	294.7	49.9
Head injury, stroke or brain damage	229.3	53.3
All with disability(a)	3 130.0	26.1

(a) People may have more than one impairment and therefore components do not add to total.

Source: ABS 1998 Survey of Disability, Ageing and Carers.

Persons aged 15–64 years with a disability: age and whether had a profound or severe restriction, 1998

Age group (years)	Restricting impairment groups					All with a disability(a)
	Sensory and speech	Intellectual	Physical	Psychological	Head injury, stroke or brain damage	
	%	%	%	%	%	%
15–24	7.9	34.5	9.1	13.2	10.5	11.1
25–34	13.0	19.6	14.0	17.1	15.3	14.7
35–44	20.4	18.7	20.1	26.0	27.2	20.9
45–54	26.4	16.8	28.2	26.5	25.4	26.4
55–64	32.3	10.4	28.7	17.2	21.6	26.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
Proportion with a profound or severe restriction	24.4	40.5	28.0	45.6	44.4	23.7
	'000	'000	'000	'000	'000	'000
All with a disability	449.3	213.9	1 535.0	238.8	146.4	2 066.7

(a) People may have more than one impairment and therefore components do not add to total.

Source: ABS 1998 Survey of Disability, Ageing and Carers.

effect people's everyday lives. Around half of those with head injury, stroke or brain damage (53%) or a psychological impairment (50%) were profoundly or severely restricted. In contrast, less than one third of those with a sensory and speech impairment, or a physical impairment had this level of restriction (29% and 31% respectively).

Persons aged 15–64 years

People aged 15–64 years often participate in education and/or employment and many have family responsibilities. If they also have a disability, this may increase the difficulty in managing all the responsibilities in their lives. Of all people aged 15–64 years, 17% had a disability and 24% of these had a profound or severe restriction.

Physical impairments are the most common of all impairment types and show a steady increase with age. Of people aged 15–64 years who were restricted by a physical impairment, 9% were aged 15–24 years, while 29% were aged 55–64 years. Traffic accidents, as well as work and sporting injuries, are frequent causes of this type of impairment in the 15–64 years age group. The proportions of people with disabilities who had a sensory or speech impairment also increased with age, from 8% for 15–24 year olds to 32% for 55–64 year olds.

In contrast, intellectual impairments are more common in younger people. Among 15–64 year olds, this impairment type is often caused by congenital disorders such as Down Syndrome. Of people with an intellectual impairment, 35% were aged 15–24 years whereas 10% were aged 55–64 years.

Selected labour force characteristics of persons aged 15–64 years, 1998

Restricting impairment groups	All persons '000	Labour force participation rate %	Unemployment rate %
Sensory and speech	449.3	55.7	8.4
Intellectual	213.9	38.2	21.6
Physical	1 535.0	49.1	12.2
Psychological	238.8	28.8	24.9
Head injury, stroke or brain damage	146.4	36.5	18.0
All with a disability	2 066.7	53.2	11.5
All persons	12 455.0	75.6	8.3

Source: Disability and Long-Term Health Conditions, Australia, 1998 (ABS Cat. no. 4433.0).

Labour force outcomes

People with disabilities are less likely to be in the labour force than those without a disability. In 1998, the labour force participation rate for people with disabilities was 53%, while for all people it was 76% (see *Australian Social Trends, 1997*, Employment of people with a handicap, pp. 104–108). Furthermore, of those in the labour force, the unemployment rate was higher for people aged 15–64 years with disabilities (12%) than it was for all people in this age group (8%).

Employment opportunities are most directly affected by the level of restriction. Greater severity of restriction is associated with lower

levels of labour force participation and higher levels of unemployment, compared with all people who are of working age. For example, almost half of those with a psychological impairment (46%) had a profound or severe restriction. They also had the lowest level of labour force participation (29%) and highest level of unemployment (25%) of all impairment groups. In contrast, those restricted by a sensory or speech impairment were least likely to have a profound or severe restriction (24%) and were more likely to be employed than those with other impairment types. This group had the highest participation rate (56%) and the lowest unemployment rate (8%). Many of these people had developed industrial deafness or age-related hearing loss in the course of their working life.

There are a number of employment assistance programs which give support to people with disabilities for job search activities and provide ongoing support at work. In May 1999, approximately 41,000 people with disabilities were in a supported or open employment program. Most of these people (70%) were employed while 27% were looking for work.²

Older people

As people grow older, their responsibilities also change. People aged 65 years and over are less likely to be working. However, they are more likely to either have a disability or to be caring for a partner with disabilities. Among people aged 65 years and over, just

over half had a disability and almost one third of these were profoundly or severely restricted. The disability rate increased considerably after the age of 85 years with over three quarters in this age group having a disability.

Not all disabilities have a major impact on people's lives and many people with disabilities continue to live independently in the community well into later life (see *Australian Social Trends 1999*, Home care, hostels and nursing homes, pp. 157–161). However, people with higher levels of restriction need assistance with certain tasks as they are limited in their ability to do them.

Older people are more likely to develop certain types of restricting impairments because of the degenerative nature of some health conditions. For example, physical restricting impairments are a common and sometimes debilitating factor among the older population, with arthritis and circulatory disorders being frequently reported health conditions.³ Of people with disabilities, 75% of those aged 65 years and over were restricted by a physical impairment.

In contrast, there were fewer older people with psychological (55,900) or intellectual (36,400) impairments. Among older people, intellectual impairments are more likely to be dementia and associated age-related cognitive disorders, rather than the congenital conditions found in young people.

Some older people with profound or severe impairments will eventually need the level of care that is provided in a nursing home or hostel. However, increasingly, Government-funded community care programs are being developed which target older people with high support needs with the aim of providing them with a sufficient level of assistance with their daily living activities so that they can remain at home.⁴

Need for and receipt of assistance

Of all people aged 65 years and over, 43% needed assistance with at least one activity and this was more likely if the person had a disability (69% of this group needed assistance). Almost half of all older people with disabilities needed assistance with light property maintenance, and 35% with housework. Because of general frailty, which often occurs among the very old, there were some older people without a disability who needed help. Proportions in this group who required assistance ranged from 3% for housework tasks to 11% for light property maintenance tasks.

Persons aged 65 years and over with a disability: restricting impairment groups, 1998

	Age group (years)			Total
	65–74	75–84	85 and over	
Restricting impairment groups	%	%	%	%
Sensory and speech	38.8	53.8	67.0	47.4
Intellectual	2.5	3.2	9.2	3.4
Physical	73.8	74.2	81.9	74.8
Psychological	5.0	4.2	10.2	5.3
Head injury, stroke or brain damage	6.6	8.8	10.0	7.8
Total(a)	100.0	100.0	100.0	100.0
Proportion with a profound or severe restriction	21.6	34.4	62.7	30.7
	'000	'000	'000	'000
All with a disability	554.3	398.5	110.5	1 063.3

(a) People may have more than one impairment and therefore components do not add to total.

Source: ABS 1998 Survey of Disability, Ageing and Carers.

Persons aged 65 years and over: need for and receipt of assistance, 1998

	Restricting impairment groups(a)					All with disability(c)	All persons aged 65 years and over
	Sensory and speech	Intellectual	Physical	Psychological	Head injury, stroke or brain damage		
Needed assistance with	%	%	%	%	%	%	%
Property maintenance	45.1	60.9	57.6	69.2	68.4	48.4	29.8
Transport	40.3	68.1	41.5	65.2	67.5	35.8	21.6
Housework	33.1	53.1	42.3	64.1	60.6	34.7	19.2
<i>Total needing assistance(b)</i>	65.2	91.3	77.4	94.0	93.2	68.7	42.6
Received assistance							
Received informal assistance	54.4	82.9	64.6	83.9	86.3	56.1	33.8
Received formal assistance	40.4	60.7	47.7	60.2	60.0	40.9	24.1
<i>Total receiving assistance(b)</i>	62.3	88.0	75.0	87.8	90.7	65.8	40.5
All persons(b)	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	'000	'000	'000	'000	'000	'000	'000
All persons	503.7	36.4	795.3	55.9	82.9	1 063.3	2 104.4

(a) Proportion in each restricting impairment group who need assistance with one or more activities.

(b) People may need assistance with more than one activity, and therefore components do not add to total.

(c) People may have more than one impairment and therefore components do not add to total.

Source: ABS 1998 Survey of Disability, Ageing and Carers.

The level of assistance needed varied by impairment type. For example, a high proportion of older people with a psychological impairment or a head injury, stroke or brain damage needed assistance in at least one activity (94% and 93% respectively). People with these impairment types were most likely to need assistance with property maintenance (69% and 68% respectively) and with transport (65% and 68%). Although people with a sensory or speech impairment were least likely to need assistance, almost two thirds of these (65%) needed help.

The majority of older people with disabilities who needed assistance received assistance. Sources of assistance can be informal (such as help provided by family or friends without cost) or formal (such as that provided by a government or private organisation). People with disabilities may receive assistance from more than one source, but this source was more likely to be informal (56%) than formal (41%).

Endnotes

- 1 Australian Bureau of Statistics 2001, *Accounting for change in disability and severe restriction, 1981–1998*, Working papers in Social and Labour statistics, No. 2001/1.
- 2 Department of Family and Community Services 2000, *Annual Report 1999–2000*, FACS, Canberra.
- 3 Australian Bureau of Statistics 1999, *Health and Disability*, Older People, Australia, A social report, Cat. no. 4109.0, ABS, Canberra.
- 4 Department of Health and Aged Care 2000, *Annual Report 1999–2000*, DHAC, Canberra.

Private health insurance

HEALTH EXPENDITURE

Between March and September 2000, the proportion of Australians with private health insurance increased from 32% to 46%, reversing the long-term decline of the last two decades.

Private health insurance in Australia has its origins in the activities of the non profit 'self-help' financial organisations, friendly societies and mutual funds, which pre-dated much government welfare provision. While in the nineteenth century some friendly societies contracted doctors, more modern forms of health insurance date from the 1930s, with the establishment of hospital and medical funds. Members, often drawn from a workplace or local community, made small weekly contributions to the funds in return for hospital treatment or doctor consultations should the need arise. For much of their history, the activities of health funds have been highly regulated by government.

Since the introduction of Medicare in 1984, Australian residents have had access to free treatment in public hospitals, and received refunds towards the cost of doctor consultations and some other medical expenses. This has reduced the role of private health insurance. However, it is still considered important for the maintenance of a viable private hospital system, which can take some of the burden from the public hospital system, while providing consumers with greater choice.¹ Health funds also offer cover towards the cost of various ancillary health services not covered by Medicare.

Private health insurance cover

Both administrative data and ABS survey data are available on the numbers and characteristics of people who have private health insurance.

The Private Health Insurance Administration Council (PHIAC) is an independent statutory authority which regulates the private health insurance industry in accordance with the *National Health Act 1953*. It publishes statistics on private health insurance, based on membership statistics supplied to it by health funds.

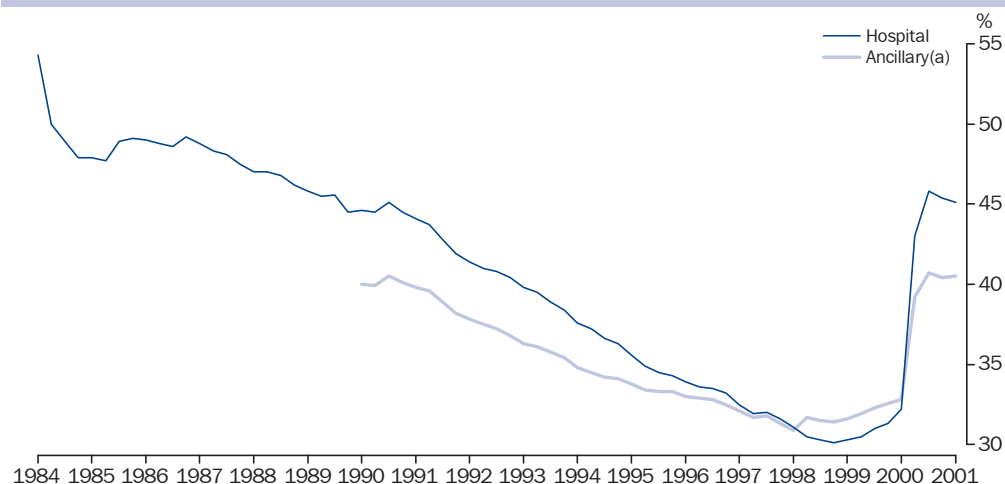
The Australian Bureau of Statistics has conducted surveys of private health insurance since 1979, with the most recent conducted in 1998.

Health funds offer hospital, combined ancillary and hospital, and ancillary coverage. In this article, statistics on people covered by hospital insurance include those with either hospital-only or combined coverage, and for ancillary insurance include people with either ancillary-only or combined coverage.

Hospital insurance covers part or all of the cost of accommodation, theatre costs and in-hospital medical expenses, for those treated as a private patient in either a public or private hospital.

Ancillary insurance covers part of the costs of supportive health services such as dental and optical services, and physiotherapy.

Proportion of the population with private health insurance



(a) PHIAC quarterly data on ancillary insurance, tabulated separately from hospital insurance, are available from 1990. Includes ambulance-only policies.

Source: Private Health Insurance Administration Council, Quarterly coverage statistics, March 1984–March 2001.

Trends since 1984

In the early 1980s, prior to the introduction of Medicare, between 55% and 68% of the population was covered by private health insurance. Although some decrease in membership of health funds was to be expected after 1984, the sustained decline which followed caused concern about the industry's viability. The proportion covered by hospital insurance fell to 48% in June 1985 and there was then a sustained decline in coverage until December 1998, when the proportion of the population covered by hospital insurance reached a low of 30%.

Information on ancillary insurance coverage is available on a quarterly basis from 1990 only. A similar trend occurred for this type of insurance, with the level of coverage declining from 40% to 31% between June 1989 and December 1998.

In the late 1990s, new arrangements to encourage health fund membership were put in place. From 1 January 1999, a universal 30% rebate on health insurance premiums replaced a means-tested subsidy which had been in place since July 1997. Over 1999 there was a gradual upturn in coverage, with the proportion of the population covered reaching 32% for hospital insurance and 33% for ancillary insurance in the March quarter of 2000.

From July 2000, arrangements were made for the introduction of 'Lifetime Health Cover' whereby premiums would be structured according to the age of the contributor on joining, with an amnesty on increased charges for those who joined before July. The decline in membership was dramatically reversed as these changes came into effect. Over the June quarter 2000, there was a leap in coverage taking those with hospital cover to 43% and those with ancillary cover to 39%. This continued in the September quarter 2000, resulting in hospital coverage of 46% and ancillary coverage of 41%. The September quarter increase appears to have occurred largely because the deadline to avoid higher premiums was extended two weeks into July. Although there were an additional 415,200 people aged 30 years and over covered by private health insurance in September compared with June, only 11,300 people were paying higher premiums due to Lifetime Health Cover arrangements. The timing of the largest increases in coverage in the June quarter 2000, and early July, suggests that the Lifetime Health Cover arrangements and an

Selected recent changes affecting private health insurance

The Private Health Insurance Incentive Scheme (PHIIS) (July 1997) introduced:

- ◆ a government-funded reduction in the cost of health insurance premiums for people whose incomes were below a certain level (taken as a reduced premium or as a tax rebate); and
- ◆ an additional Medicare levy of 1% applied to those without private health insurance if their incomes were above a certain level.

Hospital Purchaser Provider Agreements (April 1998) enabled health funds to negotiate to pay hospitals above the Medicare Benefits Schedule fee where the hospital had a Practitioner Agreement for in-hospital medical services. This enabled simplified billing, and elimination of out-of-pocket expenses for the patient.

The Federal Government 30% Rebate (January 1999) is a universal rebate on private health insurance premiums, funded by the government, to be taken by health fund members as a reduced premium or as a tax rebate. This replaced the means-tested PHIIS rebate.

No-gap or known gap products (July 2000) were introduced by the Federal Government to encourage health funds to offer one or more policies which either involved no out-of-pocket expenses or provided a statement to members of what the out-of-pocket expenses would be. Funds were not permitted to offer the 30% rebate as a premium reduction unless they implemented these changes.

Lifetime Health Cover (July 2000) required health funds to charge members different premiums based on the age they first took out hospital cover, with an amnesty on increased charges for those who joined before 1 July 2000 (later extended to 15 July).

associated advertising campaign were a major influence on people's decision to take out insurance.

Coverage has remained stable since the September quarter 2000, with the proportion covered by hospital insurance remaining above 45% and the proportion covered by ancillary remaining above 40% for the December 2000 and March 2001 quarters.

Reasons for and against insuring

Some of the factors influencing health fund membership are indicated by the reasons people give for their health insurance status. In June 1998, when coverage was close to its lowest, the reason given by 66% of people for not having health insurance related to the

Selected reasons given for private health insurance status, June 1998

	%
Reasons for not being insured(a)	
Can't afford it/too expensive	66
In good health/have no dependents	15
Medicare cover sufficient	14
Lack of value for money/not worth it	13
Have health care card	11
<i>Total without health insurance(b)</i>	<i>100</i>
Reasons for being insured(c)	
Security/protection/peace of mind	47
Choice of doctor	25
Shorter waiting times/concern over hospital waiting lists	23
Allows treatment as a private patient	20
Always had it/parents had it/condition of job	22
To obtain ancillary benefits	18
<i>Total with health insurance(b)</i>	<i>100</i>

(a) Given by those without insurance; more than one reason could be given.
 (b) Includes other reasons.
 (c) Given by those with insurance; more than one reason could be given.

Source: Health Insurance Survey, 1998 (ABS Cat. no. 4335.0).

cost. The next most common reasons related to people being in good health or having no dependents (15%), followed by reasons relating to insurance not being good value for money (13%).

The most common reason given for having private health insurance related to the security, protection and peace of mind it provided (47%), followed by reasons related to access and choice, such as choice of doctor (25%), shorter waiting times or concern over hospital waiting lists (23%) and being treated as a private patient (20%).

Characteristics of people insured

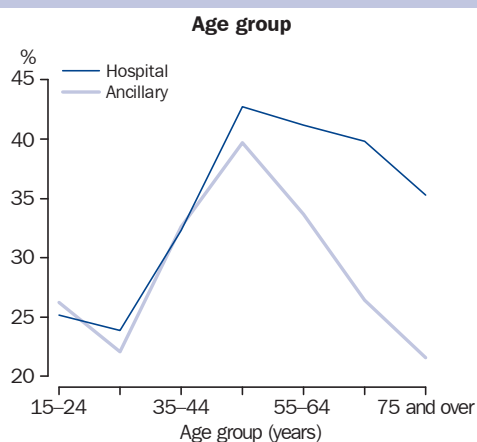
Over the 1990s, ABS surveys have found that: women are more likely to be covered by private health insurance than men; coverage is highest among the middle-aged; and an increase in the likelihood of being insured is associated with higher income. In addition, people with government health care cards, most of which are means-tested and which make health care more affordable and accessible, are less likely to have some kind of health insurance than others. These factors are interrelated: average incomes are highest

among the middle-aged, for example. People on low incomes, the elderly and one-parent families are more likely to be covered by health care cards than are others.

In June 1998, 34% of women and 32% of men (aged 15 years and over) were covered by hospital insurance. For ancillary insurance the difference was also slight: 31% of women were covered, compared with 29% of men.

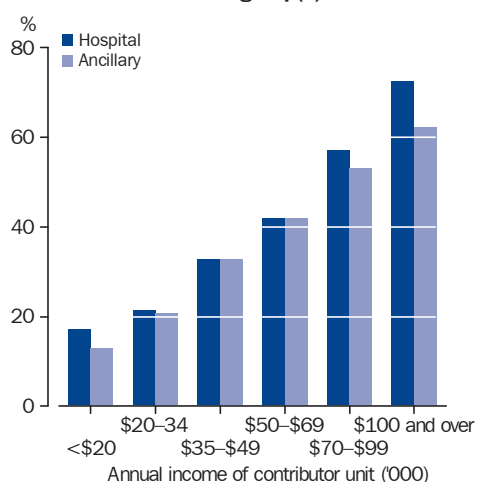
The proportion of the population covered by hospital insurance was lowest among those aged 15–24 years (25%) and was highest for those aged 45–54 years (43%). The proportion covered in each age group over 54 years was progressively lower, falling to

Proportion of the population with private health insurance, June 1998



Source: Health Insurance Survey, 1998 (ABS Cat. no. 4335.0).

Income group(a)



(a) Aged 15 years and over.

Source: Health Insurance Survey, 1998 (ABS Cat. no. 4335.0).

Contributor units

Health funds are permitted to offer membership packages tailored to different family types. These are:

- ◆ singles;
- ◆ couples (without children);
- ◆ families (couple and dependent children); and
- ◆ one-parent families (one parent and children).

In accordance with the membership options, ABS Private Health Insurance Surveys have collated data on the basis of contributor units. Contributor units are families, individuals, or groups of members of families defined by their private health insurance arrangements. The term is applied to both those with and without private health insurance, which makes it possible to estimate the likelihood of the different types of contributor unit having insurance. If couples (with or without children) included in the survey had different health insurance arrangements, they were split into different contributor units. If they had joint arrangements or neither was covered they were treated as one contributor unit.

35% among those aged 75 years and over. A broadly similar pattern was observed for ancillary insurance, although there was a greater fall-off in coverage in the older age groups for this type of insurance. The proportion of those aged 75 years and over with ancillary insurance (22%) was the lowest of any age group.

In June 1998, cost was the most common reason given for not having private health

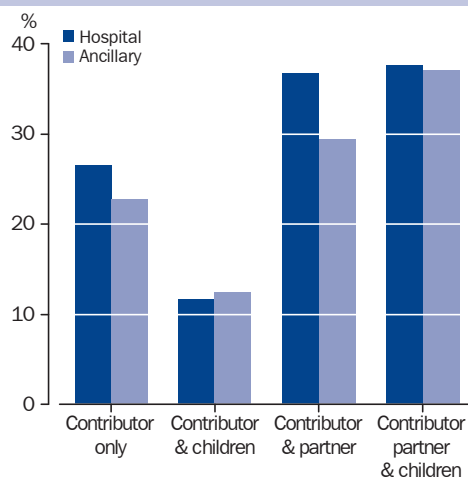
insurance. During 1998–99 the average amount paid per year for hospital insurance was \$601 for an individual, and for ancillary cover was \$239.² Accordingly, people were less likely to have private health insurance, the lower their family ('contributor unit') income. Of contributor units in the lowest income range (\$20,000 or less), 17% were covered. The proportion increased with increased income to 73% of those in the highest range (\$100,000 or more). This pattern was also observed for ancillary insurance, with the proportion covered ranging from 13% to 62%.

Of couples with dependent children, 38% had hospital insurance, as did 37% of couples without dependent children. Single people followed (27%), while lone parents and their dependent children were the least likely to have private hospital insurance (12%). The same ranking was observed for ancillary insurance.

There were some differences between types of contributor unit in the relative uptake of ancillary insurance and hospital insurance. Contributor units which included dependent children were as likely to have ancillary cover as to have hospital cover. In contrast, ancillary cover was less common than hospital cover among singles (23% had ancillary insurance) and couples without children (29%).

In June 1998, just over a third of the population aged 15 years and over were covered by a government health care card of some kind. People covered by these cards were less likely to have private health insurance than those not covered (22% compared with 46%).³

Proportion of the population with private health insurance, by type of contributor unit, June 1998



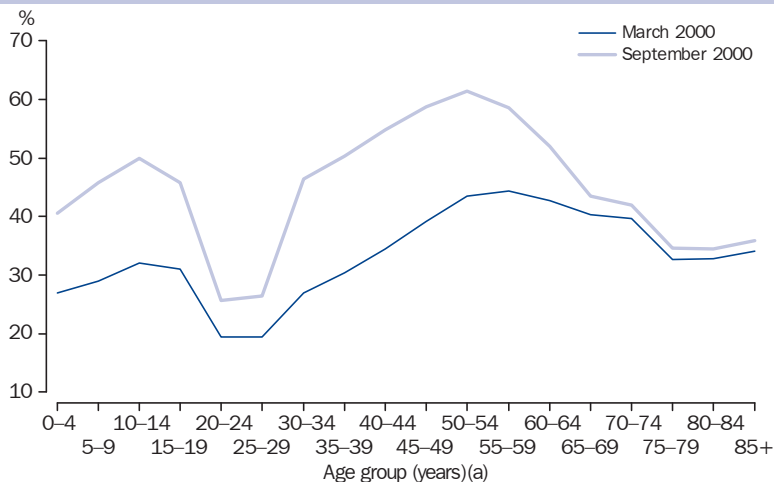
Source: Health Insurance Survey, 1998 (ABS Cat. no. 4335.0).

Age of new members

During the period when the membership of health funds was declining, a particular concern was that funds would develop a top-heavy age structure, as membership was declining faster in younger age groups than in older age groups. As older age groups tend to make heavier use of health services, this would have implications for the financial viability of the health funds.

The changes to the age pattern of coverage which occurred between the March and September quarters of 2000 went some way to reversing this trend. Although coverage increased in every age group, the greatest increases occurred among people aged from

Proportion of the population with hospital insurance, March and September quarters, 2000



(a) Proportion of the population of each age group covered by hospital insurance. (PHIAC data on the age pattern of ancillary insurance is not available.)

Source: Private Health Insurance Administration Council, Membership and Coverage Statistics, <URL:<http://www.phiac.gov.au/phiac/stats/MemCovIndex.htm>> (Accessed 9 March 2001).

30–49 years, for whom the incentive to join a fund was greatest under Lifetime Health Cover arrangements. The 72% increase in the number of 30–34 year olds covered was the greatest proportional increase of any five-year age group. There were also relatively high increases in coverage of children aged under 15 years (ranging from 50% to 58%), reflecting the large number of parents taking out coverage for their families.

Endnotes

- 1 Department of Health and Aged Care, 1999 Occasional Papers, Health Financing Series volume 1, no 4, *Private Health Insurance (Submission to Community Affairs Legislation Committee regarding the 30% rebate on private health insurance)* <URL:<http://health.gov.au/pubs>> (Accessed 7 January 2001).
- 2 Australian Bureau of Statistics 1998, *Health Insurance Survey, 1998*, Cat. no. 4335.0, ABS, Canberra.
- 3 Private Health Insurance Administration Council 2001, Membership, Coverage and Financial Statistics <URL:<http://www.phiac.gov.au/phiac/stats/MemCovIndex.htm>> and <URL:http://www.phiac.gov.au/phiac/circs_publics/OldAnnRpt/1999T2to8.xls> (Accessed 9 March 2001).

Private hospitals

HEALTH SERVICES

The number of patient separations from private hospitals grew by 55% during the 1990s.

In 1998–99 there were 502 private hospitals in Australia. They ranged in size from less than 25 beds to more than 200, and included religious and other non-profit hospitals as well as those run for profit. With almost a third of all available hospital beds in Australia, these hospitals accounted for a significant proportion of hospital activity. They catered for just over a third of all admitted patients who left hospital in the year (34%) and provided 28% of the total days of hospital care. These proportions were greater than at the beginning of the 1990s, as growth in these areas by private hospitals was not matched by public hospitals.

A notable feature of the increase in hospital activity was a shift to same-day procedures. A shift to performing some investigative procedures, and surgery, on a same-day basis was made possible by changes in medicine, such as improvements in anaesthetics and the development of fibre optics and laser surgery. Although such a shift was underway in the 1980s, it has been encouraged by federal government policy since 1989, in particular by changes to the minimum health rebate system introduced at that time.¹ The shift was achieved mostly by a rapid increase in day procedures in acute hospitals, and also by an increase in the number of free-standing facilities which specialised in day procedures.

Information on private hospitals

The information presented here has been compiled from the Private Health Establishments Collection, conducted by the ABS, which covers all private hospitals in Australia. Further information can be found in *Private Hospitals, Australia* (ABS Cat. no. 4390.0).

Private hospitals are privately owned and operated institutions in which patients are treated by the doctor of their choice. Patients are charged fees for overnight accommodation and other services provided by the hospital and by medical and paramedical practitioners.

Types of private hospital

Acute care hospitals are hospitals which provide at least minimal medical, surgical or obstetrical services for admitted patient treatment and/or care and provide round the clock comprehensive qualified nursing services. They must be licensed by the State or Territory Health Authority.

Psychiatric hospitals are licensed or approved by each State and Territory Health Authority and cater primarily for admitted patients with psychiatric or behavioural disorders.

Free-standing day hospital facilities provide investigation and treatment for acute conditions on a day-only basis and are approved by the Commonwealth for the purpose of basic table health insurance.

Private and public hospitals and beds

	1991–92			1998–99		
	Hospitals	Available beds(a)	Average beds per hospital	Hospitals	Available beds(a)	Average beds per hospital
	no.	'000.	no.	no.	'000	no.
Private						
Acute	294	19.4	66	286	22.3	78
Psychiatric	25	1.4	55	26	1.5	57
Free-standing day hospital facilities	72	0.6	8	190	1.5	8
Total	391	21.3	..	502	25.2	..
Public						
Acute	713	57.1	80	726	50.9	70
Psychiatric	45	7.3	161	29	3.0	105
Total	758	64.3	..	755	53.9	..
Total	1 149	85.6	..	1 257	79.1	..

(a) In the case of free-standing day facilities, which do not provide overnight accommodation, beds (including chairs and recliners) are provided mainly for short periods of recuperation following treatment.

Source: *Private Hospitals, Australia, 1998–99 & 1991–92* (ABS Cat. no. 4390.0); *Hospitals, Australia 1991–92* (ABS Cat. No. 4391.0); Australian Institute of Health and Welfare (AIHW) 2000. *Australian hospital statistics 1998–99* AIHW Cat no. HSE 11. Canberra: AIHW (Health Services Series no. 15).

Changing mix of private hospitals

In 1998–99 private hospitals comprised 286 acute hospitals, 26 psychiatric hospitals and 190 free-standing day hospital facilities. The great bulk of private hospital beds (88%) were in acute hospitals (the type of hospital familiar to most people in Australia, providing surgery, obstetrics or other procedures together with 24 hour nursing care). The numbers of acute and psychiatric hospitals had changed little over the 1990s, but the number of free-standing day hospital facilities had grown steadily, with the 72 facilities in 1991–92 more than doubling by 1998–99. By 1998–99 these facilities accounted for 6% of private hospital beds and 15% of separations (episodes of patient care) in private hospitals.

Over the 1990s there was some change in the mix of acute and psychiatric hospitals in terms of their profit structure. In 1998–99 hospitals run for profit made up a somewhat larger proportion of these hospitals than in 1991–92 (59%, up from 55%) and also a larger proportion of beds (56%, up from 49%).

Increase in beds

There were 25,200 beds in private hospitals in 1998–99, up 18% from 1991–92. This was mostly due to an increase in acute hospital beds from 19,400 to 22,300. An increase in beds in free-standing day facilities, from 600 to 1,500, also contributed.

The increase in acute hospital beds occurred despite a slight fall in the number of acute hospitals (3%), because the average number of beds in these hospitals increased from 66 to 78. The increase in the number of beds in free-standing day hospital facilities was consistent with the large increase in the number of these facilities. The average of eight beds per facility did not change.

Beds, separations and patient days

Available beds are beds immediately available (occupied or unoccupied) for the care of admitted patients as required. In the case of free-standing day hospital facilities they include chairs, trolleys, recliners or cots and are used mainly for post-surgery recovery purposes only.

Separations occur when an admitted patient is discharged; transferred to another institution; leaves against medical advice; dies whilst in care; changes status e.g. from acute to rehabilitation; or leaves hospital for a period of seven or more days.

Patient days are the aggregate number of days of stay (i.e. separation date minus admission date) for all admitted patients who were separated from hospital during the year. Periods of approved leave are subtracted from these calculations. Same-day patients are each counted as having a stay of one day.

In contrast to the increased bed numbers in private hospitals, public hospital beds decreased over the period by 16%, from 64,300 to 53,900. As a result, private hospital beds increased as a proportion of all beds, from a quarter in 1991–92 to just under a third in 1998–99.

Increase in patients

The number of patients treated in private hospitals increased over the 1990s, as indicated by the annual totals of separations (episodes of patient care in hospital). There were close to 1.3 million separations from private hospitals in 1991–92, and this rose to close to two million in 1998–99, a 55% increase. Almost all of the increase was in same-day separations (those where the patient was admitted and discharged on the same day). The number of same-day separations more than doubled, from 435,000 to 1.1 million. In contrast, separations after overnight or longer stays increased by only 6% from 846,000 to 893,000.

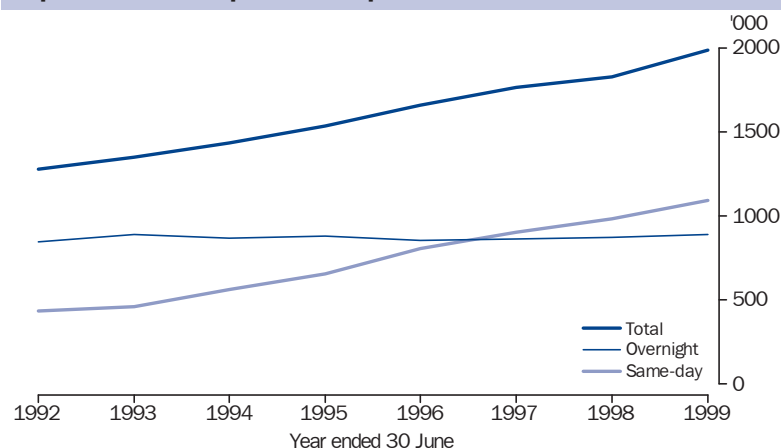
Private acute and psychiatric hospitals and beds, by profit structure

	1991–92			1998–99		
	Hospitals	Available beds	Average beds per hospital	Hospitals	Available beds	Average beds per hospital
	no.	'000	no.	no.	'000	no.
For profit	176	10.1	57	183	13.2	72
Not for profit						
Religious/charitable	81	8.3	102	77	8.7	114
Other(a)	62	2.4	39	52	1.8	34
Total	319	20.7	65	312	23.7	76

(a) Comprises community, memorial and bush nursing hospitals.

Source: *Private Hospitals, Australia 1998–99 & 1991–92* (ABS Cat. no. 4390.0).

Separations from private hospitals



Source: *Private Hospitals, Australia, 1998–99* (ABS Cat. no. 4390.0).

As a result, same-day separations made up 55% of all private hospital separations in 1998–99, whereas in 1991–92 they made up 34%. Consistent with this change, the average length of stay of patients in private acute and psychiatric hospitals decreased from 4.2 to 3.6 days.

The bulk of separations were from public hospitals throughout the period. In 1998–99 there were 3.9 million separations from public hospitals, nearly all of which were from acute hospitals. Separations from public acute hospitals increased by 31% over the period, lower than the increase in separations from private acute hospitals (44%). As a result of their higher increase, private hospitals

increased their share of all acute hospital separations, from 28% in 1991–92 to 30% in 1998–99.

The increase in same-day separations observed in the private sector also occurred in public acute hospitals. Same day separations increased from 29% to 45% of all separations in public acute hospitals over the period. This resulted mostly from a doubling of same-day separations (from 861,000 to 1.7 million), while overnight separations increased only slightly.

Patient days and length of stay

The length of stay of patients admitted to acute and psychiatric hospitals varies from one day to several weeks. The sum of the days spent in hospital by all patients gives the total number of days of care provided by hospitals. While patient separations measures the throughput of patients, both the throughput of patients and the length of stay contribute to the calculation of patient days. This makes patient days a useful complement to the number of patient separations as an indicator of hospital activity.

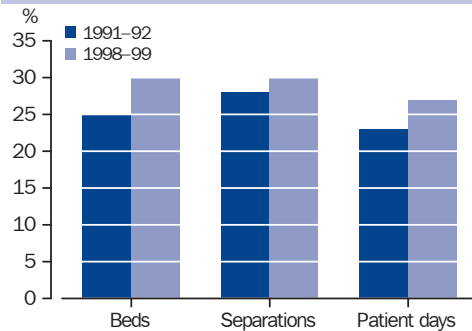
There was a 26% increase in total patient days provided by all private hospitals over the period, from over five million to over six million. The increase in the number of same-day patients contributed an increase of 660,000 patient days while the increase in total days for overnight patients contributed 670,000. The latter increase was due not only to the increase of 6% in the number of

Separations from private and public hospitals

	1991–92			1998–99		
	Same-day separations '000	Overnight separations '000	Total separations '000	Same-day separations '000	Overnight separations '000	Total separations '000
Private						
Acute	295.1	826.0	1 121.1	741.0	873.0	1 613.9
Psychiatric	16.3	19.7	36.0	50.6	19.7	70.2
Free-standing day hospital facilities	123.4	—	123.4	302.1	—	302.1
Total	434.8	845.7	1 280.5	1 093.6	892.7	1 986.3
Public						
Acute	861.0	2 076.0	2 937.0	1 716.4	2 123.0	3 839.4
Psychiatric	n.a.	n.a.	n.a.	2.3	18.0	20.3
Total	na.	na.	na.	1 718.7	2 141.0	3 859.7
Total	1 295.8	2 921.7	4 217.5	2 812.3	3 033.6	5 846.0

Source: *Private Hospitals, Australia, 1998–99* (ABS Cat. no. 4390.0); ABS, 1998–99 & 1991–92 Private Health Establishments Collection; Australian Institute of Health and Welfare (AIHW) 1997, *Australian hospital statistics 1995–96*, AIHW cat. no. HSE 3. Canberra: AIHW (Health Services Series no. 10); Australian Institute of Health and Welfare (AIHW) 2000, *Australian hospital statistics 1998–99*, AIHW cat no. HSE 11. Canberra: AIHW (Health Services Series no. 15).

Private sector share of acute hospital beds and patient activity



Source: *Private Hospitals, Australia, 1998-99* (ABS Cat. no. 4390.0); Australian Institute of Health and Welfare, National Public Hospital Establishments Database.

separations of overnight-stay patients, but also to an increase in the average length of stay of these patients from 5.4 to 5.9 days.

In contrast to these increases, the 15 million patient days for public acute hospitals in 1998-99 was 1% lower than in 1991-92. As a result, private hospitals' share of total patient days in acute hospitals increased from 23% in 1991-92 to 27% in 1998-99.

Insurance status of patients

Most patients of private acute and psychiatric hospitals were insured with a private health fund, accounting for 73% of separations in 1998-99. Some 25% of patients were not insured with such a health fund. They were made up of patients whose costs were covered by a workers' compensation or accident insurance scheme; self-funding patients; war veterans whose costs in private hospitals were covered by the Department of Veterans' Affairs; and Medicare patients contracted from the public sector.² Insurance status was not reported for a small proportion of patients (less than 3%).

Specialised wards

The types of specialised wards and units private hospitals contain can help to indicate the developing role of private hospitals within the overall provision of hospital services. Hospitals vary in size and in the range of specialised services they provide. Many specialised areas of medicine are expensive to provide, and are needed by only a small number of patients and units dedicated to these areas are more likely to be provided in the public sector. For example, a large public teaching hospital might consist entirely of specialised wards and units which together cover a large range of medical

Private acute and psychiatric hospitals with selected specialised units and wards

Type of unit	1991-92 1998-99	
	no.	no.
Accident or emergency unit	10	38
Psychiatric ward(a)	44	46
Labour ward	104	101
Special care unit(b)	93	140
Dedicated day surgery unit	30	109
Cardiac surgery unit	4	17
Sleep centre	2	42
Oncology unit	8	49
Neurosurgical unit	1	8
Total hospitals	319	312

(a) Includes alcohol or drug treatment unit.

(b) Intensive care unit, coronary care unit, neonatal care unit, high dependency unit.

Source: *Private Hospitals, Australia, 1998-99 & 1991-92* (ABS Cat. no. 4390.0).

services. Units covering very specialised or developing areas of medicine are rare even among large teaching hospitals.

Over the 1990s, the number of private hospitals which had some of the more common types of specialised wards increased. Consistent with the increase in same-day procedures, the number of private acute and psychiatric hospitals which had a dedicated day surgery unit increased from 30 to 109 between 1991-92 and 1998-99. These units replaced labour wards as the most common type of specialised ward in private acute hospitals. The number of hospitals which had a special care unit of some kind also increased, from 93 to 140 and the number with an emergency unit increased from 10 to 38. There was little change in the number of hospitals with psychiatric wards (46 compared with 44).

Some other types of specialised wards had also become more common in private hospitals. The number of hospitals with oncology units increased from 8 to 49; those with cardiac surgery units from 4 to 17; and those with sleep centres from 2 to 42. Although there were only eight hospitals with neurosurgical wards, this represented a changed situation from 1991-92 when neurosurgical units were virtually unknown outside the public sector.

However, as in 1991-92, many specialised wards were provided exclusively, or almost exclusively by the public sector. Wards which were not included at any private acute and psychiatric hospital comprised acute spinal

Leading principal procedures(a), 1998–99

Principal procedures groups(b)	Hospitals		
	Private '000	Public '000	Total '000
<i>Principal procedure reported</i>	1 740.3	2 774.8	4 515.1
Digestive system	414.8	368.8	783.6
Kidney and urinary system	117.6	509.1	626.6
Musculoskeletal system	188.2	195.5	383.7
Allied health interventions	(c)68.5	232.8	301.4
Gynaecological procedures	126.6	161.9	288.5
<i>No principal procedure or not reported</i>	246.0	1 084.9	1 330.9
Total separations	1 986.3	3 859.7	5 846.0

(a) Leading five for total hospitals, includes leading three for private and public hospitals.

(b) Based on the International Classification of Diseases, 10th Revision Australian Modification.

(c) Includes separations from acute & psychiatric hospitals only for reasons of confidentiality.

Source: ABS, 1998–99 Private Health Establishments Collection; Australian Institute of Health and Welfare (AIHW) 2000, *Australian hospital statistics 1998–99*, AIHW cat no HSE 11, Canberra: AIHW (Health Services Series no. 15).

cord injury units, burns units, infectious diseases units, clinical genetics units, AIDS units and diabetes units. There were very small numbers of several other specialised units, such as transplantation units.

Procedures

For patients who enter hospital in order to undergo a particular procedure, such as surgery, a 'principal procedure' can be noted on their hospital records. The classification of procedures extends beyond surgery to other areas and includes imaging services, and allied health services (services such as physiotherapy and speech therapy).

Nevertheless, some patients, for instance many of those with an infectious disease, may be in hospital primarily for care and monitoring. No principal procedures apply to such patients.

One difference between private and public hospitals was in the proportion of patients to whom a principal procedure was assigned. About 88% of private hospital patients had a principal procedure recorded in 1998–99, compared with 72% of public hospital patients. This may be partly because private hospitals have tended to concentrate more heavily on providing particular procedures, such as surgery, than public hospitals.

Of the more than 1.7 million separations from private hospitals for which a principal procedure was reported, patients who had undergone a procedure on the digestive system made up the largest group (24%). This was mainly a result of the large numbers of endoscopies and fibre optic colonoscopies performed (these are techniques used to investigate symptoms in the digestive tract.) Procedures on the musculoskeletal system (11%) ranked second and gynaecological procedures (7%) ranked third.

The pattern was somewhat different among the 2.8 million public hospital separations for which a principal procedure was reported, where procedures on the kidney and urinary system made up the largest group (18%), resulting from the large number of haemodialysis separations. Haemodialysis ranks high among counts of separations because each patient with kidney failure may require haemodialysis a few times a week for several years, with each treatment counting as an episode of care. Procedures on the digestive system ranked second (13%) and allied health interventions ranked third (8%).

Endnotes

- 1 Department of Community Services and Health 1990, *Annual Report 1989–90*, Canberra: AGPS.
- 2 Productivity Commission 1999, *Private Hospitals in Australia*, Commission Research Paper, AusInfo, Canberra.

Education

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PARTICIPATION IN EDUCATION

Trends in completing school	99
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The retention of school students to Year 12 has increased steadily since 1985, and was especially high in the early 1990s. This article describes some of the characteristics of early school leavers, and looks at the employment and educational paths they follow after leaving school. It also examines some of the social and economic shifts associated with changing school retention rates.

Time spent studying	103
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The amount of time students spend on education activities is often dependent upon a range of factors, including the type of qualification they are studying for, their living arrangements, and their labour force status. This article examines the amount of time students spend studying, according to their varying circumstances and characteristics.

EDUCATIONAL ATTAINMENT

Field of study and employment	107
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This article looks at the broad mix of skills in the Australian population which have been obtained through formal qualifications in various fields of study. Differences in the field of study of qualifications held by men and women and by older and younger people are examined, as are the employment outcomes for people with qualifications in different fields of study.

EDUCATION AND WORK

Combining study and work	113
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The way that people combine their study and work commitments reflects the diversity in their ages, work experience, previous level of study and family commitments. This article examines the characteristics of people combining study and work in different ways and how this has changed over the 1990s.

Education: national summary

PARTICIPATION	Units	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
School students	'000	3 042	3 075	3 099	3 098	3 099	3 109	3 143	3 172	3 199	3 227	3 248
Students in government schools	%	72.1	72.1	72.1	71.9	71.5	71.0	70.7	70.3	70.0	69.7	69.2
Females – of all Year 11 and 12 students	%	52.1	51.3	51.0	51.1	51.4	51.8	51.8	51.8	52.0	52.1	52.1
Year 12 retention rate – males	%	58.3	66.1	72.5	71.9	69.6	66.7	65.9	66.2	65.9	66.4	66.1
Year 12 retention rate – females	%	69.9	76.7	82.0	81.4	79.9	77.9	77.0	77.8	77.7	78.5	78.7
Education participation of 15–19 year olds (of all 15–19 year olds)	%	66.7	70.6	72.8	73.4	72.9	73.9	74.0	77.4	76.9	77.8	77.6
Education participation of 20–24 year olds (of all 20–24 year olds)	%	23.4	25.0	27.1	25.8	26.6	28.0	31.5	31.0	32.1	34.4	34.4
15–24 year olds attending TAFE	%	9.2	9.6	9.9	9.5	8.7	9.8	10.3	9.9	10.3	10.2	10.7
15–24 year olds attending higher education	%	12.0	12.7	13.7	13.1	14.9	14.2	15.5	16.4	16.4	17.6	17.2
Females – of all higher education students aged 15–24(a)	%	51.8	51.4	54.5	55.5	53.1	51.7	53.8	55.3	54.2	53.2	55.8
Vocational Education and Training (VET) clients(b)	'000	967	986	1 043	1 121	1 132	1 273	1 347	1 459	1 535	1 647	n.y.a.
Females – of all VET clients(b)	%	44.8	45.1	45.1	45.9	45.9	47.2	47.6	48.1	47.3	48.7	n.y.a.
Higher education students	'000	485.1	534.5	559.4	575.6	585.4	604.2	634.1	658.8	671.9	686.3	695.4
Overseas students (of all higher education students)(c)	%	5.1	5.5	6.1	6.4	6.9	7.6	8.4	9.6	10.7	12.1	13.7

ATTAINMENT	Units	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
With post-school educational qualifications (of all aged 15–64)	%	39.7	40.8	41.7	39.1	39.0	41.0	42.3	40.4	41.9	43.7	43.8
Bachelor degree or higher	%	8.4	9.0	9.6	10.1	11.5	11.9	12.8	13.6	14.3	15.4	15.7
Undergraduate or associate diploma	%	n.a.	n.a.	n.a.	9.0	8.6	9.1	8.8	7.7	7.9	8.1	8.2
Skilled or basic vocational qualification	%	n.a.	n.a.	n.a.	20.0	18.9	19.9	20.6	19.1	19.7	20.2	19.9
Did not complete highest level of secondary school (of all aged 15–64)	%	37.7	36.2	34.5	37.3	37.7	36.1	34.8	36.3	34.2	32.7	32.0
Females – of all with post-school educational qualifications(a)	%	41.8	43.0	43.6	42.6	44.1	43.9	44.1	44.6	45.1	45.2	45.8
Higher education students completing courses	'000	94.8	107.7	120.6	132.9	138.7	141.0	145.3	155.3	161.7	164.4	n.y.a.

EDUCATION AND LABOUR FORCE	Units	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Unemployment rate												
With bachelor degree or higher	%	3.2	3.9	4.3	4.8	4.7	3.6	3.8	3.5	3.1	3.0	3.0
With undergraduate or associate diploma	%	n.a.	n.a.	n.a.	5.9	5.8	5.8	5.2	4.7	4.6	5.3	5.0
With skilled or basic vocational qualifications	%	n.a.	n.a.	n.a.	8.9	7.1	6.6	6.4	7.1	6.6	5.6	5.3
Without post-school qualifications(a)	%	8.6	12.4	13.7	14.1	13.0	11.1	11.3	11.6	10.9	10.3	8.6
Trainees and apprentices	'000	172.8	160.2	151.9	137.5	131.1	r135.9	r156.5	r171.7	r193.1	r253.4	279.6

(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 and unemployment rates 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 and apprentice and trainee data are at 30 June.

Education: national summary *continued*

EXPENDITURE	Units	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999(a)	2000
Total outlays on education (of GDP)	%	5.0	5.4	5.6	5.6	5.4	5.3	5.2	5.3	5.2	6.8	n.y.a.
Government outlays on education (of GDP)	%	4.3	4.7	4.9	4.9	4.7	4.6	4.5	4.5	4.4	5.3	n.y.a.
Government outlay on education												
Primary and secondary	\$'000m	9.9	10.7	11.6	12.0	12.2	12.5	13.0	13.9	14.7	16.9	n.y.a.
Tertiary	\$'000m	5.0	5.9	6.4	6.9	7.1	7.6	7.6	8.1	8.0	13.0	n.y.a.

RESOURCES	Units	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Schools	no.	10 007	9 980	9 957	9 865	9 679	9 648	9 630	9 609	9 587	9 590	9 595
Government schools – of all schools	%	74.8	74.8	74.8	74.7	74.0	73.8	73.6	73.2	73.0	72.7	72.6
School student/teaching staff ratio												
All students	ratio	15.3	15.4	15.3	15.3	15.5	15.4	15.4	15.3	15.3	15.0	14.9
Government school students	ratio	15.0	15.2	15.1	15.2	15.4	15.4	15.4	15.3	15.3	14.9	14.9
Primary students	ratio	18.4	18.5	18.4	18.4	18.5	18.1	18.1	17.9	17.9	17.3	17.3
Secondary students	ratio	12.4	12.5	12.4	12.4	12.6	12.6	12.7	12.7	12.7	12.6	12.4
Females – of all primary teachers	%	73.5	73.7	74.2	74.4	74.7	76.1	76.2	76.9	77.5	78.0	78.3
Females – of all secondary teachers	%	50.1	50.4	50.6	51.1	51.3	52.3	52.6	53.1	53.5	54.1	54.4
Females – of all higher education academic staff(b)	%	30.1	30.8	31.9	32.6	32.8	33.5	34.1	34.4	35.1	35.5	34.1

(a) Series break due to new National Accounts conventions, and introduction of Accrual Accounting, in calendar year 1999.

(b) Data covers full-time and fractional full-time staff but excludes casual academic staff.

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	2000	1 094	802	603	249	318	84	37	60	3 247
Students in government schools	%	2000	69.4	65.9	71.4	69.8	71.0	75.2	77.4	63.5	69.2
Females – of all Year 11 and 12 students	%	2000	52.7	52.6	51.2	51.9	51.4	53.0	53.9	49.7	52.1
Year 12 retention rate – males	%	2001	61.7	69.2	72.4	59.2	65.5	63.0	42.5	84.9	66.1
Year 12 retention rate – females	%	2001	73.5	85.8	82.6	71.8	77.6	76.4	57.0	89.3	78.7
Education participation of 15–19 year olds (of all 15–19 year olds)	%	2000	78.1	81.3	74.0	77.1	75.5	74.2	69.1	81.6	77.6
Education participation of 20–24 year olds (of all 20–24 year olds)	%	2000	35.5	37.0	31.2	31.1	34.0	24.9	18.3	44.3	34.4
15–24 year olds attending TAFE	%	2000	12.2	10.3	9.3	9.3	12.1	8.5	1.5	10.7	10.7
15–24 year olds attending higher education	%	2000	16.5	19.5	17.3	14.0	17.3	9.6	15.8	19.6	17.2
Females – of all higher education students aged 15–24(b)	%	2000	57.5	51.5	59.5	56.6	55.6	66.5	60.6	44.1	55.8
Vocational Education and Training (VET) clients	'000	1999	534	476	307	134	126	32	19	19	1 647
Females – of all VET clients	%	1999	51.7	47.3	47.4	50.8	46.8	48.4	47.2	48.1	49.0
Higher education students(b)	'000	2000	223.4	186.0	125.2	49.0	65.3	12.8	4.5	19.5	695.4
Overseas students (of all higher education students)(b)	%	2000	13.0	17.0	12.0	13.1	14.9	9.4	3.9	10.3	13.7

ATTAINMENT	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
With post-school educational qualifications (of all aged 15–64)	%	2000	46.4	43.5	41.1	40.0	43.1	38.4	45.5	54.0	43.8
Bachelor degree or higher	%	2000	16.9	17.2	12.9	12.7	14.2	11.6	15.2	27.5	15.7
Undergraduate or associate diploma	%	2000	8.6	8.9	7.3	7.4	7.9	7.0	10.6	8.8	8.2
Skilled or basic vocational qualification	%	2000	20.9	17.3	20.9	19.8	21.1	19.8	19.8	17.7	19.9
Did not complete highest level of secondary school (of all aged 15–64)	%	2000	30.0	32.1	34.1	35.5	31.8	40.4	34.3	16.5	32.0
Females – of all with post-school educational qualifications	%	2000	47.3	46.0	43.5	44.3	44.3	46.7	41.9	48.4	45.8
Higher education students completing courses	'000	1999	51.7	44.7	27.5	11.4	16.2	3.3	1.0	5.9	164.4

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	%	2000	2.8	2.9	4.1	3.5	2.9	2.9	2.1	1.5	3.0
With undergraduate or associate diploma	%	2000	4.4	4.3	6.8	7.0	4.6	3.6	7.5	4.1	5.0
With skilled or basic vocational qualifications	%	2000	5.3	4.7	6.0	5.6	5.1	6.5	4.1	7.3	5.3
Without post-school qualifications	%	2000	6.9	9.2	9.9	10.3	7.6	11.3	8.5	7.2	8.6
Trainees and apprentices	'000	2000	79.9	81.1	50.9	29.8	20.1	10.4	5.0	2.3	279.6

(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 and unemployment rates are at May. Overseas student data are at 31 March. VET and apprentice and trainee data are at 30 June.

Education: State summary *continued*

RESOURCES	<i>Units</i>	<i>Years</i>	<i>NSW</i>	<i>Vic.</i>	<i>Qld</i>	<i>SA</i>	<i>WA</i>	<i>Tas.</i>	<i>NT</i>	<i>ACT</i>	<i>Aust.</i>
Schools	no.	2000	3088	2324	1718	820	1043	282	182	138	9 595
Government schools – of all schools	%	2000	70.8	70.1	75.5	75.7	73.4	76.2	82.4	69.6	72.6
School student/teaching staff ratio											
All students	ratio	2000	15.1	14.7	14.9	14.8	15.0	14.4	13.2	15.2	14.9
Government school students	ratio	2000	15.2	14.8	14.9	14.6	15.2	14.4	12.8	14.7	14.9
Primary students	ratio	2000	17.9	17.1	16.9	17.4	17.2	16.1	14.6	18.0	17.3
Secondary students	ratio	2000	12.5	12.4	12.6	11.7	12.5	12.8	10.9	12.8	12.4
Females – of all primary teachers	%	2000	79.8	79.0	76.5	75.4	76.6	78.0	80.9	83.8	78.3
Females – of all secondary teachers	%	2000	54.7	55.3	55.6	48.3	51.3	53.4	58.8	60.2	54.4
Females – of all higher education academic staff(a)	%	2000	34.4	38.5	35.3	34.2	36.1	25.9	40.4	26.7	34.1

(a) Data covers full-time and fractional full-time staff but excludes casual academic staff.

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* (ABS 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* (ABS 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* (ABS 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* (ABS 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* (ABS 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* (ABS 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* (ABS 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* (ABS 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* (ABS Cat. no. 5510.0).

Government school

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

Education definitions and references continued

School student/teaching staff ratio

number of full-time school students divided by full-time equivalent teaching staff.

Reference: *Schools, Australia* (ABS Cat. no. 4221.0).

Secondary education

education which typically commences after completion of primary education, at around age 12 years, and lasts for five or six years.

Reference: *Schools, Australia* (ABS 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* (ABS 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* (ABS 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* (ABS 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* (ABS 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* (ABS Cat. no. 6227.0).

Vocational Education and Training (VET) client

a person aged 15–64 years 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* (ABS Cat. no. 4221.0).

Trends in completing school

PARTICIPATION IN EDUCATION

Between 1985 and 1992, the retention of school students to Year 12 increased from 46% to 77%. By 1995 it had decreased to 72%, and has remained stable since then.

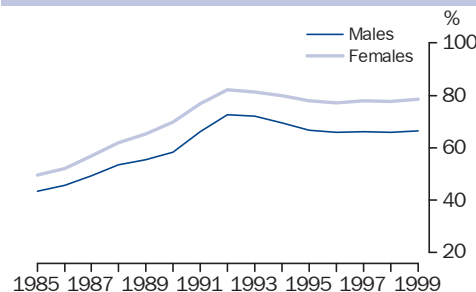
After a long period of steady growth over the 1980s, the retention of school students to Year 12 declined slightly throughout the 1990s. The apparent retention rate reached its peak in 1992 at 77%, but by 1995 it had fallen to 72% and remained stable until 1999. The overall increase in the retention rate is associated with the growing importance of educational qualifications for employment outcomes. In the early 1990s, high unemployment among other factors also prompted more would-be early school leavers to complete Year 12 than before.¹

The decline in the apparent retention rate since 1992 suggests that options for early school leavers increased as the decade progressed. Not only did the unemployment rate for 15–24 year olds fall, but also the number of people undertaking vocational education and training increased, from 966,800 to 1.6 million between 1990 and 1999.² This suggests that there may have been more alternatives in the late 1990s for people not wishing to pursue the academic pathway of school and university.

Early school leavers

In 2000, of the 2 million people aged 15–24 years who had left school, one third reported that they left school before completing Year 12. Young men were more likely to have been early school leavers than young women (39% compared with 27%). This could be associated with the fact that men are more likely than women to take up apprenticeships, reflecting the larger number of apprenticeships available in occupations that traditionally attract men.³

Apparent retention rate(a) to Year 12



(a) Full-time students only.

Source: National School Statistics Collection, Australia, 1985–1988 (ABS Cat. no. 4221.0); Schools, Australia, 1989–1999 (ABS Cat. no. 4221.0).

Completing school in Australia

This article draws on data from the ABS National School Statistics Collection and ABS Transition from Education to Work Survey. These two collections gather different but complementary data on people who do not complete the highest level of school.

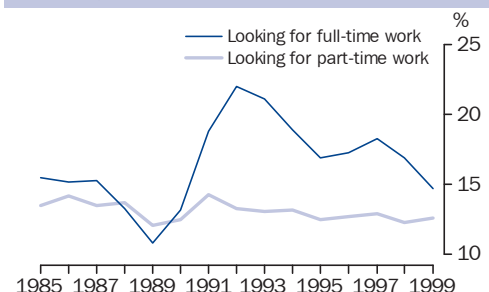
The ABS National School Statistics Collection is an annual census of schools in Australia. Published as *Schools, Australia* (ABS Cat. no. 4221.0), it contains information on the characteristics of schools, students and staff, as well as data on school participation.

The *apparent retention rate* is the number of full-time students currently in Year 12 divided by the number of full-time students in the first year of secondary school (Year 7 in New South Wales, the ACT, Victoria and Tasmania; Year 8 in Queensland, South Australia, Northern Territory and Western Australia) when the Year 12 cohort began secondary school. Care should be taken in interpreting apparent retention rates, as they do not account for students repeating a year or migrating in or out of the Australian school student population.

The ABS Transition from Education to Work Survey is conducted every May as a supplement to the Labour Force Survey. It contains a range of key indicators relating to the educational participation and attainment of people aged 15–64 years as well as data on people in transition between education and work. It looks at a variety of demographic and educational characteristics according to whether the highest level of school was completed.

Early school leavers are people who did not complete the highest level of school (Year 12). They encompass all people who completed Year 11, Year 10 or earlier years.

Unemployment rate(a) for 15–24 year olds



(a) Original series. Data have not been revised to reflect definitional changes introduced in April 2001.

Source: ABS 1985–1999 Labour Force Surveys.

Early school leavers aged 15–24 years(a), 2000

	Left school before completing Year 12 %	All people(a) aged 15–24 years '000
Sex		
Male	38.5	1 026.9
Female	27.3	972.5
Country of birth		
Australia	35.9	1 669.0
Outside Australia	18.7	330.4
Area of residence		
Capital city	27.0	1 318.6
Balance of state	44.8	680.8
Type of school		
Government	39.4	1 441.5
Non-government	16.8	557.9
Total	33.1	1 999.4

(a) Excludes 15–24 year olds still at school and 15–24 year olds who never attended school.

Source: ABS 2000 Transition from Education to Work Survey.

In 2000, 15–24 year olds born in Australia were more likely to have been early school leavers than 15–24 year olds born outside Australia (36% compared with 19%). This could be associated with the fact that in recent years, Australia's immigration policies have targeted skilled migrants from well-educated backgrounds and with English language proficiency (see *Australian Social Trends, 2001, Coming to Australia*, pp. 16–20). In addition, a large proportion of young people come to Australia from overseas to study, and many are likely to have completed Year 12 or to be in the process of completing Year 12. In 1999–2000, of 15–24 year olds arriving in Australia for visits of more than 12 months, 77% said their main purpose for travelling was education.⁴

The likelihood of completing Year 12 also varied according to area of residence. Young people living in areas other than capital cities were more likely to have been early school leavers than those living in capital cities (45% compared with 27%). In addition, retention rates varied considerably according to the type of school attended. In 2000, 39% of 15–24 year olds who had attended a government school reported that they had not completed Year 12, compared with 17% of those who had attended a non-government school.

A large proportion of people who had not completed Year 12 stated that they left because they wanted to work rather than study. In 1997, 43% of early school leavers aged 15–24 years reported that their main reason for not completing school was because they had or wanted a job. Work-related reasons were more commonly reported as the main reason for leaving than schooling-related or personal or family reasons.

Education and the labour market

Completing the final year of school has become increasingly important for the labour market outcomes of young people over the past 20 to 30 years. In parallel with rising Year 12 apparent retention rates in the 1980s and early 1990s, the labour market in Australia changed. Fewer jobs were offered in manufacturing and other industries which have traditionally employed young people without qualifications.³ This may have prompted more students to complete Year 12 and to consider post-school study as an alternative to looking for work.

In addition, skill requirements in the labour force have shifted over the past 20 to 30 years, with higher levels of qualification required for many occupations than was previously the case. For example, until the 1980s, registered nursing in Australia was taught firstly in hospitals and then Colleges of Advanced Education. Between 1984 and 1993, study for registered nursing was transferred to universities and standardised across institutions.⁵

Main reason for leaving school before completing Year 12(a), 1997

Type of reason(b)	%
<i>Work-related reasons</i>	46.0
Little difference to job prospects	3.5
Got (or wanted) a job or apprenticeship	42.5
<i>Schooling-related reasons(c)</i>	23.3
Did not do well or failed subjects	6.1
Did not like school or teachers	15.4
<i>Personal or family reasons(d)</i>	18.0
Lost interest or motivation	13.5
Own ill-health, injury or disability	3.4
<i>Other reasons</i>	12.7
Total	100.0

- (a) 15–24 year olds only.
- (b) Respondents nominated one reason only.
- (c) Includes people who gave other schooling-related reasons.
- (d) Includes people who gave other personal or family reasons.

Source: *Education and Training Experience, Australia, 1997* (ABS Cat. no. 6278.0).

Educational attainment and labour force status of people aged 15–24 years(a), 2000

Labour force status	Highest level of educational attainment			Total
	With post-school educational qualifications(b)	Completed Year 12	Left school before completing Year 12	
	%	%	%	%
Employment rate	91.8	89.6	80.9	88.2
Full-time	73.5	46.0	62.5	59.2
Part-time	18.2	43.7	18.3	29.1
Unemployment rate	8.2	10.4	19.1	11.8
Looking for full-time work	6.6	6.4	17.5	9.1
Looking for part-time work	1.6	4.0	1.6	2.6
In the labour force	100.0	100.0	100.0	100.0
	'000	'000	'000	'000
In the labour force	543.9	687.9	390.5	1 622.3
	%	%	%	%
Labour force participation rate	90.4	76.1	79.0	81.1

(a) Excludes people who are still at school and who never attended school.

(b) Includes people who did not complete the highest level of school who have post-school qualifications.

Source: ABS 2000 Transition from Education to Work Survey.

However, after 1992, both the retention rate for students to Year 12 and the unemployment rate for 15–24 year olds declined. Both of these trends may suggest a greater number of jobs available to young adults. Alternatively, early school leavers could be taking up the diverse range of training and education opportunities outside school that have become available in recent years.

Employment outcomes

Employment outcomes are likely to vary for early school leavers depending on whether they take up the courses and programs available to them. In general, early school leavers in 2000 had higher unemployment rates than people who had completed Year 12 and people who had post-school educational qualifications.

For people aged 15–24 years who had left school, those with post-school educational qualifications were more likely to be in the labour force (either employed or looking for work) than early school leavers or people who had only completed Year 12. Moreover, of people in the labour force, those with post school educational qualifications were the most likely to have found full-time employment (74%).

Vocational qualifications

A *skilled vocational course* provides an individual with the knowledge and skills needed to work in a vocation or trade that requires a high level of skill in a range of activities. It usually includes a component of on-the-job training. The entry requirement is Year 10 and courses take between two and four years.

A *basic vocational course* provides skills for employment at the operative level of various industries. It often requires the completion of Year 10 but may have no formal entry requirements, and lasts for between a semester and a year.

An *apprentice* is a person who enters into a legal contract with an employer to serve a period of training and to work for the employer to attain qualifications in a recognised trade.

A *trainee* is a person who enters into an agreement with an employer to work for that employer and receive on-the-job training for a specified period of time.

Almost two thirds (63%) of early school leavers in the labour force were working full-time. However, this group was also about three times as likely to be unemployed and seeking full-time work (18%) as people who had post-school educational qualifications (7%) and people who had completed Year 12 (6%).

People in the labour force who had completed Year 12 were the least likely to be working full-time (46%), but this is associated with the fact that almost half of this group were studying for post-school educational qualifications, and thus were not seeking full-time work. This is reinforced by the fact that this group was the most likely of the three groups to be working part-time (44%).

Post-school education

Although early school leavers aged 15–24 years are more likely to be unemployed than others, not all enter the labour force on leaving school. According to vocational education and training statistics², early school leavers comprised 56% of participants in vocational education and training in 1999. Participation in these courses rose by 70% between 1990 and 1999. This suggests that more early school leavers may be gaining skills and qualifications than in the past.

Almost 20% of early school leavers aged 15–24 years were undertaking some form of study in 2000, compared with 47% of 15–24 year olds who had completed Year 12. Most of these early school leavers were undertaking TAFE courses (16%), while most

Educational institution attendance and level of course of people aged 15–24 years(a), 2000

	Highest year of school completed	
	Year 12	Earlier than Year 12
	%	%
Attending in May 2000	47.4	19.5
Type of institution		
Higher education	33.2	1.5
TAFE	11.2	15.8
Other Tertiary	3.0	2.2
Level of course		
Higher degree	1.0	–
Postgraduate diploma	1.1	*0.0
Bachelor degree	30.6	1.0
Undergraduate diploma	5.0	1.6
Associate diploma	2.1	*0.7
Skilled vocational course	4.1	10.1
Basic vocational course	3.3	5.0
Secondary school course	*0.1	1.0
Not attending in May 2000(b)	52.6	80.5
	'000	'000
Total	1 338.2	661.2

(a) Excludes 15–24 year olds still at school and 15–24 year olds who never attended school.

(b) Includes 15–24 year olds studying non-recognised courses (less than one semester or uncodeable).

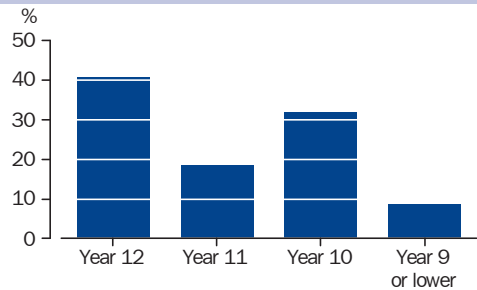
Source: ABS 2000 Transition from Education to Work Survey.

people who had completed Year 12 were undertaking higher education courses (33%). This difference partly reflects the different entry requirements of higher education and TAFE courses.

Early school leavers attending an education institution were most commonly undertaking a skilled vocational course (10%), or a basic vocational course (5%). A small proportion (1%) were studying a secondary school course and were therefore in the process of completing Year 12 at a TAFE or other tertiary institution.

Most apprenticeships and traineeships do not require completion of Year 12. As they provide employment during and after training (see *Australian Social Trends, 2000*, Developments in contracted training: apprentices and trainees, pp.102–106), they may be another path to employment available to early school leavers. Of apprentices and trainees in training in 2000, more than half (59%) had left school before completing Year 12.

Highest level of school completed(a) of apprentices and trainees in training, 2000



(a) People for whom the highest level of school completed was unknown were excluded prior to the calculation of percentages.

Source: National Centre for Vocational Education, Research, Australian Apprentices and Trainees Collection, December 2000.

Endnotes

- 1 Lewis, P.E.T. and Koshy, P. 1999, 'Youth employment, unemployment and school participation', *Australian Journal of Education*, vol. 43, no. 1, pp. 42–57.
- 2 National Centre for Vocational Education Research 1999, *Vocational Education and Training Statistics*, <URL:<http://www.ncver.edu.au/statistics/vet/ann99/ID99/index.htm>> and <URL:<http://www.ncver.edu.au/vet/ann99/glan/ce99/timeall.htm>> (Accessed 1 May 2001).
- 3 Lamb, S., Dwyer, P. and Wyn, J. 2000, *Non-Completion of School in Australia: The Changing Patterns of Participation and Outcomes, Longitudinal Survey of Australian Youth Research Report 16*, Australian Council for Education Research, Melbourne.
- 4 Australian Bureau of Statistics 2000, *Migration, 1999–2000*, Cat. no. 3412.0, ABS, Canberra.
- 5 National Review of Nurse Education in the Higher Education Sector 1994, *Nursing Education in Australian Universities*, Australian Government Publishing Service, Canberra.

Time spent studying

PARTICIPATION IN EDUCATION

Australian students spent an average of almost 6 hours per day on education activities in 1997, 20 minutes less than in 1992.

The number of Australians pursuing post-compulsory education increased by nearly 30% during the 1990s (see *Australian Social Trends 2000*, Beyond compulsory schooling, pp. 93–97). To a large extent this increase was driven by a growing demand for skilled and educated workers. For many Australians, this meant that a successful and rewarding career was dependent upon an investment of time in education.

The amount of time a student invests in education activities is influenced by many factors and choices, including their living arrangements and family responsibilities, their financial means, and their own aspirations. Consequently, many students find that study time represents a balance between the 'opportunity cost' of reduced time on other activities (such as employment and recreation), and the future rewards education can bring.

In 1997, over 2.1 million Australians aged between 15 and 64 years (18% of this population) were enrolled in some form of education.¹ Of these, 31% were still at school, 27% were in full-time post-school study, 34% were in part-time post-school study, and 8% were studying by correspondence. Similar proportions of males and females were studying in 1997.

Time spent on education activities

Students overall spent 354 minutes per day on education activities in 1997. This was 20 minutes per day less than they spent in 1992. Most of this change can be attributed to a reduction in the amount of time male students spent studying (from 403 minutes in 1992 to 359 minutes in 1997). Male school students recorded the largest reduction in study time, spending an hour less on

Time spent studying

This article uses data from the 1997 and 1992 Time Use Surveys, and refers to those people aged 15 years and over who were enrolled in a recognised course of study. Unless otherwise stated, the data used apply only to students who participated in education activities during the survey period.

Time spent is the average time in minutes per day averaged over a seven day week.

Educational activities include:

- ◆ attendance at educational course (including school);
- ◆ job related training;
- ◆ homework/study/research;
- ◆ breaks at place of education;
- ◆ associated travel;
- ◆ associated communication; and
- ◆ other associated activities.

Full-time students are students aged 15 years and over attending secondary school, and full-time tertiary students.

education activities in 1997 than they did in 1992. While female school students also spent slightly less time studying in 1997 (404 minutes per day compared with 412 minutes in 1992), the overall time spent by all female students increased by 3 minutes between 1992 and 1997. In 1997, both sexes overall spent similar amounts of time on education activities (359 minutes for males and 350 minutes per day for females).

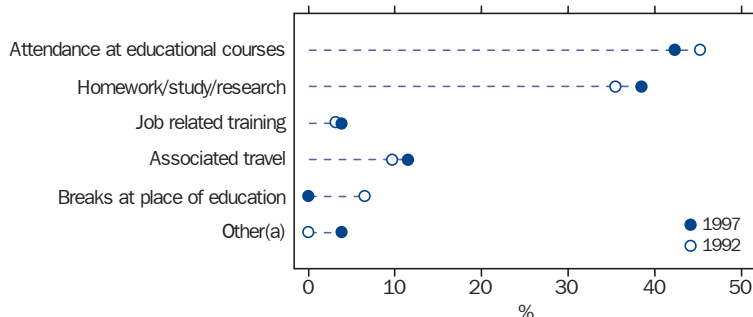
The proportions of time students spent on specific education activities did not change greatly between 1992 and 1997. However, students spent less of their time attending education courses in 1997 (42% compared

Time spent by students on education activities

	1992			1997		
	Males mins/day	Females mins/day	Persons mins/day	Males mins/day	Females mins/day	Persons mins/day
Still at school	454	412	433	394	404	399
Full-time post-school study	428	384	406	406	391	397
Part-time post-school study	279	210	241	245	174	205
Study by correspondence	185	155	168	166	187	175
Total	403	347	374	359	350	354

Source: ABS 1997 Time Use Survey.

Proportion of time spent by students on selected education activities



(a) Includes Associated communication, Education activities not further defined, and Education activities not elsewhere classified.

Source: *How Australians Use Their Time, 1997* (ABS Cat. no. 4153.0).

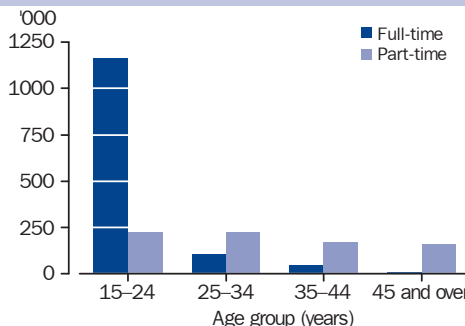
with 45% in 1992), and more of their time on homework, study and research (39% compared with 36% in 1992).

Age and participation

In 1997, education was undertaken mainly by young people, with 62% of all students (88% of full-time students) being aged between 15 and 24 years. The average time these students spent on education activities each day (388 minutes) largely reflected the high proportion of students in this age group who were studying full-time.

While the number of full-time students was much lower among students aged 25 years and over, the number studying part-time decreased only slightly in the older age groups. The smaller total average time older students spent studying consequently reflected this lower proportion of full-time participation. Full-time students across all age groups spent similar amounts of time studying in 1997, with those aged 25–34 years spending the most time (415 minutes per day).

Full-time and part-time students by age group, 1997



Source: ABS 1997 Time Use Survey.

The different proportions of full-time and part-time students did not account for all variations in total average study time across age groups in 1997. Students aged 45 years and over spent more time studying than those aged 35–44 years (264 minutes compared with 211 minutes per day), despite being a much smaller proportion of full-time students. This possibly reflects their greater availability of time, due to the reduced child care, and other family responsibilities, within this age group.

Type of qualification

There are a wide range of qualification options open to post-school students in Australia. However, each different qualification type places different demands upon students, and these demands are often reflected in the respective amount of time students spend studying.

Among full-time students in 1997, most time was spent by those studying for a bachelor degree (419 minutes per day), followed by those studying for a skilled vocational qualification (382 minutes). Among part-time students, those studying for a skilled vocational qualification in 1997 spent most

Time spent on education activities by full-time and part-time students, 1997

	Age group (years)								Total	
	15-24		25-34		35-44		45 and over			
	Proportion of students	Average time spent	Proportion of students	Average time spent	Proportion of students	Average time spent	Proportion of students	Average time spent	Proportion of students	Average time spent
	%	mins/day	%	mins/day	%	mins/day	%	mins/day	%	mins/day
Full-time student	82.1	398	26.3	415	17.6	355	5.8	*375	58.1	398
Part-time student	15.8	249	56.7	187	64.4	141	80.5	261	34.3	205
Total(a)	100.0	388	100.0	295	100.0	211	100.0	264	100.0	354

(a) Includes students studying by correspondence.

Source: ABS 1997 Time Use Survey.

time on education activities (264 minutes per day), followed by those studying for a higher degree (255 minutes). Students studying for a basic vocational qualification spent the least time on education activities among those studying either full-time or part-time (324 minutes and 105 minutes per day respectively).

Life stage and living arrangements

The amount of time younger students have available to spend on education activities is often made possible through family support and an absence of other responsibilities.

However, for those living independently, or in relationships, the availability of study time can be dependent upon the distribution of household duties and responsibilities (e.g. childcare, domestic activities), and the level of support given by partners or others.

Among those studying full-time, male students living alone spent more time on education activities (537 minutes per day), than students in any other living arrangements. This is likely to reflect their lower level of responsibilities and family obligations. In contrast, lone parents (predominately females) who studied full-time averaged the least amount of time studying (254 minutes per day), as might be expected with their level of child care

Time spent by post-school students on education activities, 1997(a)

Qualification	Full-time students	Part-time students
Higher degree	381	255
Post graduate diploma	*335	161
Bachelor degree	419	220
Undergraduate diploma	361	n.a.
Associate Diploma	365	165
Skilled vocational	382	264
Basic vocational	324	105
Total	397	205

(a) Does not include students still at school or studying by correspondence.

Source: ABS 1997 Time Use Survey.

responsibility and absence of partner support. Among full-time students who were living with a partner in 1997, females spent more time studying than their male counterparts, regardless of whether they had dependent children or not. However, the majority (89%) of students who were partners in couples with dependent children were not studying full-time.

In 1997, part-time students spent around half the amount of time on education activities as their full-time counterparts. Among part-time

Time spent by students on education activities, life stage and labour force status, 1997(a)

	Males		Females		Total	
	Full-time students	Part-time students	Full-time students	Part-time students	Full-time students	Part-time students
	mins/day	mins/day	mins/day	mins/day	mins/day	mins/day
Life stage						
Neither parent nor partner living in family household	393	250	405	214	399	234
Partner in couple without children	*252	181	406	147	353	164
Partner in couple with dependent children	385	243	449	143	424	203
Lone parent	n.a.	n.a.	254	143	254	143
Person living alone	537	n.a.	426	192	477	192
Labour force status						
Working full-time	*193	220	*263	177	*226	203
Working part-time	394	*209	377	231	384	227
Unemployed	324	241	319	n.a.	321	213
Not in labour force	417	*486	427	123	423	186
Total(b)	399	245	398	174	398	205

(a) Does not include students studying by correspondence.

(b) Includes partners in couples with non-dependent children only, and other living arrangements.

Source: ABS 1997 Time Use Survey.

Average time spent on selected main(a) activities, 1997

	All persons			Students(b)		
	Males mins/day	Females mins/day	Persons mins/day	Males mins/day	Females mins/day	Persons mins/day
Sleeping	517	515	516	549	534	541
<i>Waking hours</i>						
Personal care (excluding sleeping)	141	156	149	123	144	134
Employment related	261	132	196	182	129	154
Education	24	28	26	147	157	152
Domestic activities	94	177	136	46	92	71
Child care	16	45	31	13	23	18
Purchasing goods and services	35	54	45	25	46	36
Voluntary work and care	19	24	22	12	18	15
Social and community interaction	43	48	45	49	49	49
Recreation and leisure	286	257	271	286	245	264
Total(c)	1 440	1 440	1 440	1 440	1 440	1 440

(a) Time spent on the activity reported as the main activity in a particular time period only.

(b) Includes average time spent by all students, not just those who participated in education activities during the time of the survey.

(c) Includes activities not described elsewhere.

Source: *How Australians Use Their Time, 1997* (ABS Cat. no. 4153.0).

students, those living in a family household without either parenting or partnering responsibilities (mainly those living with parents) spent the most time on education activities (234 minutes per day), while lone parents studying part-time spent the least time (143 minutes).

Labour force participation

For students who work, the time spent on education activities must often be balanced with their employment commitments. Over half (57%) of all students were employed in 1997, with similar proportions working full-time and part-time (29% and 28% respectively). The majority (82%) of students who were not working were either still at school or in full-time tertiary study. Further information about students combining work and education commitments can be found in *Australian Social Trends 2001*, Combining study and work, pp. 113–115.

Among full-time students, those who were not in the labour force averaged the highest amount of study time (423 minutes per day). However, part-time students not in the labour force averaged less time studying than those either employed or unemployed. This was primarily because female part-time students who were not in the labour force spent only 123 minutes per day on education activities, reflecting the greater amount of time this group spent on household work and child care (see *Australian Social Trends 2001*, Time spent on unpaid household work, pp. 142–145).

Time spent on other activities

Spending time on education activities often involves a cost in terms of other activities a student could be doing. While the responsibilities of parenting or employment can be non-negotiable competitors for study time, the amount of time spent on other activities, such as recreation or personal care, is often a choice made by the student.

In 1997, recreation and leisure made up the largest proportion of students' waking hours (29%). Education and employment activities both accounted for a further 17% each, while 15% was spent on personal care, and 8% of their time was spent on domestic activities.

Compared with the population as a whole, students spent 25 minutes more sleeping, but 42 minutes less each day on employment, and 15 minutes less on personal care. Students averaged less time on child care than other Australians (18 minutes per day compared with 31 minutes), largely because the majority of students were aged under 25 years and therefore less likely to have child care responsibilities. While students spent less time on domestic activities (71 minutes compared with 136 minutes per day for the overall population), they still spent almost the same time as other Australians on recreation and socialising.

Endnotes

- 1 Australian Bureau of Statistics 1997, *Transition from Education to Work, May 1997*, Cat. no. 6227.0, ABS, Canberra.

Field of study and employment

EDUCATIONAL ATTAINMENT

Of people with post-school qualifications, 43% hold them in one of two fields: Business and administration, or Engineering.

The mix of skills in the Australian population and, in particular, in the Australian workforce, is of interest when considering changes in educational attainment over time. While skills can be acquired in a number of ways (for example through on-the-job training and training courses), one important means of obtaining skills is through post-school study leading to a recognised qualification. Consequently, one way of identifying skills in the population is by considering the fields of study of the qualifications which people hold. This article focuses on the broad mix of skills in the Australian population which have been obtained through qualifications across the various fields of study.

A number of qualifications (of levels varying from basic vocational to higher degrees) can fall within broad fields of study, and within each field, the range of skills can be extensive. For example, the field of Business and administration includes a variety of skills from keyboarding and shorthand, to business management, real estate or accounting. Similarly, Engineering includes a broad range of skills from surveying or civil engineering to vehicle mechanics, screen printing and garment making, while Society and culture includes qualifications in social work, child care, law or drama. Further, while some skills

Field of study of qualifications

The data in this article come from the ABS Transition from Education to Work Survey, an annual survey of working age people (those aged 15–64 years). It collects information on current education attendance and educational attainment.

Field of study of a qualification is the subject matter taught in the course of study leading to the award of a particular qualification.

Qualifications in this article refers to recognised post-school qualifications. Recognised post-school qualifications are defined as awards for attainment as a result of formal learning from an accredited post-school institution.

Unless otherwise stated, data on field of study refer to the field of the *highest* recognised post-school qualification held by individuals.

may be specific to a field of study, other more generic skills (such as research skills) may be obtained through study in a range of fields. Nonetheless, exploring fields of study can illustrate the growth and decline of different skills, and the links between field of study and employment outcomes.

Highest and recent qualifications

In 2000, there were 5.5 million people with a recognised post-school qualification. Of these, 43% held them in one of two fields:

Field of study of persons aged 15–64 years with qualifications, 2000

Field of study	Highest qualification		Qualifications completed in 1999	
	'000	%	'000	%
Business and administration	1 165.0	21.2	174.6	27.1
Health	596.3	10.9	74.8	11.6
Education	394.8	7.2	30.5	4.7
Society and culture	832.9	15.2	119.4	18.5
Natural and physical sciences	421.4	7.7	79.9	12.4
Engineering	1 195.0	21.8	70.1	10.9
Architecture and building	400.0	7.3	30.4	4.7
Agriculture and related fields	142.3	2.6	18.9	2.9
Miscellaneous fields(a)	344.6	6.3	44.9	7.0
Hairdressing and beauty therapy	119.7	2.2	8.4	1.3
Food and hospitality	179.9	3.3	25.3	3.9
Total with qualifications	(b)5 539.2	(c)100.0	(b)652.7	(c)100.0

(a) Includes other Miscellaneous fields.

(b) Includes people with qualifications whose fields were not stated, not codeable or inadequately described.

(c) People with qualifications whose fields were not stated, not codeable or inadequately described were excluded prior to the calculation of percentages.

Source: ABS 2000 Transition from Education to Work Survey.

Distribution of qualifications of persons aged 25–64 years, 2000

	Age groups (years)				Total
	25–34	35–44	45–54	55–64	
Highest field of study	%	%	%	%	%
Business and administration	22.3	20.0	20.7	16.0	20.4
Health	9.7	12.3	11.8	11.8	11.3
Education	5.6	7.3	10.8	7.7	7.7
Society and culture	16.7	14.2	14.5	14.2	15.1
Natural and physical sciences	9.3	7.8	5.8	4.7	7.4
Engineering	20.0	23.3	21.9	29.2	22.7
Architecture and building	6.7	7.4	6.8	9.4	7.3
Agriculture and related fields	2.7	2.4	2.3	1.8	2.4
Miscellaneous fields(a)	6.9	5.3	5.4	5.1	5.8
Hairdressing and beauty therapy	2.5	2.1	2.0	1.8	2.2
Food and hospitality	3.6	2.4	2.7	2.2	2.8
Total with qualifications(b)	100.0	100.0	100.0	100.0	100.0
	'000	'000	'000	'000	'000
Total with qualifications(c)	1 540.8	1 505.9	1 243.1	647.5	4 937.3

(a) Includes other Miscellaneous fields.

(b) People with qualifications whose fields were not stated, not codeable or inadequately described were excluded prior to the calculation of percentages.

(c) Includes people with qualifications whose fields were not stated, not codeable or inadequately described.

Source: ABS 2000 Transition from Education to Work Survey.

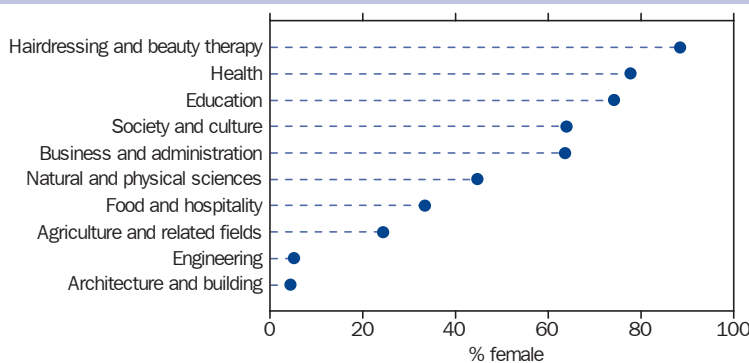
Business and administration, or Engineering. However, this has not always been the case. When comparing recently acquired qualifications with the stock built up over time, a different picture emerges. Because individuals' highest qualifications may include those obtained many years ago, examining the highest qualifications held by a population does not indicate the fields in which qualifications have been obtained in more recent years. If only qualifications acquired in the past year (1999) are considered, then Business and administration (27%), Society and culture (19%), and Natural

and physical sciences qualifications (12%) were the most common fields of study. On the other hand, Engineering, which comprised 22% of the highest qualifications, only comprised 11% of the qualifications completed in 1999.

Characteristics by field of study

Comparing fields of study chosen by young people in the past with those chosen by present-day young people reveals changes over time in the fields of study of qualifications which were most commonly attained. While not all qualifications held by older people are necessarily obtained when they were young, most qualifications are obtained between the ages of 15 and 24 years. In 2000, the qualifications held by people aged 25–34 years were most commonly in the Business and administration field (22%). People aged 55–64 were more likely to hold qualifications in Engineering. However, both of these fields of study were common among the qualifications held by people of all ages. Agriculture and Natural and physical sciences, while not fields where a high proportion of people of any age group held qualifications, were more common among younger people than older people. People aged 55–64 years had the highest proportion of Architecture

Proportion of persons with qualifications who are female, 2000



Source: ABS 2000 Transition from Education to Work Survey.

Persons aged 15–64 years with a post-school qualification, 2000

Highest field of study	Bachelor degree and higher(a)	Diploma (b)	Skilled vocational	Basic vocational	Total with qualifications	
	%	%	%	%	%	'000
Business and administration	29.8	24.3	3.5	42.4	100.0	1 165.0
Health	51.2	31.6	1.6	15.6	100.0	596.3
Education	70.2	28.8	—	*1.0	100.0	394.8
Society and culture	63.1	20.2	7.7	9.0	100.0	832.9
Natural and physical sciences	63.5	17.4	*0.6	18.5	100.0	421.4
Engineering	14.4	9.8	66.8	9.0	100.0	1 195.0
Architecture and building	7.7	8.8	75.4	8.1	100.0	400.0
Agriculture and related fields	20.2	21.1	21.9	36.8	100.0	142.3
Miscellaneous fields(c)	*0.4	7.0	62.3	30.4	100.0	344.6
Hairdressing and beauty therapy	—	5.6	82.5	11.9	100.0	119.7
Food and hospitality	—	*2.4	62.4	35.2	100.0	179.9
Total with qualifications(d)	35.8	18.8	26.5	18.9	100.0	5 539.2

(a) Bachelor degrees, postgraduate diplomas and higher degrees.

(b) Undergraduate and associate diplomas.

(c) Includes other Miscellaneous fields.

(d) Includes people with qualifications whose fields were not stated, not codeable or inadequately described.

Source: ABS 2000 Transition from Education to Work Survey.

and building qualifications of any age group, suggesting a relative decline in attainment in this field of study over time.

The distribution of the sexes across fields varied considerably. While more than two thirds of people with qualifications in Hairdressing and beauty therapy, Health, and Education were women, fewer than one in ten people holding qualifications in Engineering, and Architecture and building were women.

Field and level of qualifications

Bachelor degrees or higher were the most commonly held qualifications in 2000. While this overall trend is not evident across all fields of study, it is the case for Education (70% holding a bachelor degree or higher), Natural and physical sciences (64%), Society and culture (63%) and Health (51%).

Education was the only field where more than a quarter of people with these qualifications held them above the bachelor level, with 25% holding a postgraduate diploma.

Conversely, almost half (42%) of people with a Business and administration qualification held it at the basic vocational level.

Hairdressing and beauty therapy (83%), Architecture and building (75%), Engineering (67%) and Food and hospitality (62%) were most commonly held at the skilled vocational level.

Qualifications and the labour force

One of the purposes for obtaining qualifications is to acquire skills which will be valuable in the labour market with the aim of increasing the chances of working and, in particular, of working in a preferred job. In 2000, 85% of people aged 15–64 years with qualifications were in the labour force compared with 67% of those without qualifications.

While participation in the labour force varied by field of qualification, it also varied between men and women. While women's participation in the labour force has been increasing over time, it remained lower than men's (54% compared with 73% — see *Australian Social Trends 2001*, Work: national summary table, p. 118). Comparing the labour force participation of people with qualifications in various fields of study can therefore be complicated by the differing proportions of men and women with qualifications in different fields of study.

However, by removing the effect of differing proportions of men and women holding qualifications across fields of study (by standardising), a more useful comparison of the differences in labour force participation of people with qualifications in different fields of study is possible. Unstandardised, labour force participation varied across fields of study from 83% (Society and culture) to 91% (Agriculture). The standardised participation rates varied within a similar but slightly lower range from 80% to 87%, with participation rates for the more

Labour force status of persons aged 15–64 years by highest qualification, 2000

Highest field of study	Total labour force		Employed full-time	
	Original %	Standardised(a) %	Original %	Standardised(a) %
Persons with qualifications				
Business and administration	82.9	85.5	62.0	66.8
Health	82.7	86.2	51.0	61.8
Education	85.1	86.8	59.4	65.9
Society and culture	82.5	84.2	56.3	60.2
Natural and physical sciences	86.2	85.7	67.3	66.1
Engineering	89.1	80.1	79.7	63.7
Architecture and building	89.8	85.0	81.4	62.5
Agriculture and related fields	90.6	86.2	71.5	60.8
Miscellaneous fields(b)	79.3	79.2	52.2	52.0
Hairdressing and beauty therapy	70.3	80.8	38.0	57.6
Food and hospitality	84.6	82.6	58.9	53.8
Total with qualifications(c)	85.1	84.5	65.1	63.7
Persons without qualifications	66.8	67.4	40.3	41.3
All people	74.8	74.8	51.2	51.1

(a) Data standardised for sex.
 (b) Includes other Miscellaneous fields.
 (c) Includes people with qualifications whose fields were not stated, not codeable or inadequately described.

Source: ABS 2000 Transition from Education to Work Survey.

male-dominated industries declining the most as a result of standardisation (Engineering from 89% to 80%, and Architecture and building from 90% to 85%).

Some of the differences in full-time employment across fields of study also relate to the propensity of men and women to have qualifications in specific fields. For example, women were more likely to hold qualifications in Health and were also more likely than men to be employed part-time. Once rates of full-time employment are standardised for sex, people with qualifications in Business and administration

were most likely to be employed full-time (67%) while people with qualifications in Society and culture were least likely to be full-time (60%).

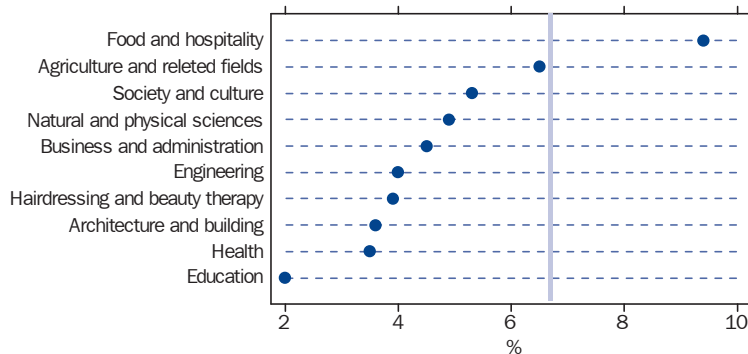
Unemployment is generally lower for people with qualifications than it is for those without qualifications. However, unemployment rates did vary by field of study for those with qualifications. People with qualifications in Education had the lowest unemployment rate (2%), while people with qualifications in Food and hospitality had the highest unemployment rate (9%).

Distribution of qualifications across industries

Not only does labour force status vary depending on field of qualification, so do the industries in which qualification holders work. It could be expected that industries with certain skill requirements would employ people educated in fields providing those skills.

For some fields of study, people mainly worked in the industry directly connected with their training. For example, more than half of the people with Health (73%), Education (68%), or Architecture and building (59%) qualifications were employed in the corresponding industries of Health and community services, Education, or Construction.

Unemployment rate by field of study of highest qualification, 2000



Source: ABS 2000 Transition from Education to Work Survey.

Leading industries of employment for persons aged 15–64 years by field of study, 2000

Highest field of study	Most common Industry		Second most common Industry		Third most common Industry	
	Industry	%	Industry	%	Industry	%
Business & administration	Property & business services	22.7	Manufacturing	10.9	Retail Trade	10.3
Health	Health & community services	72.6	Retail trade	5.2	Education	3.2
Education	Education	68.1	Health & community services	6.0	Retail Trade	3.9
Society & culture	Education	16.7	Health & community services	16.5	Property & business services	16.4
Natural & physical sciences	Property & business services	25.3	Education	15.1	Manufacturing	12.9
Engineering	Manufacturing	29.5	Retail trade	13.2	Property & business services	11.4
Architecture & building	Construction	58.8	Property & business services	10.3	Manufacturing	8.4
Agriculture	Agriculture, forestry & fishing	33.4	Government administration & defence	8.9	Construction	8.3
Miscellaneous fields(a)	Accommodation, cafes & restaurants	20.2	Personal & other services	18.8	Retail trade	15.5
Hairdressing & beauty therapy	Personal & other services	53.1	Retail trade	9.6	Accommodation, cafes & restaurants	6.7
Food & hospitality	Accommodation, cafes & restaurants	32.7	Retail trade	22.1	Manufacturing	11.0
Total with qualifications(b)	Property & business services	13.7	Health & community services	13.1	Manufacturing	12.9

(a) Includes other Miscellaneous fields.

(b) Includes people with qualifications whose fields were not stated, not codeable or inadequately described.

Source: ABS 2000 Transition from Education to Work Survey.

On the other hand, not all fields of study relate directly to a single industry. Less than a quarter of the people with qualifications in some fields were employed in any one industry. Instead they were spread across a number of industries. For example, similar proportions of people with qualifications in Society and culture were employed in the Education (17%), Health and community services (17%), and Property and business services (16%) industries.

Use of qualifications

Although labour force outcomes are often related to skills acquired through qualifications, not all qualifications are obtained for this purpose, and ultimately may not be used for this purpose. While some individuals may find having a qualification improves their ability to find employment, this may not always be in an occupation related to their field of study. Furthermore, for a variety of reasons, individuals may choose not to participate in the labour force, for instance, while raising families, or if retiring early.

It is not possible to detail the occupational use of qualifications for all fields of study, but it is possible in a few fields to illustrate direct

linkages. In 2000, 77% of people with Natural and physical science qualifications were not in an occupation directly linked to their field of study. With relatively low proportions of people from this group not in the labour force (14%) and unemployed (4%), the largest proportion were working in occupations not directly related to science (59%).

Associated occupations

Some qualifications have direct links to certain occupations. For the purposes of this article, the selected types of qualification are regarded as being directly associated with the following occupations from the Australian Standard Classification of Occupations (ASCO) Second Edition (ABS Cat. no. 1220.0):

- ◆ *Computer science*: Information technology managers; Computing professionals; Computing support technicians; and Keyboard operators.
- ◆ *Natural and physical sciences*: Natural and physical science professionals; and Medical and science technical officers.
- ◆ *Teaching*: all Education professionals (including School teachers), Education managers; and Education aides.
- ◆ *Nursing*: Nursing professionals; Enrolled nurses; Health services managers; and Personal care and nursing assistants.

Labour force characteristics of persons aged 15–64 years for selected fields of study, 2000

Selected fields of study	Employed		Unemployed(a)	Not in the labour force	Total	'000
	In associated occupations	Not in associated occupations				
	%	%	%	%	%	
<i>Health</i>						
Nursing	55.3	21.0	2.6	21.0	100.0	330.2
<i>Education</i>						
Teaching	54.2	28.3	1.7	15.8	100.0	320.6
<i>Natural and physical sciences</i>						
Computer science	36.4	45.4	5.5	12.8	100.0	179.3
Selected Natural and physical sciences(b)	23.2	59.0	3.6	14.2	100.0	210.0

(a) The proportion of the population which was unemployed. Note that this is not an unemployment rate.

(b) Excluding Computer science, and Maths and statistics.

Source: ABS 2000 Transition from Education to Work Survey.

The occupations of people with Computer science qualifications varied considerably, with 36% of this group employed in occupations that appeared directly connected with their qualifications. However, given the widespread use of information technology in the workplace, these qualifications are likely to have application across a broad range of occupations. Around 13% of people with Computer science qualifications were not in the labour force and 6% were unemployed.

In 2000, 54% of people with school teacher training were working in fields directly associated with teaching, including 48% working as school teachers. Of all people with teaching qualifications, 16% were not in the labour force and 2% were unemployed.

The proportion not in the labour force is partly related to the high numbers of females educated in this field of study.

Of people with nursing qualifications, 55% were in occupations associated with nursing such as nursing professionals, enrolled nurses, or carers or aides. However, of all people with nursing qualifications, there was a high proportion not in the labour force (21% compared with an average of 15% for all people with qualifications). As with teaching, this partly reflects the high proportion of women with qualifications in this area.

Combining study and work

EDUCATION AND WORK

Between 1990 and 2000, the number of Australians combining study and work increased by 333,300. Full-time students working part-time accounted for 64% of this growth.

There are a range of reasons people may choose to participate in both study and work at different stages in their lives. For younger students, working part-time may provide a source of personal income and therefore a certain level of independence, as well as work experience which may enhance future employment opportunities. For people already in the workforce, study can be a way of acquiring new skills or upgrading them in order to remain competitive in the labour market. Along with increasing numbers of students, the last decade of the 20th century saw increases in the number of students who were both studying and working.

Over the 1990s, the number of students participating in post-compulsory schooling increased by 28%, with students of all ages between 15 and 64 years contributing to this increase (see *Australian Social Trends 2000*, Beyond compulsory schooling, pp. 93–97). Over the same period, the proportion of people who were both working and studying increased from 55% to 58% (1.3 million people in 2000). However, the way that students combined their study and work commitments reflects the diversity in their ages, work experience, previous level of study and family situations. Furthermore, growth in the numbers of students combining study and work did not occur across all combinations of study and work.

Combinations of study and work

Most people combining study and work fall into two main groups: full-time students who undertake part-time work, and full-time workers undertaking part-time study. In

Study and work

The data in this article come from the ABS Transition from Education to Work Survey which is conducted by the ABS annually in May. The most recent data available come from the survey conducted in May 2000.

The survey provides information on the education and labour force participation of persons aged 15–64 years, including those attending an educational institution either full-time or part-time who were employed (either full-time or part-time).

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.

Persons employed full-time are those who usually work 35 hours a week or more and others who, although usually working less than 35 hours a week, worked 35 hours or more during the reference week of this survey.

Persons employed part-time are those who usually work less than 35 hours a week and who did so during the reference week of this survey.

Average number of hours worked are calculated as the sum of all the hours worked divided by the number of people who worked, during the reference week of this survey.

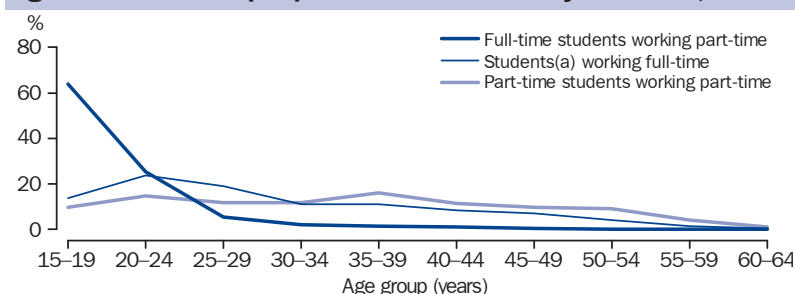
2000, 42% and 44% of working students respectively fell into these categories. While these combinations of study and work were also predominant in 1990, the proportion of full-time students who work part-time has increased (from 34%), while the proportion of part-time students working full-time has decreased (from 53%).

People who combine study and work

	1990		1995		2000	
	'000	%	'000	%	'000	%
Full-time students						
Working full-time	32.2	3.3	29.7	2.5	35.1	2.7
Working part-time	329.4	33.9	407.1	34.9	542.9	41.6
Part-time students						
Working full-time	511.5	52.6	599.3	51.4	573.6	43.9
Working part-time	99.4	10.2	130.1	11.2	154.2	11.8
Total people who study and work	972.5	100.0	1 166.1	100.0	1 305.8	100.0
As a proportion of all students	..	54.8	..	57.0	..	57.8

Source: ABS Transition from Education to Work Survey, 1990, 1995 and 2000.

Age distribution of people who combine study and work, 2000



(a) Either full-time or part-time.

Source: ABS 2000 Transition from Education to Work Survey.

In 2000, close to 12% of working students were combining part-time work and part-time study. Relatively few students (less than 3%) both worked and studied on a full-time basis, and for the remainder of this article data relating to this group will be combined with full-time workers who study part-time.

The ages of students across the different combinations of study and work varied considerably. In 2000, most full-time students working part-time (89%) were aged under 25 years. However, students working full-time were typically older (63% were aged 25 years and over), while part-time students working part-time were distributed in similar proportions across the ages of 15 to 54 years.

Full-time students working part-time

In the five years from 1995 to 2000, the number of full-time students working part-time grew from 407,100 to 542,900

Full-time students working part-time		
Selected characteristics	1995	2000
	%	%
Females	60.1	58.0
Married	3.6	6.3
Born overseas	12.7	18.1
With post-school qualifications	9.2	13.7
Attending school	46.0	41.5
Attending higher education	40.4	45.2
Attending TAFE	11.1	10.8
Attending other institutions	2.5	2.6
	years	years
Median age	18	18
	hours	hours
Average hours worked	10	11

Source: ABS Transition from Education to Work Survey, 1995 and 2000.

people — a greater rate of growth than for any other group of people combining study and work. In keeping with their young age profile, full-time students working part-time were commonly still at school or were continuing with study after completing compulsory schooling. In 2000, 42% of full-time students working part-time were still attending school and 64% were aged 15–19 years. A large proportion of this group was not yet old enough to hold a qualification. Accordingly, this group was the least likely to hold post-school qualifications (14%) of all people combining study and work.

Many young students still live with their parents and are dependent on them to some extent (see *Australian Social Trends 2000*, Young adults living in the parental home, pp. 39–42). In 2000, few full-time students working part-time were married (6%), and on average they were not working enough hours (11 hours per week) to earn a full-time wage.

Between 1995 and 2000, the proportion of full-time students working part-time attending higher education institutions increased from 40% to 45%. This partly reflects increased participation levels over the period (see *Australian Social Trends 2001*, Education: national summary table pp. 92–93).

Students working full-time

In 2000, 608,700 students were working full-time, making up almost half of all people combining study and work. However, their numbers had declined slightly since 1995 (by 20,300).

Students working full-time		
Selected characteristics	1995	2000
	%	%
Females	38.2	41.9
Married	47.5	44.7
Born overseas	18.4	19.2
With post-school qualifications	58.8	55.9
Attending higher education	38.0	35.0
Attending TAFE	43.8	43.2
Attending other institutions	17.4	21.3
	years	years
Median age	29	28
	hours	hours
Average hours worked	42	43

Source: ABS Transition from Education to Work Survey, 1995 and 2000.

Even if already qualified, further study while working can provide a person with new skills and increase their competitiveness in the labour market or for a particular job. In 2000, over half of the students working full-time already held a post-school qualification and 63% were aged 25 years and over. In addition, 30% of these students were employed as Professionals and 25% as Trade and related workers — occupations where the job holder would usually be expected to already hold a qualification.

Almost half of the full-time workers who were studying were married (45%). The median age of full-time workers who were studying was 28 years and a relatively high number of hours were spent in paid employment each week (43 hours on average). Less than half (42%) of this group were women, which may reflect the fact that many married women in this age group have caring responsibilities for young children. However, over the five years to 2000, the proportion of this group who were women increased from 38%, in keeping with the trend toward delayed parenthood and increased female labour force participation (see *Australian Social Trends 2001*, Older mothers pp. 55–58).

Close to half the students who worked full-time did not have post-school qualifications. Almost 14% of full-time workers who were studying were aged 15–19 years and overall the group was more likely to be attending TAFE (43%) than any other educational institution. It is likely that some of these students were in trainee schemes or undertaking apprenticeships centred around a combination of full-time work and part-time study (see also *Australian Social Trends 2000*, Developments in contracted training: apprenticeships and trainees, pp. 102–106).

Part-time students working part-time

Despite the increasing proportion of enrolments in full-time study since 1989, over the ten years to 2000 the number of part-time students working part-time increased from 99,400 to 154,200. These students worked more hours per week on average (19 hours) than those committed to full-time study working part-time (11 hours).

Part-time students working part-time

Selected characteristics	1995	2000
	%	%
Females	76.4	77.4
Married	52.9	57.6
Born overseas	19.6	24.7
With post-school qualifications	52.9	53.2
Attending higher education	33.6	31.6
Attending TAFE	46.7	41.1
Attending other institutions	18.2	25.9
	years	years
Median age	34	35
	hours	hours
Average hours worked	19	19

Source: ABS Transition from Education to Work Survey, 1995 and 2000.

Participation in either study or work can be a full-time commitment in its own right. The combination of part-time work with part-time study provides not only balance between the two activities themselves but also the opportunity to meet family commitments and participate in leisure and other activities. This option was one chosen by equal numbers of students across a range of ages, and almost equally by people with and without post-school qualifications, suggesting a variety of reasons for this choice.

That said, more than three quarters of people both studying and working on a part-time basis were women, and close to half had dependent children (compared with 25% of students working full-time and 4% of full-time students working part-time) suggesting that many students in this group were combining part-time work and part-time study with family commitments. In keeping with this, 58% were married.

In 2000, some 25% of these working students were born overseas. This was the highest proportion of overseas born in any of the three groups of working students (although it was only slightly higher than the proportion of overseas born in the Australian population (see *Australian Social Trends 2001*, Population: national summary table, p. 2).

Work

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PAID WORK

Changes experienced at work	125
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In 1998, the majority of employees experienced some change to their work. Most commonly these changes related to new, different or extra duties and more responsibility, and some experienced promotions, transfers and changes to the hours they worked. This article examines the demographic and employment characteristics of employees who experienced changes to their work.

Changing employer or business	129
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In the year ending February 2000, 1.2 million Australians changed employer or business. This article discusses the characteristics of people who change employer or business, and their reasons for doing so. It also presents information on the numbers of people who, in changing employer or business, also changed their occupation, the industry they were working in, or their full-time/part-time status.

Trends in employment population ratios	133
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Changes in Australia's employment population ratios over the past two decades reflect a variety of social and labour market trends. This article discusses the impact of the rise in the employment of women, the decline in the employment of men, and the shift towards part-time work on the employment population ratios of men and women aged 15–64 years.

UNDER-UTILISED LABOUR

Unemployment trends and patterns	137
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Between August 1966 and August 2000, the number of unemployed Australians increased from 90,300 to 624,000. Although the unemployment rate has fallen in recent years, it still remains higher than levels experienced in the late 1960s. This article focusses on the levels of unemployment experienced by different population groups across Australia since 1966.

UNPAID WORK

Time spent on unpaid household work	142
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Almost everyone performs some form of unpaid household work each day. This article looks at the proportion of people performing unpaid household work and the time they devote to these activities. Variations across sex, age, living arrangements and labour force status are discussed.

Work: national summary

LABOUR FORCE	Units	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total labour force	'000	r8 342	r8 488	r8 514	r8 569	r8 690	r8 881	r9 061	r9 169	r9 256	r9 395	9 574
Females (of total labour force)	%	41.4	41.7	41.9	41.9	42.3	42.7	43.0	43.1	43.2	43.3	43.6
Participation rate	%	63.5	63.6	r62.9	62.6	r62.7	63.3	r63.6	r63.4	63.1	63.1	63.4
Male participation rate	%	75.5	75.3	r74.3	r73.8	73.6	73.8	73.8	73.4	r72.9	72.8	72.5
Female participation rate	%	51.8	52.3	51.9	51.7	52.2	53.2	53.8	r53.8	53.6	r53.8	54.5
Females in the labour force with children aged 0–4 years (of all females with children aged 0–4 years)	%	46.3	44.5	46.6	45.3	46.1	49.3	47.4	47.7	48.2	47.1	49.3
Standardised participation rate	%	63.6	63.7	63.1	62.8	63.0	63.6	64.0	63.9	63.7	63.8	64.1
Participation rate of persons aged 15–19 years	%	r60.9	58.6	55.7	55.1	55.8	58.8	59.2	59.0	57.7	58.3	59.3
Participation rate of persons aged 20–24 years	%	r83.9	84.0	82.6	82.1	82.1	82.8	83.0	82.5	82.0	82.2	82.2
Median age of male labour force	years	35.8	36.1	36.3	36.5	36.7	36.9	37.1	37.2	37.5	37.7	37.8
Median age of female labour force	years	33.7	34.2	34.6	34.9	35.1	35.3	35.7	36.1	36.2	36.5	36.8
EMPLOYED PEOPLE	Units	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Total employed	'000	7 832	7 782	7 637	7 634	7 781	8 093	8 301	8 381	8 496	8 681	8 917
Employment population ratio	%	59.6	58.3	56.5	55.8	56.2	57.7	58.3	58.0	57.9	58.3	59.0
Part-time work												
Part-time workers (of total employed)	%	r21.1	r21.8	r23.1	r23.7	r24.0	r24.5	r24.7	r25.3	r25.7	r26.1	26.3
Male part-time workers (of total male employed)	%	8.0	8.5	9.7	10.2	10.4	10.9	11.0	11.7	12.0	12.5	12.5
Female part-time workers (of total female employed)	%	39.5	40.2	41.1	41.7	42.0	42.5	42.5	42.9	43.3	43.5	43.7
Female part-time workers (of total part-time employed)	%	77.6	77.2	75.6	r75.0	r74.9	74.5	r74.5	r73.6	r73.3	r72.6	72.9
Average hours worked per week by part-time workers	hours	r14.8	r14.8	r15.0	r15.0	r15.1	r15.3	r15.2	r15.4	r15.5	r15.6	15.7
Part-time workers who prefer more hours (of all part-time employed)	%	18.0	21.7	26.4	29.2	28.3	26.1	26.1	26.2	25.8	25.1	23.9
Part-time workers who worked 15 hours or less per week (of all part-time employed)	%	54.1	53.9	53.3	53.4	52.8	51.8	52.1	51.1	50.8	50.8	49.8
Average hours worked per week by full-time workers	hours	r39.8	r39.9	r40.6	r40.3	r40.7	r40.9	r40.5	r41.0	r41.2	r41.1	41.4
Full-time workers working more than 49 hours per week (of all full-time employed)	%	20.4	20.7	22.1	22.4	23.7	24.3	23.7	24.4	24.9	24.9	25.5
Males employed without leave entitlements (of all male employees)	%	12.7	13.5	15.6	16.4	18.1	18.5	21.2	20.9	22.6	22.0	23.0
Females employed without leave entitlements (of all female employees)	%	28.2	29.0	30.9	30.6	30.8	30.8	32.0	31.7	32.0	31.8	32.3
Employees without leave entitlements (of all employees)	%	19.4	20.3	22.3	22.7	23.7	24.0	26.1	25.8	26.9	26.4	27.3
Job mobile in previous year	%	18.3	14.8	12.8	n.a	14.5	n.a	15.8	n.a	14.3	n.a.	15.8
Employers and own account workers (of total employed)	%	14.2	14.6	15.0	15.2	15.2	14.6	14.6	13.9	14.3	13.6	13.5
Industry												
Employed in service industries (of total employed)	%	68.8	69.7	71.1	r70.8	r71.0	r71.5	r72.4	72.6	r72.7	r73.4	73.1
Employed in manufacturing industries (of total employed)	%	r15.3	14.7	14.2	14.3	14.1	13.8	13.4	13.5	13.2	12.5	12.5
Sector												
Private sector employees (of all employees)	%	73.2	71.9	72.9	73.6	75.4	76.7	77.7	78.3	79.2	79.7	80.0
Employed in small business (of all private sector employed)	%	n.a.	n.a.	48.3	49.1	48.7	47.5	47.0	46.2	47.4	46.8	n.a.

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	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Occupation												
Employed in highest skill (ASCO Skill Level 1) occupations(a)	%	23.7	24.4	24.9	25.1	24.9	24.4	24.2	25.2	25.2	25.0	25.3
Employed in lowest skill (ASCO Skill Level 5) occupations(a)	%	19.3	18.9	19.1	19.1	19.3	19.7	20.4	20.3	20.2	19.9	19.6
Females (of all employed in highest skill (ASCO Skill Level 1) occupations(a))	%	37.0	37.8	38.4	39.1	38.0	39.2	41.2	41.9	41.1	41.5	42.7
INDUSTRIAL RELATIONS												
Trade union membership	%	40.5	n.a.	39.6	37.6	35.0	32.7	31.1	30.3	28.1	25.7	25.6
Median age of trade union members	years	36	n.a.	37	37	37	38	38	38	39	40	41
Working days lost due to industrial disputes (per 1,000 employees)	days	207	248	147	100	76	79	131	75	72	87	60
UNEMPLOYMENT												
Total unemployed	'000	r494.2	r684.2	r854.8	r914.1	r888.5	r768.6	r736.5	r764.9	r737.8	r691.7	634.5
Long-term unemployed (of total unemployed)	%	r21.6	r20.2	r27.4	r33.7	r34.6	r32.3	r27.5	r27.0	r29.3	r29.7	28.7
Unemployment rate	%	r5.9	r8.1	r10.0	r10.7	r10.2	r8.7	r8.1	r8.3	r8.0	r7.4	6.6
Male unemployment rate	%	r5.6	r8.2	r10.6	r11.4	r10.7	r8.9	r8.5	r8.6	r8.2	r7.6	6.7
Female unemployment rate	%	r6.4	r7.8	r9.3	r9.6	r9.5	r8.3	r7.6	r8.0	r7.6	r7.1	6.5
Unemployed looking for full-time work												
Persons aged 15–19 years (of all persons aged 15–19)	%	5.8	r7.6	9.1	r8.9	8.6	r7.3	r7.1	r6.9	6.5	r5.7	5.0
Persons aged 20–24 years (of all persons aged 20–24)	%	r6.2	r9.0	r11.3	r11.6	r10.8	r8.7	r8.5	r8.9	r8.6	r7.6	6.3
Median duration of unemployment – males	weeks	18	19	29	34	35	31	26	25	28	27	23
Median duration of unemployment – females	weeks	11	14	21	25	24	21	18	18	20	r18	13
Unemployment rate – capital cities	%	5.6	8.1	10.2	10.8	10.3	8.8	8.2	8.2	7.6	7.1	6.3
Unemployment rate – balance of States and Territories	%	7.1	8.7	10.6	11.2	11.0	9.2	8.9	9.4	9.4	8.6	7.9
NOT IN THE LABOUR FORCE												
Marginally attached	'000	752.5	819.3	846.4	907.8	773.3	862.8	879.6	890.5	922.6	883.2	n.a.
Discouraged jobseekers	'000	100.9	138.2	145.6	147.4	106.5	111.9	118.9	118.4	110.9	105.8	n.a.
TRANSITION TO RETIREMENT												
Participation rate of males aged 55–59 years	%	r74.9	75.2	72.9	72.5	r72.5	r73.5	73.0	r73.1	72.5	73.2	72.3
Participation rate of females aged 55–59 years	%	32.3	35.7	35.7	36.4	38.0	38.7	41.3	42.3	42.3	43.6	46.5
Participation rate of males aged 60–64 years	%	49.9	50.6	50.2	48.5	r49.0	47.7	46.6	45.4	45.8	45.9	46.5
Participation rate of females aged 60–64 years	%	15.1	15.9	14.9	14.4	15.8	16.0	r17.6	18.3	19.1	18.4	20.3
Persons retired from full-time work of all persons aged 50–64 years	%	n.a.	n.a.	46.4	n.a.	46.1	n.a.	n.a.	45.0	n.a.	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	1999–2000	3 179	2 387	1 805	732	984	218	97	174	9 574
Females (of total labour force)	%	1999–2000	43.2	44.0	43.8	43.6	43.1	44.0	43.8	47.3	43.6
Participation rate	%	1999–2000	62.1	63.0	65.0	60.9	66.7	58.8	69.4	72.6	63.4
Male participation rate	%	1999–2000	71.7	72.3	73.6	70.2	75.8	67.7	74.4	78.6	72.5
Female participation rate	%	1999–2000	52.7	54.1	56.4	51.9	57.5	50.3	63.8	66.9	54.5
Females in the labour force with children aged 0–4 years (of all females with children aged 0–4 years)	%	2000	50.2	49.3	48.4	43.9	48.4	46.2	54.3	63.1	49.1
Standardised participation rate	%	1999–2000	63.4	64.1	65.1	63.6	65.6	61.3	61.3	69.2	64.1
Participation rate of persons aged 15–19 years	%	1999–2000	56.3	57.3	64.6	59.2	65.4	54.9	55.3	60.3	59.3
Participation rate of persons aged 20–24 years	%	1999–2000	81.6	82.5	82.7	82.9	82.8	78.2	72.1	86.6	82.2
Median age of male labour force	years	1999–2000	37.9	37.6	37.8	38.2	37.7	38.3	36.6	37.3	37.8
Median age of female labour force	years	1999–2000	36.8	36.6	36.5	37.8	36.7	38.2	35.3	37.3	36.8
EMPLOYED PEOPLE	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
Total employed	'000	1999–2000	2 994	2 229	1 665	673	923	199	92	165	8 917
Employment population ratio	%	1999–2000	58.5	58.9	59.9	56.0	62.5	53.7	66.1	68.8	59.0
Part-time work											
Part-time workers (of total employed)	%	1999–2000	24.2	26.9	27.0	29.5	27.9	29.5	21.0	25.2	26.3
Male part-time workers (of total male employed)	%	1999–2000	11.6	13.2	12.4	14.8	12.9	13.1	13.1	16.2	12.5
Female part-time workers (of total females employed)	%	1999–2000	40.7	44.4	45.8	48.3	47.5	50.0	31.2	35.1	43.7
Female part-time workers (of total part-time employed)	%	1999–2000	72.8	72.6	74.2	71.7	73.8	75.5	64.8	66.3	72.9
Average hours worked per week by part-time workers	hours	1999–2000	15.8	15.4	16.0	15.9	15.3	15.4	17.5	15.7	15.7
Part-time workers who prefer more hours (of all part-time employed)	%	1999–2000	22.8	22.7	26.2	27.5	23.3	26.4	17.6	23.2	23.9
Part-time workers who worked 15 hours or less per week (of all part-time employed)	%	1999–2000	48.7	51.3	49.1	49.8	51.8	50.5	36.0	50.2	49.8
Average hours worked per week by full-time workers	hours	1999–2000	41.4	41.4	41.9	40.7	41.6	40.3	41.5	39.5	41.4
Full-time workers working more than 49 hours per week (of all full-time employed)	%	1999–2000	25.3	25.2	26.9	23.5	26.6	22.6	26.4	20.8	25.5
Males employed without leave entitlements (of all male employees)	%	2000	21.5	21.9	26.4	24.7	23.8	21.0	20.5	22.8	23.0
Females employed without leave entitlements (of all female employees)	%	2000	29.2	30.3	38.9	39.3	31.7	35.4	29.1	26.1	32.3
Employees without leave entitlements (of all employees)	%	2000	25.0	25.7	32.2	31.3	27.5	27.7	24.5	24.4	27.3
Employers and own account workers (of total employed)	%	1999–2000	12.9	12.1	15.5	15.0	15.1	14.9	8.6	8.1	13.5
Industry											
Employed in service industries (of total employed)	%	1999–2000	74.1	72.4	72.1	70.4	72.2	71.1	79.4	90.4	73.1
Employed in manufacturing industries (of total employed)	%	1999–2000	12.1	15.8	10.8	14.6	10.3	12.6	4.2	3.4	12.5
Sector											
Private sector employees (of all employees)	%	2000	80.8	83.9	77.8	78.8	80.0	73.6	72.0	54.2	80.0
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 <i>CONTINUED</i>	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
Occupation											
Employed in highest skill (ASCO Skill Level 1) occupations	%	2000	25.9	27.2	22.4	24.9	22.8	23.3	20.7	35.7	25.3
Employed in lowest skill (ASCO Skill Level 5) occupations	%	2000	18.8	18.7	21.2	22.2	19.9	22.2	22.5	13.6	19.6
Females (of all employed in highest skill (ASCO Skill Level 1) occupations)	%	2000	42.5	43.6	43.3	40.2	40.8	44.6	52.8	42.7	42.7
INDUSTRIAL RELATIONS	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
Trade union membership	%	2000	26.9	25.4	25.6	26.7	20.4	32.0	23.6	24.2	25.6
Median age of trade union members	years	2000	41	40	41	40	41	41	41	42	41
Working days lost due to industrial disputes (per 1,000 employees)	days	2000	64	69	64	28	68	7	9	9	60
UNEMPLOYMENT	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
Total unemployed	'000	1999–2000	185.0	157.6	139.5	58.5	61.5	19.1	4.3	9.1	634.5
Long-term unemployed (of total unemployed)	%	1999–2000	28.8	31.1	26.0	36.2	19.1	40.6	14.5	23.5	28.7
Unemployment rate	%	1999–2000	5.8	6.6	7.7	8.0	6.2	8.8	4.4	5.2	6.6
Male unemployment rate	%	1999–2000	5.8	6.6	7.7	8.4	6.6	9.6	4.1	5.9	6.7
Female unemployment rate	%	1999–2000	5.8	6.6	7.7	7.5	5.8	7.7	4.8	4.5	6.5
Unemployed looking for full-time work											
Persons aged 15–19 years (of all persons aged 15–19)	%	1999–2000	4.3	4.6	5.7	6.9	5.3	7.2	3.4	3.8	5.0
Persons aged 20–24 years (of all persons aged 20–24)	%	1999–2000	5.8	5.9	7.6	7.8	6.0	9.1	3.2	4.6	6.3
Median duration of unemployment – males	weeks	1999–2000	23	25	20	30	15	36	* *4	16	23
Median duration of unemployment – females	weeks	1999–2000	14	13	12	21	9	20	* *7	7	13
Unemployment rate – capital city	%	1999–2000	4.8	6.6	7.4	8.3	6.7	9.2	4.5	5.5	6.3
Unemployment rate – balance of State	%	1999–2000	8.4	7.8	8.5	8.0	6.0	9.2	n.a.	n.a.	7.9
NOT IN THE LABOUR FORCE	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
Marginally attached	'000	1999	271.4	223.9	173.7	76.2	84.6	33.9	*5.2	14.2	883.2
Discouraged jobseekers	'000	1999	35.0	26.9	21.1	8.7	8.0	* *4.4	* *0.2	* *1.5	105.8
TRANSITION TO RETIREMENT	Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
Participation rate of males aged 55–59 years	%	1999–2000	71.3	70.5	75.1	71.4	76.1	67.6	71.9	77.2	72.3
Participation rate of females aged 55–59 years	%	1999–2000	45.6	46.0	45.4	46.3	52.0	42.3	51.2	61.5	46.5
Participation rate of males aged 60–64 years	%	1999–2000	45.6	47.2	48.1	39.5	52.4	37.5	48.1	56.0	46.5
Participation rate of females aged 60–64 years	%	1999–2000	18.8	20.9	21.6	19.6	21.1	15.7	23.2	38.9	20.3
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* (ABS Cat. no. 6203.0).

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* (ABS Cat. no. 6220.0).

Employed

persons aged 15 years 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* (ABS Cat. no. 6203.0).

Employee

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* (ABS Cat. no. 6203.0).

Employees without leave entitlements

employees who were not entitled to either paid holiday leave or sick leave in their main job.

Reference: *Weekly Earnings of Employees, Australia* (ABS Cat. no. 6310.0). For data after 1998, *Employee Earnings, Benefits and Trade Union Membership, Australia* (ABS Cat. no. 6310.0).

Employer

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* (ABS Cat. no. 6203.0).

Employment population ratio

for any group, the number of employed persons expressed as a percentage of the civilian population aged 15 years and over in the same group.

Reference: *Labour Force, Australia* (ABS Cat. no. 6203.0).

Unemployed looking for full-time work

unemployed persons actively 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* (ABS 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* (ABS 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* (ABS Cat. no. 6321.0).

Job mobile

Persons aged 15–69 years who either

- change employer/business with or without a change in locality; or
- change locality without a change of employer/business.

Reference: *Labour Mobility, Australia* (ABS Cat. no. 6209.0).

Labour force

for any group, persons who were employed or unemployed, as defined.

Reference: *Labour Force, Australia* (ABS Cat. no. 6203.0).

Long-term unemployed

persons unemployed for a period of 52 weeks or longer.

Reference: *Labour Force, Australia* (ABS 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* (ABS 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 or would have been if child care was available.

Reference: *Persons Not in the Labour Force, Australia* (ABS 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* (ABS 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* (ABS 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* (ABS 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* (ABS 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* (ABS 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* (ABS 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* (ABS Cat. no. 6248.0).

Retired from full-time work

persons 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* (ABS 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* (ABS 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* (ABS 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.

Trade union membership

employees with membership of an organisation (or employee of professional association), the principal activities of which include the negotiation of rates of pay and conditions of employment for its members.
Reference: *Trade Union Members, Australia* (ABS Cat. no. 6325.0). For data after 1998, *Employee Earnings, Benefits and Trade Union Membership, Australia* (ABS Cat. no. 6310.0).

Unemployed

persons aged 15 years and over who were not employed during the reference week, but who had actively looked for work and were available to start work.
Reference: *Labour Force, Australia* (ABS Cat. no. 6203.0).

Unemployment rate

for any group, the number of unemployed persons is expressed as a percentage of the labour force in the same group.
Reference: *Labour Force, Australia* (ABS Cat. no. 6203.0).

Working days lost

total working days lost by employees directly or indirectly involved in industrial disputes.
Reference: *Industrial Disputes, Australia* (ABS Cat. no. 6321.0).

Changes experienced at work

PAID WORK

In 1998, 55% of employees who had been with their current employer for one year or more reported changes to their work over the past year.

Over the past 10 to 20 years the concept of a career has altered. At the same time, the Australian labour market has undergone many changes, including the introduction of multiskilling and the increase in part-time work, and many employees have experienced broader job descriptions and more diverse working arrangements. Both men and women have had more varied working lives as a result.

Employees experience career changes not only when they move between employers (see *Australian Social Trends 2001*, Changing employer or business, pp. 129–132), but also while working for the same employer. This article focuses on changes experienced in the workplace (promotions, transfers, changes in hours, changes in location, new, different or extra duties, and more responsibility) by employees who have been working with the same employer for one year or more.

Changes in work

In 1998, 77% of all employees had worked with their current employer for one year or more, and of these employees, 55% had experienced some change(s) to their work in the past year. In many cases more than one change was experienced, and often these changes were related. For example, a promotion usually resulted in new, different or extra duties and more responsibility.

In 1998, the most commonly experienced changes were those involving the range of tasks and responsibilities associated with a particular job. Of all employees working with

Career experience

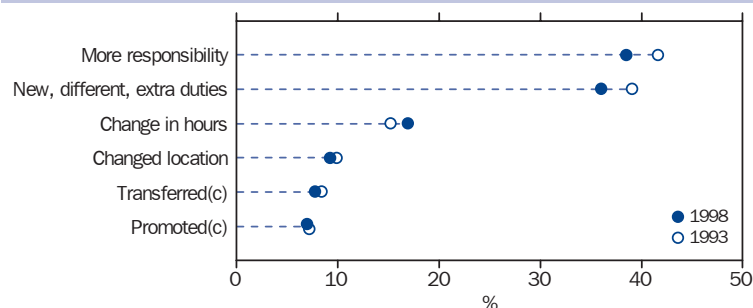
This article draws on data from the ABS Career Experience Survey, which was last conducted in November 1998 as a supplement to the ABS monthly Labour Force Survey. The survey collects information on various aspects of career experience, including changes experienced at work during the last year for employees who have worked with their current employer for one year or more. These changes include:

- ◆ *promotion* – a permanent increase in wage or salary and an increase in responsibility or the complexity of work;
- ◆ *transfer* – a change in position that does not involve a change in wage or salary or level of responsibility;
- ◆ *change in hours* – a change in the number of hours usually worked per week;
- ◆ *changed location* – a change in the place of business across states, cities, and towns, and across different suburbs within cities and major towns. Movements within the same building or between different buildings in the same complex are not considered to be a change in location;
- ◆ *new, different or extra duties* – a perceived change in the scope of tasks performed at work; and
- ◆ *more responsibility* – a perceived increase in the level of responsibility experienced at work.

An *employee* is a person who works for a public or private employer and receives remuneration in wages, salary, commission, tips or piece-rates, or who works as an *owner-manager of an incorporated enterprise*, that is, an individual who works in their limited liability company, either with or without employees. Owner-managers of incorporated enterprises are estimated to make up 9% of total employees.¹ In the survey, they were not asked if they had been promoted or transferred. School students aged 15–20 years and persons working solely for payment in kind were excluded completely from the survey.

Casual employees are those who are not entitled to paid annual or sick leave, while *permanent* employees are those who are entitled to both kinds of paid leave.

Employees(a) experiencing changes in work in the past year(b)



- (a) Employees working with current employer for one year or more.
 (b) Employees may have experienced more than one change in the past year.
 (c) Excludes owner-managers of incorporated enterprises who were not asked if they were promoted or transferred.

Source: *Career Experience, Australia, 1993 and 1998* (ABS Cat. no. 6254.0).

their current employer for one year or more, 38% reported an increase in responsibility and 36% reported new, different or extra duties.

While for some employees, new duties and responsibilities were associated with promotions (7%) and transfers (8%), the majority of employees who took on more tasks and responsibilities did not actually

Employees(a): whether experienced changes in work by selected employee characteristics, 1998

	Working full-time		Working part-time		Total
	Permanent	Casual	Permanent	Casual	
Types of changes	%	%	%	%	%
Promoted(b)	8.9	2.6	3.5	1.3	7.0
Transferred(b)	9.4	*1.8	6.5	2.5	7.8
Change in hours	14.1	15.2	31.3	23.0	17.0
Changed location	9.7	9.7	7.6	8.3	9.3
New, different, extra duties	40.5	20.3	33.8	20.1	36.1
More responsibility	43.1	24.4	32.4	19.6	38.0
Total experiencing change(c)	57.7	41.8	56.9	42.6	54.7
	'000	'000	'000	'000	'000
Total employees(a)	3 846.3	345.1	534.7	670.3	5 396.5

(a) Employees working with current employer for one year or more.
 (b) Excludes owner-managers of incorporated enterprises who were not asked if they had been promoted or transferred.
 (c) Employees may have experienced more than one change in the past year and therefore components do not add to total.

Source: Career Experience, Australia, 1998 (ABS Cat. no. 6254.0); ABS 1998 Career Experience Survey.

change positions. In other words, changes within jobs were more common than changes between jobs. This could be associated with workers taking on more tasks and responsibilities as they become increasingly experienced in a job. It could also be associated with restructuring and the introduction of new technology, which have made existing job descriptions broader and more diverse.² In addition to these changes, 17% of employees working with their current employer for one year or more experienced either an increase or a decrease in the number of hours usually worked per week.

Little has altered between 1993 and 1998 in terms of the types of changes experienced by employees. There have been slight decreases in the proportions of people who reported experiencing new, different or extra duties

and more responsibility at work over this time period, but the proportions of employees experiencing other changes to work have remained stable over the 1990s.

Employee characteristics

Career experience varied widely according to whether employees were full-time or part-time, and whether they were permanent or casual. In 1998, permanent employees were the most likely to have experienced some change(s) to their work (58% of permanent full-time employees and 57% of permanent part-time employees).

Employees who were both full-time and permanent were the most likely to have experienced more responsibility (43%), new, different or extra duties (41%), transfers (9%), and promotions (9%).

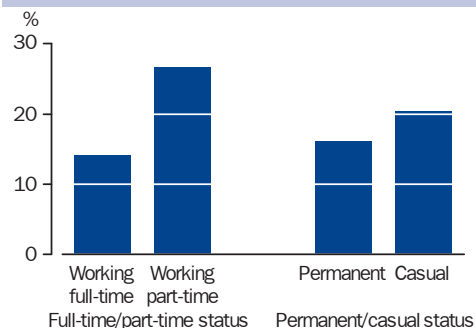
The change most commonly experienced by part-time employees was a change in hours (31% of part-time permanent employees and 23% of part-time casual employees). This included changes from full-time to part-time hours as well as variations to working hours for employees who were already part-time.

Length of time in current position

Around 6% of employees who had worked with their current employer for one year or more had changed positions in the last 12 months. Three quarters (76%) had been transferred while 59% had been promoted.

These employees were also more likely to have experienced change in terms of new, different or extra duties (83%), more

Employees(a) experiencing a change in hours, 1998



(a) Employees working with their current employer for one year or more.

Source: Career Experience, Australia, 1998 (ABS Cat. no. 6254.0).

Employees(a): whether experienced changes in work, 1998

	Years in current position					Total
	Less than 1	1-2	3-4	5-9	10 and over	
Types of changes	%	%	%	%	%	%
Promoted(b)	59.3	7.1	1.9	1.4	*0.5	7.0
Transferred(b)	76.2	5.9	2.3	1.5	*0.7	7.8
Change in hours	36.2	18.0	16.6	14.3	11.9	17.0
Changed location	24.1	9.5	8.0	8.5	6.4	9.3
New, different, extra duties	83.2	36.5	33.0	32.9	26.0	36.1
More responsibility	75.9	39.0	36.4	34.6	28.6	38.0
Total experiencing change(c)	99.4	56.1	53.7	50.5	42.8	54.7
	'000	'000	'000	'000	'000	'000
Total employees(a)	346.4	1 868.4	1 069.3	1 066.9	1 045.6	5 396.5

(a) Employees working with current employer for one year or more.

(b) Excludes owner-managers of incorporated enterprises who were not asked if they had been promoted or transferred.

(c) Employees may have experienced more than one change in the past year and therefore components do not add to total.

Source: ABS 1998 Career Experience Survey.

responsibility (76%), a change in hours (36%) and a change in location (24%) than employees who had worked in their current position for one year or more.

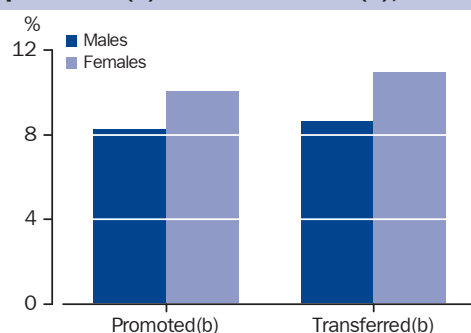
As years in current position increased, employees were less likely to have experienced changes at work. However, the proportions experiencing new, different or extra duties and more responsibility remained high after 10 years or more in the same position (26% and 29% respectively). New duties and responsibilities were therefore not restricted to employees who were new to their positions.

Experiences of men and women

The proportions of men and women who had experienced changes to their work were similar overall (53% of men and 57% of women). However, there were some differences between men and women in the types of changes experienced. These may be related to variations in work patterns which reflect the different social and family roles of men and women.

In 1998, women were more likely than men to have experienced new, different or extra duties (38% of women compared with 34% of men) or a change in hours (20% of women compared with 15% of men). This could be associated with women changing from full-time to part-time positions or vice versa to accommodate child care needs and experiencing changes to the content of jobs as a result. In keeping with this, a change in hours was more commonly experienced by women with children under 6 years (27%) than by women overall.

As discussed earlier, full-time permanent employees were more likely than other employees to have been promoted or transferred in the previous year. Within this group, women were more likely than men to have been promoted (10% compared with 8%) and transferred (11% compared with 9%). However, because women were less likely than men to have been employed on a full-time permanent basis (56% compared with 83%), the overall proportion of women promoted and transferred was similar to that of men.

Full-time permanent employees(a) promoted(b) and transferred(b), 1998

(a) Employees working with their current employer for one year or more.

(b) Excludes owner-managers of incorporated enterprises who were not asked if they had been promoted or transferred.

Source: Career Experience, Australia, 1998 (ABS Cat. no. 6254.0).

Employees(a): whether experienced changes in work by sex and age, 1998

	Age (years)					
	Males	Females	15–19	20–34	35–54	55 and over
Types of changes	%	%	%	%	%	%
Promoted(b)	7.1	6.9	5.8	10.7	5.4	2.2
Transferred(b)	7.4	8.2	7.0	11.0	6.5	3.2
Change in hours	14.7	19.7	21.3	19.2	15.9	12.5
Changed location	10.2	8.3	8.2	11.1	8.8	5.8
New, different, extra duties	34.3	38.3	35.8	40.5	35.5	22.7
More responsibility	37.8	38.2	40.5	43.4	37.1	21.7
Total experiencing change(c)	53.2	56.5	55.7	60.6	53.8	37.6
	'000	'000	'000	'000	'000	'000
Total employees(a)	3 000.3	2 396.2	156.0	1 935.5	2 776.8	528.1

(a) Employees working with current employer for one year or more.

(b) Excludes owner-managers of incorporated enterprises who were not asked if they had been promoted or transferred.

(c) Employees may have experienced more than one change in the past year and therefore components do not add to total.

Source: *Career Experience, Australia, 1998* (ABS Cat. no. 6254.0); ABS 1998 Career Experience Survey.

Age of employees

The types of changes experienced at work may reflect different stages in the working lives of employees, from when they first enter the labour force, to when they become established in their careers, to when they approach retirement. These stages tend to be associated with the age of employees.

Those aged 15–19 years were more likely to have experienced a change in hours than employees of any other age (21% of 15–19 year olds). Almost half (44%) of this age group were casual employees, many of whom were full-time students. Few promotions and transfers were experienced by employees aged 15–19 years (6% and 7% respectively). This age group comprises employees who are beginning their careers and therefore have only worked with their current employer for a short period of time.

People aged 20–34 years were the most likely to have experienced some change (61%), as these employees have the highest incidence of career advancement and experience a greater range of tasks and responsibilities as a result. This age group was the most commonly promoted (11%) and transferred (11%), partly a reflection of the higher proportion who were full-time permanent employees (67%).

Fewer changes at work were experienced by employees in older age groups, as workers became more established in their careers and the opportunities for promotion and transfer narrowed. However, many employees aged 35 years and over still experienced some change to their work. In particular, large proportions experienced more responsibility (37% of 35–54 year olds and 22% of employees aged 55 years and over) and new, different or extra duties (36% of 35–54 year olds and 23% of employees aged 55 years and over). Changes at work were therefore present regardless of age and length of time spent in the workforce.

Endnotes

- 1 Australian Bureau of Statistics 2000, *Employment Arrangements and Superannuation, April to June 2000*, Cat. no. 6361.0, ABS, Canberra.
- 2 Industry Taskforce on Leadership and Management Skills 1995, *Enterprising Nation*, Australian Government Publishing Service, Canberra.

Changing employer or business

PAID WORK

1.2 million Australians changed employer in the year ending February 2000.

Each year in Australia, many workers move to a position with a new employer or business. Their reasons for doing so may be social, economic or career-related. For example, a change of employer may be motivated by the desire to gain further career experience, to obtain better working arrangements or conditions, or in response to life cycle events such as having children or gaining educational qualifications.

A person's decision to change employer may also be influenced by the economic conditions such as the business cycle and differences in the availability of jobs in different industries and occupations. The nature of a person's occupation and whether their skills are readily transferable may also mean that they are more or less likely to change employer.

This article focuses primarily on those people who moved to a new employer or business in the 12 months to February 2000. However, people also experience changes in their job, such as transfers and promotions, while working for the same employer. These changes are the focus of the article, *Changes experienced at work* (see *Australian Social Trends 2001*, pp. 125–128).

Trends in job mobility

Changing employer or business is only one form of job mobility. Workers who change locality are also considered to be job mobile. During the period 1990–2000, the annual rate of job mobility has ranged between 13% and 18%. Job mobility was at its lowest (13%) during 1992, a time of economic downturn in

Data on job mobility

The ABS Labour Mobility Survey is conducted every two years in February as a supplement to the ABS monthly Labour Force Survey. This survey provides data on job mobility for persons aged 15–69 years, a subset of whom are those workers who change employer or business.

This article will focus primarily on those people who changed employer or business (with or without a change in locality) during a 12 month period.

The 2000 Labour Mobility Survey collected details about jobs held in the 12 months prior to the survey reference month of February 2000. Persons were considered to be job mobile if during this period they either:

- ◆ changed employer or business with or without a change in locality; or
- ◆ changed locality without a change of employer or business.

A *change in locality* occurs if a person moves to a job in another city or town, or to a job in another suburb in a capital city or major town.

Australia. A similar decrease in job mobility occurred in the mid-1980s with job mobility falling from 17% in 1982 to 14% in 1984.

The proportion of people who are job mobile has remained fairly steady since 1994. In the year to February 1994, 1.2 million (15% of all employed persons) were job mobile, increasing slightly to 1.5 million (16%) in the year to February 2000.

Of those who were job mobile in 2000, the majority (1.2 million people) changed employer. In February 2000, four out of every five job mobile people had changed employer or business.

Proportion of workers(a) who were job mobile(b)

	1990	1992	1994	1996	1998	2000
	%	%	%	%	%	%
Changed employer or business(c)	14.9	9.6	11.3	12.6	11.4	12.8
Changed locality only	3.4	3.1	3.2	3.1	2.9	3.1
<i>Total job mobile</i>	<i>18.4</i>	<i>12.8</i>	<i>14.5</i>	<i>15.8</i>	<i>14.3</i>	<i>15.8</i>
	'000	'000	'000	'000	'000	'000
All workers	8 628.0	8 564.1	8 602.3	9 141.9	9 243.8	9 673.0

(a) Persons who worked at some time during the 12 months ending February.

(b) In the 12 months to February.

(c) This includes those persons who changed both employer/business and locality.

Source: *Labour Mobility, Australia, 2000* (ABS Cat. no. 6209.0).

Persons who changed employer or business(a), reason for leaving previous job, 2000

Reason for ceasing job	%
Job leavers	
Better job	61.2
Unsatisfactory work conditions	20.6
Retired, family and other reasons	17.2
Temporary or seasonal work	1.0
<i>Total job leavers</i>	<i>100.0</i>
Job leavers as a proportion of all persons who changed employer or business	73.1
Job losers	
Retrenched	64.2
Temporary or seasonal work	29.2
Own ill health or injury	6.6
<i>Total job losers</i>	<i>100.0</i>
Job leavers as a proportion of all persons who changed employer or business	26.9

(a) In the 12 months ending February 2000, and who were working in February 2000.

Source: ABS 2000 Labour Mobility Survey.

Reasons for changing employer

There are a variety of reasons, both positive and negative, why people cease jobs or change employer, ranging from career aspirations to family circumstances.

An important distinction among those who change employer is whether the change is voluntary (for example the result of finding a better job), or involuntary (as a result of retrenchment or leaving a job due to ill health). In the year to February 2000, people were more likely to change employer voluntarily than involuntarily. Of the 1.1 million people who changed employer or business and were working in February 2000, 73% left their job voluntarily. Of those, 61% did so for a better job. This was followed by 21% leaving due to unsatisfactory work conditions and 17% who retired or left for family or other reasons.

While most people changed employer voluntarily, 27% of people left their jobs involuntarily. Of those, almost two thirds were retrenched and 29% finished temporary or seasonal employment but found another job within the 12 months to February 2000.

Age and sex

People are more likely to change employer at particular stages in their working lives. In general, younger people at a formative stage in their career, without family commitments, or who may be working part-time while

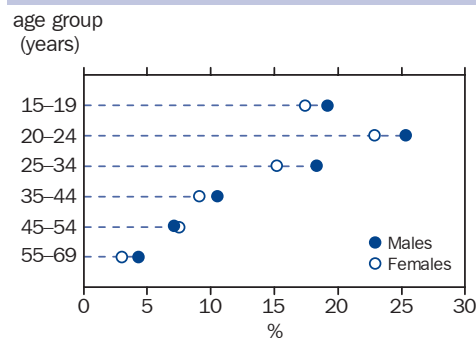
studying, are more likely to change employer or business. After the ages of 20–24 years the likelihood of changing employer decreases.

In the 12 months to February 2000, those in the 20–24 year age group had the highest proportion changing employer, with 270,500 or almost one in four people changing employer. This relatively high level of change for workers in this age group is partly the result of a large proportion completing their formal education. As a large number of students combine study with part-time work (see *Australian Social Trends 2001*, Combining study and work, pp. 113–115.), the completion of a qualification would often involve a move from part-time or casual work which does not require qualifications, to full-time work, usually with a different employer. In the year ending February 2000, over half of all 20–24 year olds who were working part-time in February 1999, and who changed employer or business, moved from part-time to full-time work.

People aged 35 years and over were the least likely to change employer, with only 10% of 35–44 year olds, 7% of 45–54 year olds and 4% of 55–69 year olds changing employer in the year to February 2000. These lower proportions may be a reflection of more established careers and increased family and financial commitments among people in these age groups.

The proportion of people changing employer across age groups is similar for men and women, but men are slightly more likely to change across most age groups. There was also a difference in the proportion of men who were married with dependent children who changed employer (11%) compared with women (8%).

Proportion of persons(a) who changed employer or business(b), 2000



(a) Persons who worked at some time during the year ending February 2000.

(b) In the year ending February 2000.

Source: ABS 2000 Labour Mobility Survey.

Occupation of persons who changed employer or business(a), 2000

Major group (of occupation) at February 1999 (Skill level(c))	Total who changed employer or business	Proportion who changed employer or business	Proportion who changed occupation(b)
	'000	%	%
Managers and administrators (1)	35.9	6.0	55.7
Professionals (1)	166.6	10.7	19.5
Associate professionals (2)	95.9	9.6	49.9
Tradespersons and related workers (3)	142.4	12.0	30.5
Advanced clerical and service workers (3)	40.4	10.2	33.1
Intermediate clerical, sales and service workers (4)	196.3	13.6	35.2
Intermediate production and transport workers (4)	98.2	12.7	41.5
Elementary clerical, sales and service workers (5)	124.8	15.1	55.2
Labourers and related workers (5)	120.7	15.2	40.1
Total	1 021.2	11.9	37.6

(a) In the 12 months to February 2000, and who were working in February 1999.

(b) From one Major group of occupation to another.

(c) Occupations are based on the *Australian Standard Classification of Occupations (ASCO) Second edition* (ABS Cat. no. 1220.0), which classifies occupations by skill level ranked from 1 (the highest) to 5 (the lowest).

Source: ABS 2000 Labour Mobility Survey.

Occupation and industry

For a large proportion of people, changing employer or business is also accompanied by a change in industry and/or a change in occupation. There were around a million people who were working in both February 1999 and February 2000 who changed employer during this period. Of these, 486,000 workers, or almost half of those who changed employer, also changed broad industry group, while 384,200 workers changed broad occupation group. There were 290,200 workers who changed employer who also changed both occupation and industry.

The tendency to change employer differed across occupations, with the highest proportions of people changing employer occurring in the lower skill level occupations (with the exception of Professionals, 11% of whom changed employer). This reflects a tendency towards shorter job duration in these occupations.¹ In the year to February 2000, the occupations for which people were most likely to change employer were Labourers and related workers (15%), Elementary clerical, sales and service workers (15%), and Intermediate clerical, sales and service workers (14%). The occupation group with the lowest proportion of people changing employer was Managers and administrators (6%).

The likelihood of changing employer and occupation varied across occupations, and may in part be related to skill specialisation. Persons who were employed as Tradespersons and related workers or Professionals were relatively less likely to change occupation (20% and 31% respectively) than other groups. This may be related to the relatively specialised nature of the skills, qualifications and experience required for these types of occupations.

While Managers and administrators were least likely to change employer, they were most likely to also change occupation if they changed employer. Over half of the Managers and administrators who changed employer in the year ending February 2000 also changed occupation. High proportions of occupational change were also recorded for Elementary clerical, sales and service workers (55%) and Associate Professionals (50%).

People's tendency to change employer also differed across industries. The industry in which people were most likely to change employer in the year to February 2000, was Accommodation, cafes and restaurants (21%). This may be due in part to the relatively high level of casual and part-time employment in this industry. Relatively high proportions of people also changed employer in the Mining (16%), Property and business services (16%) and Retail trade (14%) industries. Industries in which a relatively small proportion of

Persons who changed employer or business(a) by industry, 2000

Industry at February 1999	%
Accommodation, cafes and restaurants	20.9
Mining	16.0
Property and business services	15.5
Retail trade	14.0
Construction	12.7
Cultural and recreational services	12.6
Manufacturing	11.3
Wholesale trade	10.9
Finance and insurance	10.6
Transport and storage	10.5
Electricity, gas and water supply	9.7
Government administration and defence	9.6
Health and community services	9.2
Education	8.6
Agriculture, forestry, fishing and hunting	8.4
Personal services	7.9
Communication services	7.8
All industries	11.9
	'000
All industries	1 021.2

(a) In the 12 months to February 2000, and who were working in February 1999.

Source: ABS 2000 Labour Mobility Survey.

Full-time/part-time status of persons who changed employer or business(a), 2000

Status at February 1999	Persons	Changed status(b)
	'000	%
Working full-time	709.1	10.9
Working part-time	311.8	44.1
Total(c)	1 021.2	21.0

(a) In the 12 months to February 2000.

(b) From full-time to part-time, or part-time to full-time.

(c) Includes a small proportion of persons whose full-time/part-time status was not known.

Source: ABS 2000 Labour Mobility Survey.

workers changed employer included Agriculture, forestry, fishing and hunting (8%), Personal and recreation services (8%) and Education (9%).

Changing full-time/part-time status

Around one in five workers who changed employer (during the 12 months ending February 2000) made a change between full-time and part-time work. The majority of these changes were from part-time to full-time work.

There were 311,800 people who were working part-time in February 1999, who changed employer in the following year. Almost half of these moved to full-time status with their new employer. Of the 709,100 workers who were employed full-time in February 1999, 11% moved to part-time work.

Endnotes

- 1 Norris, K. and McLean, B. 2000, 'How long do jobs last in Australia?', *Australian Bulletin of Labour*, vol, 26, no. 2, pp. 97-106.

Trends in employment population ratios

PAID WORK

Between 1980 and 2000, men's employment rates decreased from 82% to 77%, while women's employment rates increased from 47% to 61%.

In 1980, there were 6.1 million employed people in Australia. By 2000, largely due to population growth, this had increased by 46% to 8.9 million people. Over this period the employment population ratio (or employment rate) for those aged 15–64 years underwent only modest change, recording a small increase from 65% to 69%.

Movements in the employment population ratio reflect changes in the number of employed people relative to changes in population size. Being employed affects income, living standards and welfare dependency, and through them, social and economic wellbeing, for both individuals and their family members. Further, the employed population indirectly supports those who are not employed through its income tax payments.

Between 1980 and 2000, trends in the employment rate for people aged 15–64 years, including those of youth, women, families and older workers reflected underlying changes in society. For example, changes in the traditional roles of full-time employment for the male partner, and child care and household responsibilities for the female partner, began around the 1960s and gained momentum over the 1980s and 1990s. These were associated with a shift away from a male-dominated workforce to one where women were participating to a greater extent, leading to converging employment rates for men and women.

Data on employment

The ABS has collected data on employment in its Labour Force Survey since 1966. The survey provides estimates of the labour force status and demographic characteristics of the Australian population. Further information is available in *Labour Force, Australia* (ABS Cat. no. 6203.0).

Employed persons are persons aged 15 years 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.

The *employment population ratio* for any group is the number of employed persons expressed as a percentage of the civilian population aged 15 years and over in the same group (also known as an employment rate).

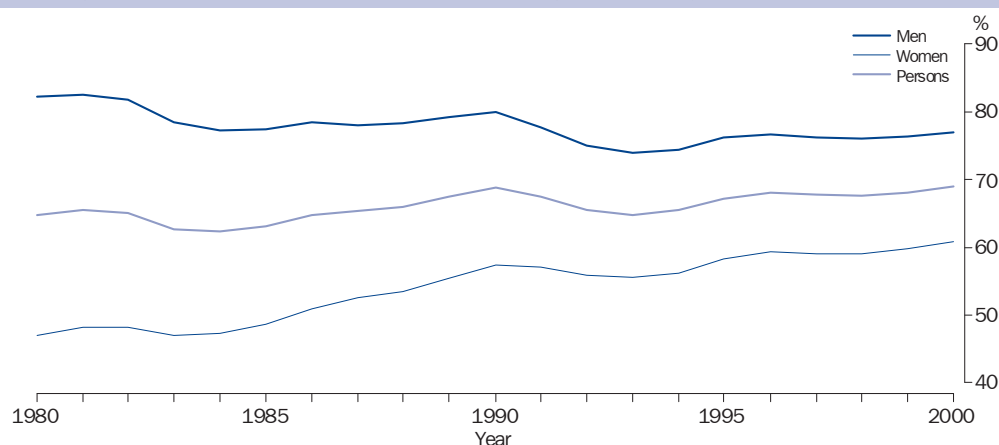
Full-time workers are employed persons who usually worked 35 hours or more a week (in all jobs) and others who, although usually working less than 35 hours a week, worked 35 hours or more during the reference week.

Part-time workers are employed persons who usually work less than 35 hours a week and who did so during the survey reference week.

Permanent workers are defined in this article as those who are entitled to either paid holiday leave or sick leave or both.

Casual workers are defined in this article as those who are not entitled to either paid holiday leave or sick leave.

Employment population ratios for persons aged 15–64 years



Source: ABS Labour Force Surveys, July 1979 to June 2000.

Selected employment population ratios

Proportion of persons aged 15–64 years

Year	Permanent full-time (a)	Part-time(b)	Casual(c)	Total(d)
	%	%	%	%
1980	56	11	n.a.	65
1985	53	12	n.a.	63
1990	55	15	13	69
1995	51	17	16	67
2000	52	17	16	69

- (a) Excludes self-employed people.
- (b) Comprises permanent part-time and casual part-time workers, excluding self-employed people.
- (c) Comprises full-time casual and part-time casual workers, excluding self-employed people.
- (d) Includes self-employed people. A worker can be both casual and part-time and therefore components do not add to total.

Source: Working Arrangements, Australia, 1997 (ABS Cat. no. 6342.0); ABS Labour Force Surveys, July 1979 to June 2000.

The period between 1980 and 2000 was also characterised by major changes to industry and workforce structure. Employment growth was concentrated in the service sector and a rise in the number of part-time and casual jobs was offset by a corresponding fall in the number of more traditional permanent full-time jobs (see *Australian Social Trends 2000*, Employment arrangements in the late 1990s, pp. 115–119).

In keeping with these trends, various employment population ratios for people aged 15–64 years changed over this period. Part-time employment rates increased from 11% in 1980 to 17% in 2000, while casual employment rates increased from 13% in 1990 (the first year data were available) to 16% in 2000. Between 1980 and 2000, the permanent full-time employment rate fell from 56% to 52%. However, despite these changes, almost three quarters of all employed people were in permanent full-time positions in 2000.

Men's and women's employment

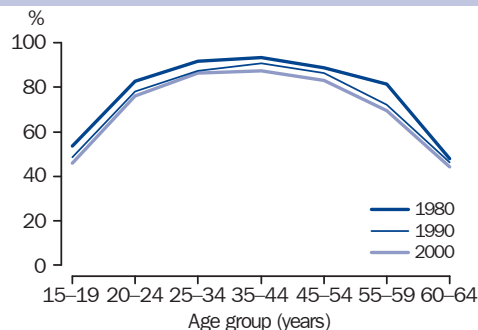
Both men's and women's employment rates reflect the changes outlined above. While the rate for men decreased between 1980 and 2000 (from 82% to 77%), the rate for women increased (from 47% to 61%).

Over the period, the proportion of men who were employed was affected by the restructuring of industry and the resulting decline in permanent full-time positions. Even so, the pattern of male employment indicates that most men (62%) commence employment in full-time jobs during their early 20s and remain employed until they retire. Men's employment rates are lowest towards the beginning and end of their working lives — around the ages of 15–19 years and 60–65 years, reflecting participation in education and early retirement, respectively. Between 1980 and 2000, men's employment rates declined slightly across all ages, with the biggest fall in the 55–59 year age group where the rate declined from 81% to 70%.

Between 1980 and 2000, women's employment rates rose substantially across all age groups. The exception was in the 15–19 year age group, where the employment rates of young men and women converged (46% and 50% respectively). The similarity of employment rates in this age group reflects the fact that many young people were in full-time education and not in the workforce.

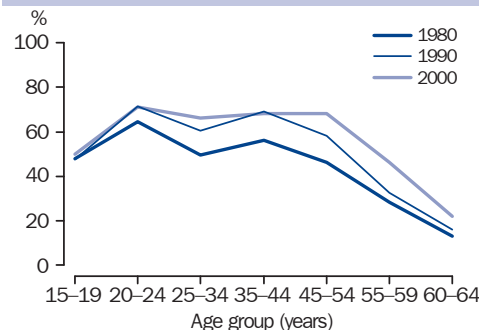
Changes in employment rates for women occurred alongside changing patterns of family formation, such as the delay in childbearing and reductions in family size (see *Australian Social Trends 2001*, Older mothers, pp. 55–58). The lower employment rates for women aged 25–34 years in 1980 compared with 2000, reflected the fact that women were more likely to take a break from paid employment to raise their family. The increase in part-time and casual employment, as well as the reduction in family size and

Male employment population ratios



Source: ABS Labour Force Surveys, July 1979 to June 2000.

Female employment population ratios



Source: ABS Labour Force Surveys, July 1979 to June 2000.

expansion of child care services (see *Australian Social Trends 2001*, Child care arrangements, pp. 41–45) led to a decline not only in the number of women taking time out of the workforce but also the length of time they were out of the workforce (see *Australian Social Trends 1998*, Trends in women's employment, pp. 111–114). Consequently, the employment rate for women in the main childbearing years of 25–34 years increased, from 50% to 66% between 1980 and 2000.

Between 1980 and 2000, relatively low proportions of women aged 55 years and over were employed compared with women in younger age groups. That said, the increasing propensity for women to enter and stay in the workforce was evident even among older age groups, as shown by the increased employment rate for those aged 45–54 years (from 46% in 1980 to 68% in 2000) and 55–64 years (21% to 34%).

Young people

Between 1980 and 2000, the employment population ratio for young people aged 15–24 years remained steady, at around 62%. However, over this time, increasing levels of participation in secondary and tertiary education led to a change in the nature of their employment. Whereas in 1980, many young people moved from school into a full-time job, by 2000 young people were taking on employment in conjunction with full or part-time study. As a result, the full-time employment rate for young people decreased from 53% to 35% over the period. The fall was much greater for 15–19 year olds (40% to 17%) than for 20–24 year olds (65% to 53%).

The increase in part-time and casual employment provided greater opportunities for young people to combine full-time study

with work, for some even while still at school (see *Australian Social Trends 2001*, Combining study and work, pp. 113–115). This is reflected in the high proportion of young people who were employed in part-time positions in 2000 (64% of 15–19 year olds and 26% of 20–24 year olds).

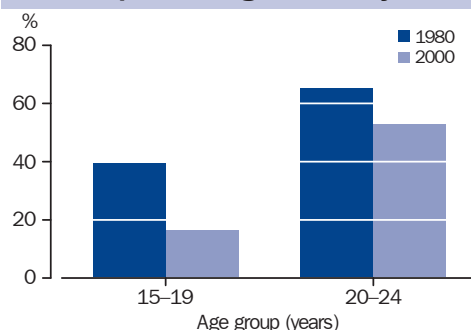
Young men aged 15–24 years in 1980, had a higher employment rate than young women (68% compared with 56%), but by 2000 the employment rates for young men and women had converged at 61%. Many young people are still living in the family home at this age and have not yet partnered or had children (see *Australian Social Trends 2000*, Young adults living in the parental home, pp. 39–42). It is not until after age 25 years, that men's and women's employment rates begin to diverge as the presence of children impacts on their employment arrangements.

Families with children

The most common employment arrangement in families is for both parents to be working. In 2000, 63% of couple families with dependent children had both partners employed. However, in 37% of couple families with dependent children, the father was employed and the mother was not in the labour force. Most men were working full-time and their employment rate was less affected by the presence of children than women's, indicating that for most families, men were still the primary financial provider.

In 2000, women with an employed partner and dependent children were generally less likely to be working than their counterparts without dependent children (63% compared with 76%). However, the likelihood that women with employed partners and dependent children would be working increased with age, reflecting the growing

Full-time employment population ratios of persons aged 15–24 years



Source: ABS Labour Force Surveys, July 1979 to June 2000.

Employment population ratios of females with employed partners, 2000

	Female's age group (years)			Total %
	15-24 %	25-44 %	45-64 %	
No dependent children present				
Full-time	65	71	36	50
Part-time	19	18	31	26
Total	83	89	67	76
Dependent children present				
Full-time	9	25	37	27
Part-time	24	37	36	36
Total	33	62	73	63

Source: *Labour Force Status and Other Characteristics of Families, Australia* (ABS Cat. no. 6224.0); ABS Labour Force Surveys, July 1999 to June 2000.

independence of children as they get older. While only 33% of young women with dependent children and employed partners were working, the proportion increased to 73% for women aged 45–64 years in this family situation.

These patterns contrasted markedly with those of women in couple families with an employed partner but without dependent children. These women were more likely to be working and were more likely to be working full-time, particularly those aged 15–44 years, who had full-time employment rates of 65% for the 15–24 years age group and 71% for the 25–44 years age group.

For lone parents, opportunities to enter the workforce are often constrained by child care responsibilities, particularly for those with children who are not yet at school. In 2000, 51% of lone parents were employed. As the age of their youngest child increased, both lone mothers and partnered mothers were more likely to be employed and differences in the employment rates of the two groups decreased.

Older people

Employment population ratios for people aged 55–64 years mirror the trend in the total employment population ratio, but at a lower level. Similar to the trends for men and women aged 15–64 years, men aged 55–64 years in 2000 were less likely to be working than previously (59% compared with 67% in 1980), while women were more likely to be working (36% compared with 21%). Within this age group, most of the change occurred among people aged 55–59 years, with the employment rate for men decreasing from 81% to 70% between 1980 and 2000 and that for women increasing from 28% to 46%.

Employment population ratios of persons aged 55–64 years

		1980	1985	1990	1995	2000
Age (years)		%	%	%	%	%
55–59	Males	81	71	72	67	70
	Females	28	26	33	39	46
	Persons	55	49	53	53	58
60–64	Males	48	39	46	42	44
	Females	13	11	16	15	22
	Persons	30	25	31	29	33
Total 55–64	Males	67	56	59	55	59
	Females	21	19	24	28	35
	Persons	43	37	42	42	47

Source: ABS Labour Force Surveys, July 1979 to June 2000.

Among 55–64 year olds, as for younger age groups, part-time work has become more common. The 20 years to 2000 have seen the proportion of people in this age group who were employed on a part-time basis increase from 6% of total employment to 28%. This increase in part-time employment suggests a greater propensity to engage in part-time work as a transition to retirement either through choice or because of changing labour market conditions. (see *Australian Social Trends 2000*, Retirement and retirement intentions, pp. 130–133).

Geography and employment

Regional employment population ratios, 2000

State	Capital city %	Rest of State %	Total %
New South Wales	71	65	69
Victoria	69	66	69
Queensland	70	68	69
South Australia	67	67	67
Western Australia	71	73	71
Tasmania	63	64	64
Northern Territory	n.a.	n.a.	69
Australian Capital Territory	n.a.	n.a.	76
Australia	70	67	69

Source: ABS Labour Force Surveys, July 1999 to June 2000.

Employment population ratios vary between States and Territories and between capital cities and regional areas. In 2000, the highest employment rate for 15–64 year olds was in the Australian Capital Territory (76%) and the lowest was in Tasmania (64%).

In New South Wales, Victoria and Queensland, the employment rates tended to be higher in the capital cities, which could be due to greater employment opportunities. In contrast, in Western Australia and Tasmania employment rates were slightly higher outside the capital cities. These differences can be attributed to many things, including the varying age structures of each State's population.

Unemployment trends and patterns

UNDER-UTILISED LABOUR

Between August 1966 and August 2000 the number of unemployed Australians increased from 90,300 to 596,000.

Employment is the major source of income for most Australian households, and brings with it opportunities to utilise and develop skills and to expand social networks. In addition, employment enhances a sense of personal self-worth and attachment to the broader community. As a result, unemployment can affect individuals and their families on financial, personal and social levels. Further, the number of people out of work can put pressure on welfare support provided by government and community groups.

Although the unemployment rate has fallen in recent years, it still remains higher than levels experienced in the late 1960s. This article focuses broadly on levels of unemployment since 1966 (the first year for which unemployment data are available from the ABS Labour Force Survey), and compares the levels experienced by different population groups across Australia.

Unemployment rates 1966–2000

Between 1966 and 2000, both the number of people who were unemployed and Australia's unemployment rate have increased. Over this period, the number of unemployed people in Australia increased from 90,300 to 596,000.

In the late 1960s and early 1970s, the unemployment rate stood at 2% but over the 1970s rose gradually to 6%. The early 1980s saw a sharp rise in the unemployment rate to

Information on unemployment

The ABS has collected data on unemployment in its Labour Force Survey since 1966. The survey provides information on the labour force status and demographic characteristics of the Australian population.

Unemployed persons are those aged 15 years and over who were not employed during the survey reference week, but were available for work and were actively looking for work.

Employed persons are those aged 15 years 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.

The *labour force* consists of persons who were employed or unemployed, as defined, during the survey reference week.

The *labour force participation rate*, for any group, is the labour force (for any group) expressed as a percentage of the civilian population aged 15 years and over in the same group.

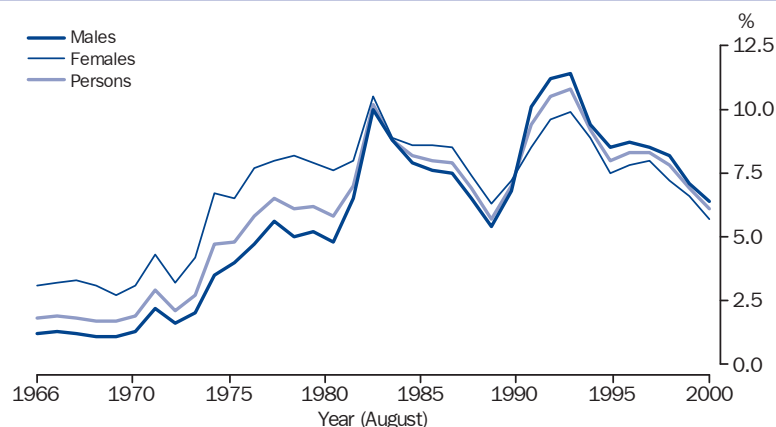
The *unemployment rate*, for any group, is the number of unemployed persons expressed as a percentage of the labour force in the same group.

Seasonally adjusted estimates remove the effects of normal seasonal variation.

Part-time workers are employed persons who usually work less than 35 hours a week and who did so during the survey reference week.

Underemployed workers are persons who usually work less than 35 hours per week but prefer to work more hours.

Unemployment rates(a)



(a) Seasonally adjusted.

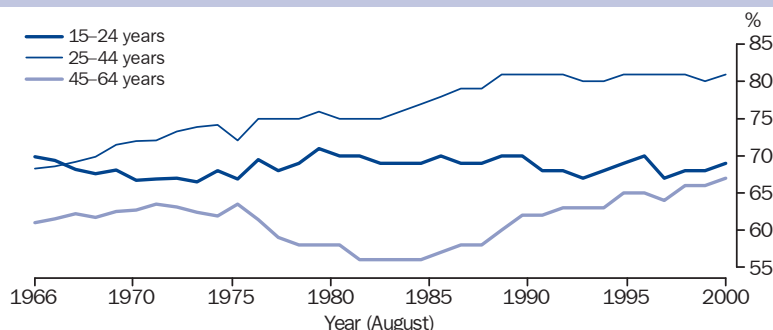
Source: Labour Force, Australia, 1966–2000 (ABS Cat. no. 6203.0 and 6204.0).

10% in 1983. This declined to 6% by 1989. A further steep rise then occurred in the early 1990s, peaking at 11% in 1993.

As well as showing a general increase over the period, the unemployment rate has fluctuated with the economic cycle. However, unemployment rates have become successively higher with each economic downturn (1972, 1978, 1983 and 1993).

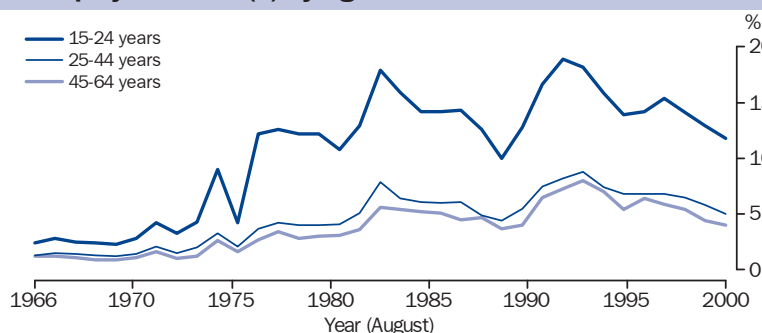
Although following a similar pattern, the unemployment rate for women until 1991 was consistently higher than that for men. Since 1991, this pattern has reversed with the unemployment rate for men remaining higher than for women, although the difference between these rates has varied over

Labour force participation rate by age



Source: ABS Labour Force Survey, 1966–1977; *Labour Force, Australia, 1978–2000* (ABS Cat. no. 6203.0 and 6204.0).

Unemployment rate(a) by age



(a) Original series.

Source: ABS Labour Force Survey, 1966–1977; *Labour Force, Australia, 1978–2000* (ABS Cat. no. 6203.0 and 6204.0).

the time period. This reversal is likely to be a result of, first, decreases in the availability of full-time work (especially in manufacturing industries and in agriculture) during the 1990s which has had greater impact on men, who tend to look for full-time work. Second, the growth in part-time and casual work during the 1980s has also been a contributing factor, since it provided greater employment opportunities for women, many of whom seek part-time work.¹

Young people

The early employment experiences of individuals impact on their future employment prospects. Consequently, the early working years of young people (those aged 15–24 years) are an important time for gaining and developing skills, establishing a career and obtaining economic independence. For many young people, when periods of unemployment form part of early labour force experience, finding stable employment and establishing a career can be difficult. However, not all young people in the labour force are seeking full-time work or establishing a long-term career. Many are participating in full-time education (some still at school), and some are living with their parents.

For the period 1966–2000, the labour force participation rate of young people remained around 70%. However, since the late 1970s, the unemployment rate for young people has

Unemployment rates(a) and number unemployed

Age group (years)	August 1972		August 1986		August 2000	
	Unemployment rate %	Number unemployed '000	Unemployment rate %	Number unemployed '000	Unemployment rate %	Number unemployed '000
Males						
15–19	5.6	18.6	18.7	74.9	15.7	59.4
20–24	2.6	13.3	12.3	72.5	10.4	61.3
25–34	1.5	14.1	6.8	83.7	6.1	81.0
35–44	1.3	10.2	4.6	50.1	4.5	60.1
45–54	1.4	9.8	5.5	39.8	4.6	52.0
55–64	1.4	6.8	6.1	27.6	4.8	26.1
Total	2.0	72.9	7.8	348.6	6.4	339.5
Females						
15–19	5.9	18.8	19.5	72.9	14.7	56.7
20–24	3.8	12.9	9.9	48.0	8.3	42.5
25–34	4.1	15.7	7.6	59.5	4.8	47.6
35–44	3.1	11.5	6.0	43.6	4.5	47.3
45–54	2.1	6.9	4.5	19.0	3.5	32.1
55–64	2.1	3.1	3.3	5.1	2.2	7.4
Total	3.6	68.9	8.4	248.1	5.6	233.6

(a) Original series.

Source: ABS Labour Force Survey, 1972 and 1986; *Labour Force, Australia, 2000* (ABS Cat. no. 6203.0).

Unemployment among parents in families with children aged under 15 years

	August 1987	August 1993	August 2000
Couple families			
Total couple families ('000)	1 907.1	1 963.0	2 010.5
With at least one parent unemployed as a proportion of all couple families (%)	7.2	10.4	5.7
<i>With at least one parent unemployed ('000)</i>	137.9	203.6	115.1
One parent unemployed, one employed (%)	47.3	37.9	53.1
One parent unemployed, one not in the labour force (%)	42.7	48.6	41.5
Both parents unemployed (%)	10.0	13.5	5.4
<i>Total with at least one parent unemployed (%)</i>	100.0	100.0	100.0
One-parent families			
Total one-parent families ('000)	357.0	447.7	564.7
With parent unemployed as a proportion of all one-parent families (%)	8.1	9.3	6.4
<i>With lone parent unemployed ('000)</i>	29.0	41.5	36.3

Source: Labour Force, Australia, 1987, 1993, 2000 (ABS Cat. no. 6203.0).

been notably higher than that for other age groups. Over the same period (1966–2000), unemployment among the older age groups has risen and increasingly, young job seekers have had to compete for jobs against people with more work experience. This is an issue of particular concern for young people looking for their first full-time job (see *Australian Social Trends 1998*, Young jobseekers, pp. 103–106).

While unemployment rates of 15–24 year olds differed from those of older people, there was also variation within this age group. As new entrants to the labour force, 15–19 year olds are less likely to have previous work experience than 20–24 year olds and consequently are less competitive in the job market. This was reflected in the consistently higher unemployment rate for people aged 15–19 years than for those aged 20–24 years (15% compared with 9% in August 2000). Many 15–19 year olds are still at school and are therefore less likely to have joined the labour force than 20–24 year olds. In August 2000, the labour force participation rate for 15–19 year olds was 57% compared with 81% for 20–24 year olds. Thus, the numbers of unemployed people in each age group were quite similar (116,100 and 103,800 respectively).

25–44 year olds

Most people's primary working years are between the ages of 25 and 44 years. Reflecting this, throughout the period 1966–2000, labour force participation rates among this age group were generally higher than rates for other age groups. In addition,

their labour force participation rates have been steadily increasing, largely due to marked increases in the participation of women in the labour force, especially in part-time work (see *Australian Social Trends 1998*, Trends in women's employment, pp. 111–114).

Between 1966 and 2000, levels of unemployment for 25–44 year olds, as for all age groups, followed the series of peaks and troughs associated with the economic cycle. Similar unemployment rates existed for men and women, but the numbers of unemployed women were much lower than the numbers of unemployed men. This reflects women's lower labour force participation, as many women in this age group are caring for children.

People aged 25–44 years are likely to be partnered and/or raising children. Since employment is the main source of income for most families, unemployment among parents and partners impacts on the economic and social wellbeing of both individuals and other family members.

However, the unemployment of a parent often has a greater impact on the economic wellbeing of one-parent families compared with couple families. In couple families, there are two parents to share work and family responsibilities. That is, if one parent is not working, the other is usually able to provide the main source of income. For one-parent families, there is only one adult who can provide income for the family through labour force participation. In August 2000, around 6% of both couple and one-parent families had at least one parent unemployed.

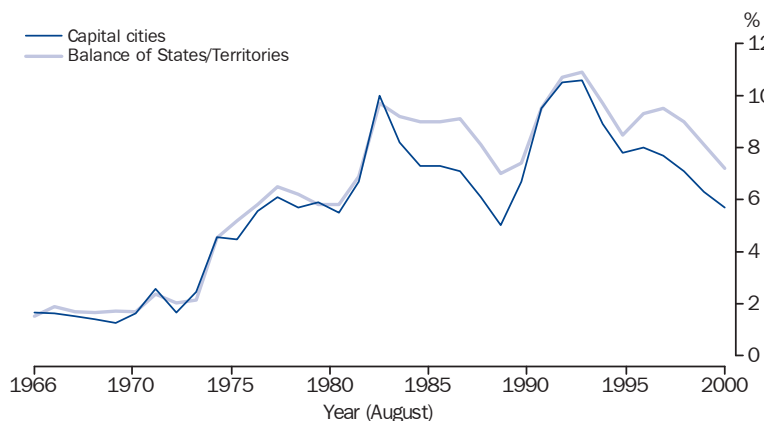
However, for more than half of the couple families, while one parent was unemployed, the other was employed.

People aged 45–64 years

Labour force participation among people aged 45–64 years is lower than other age groups, with withdrawal from full-time work associated with retirement more likely to occur among those in the 55–64 years age group (see *Australian Social Trends 2000*, Retirement and retirement intentions, p. 131). Labour force participation rates for people aged 45–64 years remained below 70% between 1966 and 2000, falling below 60% between 1978 and 1989.

Unemployment rates for people aged 45–64 years, although at a lower level, followed patterns (associated with the economic cycle) similar to those of other age groups. However, unemployed people in this age group often have less success in obtaining work than younger job seekers. This is partly because of their lack of transferable job skills as a result of technological changes and changes to industry since the 1970s, their relatively low levels of education and less flexibility to change location (see *Australian Social Trends 1999*, Older jobseekers, pp. 114–118). In keeping with this, the proportion of people who were long-term unemployed (i.e. those unemployed for one year or more) who were aged 45 years and over increased from 28% to 32% between 1989 and 1999 (see *Australian Social Trends 2000*, Long-term unemployment, p. 122).

Unemployment rates(a) for capital cities and balance of States/Territories



(a) Original series.

Source: ABS Labour Force Survey, 1966–1977; *Labour Force, Australia, 1978–2000* (ABS Cat. no. 6203.0 and 6204.0).

International Comparisons



Differences between countries are likely to be partly attributable to the data sources used to measure unemployment benefit schemes and to fluctuations in their business cycles.³

Comparability is also affected by differences in statistical methodology such as survey definitions and enumeration month(s), and questionnaire design and wording.³

Selected OECD countries

Country	Unemployment rate		
	1978	1986	1999
	%	%	%
Australia	6.2	8.0	7.2
Canada	8.3	9.6	7.6
France	5.2	(a)10.2	11.9
Greece	2.3	6.1	(b)10.8
Italy	7.2	11.1	11.4
Japan	2.2	2.8	4.7
NZ	1.8	(a)4.0	6.8
Sweden	1.6	2.5	5.6
UK	5.7	11.9	6.0
USA	6.0	6.9	4.2

(a) 1986 figures for France and New Zealand relate to 1985.

(b) 1999 figures for Greece relate to 1998.

Source: International Labour Office Year Book of Labour Statistics 1987 and 2000.

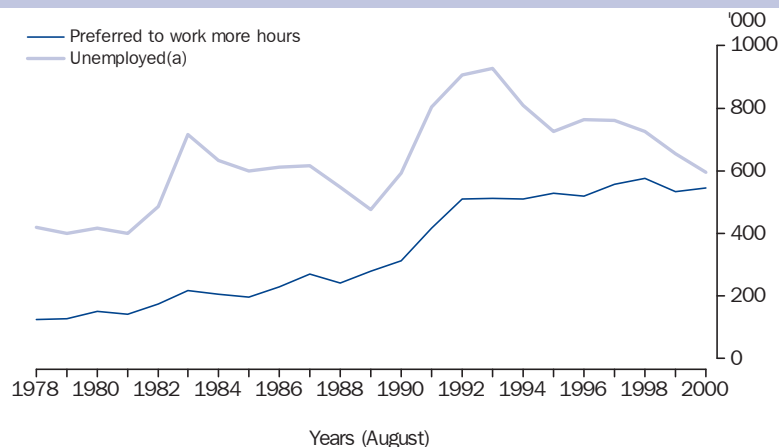
There is little difference in the unemployment rates of men and women in this aged 45–64 years. However, in 2000 the number of unemployed men (78,100) was almost twice that of women (40,000), reflecting men's higher levels of labour force participation.

Regional unemployment

For much of the period between 1966 and 1984, unemployment rates in capital cities and the rest of the state were similar, with both experiencing fluctuations associated with economic cycles. However, people living outside the capital cities were more affected by the economic downturn in the early 1980s and mid-1990s. Unemployment rates outside capital city areas remained around 9% until 1987 following the economic downturn in 1983 and around 9% until 1998 following the economic downturn in 1993. In contrast, the rates in capital cities over the same time periods were generally around 7% and 8% respectively.

Several factors contribute to the persistence of high unemployment rates outside capital cities and their greater divergence from the

Unemployed people and part-time workers who prefer to work more hours



(a) Seasonally adjusted

Source: *Labour Force, Australia, 1978–2000* (ABS Cat. no. 6203.0 and 6204.0).

unemployment rates in capital cities since the mid-1980s. These factors include differing economic structures within regional areas, the impact of seasonal employment and concentrations of particular industries in certain areas; all of which can place regional Australians at greater disadvantage in relation to unemployment outcomes than their city counterparts.²

Part-time workers wanting more work

During times of high unemployment, limited job opportunities and greater competition for available full-time work increase the number of people who work part-time while continuing to seek longer working hours. The majority of people working part-time do so by choice. Those part-time workers who indicate they would like to work more hours are often referred to as underemployed workers (see *Australian Social Trends 1999*, Men and women wanting work, pp. 110–113).

Over the period 1978–2000 (1978 being the first year data became available on part-time workers wanting more work), fluctuations in the number of part-time workers who preferred to work more hours mirrored those for the number of unemployed people. In 1978, of all part-time workers, 124,000 (13%) people preferred to work more hours. This rose to 575,000 (26%) in 1998 but had fallen slightly to 546,000 (23%) by August 2000. The majority of underemployed workers were women (60%), and 33% were under 25 years of age, reflecting the greater proportions of workers in these groups who work part-time.

Endnotes

- 1 Borland, J. and Kennedy, S. 1998, *Dimensions, Structure and History of Australian Unemployment*, Discussion paper no. 388, Centre for Economic Policy Research, Australian National University, Canberra.
- 2 Borland, J. 1998, *Rural Labour Markets in Australia*, Discussion paper no. 383, Centre for Economic Policy Research, Australian National University, Canberra, pp. 1–2.
- 3 International Labour Organisation 1999, *Key Indicators of the Labour Market 1999*, International Labour Office, Geneva.

Time spent on unpaid household work

UNPAID WORK

In 1997, 91% of Australians performed some form of unpaid household work each day. Of those who did, it consumed almost a third of women's waking hours and a fifth of men's.

Household work is a major contributor to household and family functioning, providing essential services to people inside a household which would otherwise have to be paid for. Tasks reflect every day living requirements, such as cooking and cleaning, shopping for food and caring for children.

Time spent on unpaid household work

In 1997, around 91% of Australians spent time performing some form of household work. However, the amount of time people spent on this work often varied depending on a number of factors, including age, living arrangements and labour force status.

More women than men performed household work in 1997 (96% compared with 85%), also spending more time on these activities than men (287 minutes per day compared with 170 minutes per day). Consequently, household work consumed almost one third of women's waking hours and one fifth of men's.

Between 1992 and 1997, the amount of household work performed by Australians varied little, with the average time spent decreasing by six minutes from 239 to 233 minutes per day respectively. Levels of participation remained stable over the period.

Time spent on unpaid household work

Most of the data in this article are drawn from the ABS 1997 Time Use Survey which collected information about the time people spent on unpaid household work and other activities. People aged 15 years and over participating in the survey kept a diary record of the activities they undertook over two specified days of the survey reference period.

In this article, *unpaid household work* comprises domestic, child care and purchasing activities (for which no money is exchanged). Tasks undertaken by individuals under these categories include cooking, cleaning, home and car maintenance, home management (i.e. paying bills and organising budgets), caring for children and shopping.

A *primary activity* is the main activity a person performs at a given time (other activities may occur simultaneously). This article refers only to primary activities unless otherwise stated.

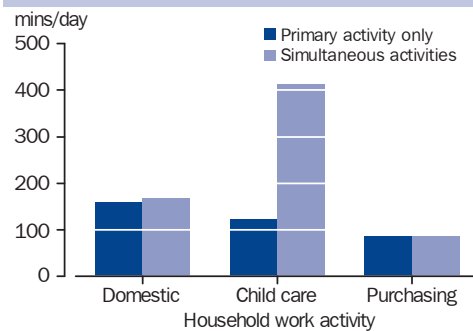
In 1997, women spent an average of 191 minutes per day on domestic activities, compared with men who spent an average of 124 minutes. To a large extent, this reflects traditional roles of men and women in relation to housework. In keeping with this, women who participated in domestic activities in 1997 spent more time than men on tasks which are usually performed indoors, such as cooking or cleaning (155 minutes per day compared with 66 minutes

Participation in unpaid household work, 1997

Type of household work	Males	Females	Persons
Participation rates	%	%	%
<i>Domestic</i>	76	93	84
Indoor activities	64	90	77
Outdoor activities	39	40	40
<i>Child care</i>	19	31	25
<i>Purchasing</i>	45	58	52
Total	85	96	91
Average time spent by participants	mins/day	mins/day	mins/day
<i>Domestic</i>	124	191	161
Indoor activities	66	155	119
Outdoor activities	104	61	82
<i>Child care</i>	86	147	124
<i>Purchasing</i>	77	92	86
Total	170	287	233

Source: ABS 1997 Time Use Survey.

Average time spent by people who performed unpaid household work, 1997



Source: ABS 1997 Time Use Survey.

per day). However, women spent less time than men on tasks which are usually performed outdoors, such as grounds and animal care or home maintenance (61 minutes per day compared with 104 minutes).

Not all Australian households contain dependent children. Reflecting this, 25% of people spent time caring for children on an unpaid basis on a given day. Around 31% of women and 19% of men participated in child care, spending an average of 147 and 86 minutes per day on this activity, respectively. Women performed 74% of all child care.

People often spend time caring for children while doing other things. As a result, much of the time people devote to child care is not measured as a primary activity. When all child care activities were considered (regardless of whether they were primary or simultaneous activities), the time people spent on child care was around seven hours per day.

Purchasing activities occupied an average of 86 minutes of people's time on a given day in 1997. Women spent around 92 minutes and men spent 77 minutes per day on these activities. Levels of participation of women and men were more similar for purchasing activities (58% and 45% respectively) than for other household work.

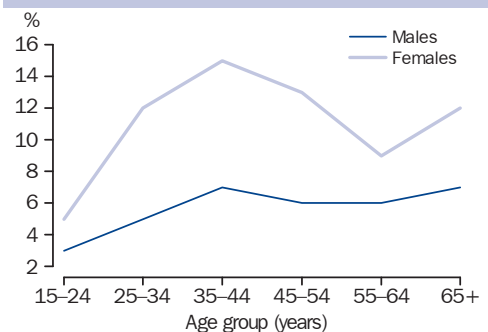
Age

The type of household work that people perform and the time they commit to these activities varies with age. In 1997, the proportion of people spending time on domestic activities ranged from 68% of people aged 15–24 years to 94% of people aged 65 years and over. Women performed two thirds of all domestic activities.

Women aged between 35 and 44 years performed the greatest proportion of domestic activities of all people (15%), while men in this age group undertook 7% of these activities. The shares of domestic activities undertaken by men and women aged 55 years and over were more even than for younger age groups, although women still undertook a larger proportion of domestic activities than men (9% and 6% for women and men aged 55 to 64 years respectively). This may be due to a combination of household size getting smaller as children leave the family home and people (more commonly men) retiring from work, providing the opportunity for domestic duties to be shared more equally between men and women. It may also reflect greater proportions of people living alone in this age group and doing their own housework.

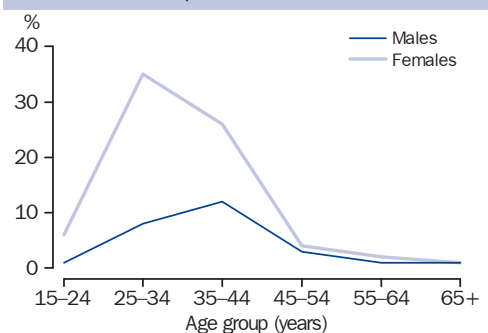
In 1997, people aged between 25 and 44 years performed 82% of all child care. Of this, women performed three quarters. This disparity reflects the number of couples with children where the male partner spent a large amount of time at work while his female partner took on a greater share of child care. The proportion of child care being performed

Proportion of total time spent on domestic activities, 1997



Source: ABS 1997 Time Use Survey.

Proportion of total time spent on child care activities, 1997



Source: ABS 1997 Time Use Survey.

Participation in unpaid household activities and selected living arrangements, 1997

Living arrangements	Participation rates				Average time spent by participants			
	Domestic	Child care	Purchasing	Total	Domestic	Child care	Purchasing	Total
	%	%	%	%	mins/day	mins/day	mins/day	mins/day
Males								
Partner in a couple without children	83	4	48	89	142	80	84	180
Partner in a couple with dependent children	78	54	44	90	120	86	73	192
Partner in a couple with non-dependent children	80	3	46	87	148	49	96	189
Lone parent	92	18	52	94	160	96	75	217
Lone person	90	5	56	94	138	116	76	183
Females								
Partner in a couple without children	96	6	56	98	204	75	92	257
Partner in a couple with dependent children	98	76	65	100	223	159	93	401
Partner in a couple with non-dependent children	96	8	60	97	250	80	112	323
Lone parent	96	52	58	98	194	147	90	322
Lone person	96	6	59	98	171	72	90	225

Source: ABS 1997 Time Use Survey.

decreased from the age of 45 years, reflecting the fact that children require less care from their parents as they grow older.

Living arrangements

In 1997, most adults spent time on unpaid household work regardless of who they lived with. However, the time people spent on these activities varied considerably depending on household composition.

Parents spent the most time on household work, partly because child care is a component of household work, but also because children tend to generate a larger amount of other household work. In 1997, women with children spent the most time of all people on household work (up to 401 minutes per day for women in a couple with dependent children).

Domestic activities accounted for the largest proportion of household work (an average of 191 minutes per day devoted to these activities by women and an average of 124 minutes by men). While the majority of women (93%) performed some form of domestic activity throughout their day regardless of who they lived with, men were more likely to perform domestic activities if they were not living with a partner than if they were. For example, 92% of lone fathers performed domestic activities compared with around 78% of partnered men with children. In contrast, women were most likely to perform domestic activities if they were a partner in a couple with children (98% for those with dependent children). This partly reflects that in many families, female partners tend to take on a greater share of household

work than male partners, who are more likely to be employed full-time (see *Australian Social Trends, 2001*, Trends in employment population ratios, pp. 133–136).

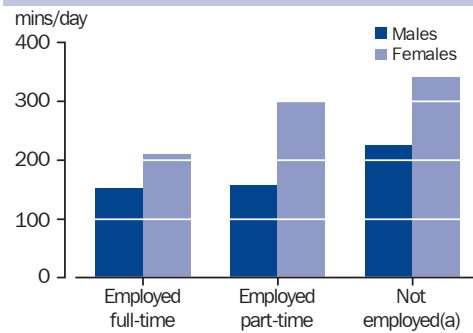
Labour force status

For many people, available time must be shared between, among other things, paid and unpaid work. If an individual spends a large proportion of their day on paid labour force activities, household work may need to be performed by someone else in the household or by someone outside the household (often in exchange for payment). Alternatively, less time may be spent on these activities.

In 1997, people who were employed spent on average over an hour less per day on unpaid household work than people who were not employed (200 minutes compared with 264 minutes). The time spent on household work varied between female and male participants and whether they worked full-time or part-time.

The greater time spent on household work by women than men is not solely a reflection of the fact that women are less likely to be employed full-time. When comparing the time spent on household work by women and men employed full-time, women were more likely than men to participate in unpaid household work (95% compared with 84%) and to spend more time on this work (211 minutes and 153 minutes respectively). In addition, while there was a large difference between the time spent on household work by women employed full-time and those employed part-time, there was little difference

Average time spent by people who performed unpaid household work and whether employed, 1997



(a) Unemployed or not in the labour force.

Source: ABS 1997 Time Use Survey.

in the time spent on this work between men employed full-time and part-time. Women employed part-time spent an average of 299 minutes per day on household work compared with 211 minutes by women who worked full-time. In comparison, men who worked part-time spent virtually the same amount of time on household work as men who worked full-time (157 compared with 153 minutes per day). This reflects the fact that men and women who work part-time often do so at different stages in their lives, and therefore have different responsibilities regarding household work. For example, men are more likely to work part-time either when they are younger and studying, or when they are close to retirement and are less likely to have young children. Women are also likely to work part-time when they are studying, but are more likely than men to work part-time when they have young children and are therefore living in a household requiring more household work to be performed.

Income and expenditure

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INCOME DISTRIBUTION

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It is only in the latter part of the 20th century that many women, particularly married women, have been able to enjoy an income of their own. This article discusses how improved educational opportunities and changes in the social status of women, marriage and fertility patterns, employment and government pensions have all contributed to the increases in women's personal incomes over the past two decades.

EXPENDITURE

Expenditure in low-income households	157
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All households have a finite amount of income to divide into a household budget. They may allocate some of their household budget to expenditure on basic needs, some to expenditure on additional goods and services and some to provision for future expenditure. This article compares the different expenditure patterns of households in the bottom and top income quintiles.

INCOME DISTRIBUTION

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The value of unpaid work performed by Australians increased by 16% between 1992 and 1997. Placing a monetary valuation on unpaid work is one way of measuring how trends in unpaid work are changing over time and how this relates to the market economy. This article focuses on the value of unpaid work and its distribution between men and women and across various unpaid work activities.

INCOME SUPPORT

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The proportion of people of workforce age receiving income support increased from 4% in 1969 to 21% in 1999. This article discusses the underlying social changes which have contributed to this increase and how these have impacted differently on the types of income support payments taken up by men and women.

Income: national summary

INCOME DISTRIBUTION	Units	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
GDP per capita(a)	\$'000	26.0	25.6	25.4	26.0	26.8	r27.8	28.6	29.3	r30.3	r31.5	32.5
Gross household disposable income per capita	\$'000	15.4	15.8	16.2	r16.6	r17.1	r18.0	r18.8	r19.4	r20.0	r20.9	21.9
Personal income tax as a proportion of taxable income	%	23.1	22.4	21.9	22.2	22.0	22.1	22.7	23.3	23.7	24.0	n.a.
Share of equivalent income going to top quintile (of all income units)	%	37.7	n.a.	n.a.	n.a.	n.a.	37.8	37.6	r37.0	38.2	n.a.	38.5
Share of equivalent income going to bottom quintile (of all income units)	%	7.6	n.a.	n.a.	n.a.	n.a.	7.2	7.3	7.6	7.1	n.a.	7.1
Gini coefficient (of all income units)	ratio	0.42	n.a.	n.a.	n.a.	n.a.	0.44	0.44	0.44	0.44	n.a.	0.45
Median gross weekly income of couple with dependants income units	\$	755	n.a.	n.a.	n.a.	n.a.	842	849	882	928	n.a.	1 000
Median gross weekly income of one-parent income units	\$	279	n.a.	n.a.	n.a.	n.a.	349	352	349	362	n.a.	424
SOURCES OF INCOME	Units	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Wages and salaries as main source of income (of all income units)	%	58.3	n.a.	n.a.	n.a.	n.a.	56.8	55.5	54.8	54.9	n.a.	56.7
Compensation of employees as a proportion of GDP	%	48.1	48.4	r48.0	r47.1	r46.9	r47.6	r47.5	r48.3	r47.6	r48.2	48.0
Main income source from government payments (of all income units)	%	26.7	n.a.	n.a.	n.a.	n.a.	28.8	29.0	30.0	29.6	n.a.	28.0
Main income source from government payments (of couples with dependants income units)	%	8.4	n.a.	n.a.	n.a.	n.a.	11.4	11.0	11.6	11.2	n.a.	10.7
Main income source from government payments (of one parent income units)	%	61.3	n.a.	n.a.	n.a.	n.a.	59.4	58.7	64.8	61.6	n.a.	54.5
Mean total weekly earnings of all employees	\$	475	494	510	526	533	551	574	n.a.	610	n.a.	653
Mean total weekly earnings of full-time adult employees	\$	571	597	616	641	658	690	724	n.a.	782	n.a.	838
Mean weekly ordinary time earnings of full-time non-managerial adult employees	\$	495	521	541	558	578	608	634	n.a.	692	n.a.	737
Female/male ratio of average weekly ordinary time earnings of full-time non-managerial adult employees	ratio	0.90	0.90	0.92	0.91	0.92	0.91	0.89	n.a.	0.89	n.a.	0.90
INCOME SUPPORT	Units	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Aged on age pension	%	59.2	59.3	61.0	62.8	64.3	63.0	62.7	64.4	65.4	65.5	n.y.a.
Age pensioners	'000	1 340	1 376	1 446	1 516	1 582	1 579	1 603	1 680	1 683	1 716	1 776
Male age pensioners	'000	404	418	448	481	514	545	570	598	614	634	679
Female age pensioners	'000	936	957	998	1 034	1 068	1 034	1 033	1 082	1 069	1 082	1 097
Labour market allowance	'000	419.8	676.7	851.8	913.8	878.3	822.6	846.6	829.9	809.6	713.4	511.4
Disability support pensioners	'000	306.7	334.2	378.6	406.6	436.2	464.4	499.2	527.5	553.3	577.7	618.7
Single-parent payment	'000	248.9	265.7	287.2	298.4	313.4	324.9	342.3	358.9	372.3	384.8	419.7
Full weekly benefit received by a couple with two children	\$	288	310	326	339	347	355	370	391	403	415	n.y.a.
GDP spent on income support	%	5.2	6.0	6.8	7.1	7.4	7.1	7.1	7.2	6.8	7.0	n.y.a.
EXPENDITURE	Units	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Consumer price index (Base year 1989-90 = 100.0)	index no.	100.0	105.3	107.3	108.4	110.4	113.9	118.7	120.3	120.3	121.8	124.7
Household final consumption expenditure per capita(a)	\$'000	15.4	15.4	15.5	15.7	15.9	16.5	17.0	17.3	17.9	18.5	19.6

(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	1999–2000	35.1	33.9	29.1	28.3	37.0	24.6	36.2	41.1	33.2
Gross household disposable income per capita	\$'000	1999–2000	23.0	22.5	20.0	20.0	21.7	18.0	21.8	29.4	21.9
Share of equivalent income going to top quintile (of all income units)	%	1999–2000	38.9	39.0	37.7	36.6	37.4	35.2	33.6	35.7	38.5
Share of equivalent income going to bottom quintile (of all income units)	%	1999–2000	6.6	7.3	7.2	8.0	7.1	9.1	8.1	6.8	7.1
Gini coefficient (of all income units)	ratio	1999–2000	0.46	0.44	0.45	0.42	0.43	0.42	n.a.	0.43	0.45
Median gross weekly income of couple with dependants income units	\$	1999–2000	1 004	1 028	975	961	985	887	1 047	1 403	1 000
Median gross weekly income of one-parent income units	\$	1999–2000	436	413	423	410	416	*436	*429	*627	424

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)	%	1999–2000	57.2	56.9	54.9	54.0	59.4	44.6	75.5	71.0	56.7
Main income source from government payments (of all income units)	%	1999–2000	28.6	26.7	29.6	30.8	23.4	39.8	11.5	16.9	28.0
Main income source from government payments (of couple with dependants income units)	%	1999–2000	11.9	11.4	9.7	12.8	5.9	13.7	**10.5	**4.3	10.7
Main income source from government payments (of one parent income units)	%	1999–2000	54.8	51.4	55.6	60.1	58.4	54.5	**53.3	*37.6	54.5
Mean total weekly earnings of all employees	\$	2000	699	647	619	598	622	579	635	734	653
Mean total weekly earnings of full-time adult employees	\$	2000	883	836	788	773	818	759	840	921	838
Mean weekly ordinary time earnings of full-time non-managerial adult employees	\$	2000	758	731	717	695	743	696	775	792	737
Female/male ratio of average weekly ordinary time earnings of full-time non-managerial adult employees	ratio	2000	0.90	0.90	0.88	0.90	0.89	0.94	0.89	0.90	0.90

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	440	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 years and over, and those under 21 years who are paid at the full adult rate.
Reference: *Employee Earnings and Hours, Australia* (ABS 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 years. 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 years and over and women 61.5 years and over from 1999; men 65 years and over and women 60 years and over prior to 1998.
Reference: *Population by Age and Sex, Australian States and Territories* (ABS 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* (ABS 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* (ABS 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* (ABS 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* (ABS 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* (ABS 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* (ABS 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* (ABS 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*: (ABS 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* (ABS 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* (ABS 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* (ABS 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* (ABS 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 institutions 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-profit 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* (ABS 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* (ABS 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* (ABS 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 usually do not receive payment for overtime. Reference: *Employee Earnings and Hours, Australia* (ABS 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* (ABS Cat. no. 6306.0).

Mean weekly ordinary time earnings of full-time non-managerial adult employees

Reference: *Employee Earnings and Hours, Australia* (ABS 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* (ABS Cat. no. 6523.0).

Ordinary time

employee's agreed hours of work including annual leave, paid sick leave and long service leave taken during the reference period. Reference: *Employee Earnings and Hours, Australia* (ABS 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* (ABS 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* (ABS 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* (ABS Cat. no. 6523.0).

Women's incomes

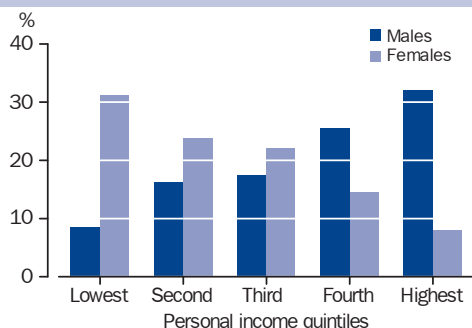
INCOME DISTRIBUTION

Contributed by: Sharon Burke and Gerry Redmond,
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In 1982, 33% of all income was received by women. By 1999–2000, this had increased to 38%. This growth was mainly the result of the increase in the proportion of women working.

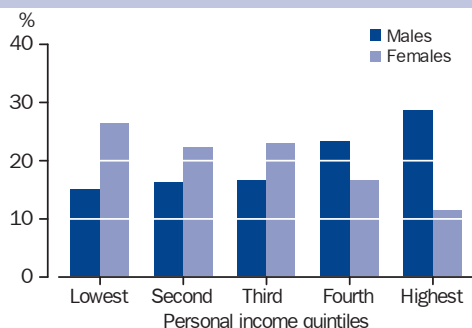
The amount of income which individuals receive influences their personal independence, their command over economic resources and their ability to support children and other family members. It is only in the latter part of the 20th century that many women, particularly married women, have been able to enjoy an income of their own. Improved educational opportunities and changes in the social status of women, marriage and fertility patterns, employment and government pensions have all contributed to increases in women's personal incomes. This article focusses on the increases over the last two decades. In 1982, women received 33% of all income received by men and women. By 1999–2000, this had increased to 38%.

Proportion of males and females in personal income quintiles, 1982



Source: ABS 1982 Income and Housing Survey.

Proportion of males and females in personal income quintiles, 1999–2000



Source: ABS 1999–2000 Survey of Income and Housing Costs.

Personal incomes

The ABS collected data on current incomes in the 1982 Income and Housing Survey between September and December 1982, and in the 1999–2000 Survey of Income and Housing Costs between July 1999 and June 2000.

Included in this analysis are the personal incomes of women and men aged 15 years and over in Australia in 1982 and 1999–2000 who are:

- ◆ income unit heads;
- ◆ spouses of income unit heads; or
- ◆ dependants of income unit heads, aged 15–20 years and in full-time post-school education.

Persons aged 21–24 years, living with their parents, and in full-time education have been treated as independent one-person income units.

Personal income is current gross weekly income, including income from employment, self-employment, rents and investments, child support, private transfers and government pensions and allowances. Negative incomes, which were only collected in 1999–2000, are set to zero.

Income quintiles are formed by ranking all persons in ascending order by level of income, and then dividing them into five groups, each containing 20% of people in the population.

Upper quintile points

Year	Quintile			
	Lowest	Second	Third	Fourth
	\$	\$	\$	\$
1982	54	101	217	323
1999–2000	154	255	482	750

Source: ABS 1982 Income and Housing Survey; ABS 1999–2000 Survey of Income and Housing Costs.

Income distribution

The distribution of personal incomes between women and men also changed over the 1980s and 1990s. One commonly used measure of the distribution of income between the sexes is the proportion of women and men in each income quintile. If there were no inequality in women's and men's incomes, then we would expect that each quintile group would contain equal proportions of each sex. In both 1982 and 1999–2000, women were more heavily concentrated in the lower quintiles of the personal income distribution, and men more

concentrated in the higher quintiles. In 1982, 31% of all women were in the bottom quintile. In 1999–2000, the proportion of women in the lowest quintile had decreased to 26%. Consequently, more women moved into the higher income quintiles. In 1982, 8% of all women were in the highest income quintile, compared with 11% in 1999–2000.

For men, the proportion in the lowest quintile increased from 9% in 1982 to 15% in 1999–2000. These changes inevitably meant that the proportion of men in the highest income quintiles decreased over the period, from 32% in 1982 to 29% in 1999–2000.

One of the main reasons women’s share of total personal incomes increased, and more women had incomes near the top of the personal income distribution in 1999–2000 than in 1982, was that over this period, the proportion of women with earnings from employment increased. Women’s increased participation in the labour force during the 1980s and 1990s was underpinned by developments such as legislation recognising equality in employment, changes in family formation and child bearing patterns, improved availability of publicly subsidised child care services, and an increase in the availability of part-time and casual employment. At the same time, many industries traditionally employing men declined, and men’s overall labour force participation also declined.

Changes in sources of income

Changes in women’s and men’s sources of income over the 1980s and 1990s largely reflect changes in their labour force participation. In 1982, 45% of women were either working or looking for work. By 2000

this had increased to 55%. For men, the pattern was one of reduced labour force participation, with rates falling from 77% to 73%.¹ These labour force changes are reflected in changes in the main source of income received over this time period.

In both 1982 and 1999–2000, a small proportion of women and men had no income. These were mainly young people in post-secondary education who were dependent on their parents’ income, and married women who were dependent on their husband’s income. However, the proportion of women for whom earnings from employment was the main income source, increased from 43% in 1982 to 50% in 1999–2000, in line with the increase in the proportion of women in paid employment (from 43% to 54%) over this period. In contrast, the proportion of men whose main source of income was employment earnings fell, from 72% of all men in 1982, to 66% in 1999–2000. This was associated with a decrease in the proportion of men in employment, from 75% to 71%, over the same period.

The proportion of women whose principal source of income was from government pensions (which includes age pensions, unemployment payments, disability payments and family allowances) declined from 41% in 1982 to 35% in 1999–2000. Government pensions became the main source of income for an increasing proportion of men (up from 18% to 21%) over the same period. These changes in receipt of government pensions do not just reflect changes in employment patterns among women and men, but also changes in the targeting of government payments themselves. For example, a smaller proportion of mothers with dependent

Main source of income	1982			1999–2000		
	Males	Females	Total	Males	Females	Total
	%	%	%	%	%	%
No income	4.0	6.3	5.2	4.0	6.7	5.4
Employment earnings(a)	71.5	42.6	56.9	65.8	49.5	57.5
Income from private sources	6.7	10.1	8.4	9.0	9.1	9.1
Income from government pensions	17.8	40.9	29.5	21.2	34.7	28.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
	'000	'000	'000	'000	'000	'000
Total population	5 318.1	5 419.9	10 738.0	6 963.0	7 093.1	14 056.1

(a) Includes income from wages, salaries and self-employment earnings.

Source: ABS 1982 Income and Housing Survey; ABS 1999–2000 Survey of Income and Housing Costs.

children received family allowances in 1999–2000 than in 1982. However, for some mothers in low income families, payments were likely to be more generous in 1999–2000 than in 1982.

Changes in income across age groups

Over the period 1982 to 1999–2000, women's and men's incomes increased 2.8 times and 2.3 times, respectively. This growth was not evenly distributed across all age groups and primarily reflected the changes in labour force participation, which varied considerably for women and men in different age groups.

The proportion of young women (aged 15–24 years) in employment increased from 65% to 72% between 1982 and 1999–2000, while the rate of employment among young men rose from 76% to 77%. The level of employment among young women was therefore approaching that of young men by the end of the 1990s. However, full-time employment declined, and part-time employment became increasingly more common for both young men and young women. This coincided with increased participation for both young men and young women in secondary and post-school education over this period (see *Australian Social Trends 2001*, Education: national summary table, pp. 92–93).

While young women's incomes became more equal with young men's over the 1980s and 1990s, they became less equal with those of other women. Young women's incomes more

than doubled over the period (by a factor of 2.4), but among all women, incomes increased by a factor of 2.8. Between 1982 and 1999–2000, young men's incomes increased by a factor of 1.9, while the personal incomes of all men increased by a factor of 2.3.

The proportion of women aged 25–44 years in employment increased over this period from 53% to 68%, and their average income increased to a greater extent than that of men in the same age group (by a factor of 2.9 compared with 2.2). These changes reflect the increased employment among mothers over this period. Their choice to enter employment may have been made easier not just by the increased availability of part-time employment, but also by the increased availability of formal childcare facilities (see *Australian Social Trends 2001*, Child care arrangements, pp. 41–45).

In contrast to older men, the proportion of older women of workforce age (45–59 years) in employment rose between 1982 and 1999–2000 (from 42% to 62%). Increasing numbers of women in this age group were employed in service industries, where new employment opportunities existed (see *Australian Social Trends 1997*, Changing industries, changing jobs, pp. 93–98). Changes in the structure of the labour market, particularly the decline in employment in the manufacturing and mining industries, affected older male workers most, and many left the labour force before reaching retirement age (see *Australian Social Trends 1994*, Early retirement among men, pp. 126–129). The proportion of men aged 45–59 years in employment declined over this period from 86% to 80%.

Women aged 45–59 years enjoyed a greater proportional increase in their average personal income between 1982 and 1999–2000 (up by a factor of 3.1) than women in the other age groups. But in 1999–2000 the average income of women in this group was still less than the average income of women aged 25–44 years.

Although the increase in employment among women aged 60 years and over was quite small (from 5% to 7%), they still experienced growth in personal income. This is related to two factors. First, age pensions, on which most older women depended in both years, generally grew in line with average earnings over this time.² Second, superannuation became increasingly important for women of pension age over this period.³

Income and employment

Age group (years)	Average weekly personal income			Proportion employed	
	1982	1999–2000	Change 1982 to 1999–2000	1982	1999–2000
	\$	\$	ratio	%	%
Males					
15–24	188	355	1.89	76.4	77.4
25–44	323	723	2.24	90.5	86.3
45–59	327	740	2.26	85.6	79.8
60 and over	151	386	2.56	20.9	21.2
Total	268	609	2.27	74.7	70.8
Females					
15–24	138	336	2.43	64.9	72.0
25–44	146	427	2.92	53.2	68.4
45–59	125	386	3.09	42.1	61.5
60 and over	96	241	2.51	5.0	6.7
Total	130	365	2.81	43.3	53.7

Source: ABS 1982 Income and Housing Survey, 1982; ABS 1999–2000 Survey of Income and Housing Costs.

Income of male and female partners, 1982 and 1999–2000

	Males		Females	
	Partner in a couple, no dependent children	Partner in a couple, with dependent children	Partner in a couple, no dependent children	Partner in a couple, with dependent children
Average weekly personal income	\$	\$	\$	\$
1982	244	334	124	112
1999–2000	566	809	352	339
	ratio	ratio	ratio	ratio
Increase 1982 to 1999–2000	2.32	2.42	2.84	3.03
Personal income as a proportion of couples' income	%	%	%	%
1982	66.3	74.9	33.7	25.1
1999–2000	61.7	70.5	38.3	29.5

Source: ABS 1982 Income and Housing Survey, 1982; ABS 1999–2000 Survey of Income and Housing Costs.

Income sharing

The change in women's average personal incomes over the 1980s and 1990s is an indicator of women's increased financial independence over this time. However, most women live with partners or dependent children, or indeed, are living with parents themselves. It is usually assumed that within income units, members pool their incomes and share a common standard of living (see *Australian Social Trends 1999*, Income sharing and income distribution, pp. 129–133). Personal incomes then, may not always accurately reflect the standard of living or independence that an individual enjoys.

The increases in women's incomes enabled them to contribute to a greater extent to their families' incomes than would otherwise have occurred. For example, the personal incomes of partnered women with dependent children increased 3.0 times between 1982 and 1999–2000, and the incomes of partnered women without dependent children increased 2.8 times. Over the same period, the personal incomes of partnered men with children increased by a factor of 2.4, while those of partnered men without children increased by 2.3.

As a result, the proportion of the total income of couples attributable to the female partners' personal income increased over this period. In 1982, women's personal income accounted for 25% on average of total income for couples with children and 34% for those without children. By 1999–2000, this had increased to 30% for couples with children and 38% for those without children.

Couples and children

Couples are two persons who are in a registered or de facto marital relationship and who are resident in the same household.

Dependent children are persons aged under 15 years, and those aged 15–20 years, in full-time education, who live with their parents.

Conversely, the personal income of partnered men, on average, declined as a proportion of couples' income over the period, accounting for 75% of total income for couples with children and 66% for those without children in 1982, and 70% for couples with children and 62% for those without children in 1999–2000.

Endnotes

- 1 Australian Bureau of Statistics 1982, *Labour Force, Australia*, Cat. no. 6203.0, ABS, Canberra, and Australian Bureau of Statistics 2000, *Labour Force, Australia*, Cat. no. 6203.0, ABS, Canberra.
- 2 Australian Bureau of Statistics 1982 and 1999, *Average Weekly Earnings, 1982 and Average Weekly Earnings, 1999*, Cat. no. 6302.0, ABS, Canberra. See also, Department of Social Security (DSS) 1982, *Annual Report 1981–82*, DSS, Canberra, p. 17. See also, Department of Family and Community Services (DFaCS) 2000, *Annual Report 1999–2000*, DFaCS, Canberra, p. 176.
- 3 Australian Bureau of Statistics 1998, *Retirement and retirement intentions, 1997*, Cat. no. 6238.0, ABS, Canberra.

Expenditure in low income households

EXPENDITURE

In 1998–99, low income households spent \$256 per week on average on housing, power, food, health, and transport. High income households spent \$527.

All households have a finite amount of income to divide up into a household budget. They may allocate some of their household budget to expenditure on basic needs, some to expenditure on additional goods and services and some to provision for future expenditure. Income is the main means by which most households finance current expenditure and make provision for future economic wellbeing. However, this can vary depending on circumstances and life-cycle stage. Some households (e.g. younger working households) may borrow money to finance large purchases (e.g. house, car) while others on lower incomes (e.g. retirees) may finance some of their expenditure by drawing down savings/assets accumulated during their working lives. Some households may be putting part of their income aside to finance future expenditure while others may be investing in their future in other ways (e.g. by acquiring educational qualifications).

Needs also vary over life-cycle stages and between different household types. In the process of making choices about expenditure, households are influenced by both the resources at their disposal and the needs of household members. Because low income is generally associated with more limited economic resources, households with low incomes often have less discretion in making choices about expenditure and will usually experience a lower standard of living than households with high incomes.

One commonly used method to identify low income households is to rank all households according to their income and then divide them into five groups containing equal numbers of households (referred to as income quintiles). The income quintiles used in this article were derived from estimates of

Household expenditure

Data in this article come from the Household Expenditure Survey (HES), conducted by the ABS for the 1998–99 financial year. The HES provides estimates of average weekly expenditure on a wide range of goods and services for private use, but excludes expenditure for business and other investment purposes.

Basic goods and services include expenditure on housing costs, domestic fuel and power, food and non-alcoholic beverages, medical care and health expenses, and transport.

Additional goods and services include expenditure on alcoholic beverages, tobacco products, clothing and footwear, household furnishings and equipment, household services and operation, recreation, personal care and miscellaneous goods and services.

Expenditure on *selected assets and liabilities* includes the principal component of mortgage repayments, and expenditure on superannuation and life insurance, purchasing additional properties, and making alterations and additions to the dwelling occupied by the household.

household income which had been adjusted by equivalence scales to take into account the number and characteristics of people in the household. Households in the bottom income quintile are referred to as low income households, while those in the top quintile are referred to as high income households.

While to some extent all expenditure is discretionary, households must provide for their housing, power, food and transport. People also need to attend to their health and physical wellbeing and thus households incur medical costs. For these basic goods and services, households in the top income quintile spent 2.1 times more than households in the bottom quintile.

Average weekly expenditure of low and high income(a) households, 1998–99

	Income quintiles		Expenditure ratio(b)
	Lowest 20%	Highest 20%	
	\$	\$	ratio
Expenditure on basic goods and services	255.90	527.30	2.1
Expenditure on additional goods and services	182.60	458.60	2.5
Expenditure on selected assets and liabilities	27.70	170.00	6.1

(a) Based on equivalent income.

(b) Ratio of the expenditure of the highest quintile to that of the lowest quintile.

Source: ABS 1998–99 Household Expenditure Survey.

Selected characteristics of low and high income(a) households, 1998–99

	Income quintiles		All households
	Lowest 20%	Highest 20%	
Income	\$	\$	\$
Average weekly household gross income(b)	224	1 727	874
Principal source of household income	%	%	%
Government pensions and allowances	65.9	0.4	27.2
Wage and salaries	11.1	89.7	57.3
Investment, superannuation and other private income	11.8	4.4	8.2
Work			
Two or more employed persons	11.5	64.2	38.7
One or more retired persons	33.7	4.5	23.4
Tenure			
Owner without a mortgage	46.9	28.6	39.7
Owner with a mortgage	15.5	42.3	29.7
Renting from a private landlord	18.6	26.8	22.7
Renting from a State housing authority	14.8	0.8	5.4
Selected household composition			
Lone person aged under 35 years	4.1	8.3	4.6
Lone person aged 35–54 years	6.7	14.6	7.1
Couple only, reference person aged under 35 years	0.7	14.9	5.2
Couple only, reference person aged 35–54 years	2.7	14.8	5.9
Couple family with children	23.7	23.2	33.4
One-parent family with dependent children only	10.7	1.1	5.4
Couple only, reference person aged 55 years and over	22.7	5.5	13.5
Lone person aged 55 years and over	21.4	4.9	12.5
Age of reference person	years	years	years
Median age of household reference person	52	42	45

(a) Based on equivalent income.

(b) Regular cash receipts before income tax or the Medicare levy are deducted.

Source: ABS 1998–99 Household Expenditure Survey.

For spending on additional goods and services such as recreation, alcohol, household furnishings, clothing, and personal care, the expenditure ratio of high income households to low income households was only slightly greater (2.5). However, the largest difference occurred for expenditure on selected assets and liabilities where the expenditure ratio of households in the top quintile to those in the bottom quintile was 6.1.

Income

Income quintiles are formed by ranking all the households in ascending order by income (in this case equivalent disposable income, i.e. income after income tax and the Medicare levy have been deducted) and then dividing them into five groups, each containing 20% of all households in the population. In 1998–99, there were 1.4 million households in each of the five quintile groups.

Equivalent income has been used to form income quintiles. Equivalising adjusts actual income on the basis of the household's characteristics, such as size and composition, to allow the standard of living of different households to be compared. For example, an adjustment is made for the difference that would exist in the standard of living between a couple with children and a couple without children who both receive the same combined income. OECD equivalence scales have been used in this article (for further information see *Income Distribution, Australia 1999–2000*, ABS Cat. no. 6523.0).

Difference between income and expenditure Households in the bottom quintile appear to spend more than they earn. While the HES collects extensive data about expenditure and income, the periods that the data refer to are not strictly comparable. Furthermore, different groups of people at different stages of their life may finance expenditure from sources other than income. Households which run down assets (such as savings) could be using the proceeds to finance expenditure. Some households (e.g. households containing unemployed people) may run up debts with the anticipation of paying them off when financial circumstances improve.

Households sometimes report very low or even negative business income, but higher expenditure on goods and services. Negative business income will be reported when losses occur (i.e. operating expenses and depreciation are greater than gross receipts).

Low income households

To a large extent the differences between the expenditure of low and high income households is a reflection of the amount of income that they had to spend (\$224 per week compared with \$1,727) and reflects relative differences in standards of living. However, while some low income households experience financial difficulties and struggle to afford basic and additional goods and services, low levels of income do not always reflect a low standard of living.

The largest group among low income households were those with a reference person aged 55 years or over (44% of households in the bottom quintile). Older people generally have fewer dependants to support, reduced costs associated with going to work, and high levels of home ownership (see *Australian Social Trends 1999*, Economic resources of older Australians,

Average weekly expenditure of low and high income(a) households on basic goods and services, 1998–99

	Income quintiles		Expenditure ratio(b)
	Lowest 20%	Highest 20%	
	\$	\$	ratio
<i>Current housing costs</i>	66.80	140.20	2.1
Rent Payments	32.90	47.50	1.4
Mortgage repayments(c) - interest component	10.20	45.90	4.5
House and contents insurance	4.20	7.90	1.9
Repairs and maintenance payments to contractors	4.50	14.30	3.2
<i>Domestic fuel and power</i>	15.70	19.10	1.2
<i>Food and non-alcoholic beverages</i>	91.50	151.90	1.7
Meals out and fast foods	15.70	56.60	3.6
Meat (excluding fish and seafood)	13.40	15.20	1.1
<i>Medical care and health expenses</i>	19.00	46.60	2.5
Accident and health insurance	6.60	20.90	3.1
Health practitioner's fees (includes specialists)	5.40	15.60	2.9
Medicines, pharmaceutical products and therapeutic appliances	6.20	8.70	1.4
<i>Transport</i>	62.90	169.50	2.7
Motor vehicle purchase	18.70	67.50	3.6
Motor vehicle fuel	18.1	30.8	1.7
Total average weekly expenditure on basic goods and services	255.90	527.30	2.1

(a) Based on equivalent income.

(b) Ratio of the expenditure of the highest quintile to that of the lowest quintile.

(c) For the purposes of buying or building the dwelling occupied by the household.

Source: ABS 1998–99 Household Expenditure Survey.

pp. 138–140). In keeping with this, 47% of low income households owned their home outright. Such households tend to have lower than average housing costs, and therefore a greater proportion of their income available for other expenses.

However, in 1998–99, for 66% of households in the bottom income quintile, government pensions were the principal source of household income and 15% of low income households were renting from a State housing authority. Both of these forms of government assistance involve means testing or assessment of need.

Another target group for government assistance are lower income families with children (see *Australian Social Trends 1999*, Lower income working families, pp. 134–137). In 1998–99, there were 484,600 families with children in the bottom income quintile, representing over a third of low income households (11% of these families were one-parent families).

Expenditure on basic goods and services

Expenditure on basic goods and services has slightly fewer discretionary qualities than expenditure on additional goods and services or on assets and liabilities, evidenced by it having the lowest expenditure ratio (2.1). The variation in expenditure between low and high income households reflects discretionary choice but also the differences in the characteristics of low and high income households.

In 1998–99, low income households spent \$16 per week on fuel and power while high income households spent \$19. This was partly a reflection of the fairly similar average household size for the bottom and top quintiles (2.5 persons and 2.2 persons respectively).

Like fuel and power, housing costs included some commodities where the difference in expenditure between low income and high income households was not great — for example, the expenditure ratio of renters in the top quintile to those in the bottom quintile was relatively small (1.4). Households in the bottom quintile were more likely to rent than households in the top quintile (33% compared with 27%). However, of renters in the bottom quintile, 44% rented from a State housing authority and paid an average of \$60 per week. The difference between expenditure of private renters in the bottom quintile compared with the top quintile was relatively small, \$128 per week compared with \$173 per week.

In contrast to the relatively low expenditure ratio for rent, the expenditure ratio for mortgage interest was 4.5. However, expenditure is averaged across all households regardless of whether they spent anything on purchasing a house, and fewer households in the bottom quintile were purchasing their houses (16% compared with 42% in the top quintile). When expenditure on mortgage interest for purchasers is compared, the expenditure ratio was 1.6 with low income households spending \$65 per week and high income households \$108.

There was not a great deal of difference in the expenditure ratio for food for low and high income households (1.7). In keeping with this, meat, vegetables, fruits, and bakery goods all had expenditure ratios from 1.1 to 1.4. Nonetheless, within a food budget there are some clear choices that households can make. For example, high income households spent 3.6 times more on eating out and fast food than low income households.

Average weekly expenditure of low and high income(a) households on additional goods and services, 1998–99

	Income quintiles		Expenditure ratio(b)
	Lowest 20%	Highest 20%	
	\$	\$	ratio
<i>Alcoholic beverages</i>	9.5	36.3	3.8
Wine	2.0	12.3	6.2
<i>Tobacco products</i>	9.5	10.9	1.1
<i>Clothing and footwear</i>	17.2	47.4	2.8
<i>Household furnishings and equipment</i>	25.8	63.9	2.5
Blankets, household linen and household furnishings	3.60	13.60	3.8
Whitegoods and other electrical appliances	5.7	11.1	2.0
<i>Household services and operation</i>	32.4	48.0	1.5
Telephone and facsimile charges	15.0	21.8	1.5
Child care services	1.8	4.2	2.3
<i>Recreation</i>	47.50	141.30	3.0
Home computer equipment	1.50	6.50	4.3
Books, newspapers, magazines	5.30	10.10	1.9
Sports fees and charges	2.00	7.90	4.0
Cultural fees and charges	2.10	8.40	4.0
Holidays	12.90	53.20	4.1
<i>Personal care</i>	7.80	20.70	2.6
<i>Miscellaneous goods and services</i>	32.90	90.30	2.7
Interest payments on credit services	4.50	14.60	3.3
Education fees for primary and secondary schools	4.00	8.50	2.1
Post-secondary school education fees	2.9	10.6	3.7
Total average weekly expenditure on additional goods and services	182.60	458.60	2.5

(a) Based on equivalent income.

(b) Ratio of the expenditure of the highest quintile to that of the lowest quintile.

Source: ABS 1998–99 Household Expenditure Survey.

The expenditure ratio for low and high income households for medical care and health expenses was 2.5. The largest difference in expenditure on medical costs was for accident and health insurance — with low income households spending \$7 per week compared with \$21 for high income households (a ratio of 3.1). This is consistent with the lower proportion of low income households covered by private health insurance than high income households (see *Australian Social Trends 2001*, Private health insurance, pp. 80–84).

The relatively high expenditure ratio between the top and bottom quintiles (2.7) for transport mainly reflected discretionary spending in motor vehicle purchase (a ratio

of 3.6). This reflects the great range in prices of cars from inexpensive second hand cars to top of the range new motor vehicles. It is also consistent with the lower levels of car ownership in the bottom quintile (see *Australian Social Trends 2001*, Household amenities, pp. 182–185).

Expenditure on additional goods and services

After households have provided for their basic needs, there are still some other goods and services that are universally required such as clothing and footwear, appliances, and telephones. For households with school-aged children, education costs are also an essential expenditure. With the exception of expenditure on post-school education, all of these fairly essential items had low expenditure ratios — examples include telephone charges (1.5), appliances (2.0), school-aged education (2.1) and clothing (2.8). However, the different standard of living between the two quintile groups was evident in those items where there was more scope for discretionary spending.

Expenditure on recreation is an area that households can reduce when budgets are small, or increase when resources are more extensive. Low income households' average weekly total expenditure on recreation (\$48) was a third of high income households' (\$141). Within recreation spending, households in the bottom quintile spent \$13 per week on holidays, representing 27% of their total expenditure on recreation. Households in the top quintile spent \$53 per week on holidays, representing 38% of their expenditure on recreation.

The amounts that low and high income households spent on sports fees and cultural fees also varied considerably. The difference between households in the bottom quintile and households in the top quintile was reflected in an expenditure ratio of 4.0. Some of this may be related to life-cycle stages, as the bottom quintile contains a higher proportion of households with a reference person aged 55 years or over compared with the top quintile (44% and 10% respectively). Older persons are less likely to participate in sport and less likely to attend cultural activities than younger persons. For example, in 1999, 50% of people aged 55–64 years attended a cinema compared with 79% of people aged 25–34 years. Lower attendance at cultural venues by older people was also apparent for museums, theatre, and animal and marine parks.¹

Average weekly expenditure of low and high income(a) households on selected assets and liabilities, 1998–99

	Income quintiles		Expenditure ratio(b)
	Lowest 20%	Highest 20%	
	\$	\$	ratio
Mortgage repayments(c) - principal component	9.6	53.8	5.6
Superannuation and life insurance	4.70	56.7	12.1
Other capital housing costs	**13.40	**59.50	4.4
Total average weekly expenditure on selected assets and liabilities	27.70	170.00	6.1

(a) Based on equivalent income.

(b) Ratio of the expenditure of the highest quintile to that of the lowest quintile.

(c) For the purposes of buying or building the dwelling occupied by the household.

Source: ABS 1998–99 Household Expenditure Survey.

Overall, households in the top quintile spent nearly four times more on alcohol and over six times more on wine. This difference in expenditure on wine can be partly explained by high income households purchasing not only greater quantities of wine, but also more expensive wine.

Expenditure on selected assets and liabilities

In 1998–99, households in the bottom quintile spent \$28 per week on selected assets and liabilities, which was a sixth of the \$170 per week spent by households in the top quintile. Expenditure on assets and liabilities includes repayments of the principal component of a residential home mortgage, payments towards superannuation and life insurance, repayments of the principal component of a mortgage on other dwellings, and expenditure on capital improvements to dwellings.

Many households secure their economic wellbeing through home ownership, which provides security of tenure and reduces housing costs in old age when incomes decline. Households in the bottom quintile spent \$10 per week repaying the principal component of a mortgage on a home, while households in the top quintile spent \$54. This reflected the higher proportion of households in the bottom quintile that owned their home outright or were renting.

Couple families with children are fairly evenly represented in both the bottom and the top quintiles (24% and 23% respectively). For low income families, the inability to secure future financial security through home purchasing can lead to long-term disadvantage. Couples with children in the bottom quintile were less likely to be making payments on a mortgage

(29%) than those in the top quintile (42%), and when they were making payments, the average value was \$22 per week compared with \$65 per week (a ratio of 2.9). Of one-parent families in the bottom quintile, 11% were making payments towards the principal component of a mortgage.

In 1998–99, expenditure on superannuation for low income households differed considerably from that of high income households. The expenditure ratio for superannuation payments was 12.1, reflected in superannuation payments of \$5 per week for low income households compared with \$57 per week for high income households. However, retired people are not likely to make payments towards superannuation and 34% of low income households contained one or more retired persons.

A further 33% of low income households were also unlikely to be making superannuation payments because their principal source of income was a working-age government pension or benefit.

As payments towards superannuation impact on future standards of living of households, it is of note that couple families with children in the bottom quintile spent \$11 per week on superannuation, compared with \$102 per week for their counterparts in the top quintile. One-parent families in the bottom quintile spent less than \$1 per week on superannuation (8% were making superannuation payments).

Endnotes

- 1 Australian Bureau of Statistics 1999, *Attendance at selected cultural venues*, Cat. no. 4114.0, ABS, Canberra.

Value of unpaid work

INCOME DISTRIBUTION

The value of unpaid work was 16% higher in 1997 than in 1992. However, when expressed as a proportion of GDP, the value of unpaid work fell from 54% to 48% over this period.

Unpaid work, by its very nature, involves no monetary transactions and covers activities performed in the household and community. However, along with paid work, unpaid work contributes to the wellbeing of individuals, families, the community and the economy more generally. Its importance was explicitly recognised in the 1993 revision of the international *System of National Accounts* which contained provision for the measurement of unpaid work through a supplementary system of satellite accounts.¹ Placing a monetary valuation on unpaid work is one way of measuring how trends in unpaid work are changing over time and how this relates to the market economy.

Unpaid work comprises two components: unpaid household work and unpaid volunteer and community work. The unpaid work done in households sustains families and individuals, and the way this work is shared within households affects members' participation in paid work, leisure, and other activities. Unpaid volunteer and community work builds networks in the community, and complements the assistance provided within families and households, enabling society to function more efficiently and with less reliance on government involvement.

This article focuses on the value of unpaid work. The distribution of the value of unpaid work between men and women and across activities is closely related to the relative participation levels and the amount of time spent on unpaid work by men and women.

Unpaid work

The ABS has estimated the value of unpaid work for 1992 and 1997. More information on these estimates can be found in *Unpaid Work and the Australian Economy* (ABS Cat. no. 5420.0).

In this article unpaid work refers only to work performed outside the market economy. This comprises unpaid household work and unpaid volunteer and community work. It does not include work performed without payment by persons in family businesses or on farms, as this work is considered to be part of the market economy by international statistical conventions.

When measuring unpaid work, a widely accepted principle for determining its scope is the "third person criterion". That is, if it is possible to pay someone else to perform a task (e.g. cleaning or child care), it is regarded as unpaid work. For practical and cultural reasons, this criterion is not always applied. For instance, the emotional care of adults is not regarded as unpaid work because although someone else (e.g. a counsellor) could be paid to provide emotional care, in practice it would be largely provided by family and friends.

Estimates of the value of unpaid work are the product of three components:

- ◆ estimates of average time spent per person on the various household and community activities considered to be unpaid work;
- ◆ population estimates; and
- ◆ wage rates selected for household and community activities. (This method assumes that household members and market replacements are equally productive).

Improved methodology in valuing unpaid work in 1997 may have impacted slightly on comparability with the 1992 estimates.

Value of unpaid work(a)

	1992			1997		
	hours per year (billions)	\$billion	%	hours per year (billions)	\$billion	%
<i>Type of unpaid work</i>						
Household work	17.6	207	92	17.7	237	91
Volunteer and community work	1.5	18	8	1.8	24	9
<i>Contribution</i>						
Males	6.5	81	36	6.7	97	37
Females	12.5	144	64	12.7	164	63
Total	19.0	225	100	19.4	261	100
Value of unpaid work as a proportion of GDP	54	48

(a) Of persons aged 15 years and over where the activity was the main activity.

Source: *Unpaid Work and the Australian Economy 1997* (ABS Cat. no. 5240.0).

This is discussed in more detail in *Australian Social Trends 2001*, Time spent on unpaid household work, pp. 142–145.

Growth in the value of unpaid work

In 1997, the value of unpaid work was \$261 billion compared with \$225 billion in 1992, a rise of 16%. The total hours spent on unpaid work also increased from 19.0 to 19.4 billion hours. These increases reflect rises in wage rates and population numbers. However, over the period, the value of unpaid work as a proportion of GDP fell from 54% to 48%. Several factors contributed to this fall.

First, unpaid work is largely undertaken by women. Between 1992 and 1997, the labour force participation rate for women rose by 3%, while the participation rate for men fell by 1%. This meant women had both less time to perform unpaid work and more income to purchase replacement services from the market. In keeping with this, the value of unpaid work performed by women decreased slightly from 64% to 63%. Similarly, the demand for formal child care increased. Between 1993 and 1996, the proportion of children aged under 3 years enrolled in formal child care increased from 17% to 22%.²

Second, unpaid work is valued using wage rates for occupations which correspond to selected household activities. These occupations have, for the most part, low skill

Assigning value to unpaid work

The ABS used an *individual function replacement cost* method to estimate the value of unpaid work in 1992 and 1997. This method assigns value to the time spent on unpaid work according to what it would cost to pay someone else to do the job. For example, time spent on gardening is valued at the rate of pay for a commercial gardener. The table below shows how commonly Australian households used market replacements for selected domestic activities.

Proportion of households which use market replacements, 1997

Market replacement	%
Dry cleaning, ironing or laundry service	14.7
Domestic cleaner	7.5
Gardening/lawnmowing service	13.8
Meals in a restaurant(a)	52.7
Takeaway food(a)	56.6

(a) At least one meal in the last fortnight of the survey.

Source: ABS 1997 Time Use Survey.

levels. Their associated wage rates grew more slowly between 1992 and 1997 than did wage rates for more skilled workers. For example, the wage rate for domestic housekeepers rose by only 9% over the period while the wage rate for all workers rose by 22%.²

Distribution of the value of unpaid household work, 1997

Activity	Males		Females		Total
	Employed	Not employed(a)	Employed	Not employed(a)	
	%	%	%	%	%
Food and drink preparation and cleanup	16.4	18.2	23.5	26.6	22.4
Laundry, ironing and clothes care	2.9	3.2	10.9	10.3	7.9
Other housework	6.6	9.0	12.2	14.1	11.3
Gardening, lawn care and pool care	10.8	17.1	4.2	6.1	8.2
Pet care	2.8	3.2	2.0	2.0	2.4
Home maintenance	11.5	12.0	1.5	1.2	5.0
Household management	6.1	4.8	4.2	3.6	4.4
Communication	0.7	0.5	0.6	0.4	0.6
Transport	14.5	11.9	13.3	10.2	12.2
Child care	13.5	6.1	13.7	14.9	13.0
Purchasing	14.2	14.1	13.8	10.6	12.7
Total	100.0	100.0	100.0	100.0	100.0
Share of the value of total unpaid household work	20.7	14.9	27.5	37.0	100.0

(a) Unemployed or not in the labour force.

Source: *Unpaid Work and the Australian Economy 1997* (ABS Cat. no. 5240.0).

Third, there were different economic conditions in 1992 and 1997. In 1992 Australia was emerging from a recession, while in 1997, the economy was stronger. GDP rose by 32% over the period.

While much of the unpaid work undertaken in households needs to be done regardless of economic conditions, when there is a strong demand for labour in the market economy (i.e. during periods of growth), unpaid work will decline as people move into paid employment.³ When this occurs, less unpaid work is done as people either modify their unpaid work practices (e.g. cleaning less often or cooking simpler meals) or purchase replacement services from the market (e.g. by using child care services or buying takeaway food).

As a result, not only is the value of unpaid work less responsive to changes in economic conditions than paid work, its value decreases relative to paid work during times of economic growth (and vice versa). Consistent with this, the value of unpaid work did not experience the same rate of growth as paid work and GDP between 1992 and 1997.

Other factors such as the changing size and composition of households, trends in housing, and rapid growth in technological innovation may also have impacted on the value of unpaid work.

Unpaid household work

In 1997, unpaid household work accounted for 91% of the value of unpaid work, with 65% of the value of this work being performed by women. Women who were not employed contributed the greatest proportion, at 37%. Conversely, a greater share of unpaid work was attributed to men who were employed (21%) than men who were not (15%). In part, this reflects the fact that a higher proportion of men than women are employed. For all persons, the activities which accounted for the highest proportions of the value of unpaid household work performed were food and drink preparation and cleanup (22%), child care (13%), purchasing (13%) and transport (12%).

However, the proportions of the value of all unpaid household work attributed to men and women varied for some activities, which partly reflects the differing amount of time spent by men and women on these activities. For example, food and drink preparation and cleanup made up a larger proportion of the value of women's total activities (24% for women who were employed and 27% for women who were not) compared with men's (16% and 18% respectively). Similarly,

International comparisons

The following estimates are presented as proportions of GDP to facilitate comparisons between estimates which are calculated in the currencies of individual countries.

There are numerous methodological differences between the various studies listed, particularly in terms of the scope of the studies and reference periods used. The estimates also reflect the different economic, social, cultural and climatic conditions in different countries.

Value of unpaid work(a)

Country	Scope(b)	Reference year	Proportion of GDP %
Australia	UW	1992	54
	UHW	1992	50
	UW	1997	48
Canada	UHW	1997	43
	UHW	1992	41
Germany	UW	1992	43
	UW	1992	71
New Zealand	UW	1990-91	52
Norway	UHW	1992	37
Switzerland	UW	1997	52

(a) Using the individual function replacement cost method.

(b) UW refers to unpaid work; UHW refers to unpaid household work.

Source: *Unpaid Work and the Australian Economy, 1997* (ABS Cat. no. 5240.0).

laundry, ironing and clothes care, (11% for employed women and 10% for women who were not employed) made up a greater share of the value of unpaid work performed by women than that performed by men (3% regardless of whether or not they were employed).

Conversely, there were some activities which made up a greater proportion of men's share of the value of unpaid household work compared with women's. Home maintenance made up 12% of the value of unpaid household work done by men for those both employed and not employed, compared with between 1% and 2% of that performed by women. Gardening, lawn care and pool care also comprised relatively greater shares (11% for employed men and 17% for those who were not employed, compared with 4% and 6% respectively for women).

The proportion of the value of unpaid work attributed to various individual activities performed by women varied little according to whether or not they were employed.

Distribution of the value of unpaid volunteer and community work, 1997

Activity	Males		Females		Total
	Employed	Not employed(a)	Employed	Not employed(a)	
	%	%	%	%	%
Adult care	3.3	6.9	5.7	9.7	6.7
Volunteer work	72.1	75.2	74.1	74.6	74.0
Associated travel	23.9	17.4	19.6	15.3	18.8
Associated communication	0.8	0.5	0.7	0.4	0.6
Total	100.0	100.0	100.0	100.0	100.0
Share of the value of unpaid volunteer and community work	25.1	19.1	21.4	34.5	100.0

(a) Unemployed or not in the labour force.

Source: *Unpaid Work and the Australian Economy, 1997* (ABS Cat. no. 5240.0).

However, for men there were two activities for which the proportion of the value of unpaid work for employed men varied noticeably from the proportion for men who were not employed. This is because men's participation in employment is closely related to their age.

Younger men, that is men of the age most likely to have dependent children, tend to be employed. Conversely, men who are not employed are more likely to be past retirement age and therefore less likely to have young children. This is reflected in the higher proportion of the value of child care for employed men (14% compared with 6% for men who are not employed). In contrast, outdoor activities such as gardening, lawn care and pool care constituted a larger share of the value of unpaid work performed by men who were not working than by those who were (11% and 17% respectively). This partly reflects the greater time available for unpaid domestic work of this kind to men who are not employed compared with those who are employed.

Unpaid volunteer and community work

In 1997, unpaid volunteer and community work comprised 9% of the value of unpaid work. The relative shares of the value of this unpaid work for women and men were 56% and 44% respectively. As with unpaid household work, the largest share was attributed to women who were not employed (35%).

Unpaid volunteer and community work

Volunteer work refers to active unpaid involvement in community based organisations, and helping or doing favours for family and friends (living in other households), and others in the community.

Adult care refers to the physical care of adults who are elderly, sick or who have a disability, or other adults (including helping with personal hygiene).

The proportion of the total value of volunteer and community work attributable to individual activities varied to some degree between men and women who were employed and those who were not. For employed men and women, adult care constituted a smaller proportion of their share of the total value of unpaid volunteer and community work than was the case for those not employed (6% and 3% for employed women and men respectively, compared with 10% and 7% respectively for women and men who were not employed).

Endnotes

- 1 Australian Bureau of Statistics 2000, *Unpaid Work and the Australian Economy, 1997*, Cat. no. 5240.0, ABS, Canberra.
- 2 Australian Bureau of Statistics 2000, *Unpaid Work and the Australian Economy, 1997*, Cat. no. 5240.0, ABS, Canberra.
- 3 Ironmonger, D, 1989, 'Households and the household economy', in *Households Work*, ed Ironmonger, D., Allen and Unwin, Sydney.

Income support among people of workforce-age

INCOME SUPPORT

In collaboration with: Department of Family and Community Services.

The proportion of people of workforce-age receiving income support increased from 4% in 1969 to 21% in 1999.

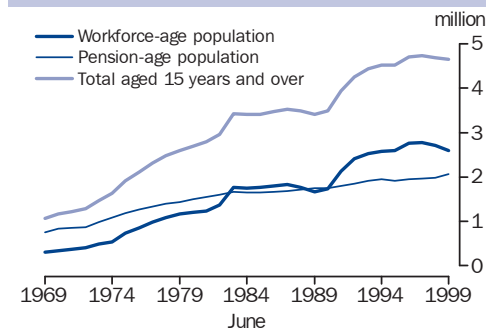
The proportion of the Australian population receiving income support has increased significantly in the last 30 years, making the provision of income support one of the most important functions of the Commonwealth Government today.¹ For most of its history, one of the main roles of Australia's income support system has been the provision of a safety net to prevent individuals (and their families) from involuntarily falling into poverty. This means that eligibility for income support payments is generally means tested to ensure assistance is targeted towards those in genuine need. At the same time, the government encourages those who can to make private provision for adequate income during their working lives (e.g. through continuous employment) and in retirement (e.g. through superannuation, investments, home ownership, etc.).

The government provides a wide range of income support payments (e.g. age pension, service pension, disability support pension, carer payment, unemployment payments and parenting payments), each targeted to meet the needs of different groups within the community, in different circumstances and at different life stages.

Increase in workforce-age recipients of income support

For most of the 20th century, the majority of income support recipients were of 'pension age' (men aged 65 years and over and women aged 60 years and over) and receiving either an age pension or a veteran's service pension. However, during the last three decades the

Number of income support recipients



Source: Department of Family and Community Services, Income Support Numbers and Expenditure, 1901–1999 Database; Population by Age and Sex, Australian States and Territories (ABS Cat. no. 3201.0).

Income support statistics

This article is based on the Income Support Numbers and Expenditure, 1901–1999 Database, and on analysis of trends in income support recipients, provided by the Department of Family and Community Services.

Rates of income support receipt are calculated using the ABS Estimated Resident Population series. Employment estimates are drawn from the ABS Labour Force Survey.

Income support recipients included in this article are those receiving payments which are intended to provide for the core requirements of a person (e.g. age pension, disability support pension, unemployment payments, parenting payments, wife/carer/partner payments, student assistance, veteran's service pension). People receiving only supplementary payments (e.g. family allowance, child care assistance) are excluded.

Workforce-age population is, for the purposes of this article, defined as men aged 15–64 years and women aged 15–59 years.

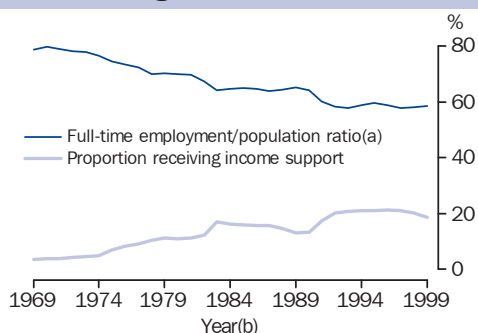
Pension-age population is, for the purposes of this article, defined as men aged 65 years and over and women aged 60 years and over.

balance changed, as a result of the strong growth in the numbers of income support recipients of 'workforce-age' (men aged 15–64 years and women aged 15–59 years), particularly during the periods of economic downturn in the early 1980s and early 1990s.

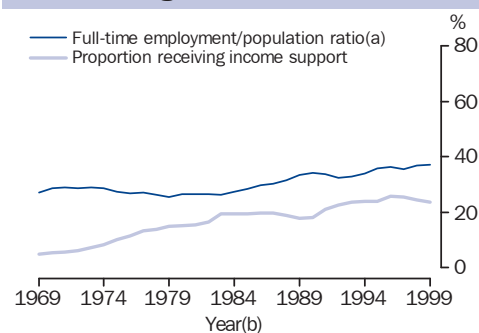
Between 1969 and 1999, the number of Australians receiving income support payments increased from 1.1 million to 4.7 million. Almost two-thirds (2.3 million) of this increase was among the workforce age population. The proportion of the workforce-age population receiving income support increased considerably from 4% to 21% during the period.

This increase is largely associated with: sustained declines in full-time employment and increased levels of unemployment, particularly among young people and those just below retirement age; increasing proportions of people without partners in general, and lone parents in particular; and increasing levels of education participation among young people. These social changes have impacted differently on men and women, and while both have had similar overall increases in the take-up of income support payments, there are some key differences in the types of payments taken up.

Workforce-age males



Workforce-age females



(a) Number of full-time employed expressed as a percentage of the civilian population aged 15 years and over.
 (b) Income support data is at June. Employment data is at August.

Source: Department of Family and Community Services, Income Support Numbers and Expenditure, 1901–1999 Database; ABS Labour Force Surveys, August 1969 to 1999 (Data have not been revised to reflect definitional changes introduced in April 2001); *Population by Age and Sex, Australian States and Territories* (ABS Cat. no. 3201.0).

For example, the increase in the proportion of workforce-age men receiving income support payments is primarily associated with the decline in rates of full-time employment (see *Australian Social Trends 2001*, Trends in employment population ratios, pp. 133–136). Between 1969 and 1999, the proportion of workforce-age men who were unemployed or working part-time, and receiving unemployment payments, increased from less than 1% to 8%, accounting for almost half of the overall increase (from 4% to 19%) in workforce-age men receiving income support. In addition, the proportion of workforce-age men who were unable to work, and were

receiving disability or sickness payments, increased from 2% to 6%, accounting for more than a quarter of the overall increase between 1969 and 1999.

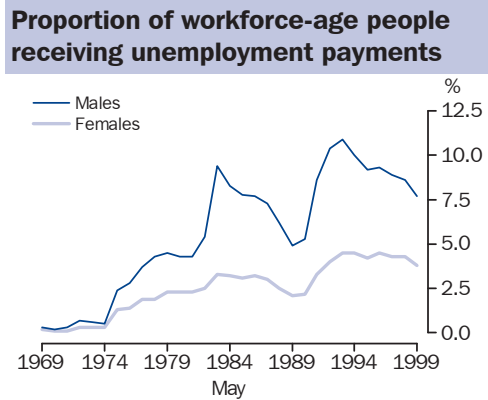
In contrast to men, the proportion of workforce-age women receiving income support increased in spite of an increase in the rates of full-time employment. This is because the growth in full-time employment has occurred mainly among women with partners, many of whom would not have been eligible for income support (regardless of their employment status) because of their partner's income.

Proportion of workforce-age population receiving income support payments

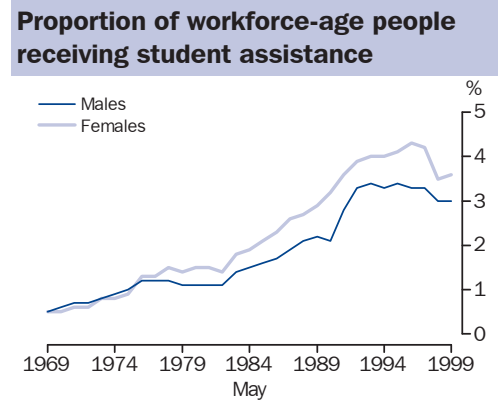
	Males		Females		Persons	
	1969	1999	1969	1999	1969	1999
Selected types of payment	%	%	%	%	%	%
Unemployment(a)	0.3	7.7	0.2	3.7	0.2	5.8
Disability/sickness(b)	1.9	5.9	1.6	3.3	1.7	4.7
Student assistance(c)	0.5	3.0	0.5	3.6	0.5	3.3
Parenting Payment (Single)(d)	..	0.4	1.1	6.0	0.5	3.1
Parenting Payment (Partnered)(e)	..	0.3	..	3.5	..	1.8
Wife, carer, partner(f)	..	0.4	0.6	2.9	0.3	1.6
Total receiving income support(g)	3.5	18.6	4.9	23.8	4.2	21.1
	'000	'000	'000	'000	'000	'000
Total receiving income support(g)	139.8	1 187.6	174.3	1 411.3	314.1	2 598.9

- (a) Refers to Newstart Allowance and Youth Allowance in 1999 and to Unemployment Benefit in 1969.
 (b) Refers to Disability Support Pension and Sickness Allowance in 1999 and to Invalid Pension, Sheltered Employment Allowance and Sickness Benefit in 1969.
 (c) Refers to Austudy, Abstudy and Youth Allowance (Full-time Student) in 1999 and to Commonwealth Scholarships in 1969.
 (d) Refers to Widow A Pension in 1969.
 (e) Refers to Parenting Payment (Partnered) - Additional Rate.
 (f) Refers to Wife Pension, Carer Payment and Partner Allowance in 1999 and to Pensioner's/Beneficiary's Additional Pension/Allowance in respect of dependent spouse in 1969.
 (g) Includes Veteran's Service Pension; Widow B Pension/Allowance and Bereavement Allowance; Mature Age Allowance and Mature Age Partner Allowance; Special Needs Pension and Special Benefit in 1999. Includes Veteran's Service Pension, Widow B Pension and Widow C Pension in 1969.

Source: Department of Family and Community Services, Income Support Numbers and Expenditure, 1901–1999 Database; *Population by Age and Sex, Australian States and Territories* (ABS Cat. no. 3201.0); Department of Family and Community Services, 2000, *Income Support Customers: a statistical overview 1999*.



Source: Department of Family and Community Services, Income Support Numbers and Expenditure, 1901–1999 Database; *Population by Age and Sex, Australian States and Territories* (ABS Cat. no. 3201.0).



Source: Department of Family and Community Services, Income Support Numbers and Expenditure, 1901–1999 Database; *Population by Age and Sex, Australian States and Territories* (ABS Cat. no. 3201.0).

The largest single contributing factor to the increase in the proportion of workforce-age women receiving income support payments has been the growth in the proportion of women who are lone parents. Between 1969 and 1999, the proportion of women receiving parenting (single) payments increased from 1% to 6%, accounting for more than a quarter of the overall increase in the period.

The proportion of women receiving unemployment payments and disability/sickness payments also increased, reflecting the increasing proportion of women who do not have a partner whose income may otherwise have made them ineligible for income support regardless of their own health or employment status. The increase in the proportion of workforce-age women receiving wife, carer or partner payments reflects the decline in full-time employment among their partners.

The proportion of both men and women receiving student assistance increased considerably between 1969 and 1999, from less than 1% for both men and women to 3% and 4% respectively, reflecting trends in full-time participation in education during the period (see *Australian Social Trends 2000*, Beyond compulsory schooling, pp. 93–97).

Profile of workforce-age income support recipients

Notwithstanding considerable social change in the past 30 years, the primary role of most men of workforce-age continues to be engaging in paid employment and providing the main family income, while women remain the primary carers of children and other family members. Differences in the overall proportion of workforce-age men and women

Workforce-age recipients of income support payments, 1999						
Selected types of payment	Males	Females	Persons	Males	Females	Persons
	'000	'000	'000	%	%	%
Unemployment(a)	491.0	221.4	712.5	41.3	15.7	27.4
Disability/sickness(b)	378.7	196.2	575.0	31.8	13.9	22.1
Student assistance(c)	192.0	213.2	405.3	16.2	15.1	15.6
Parenting Payment (Single)	27.1	357.5	384.6	2.3	25.3	14.8
Parenting Payment (Partnered)(d)	20.3	207.2	227.5	1.7	14.7	8.8
Wife, carer, partner(e)	24.9	171.1	196.1	2.1	12.1	7.5
Total receiving income support(f)	1 187.6	1 411.3	2 598.9	100.0	100.0	100.0

(a) Refers to Newstart Allowance and Youth Allowance.
 (b) Refers to Disability Support Pension and Sickness Allowance.
 (c) Refers to Austudy, Abstudy and Youth Allowance (Full-time Student).
 (d) Refers to Parenting Payment (Partnered) - Additional Rate.
 (e) Refers to Wife Pension, Carer Payment and Partner Allowance.
 (f) Includes Veteran's Service Pension; Widow B Pension/Allowance and Bereavement Allowance; Mature Age Allowance and Mature Age Partner Allowance; Special Needs Pension and Special Benefit.

Source: Department of Family and Community Services, Income Support Numbers and Expenditure, 1901–1999 Database; Department of Family and Community Services, 2000, *Income Support Customers: a statistical overview 1999*.

Age profile of recipients of selected income support payments, 1999

Selected types of payment	Age group (years)					Total workforce-age recipients
	Under 20	20–29	30–39	40–49	50 and over	
	%	%	%	%	%	%
Unemployment(a)	(e)2.7	(f)42.8	21.8	18.1	14.7	100.0
Disability Support Pension	2.5	8.8	14.1	21.5	53.0	100.0
Student assistance(b)	60.5	32.0	4.8	2.1	0.5	100.0
Parenting Payment (Single)	2.8	30.4	41.5	22.4	3.0	100.0
Parenting Payment (Partnered)(c)	1.6	26.4	45.9	22.8	3.3	100.0
Wife, carer, partner(d)	0.2	1.6	6.3	22.8	69.1	100.0

(a) Refers to Newstart Allowance and Youth Allowance.

(b) Refers to Austudy and Youth Allowance (Full-time Student) only.

(c) Refers to Parenting Payment (Partnered) - Additional Rate.

(d) Refers to Wife Pension, Carer Payment and Partner Allowance.

(e) Under 18 years.

(f) 18–29 years.

Source: Department of Family and Community Services, 2000, *Income Support Customers: a statistical overview 1999*.

receiving income support, and the types of payments they receive, are related to their different social roles.

Women of workforce-age are more likely than men to receive income support. In 1999, 24% of workforce-age women were receiving income support payments, compared with 19% of men. Of the 1.4 million workforce-age women receiving income support payments in 1999, over half (52%) were receiving payments associated with their roles as parents, partners or carers, compared with 6% of men. Women represented 91% of all recipients of these kinds of payments. In contrast, 41% of the 1.2 million workforce-age men receiving income support payments in 1999 were receiving unemployment payments. Men accounted for 69% of all recipients of unemployment payments.

The various types of income support payments tend to be targeted towards specific life-stage groups or people in specific circumstances. Consequently, the age profile of income support recipients varies across different types of payment and reflects the age profile of the eligible population.

In 1999, the vast majority of all recipients of student assistance (93%) were under 30 years of age, with more than half (61%) aged under 20 years, reflecting the age profile of full-time students.

Those receiving unemployment payments were more widely distributed across all ages but were still concentrated in the younger age groups, reflecting higher rates of unemployment and part-time employment among young people. In 1999, 43% of all people receiving unemployment payments were in the 20–29 years age group. Recipients of parenting payments were concentrated in the 20–39 years age group, reflecting the age profile of women with dependent children.

Disability support pensioners tended to be older overall, with over half (53%) aged 50 years and over in 1999, consistent with the age profile of people with disabilities (see *Australian Social Trends 2001*, Disability among adults, pp. 75–79). Recipients of wife, carer or partner payments tended to be older still, with 69% aged 50 years and over in 1999. This is because this group was comprised largely of the wives, carers or partners of age pensioners and disability support pensioners.

Endnotes

- 1 Kim Bond and Peter Whiteford, 2000, 'Income Support Payments in Australia' in *Year Book Australia, 2000*, ABS Cat. no. 1301.0, pp. 185–190, Ausinfo, Canberra.

Housing

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HOUSING AND LIFESTYLE

Housing experience through life-cycle stages	177
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People's housing requirements and preferences change as they move through different stages of their life. This article examines housing characteristics such as tenure, housing costs and dwelling characteristics for households containing people at various life-cycle stages.

Household amenities	182
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Australians have a relatively high material standard of living, with most households having basic amenities such as cooking and bathing facilities, telephones and televisions. This article examines the likelihood of households owning selected household amenities at different life-cycle stages and in areas of relatively high and low disadvantage.

HOUSING STOCK

Aboriginal and Torres Strait Islander housing in non-remote areas	186
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Aboriginal and Torres Strait Islander households in non-remote areas are more likely to be renting their dwelling than non-Indigenous households. This article reports on differences in tenure type between the Indigenous and non-Indigenous populations, as well as examining issues such as housing costs, condition of dwelling, and housing history.

HOUSING COSTS

Housing finance	190
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The 1990s have been characterised by increasing competition between housing finance lenders, falling interest rates, larger average loan sizes, higher rates of refinancing, and increased use of the home to secure loans or credit for other purposes. This article provides a brief overview of housing finance trends from 1988–89 to 1998–99.

Housing: national summary

HOUSING STOCK	Units	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Number of occupied private dwellings	'000	n.a.	6 173	6 302	6 446	6 579	6 690	6 762	66 956	7 056	7 186	n.y.a.
Size of new public sector houses	m ²	110	121	122	130	141	141	150	155	157	156	171
Size of new private sector houses	m ²	189	188	187	189	192	197	205	210	213	215	231
Average persons per household	no.	2.8	2.8	2.7	n.a.	2.6	2.6	2.6	2.6	2.6	2.6	n.y.a.
Average bedrooms per dwelling	no.	2.9	2.9	n.a.	n.a.	2.9	2.9	2.9	2.9	3.0	3.0	n.y.a.
Public sector dwellings completed	'000	12.5	11.5	9.7	11.1	9.9	7.8	6.8	6.0	4.4	5.4	4.8
Private sector dwellings completed	'000	147.5	122.9	123.0	145.2	157.3	162.4	129.1	113.4	127.2	136.7	150.5
Dwelling structure(a)												
Separate house	%	80.7	n.a.	78.2	n.a.	79.4	79.3	78.6	79.5	78.8	79.5	n.y.a.
Semi detached/townhouse	%	7.1	n.a.	7.0	n.a.	7.9	7.9	8.1	7.9	8.8	8.9	n.y.a.
Flat/apartment/unit	%	11.5	n.a.	12.5	n.a.	12.5	11.9	12.4	11.9	11.7	11.1	n.y.a.
Tenure type(b)												
Owner without a mortgage	%	42.4	n.a.	41.6	n.a.	41.8	41.3	41.7	40.9	39.4	38.8	n.y.a.
Owner with a mortgage	%	29.2	n.a.	27.6	n.a.	28.3	29.8	28.2	28.0	30.4	31.3	n.y.a.
State housing authority renter	%	5.8	n.a.	5.6	n.a.	6.2	4.9	5.9	5.4	5.6	5.1	n.y.a.
Private landlord renter	%	17.1	n.a.	18.9	n.a.	19.0	17.8	20.0	21.0	20.5	20.3	n.y.a.
HOUSING COSTS	Units	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Housing interest rate	%	16.9	15.1	11.9	9.9	8.9	10.0	10.3	8.3	6.7	6.6	7.0
Affordability index	index no.	100.0	111.7	133.9	152.1	162.8	140.9	141.7	169.0	169.0	164.8	145.9
First home buyers: average loan size	\$'000	n.a.	n.a.	73.3	78.5	86.3	92.9	94.6	104.6	109.9	127.6	133.1
Average weekly earnings index	index no.	100.0	106.6	111.5	113.5	116.9	121.7	127.2	132.1	137.6	142.7	147.4
Mean weekly public rent	\$	58	n.a.	66	n.a.	62	59	62	64	63	66	68
Mean weekly private rent	\$	133	n.a.	127	n.a.	141	138	148	153	157	163	167
Government-owned rental cost index	index no.	100.0	105.0	110.0	112.5	115.3	118.5	119.3	122.5	123.8	126.8	130.8
Privately-owned rental cost index	index no.	100.0	104.7	106.3	106.7	107.1	108.1	112.4	115.8	119.6	122.7	126.6
Project home price index	index no.	100.0	102.1	102.1	103.0	105.8	108.1	109.5	109.2	110.3	113.1	120.7
Established home price index	index no.	100.0	100.8	104.6	106.0	109.1	112.6	112.7	115.1	122.8	130.4	142.3
Materials used in house building price index	index no.	100.0	104.6	104.9	106.9	112.0	115.4	115.7	116.1	118.2	119.5	122.8
Finance commitments												
Number for construction or purchase of new dwellings	'000	77	80	94	111	124	103	85	89	97	94	94
Value for construction or purchase of new dwellings	\$m	4 621	5 142	6 466	8 200	10 524	9 502	8 263	9 302	11 287	12 158	13 456
Number for purchase of established dwellings	'000	203	214	285	342	420	348	366	393	385	395	455
Value for purchase of established dwellings	\$m	14 339	15 634	r22 071	r28 579	r37 311	r32 808	r35 416	40 677	43 374	r49 344	61 496
Value for alterations and additions	\$m	906	981	1 359	1 641	2 899	3 477	3 510	3 039	2 779	2 821	3 321
HOUSING ASSISTANCE	Units	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Public sector rental dwelling stock	'000	352	362	370	377	384	389	393	400	381	386	363
Applicants on housing waiting lists	'000	195	202	216	232	235	235	236	221	218	184	213
Applicants accommodated	'000	53	52	49	54	55	53	51	47	42	41	41
Persons receiving private rental assistance	'000	674	646	868	941	976	931	1 042	1 049	979	1 016	992

(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; 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	1999	2 402.5	1 747.6	1 388.4	608.8	719.0	186.3	64.7	117.3	7 185.5	
Size of new public sector houses	m ²	2000	207	125	193	170	191	149	163	125	171	
Size of new private sector houses	m ²	2000	244	226	237	212	229	198	220	229	231	
Number of dwellings completed	'000	2000	50.0	39.3	32.9	8.0	19.5	1.7	1.8	2.1	155.3	
Dwelling structure(b)												
Separate house	%	1999	74.7	82.0	84.1	78.7	79.7	87.9	72.1	81.4	79.5	
Semi detached/townhouse	%	1999	8.4	9.2	5.1	14.1	13.1	5.8	9.6	8.3	8.9	
Flat/apartment/unit	%	1999	16.7	8.7	8.8	6.8	6.7	5.8	16.0	10.2	11.1	
Tenure type(c)												
Owner without a mortgage	%	1999	40.6	42.5	34.8	38.1	34.3	40.5	16.2	30.7	38.8	
Owner with a mortgage	%	1999	29.0	32.2	32.7	30.9	33.6	30.1	29.4	37.4	31.3	
State housing authority renter	%	1999	5.3	3.8	3.4	10.7	4.5	5.9	13.2	10.1	5.1	
Private landlord renter	%	1999	21.9	17.3	23.7	14.6	21.4	18.4	21.5	17.8	20.3	
HOUSING COSTS		Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT(a)	ACT	Aust.
Affordability index(d)	index no.	2000	94.6	133.7	167.4	197.6	173.9	217.5	n.a.	145.3	145.9	
First home buyers: average loan size	\$'000	2000	169.3	127.4	118.9	94.6	114.3	81.0	120.7	125.6	133.1	
Mean weekly public rent	\$	2000	65	74	68	66	61	65	91	79	68	
Mean weekly private rent	\$	2000	200	156	150	127	143	121	200	170	167	
Project home price index(d)	index no.	2000	123.1	122.0	118.2	127.2	114.8	126.2	143.2	131.9	120.7	
Established home price index(d)	index no.	2000	153.1	144.6	142.2	123.2	125.9	129.0	199.2	137.0	142.3	
Materials used in house building price index(d)	index no.	2000	126.8	121.7	120.8	127.2	117.1	123.8	n.a.	n.a.	122.8	
Finance commitments												
Number for construction or purchase of new dwellings	'000	2000	25.1	28.5	17.2	6.5	13.5	1.3	0.8	1.4	94.2	
Value for construction or purchase of new dwellings	\$m	2000	4 395	3 827	2 336	731	1 746	124	91	213	13 456	
Number for purchase of established dwellings	'000	2000	162.5	101.8	70.9	37.8	58.1	9.0	5.1	9.7	454.9	
Value for purchase of established dwellings	\$m	2000	26 630	13 482	8 449	3 646	6 820	707	540	1 224	61 496	
Value for alterations and additions	\$m	2000	1 268	941	466	172	324	65	24	58	3 321	
HOUSING ASSISTANCE		Units	Years	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Public sector rental dwelling stock	'000	2000	127.5	66.0	50.7	53.5	32.7	13.4	7.5	11.8	363.0	
Applicants on housing waiting lists	'000	2000	98.3	41.0	23.9	31.0	11.9	1.5	2.1	3.4	213.0	
Applicants accommodated	'000	2000	10.6	8.8	8.8	4.9	3.9	2.3	1.0	1.1	41.4	
Persons receiving private rental assistance	'000	2000	337.2	217.3	244.2	67.5	86.2	24.8	5.9	8.6	991.9	

(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* (ABS 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) 2001, *Report on Government Services 2001*, 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; 1995 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; 1995 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* (ABS 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* (ABS 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* (ABS 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* (ABS 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; 1999 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* (ABS 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* (ABS 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; 1999 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* (ABS 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; 1999 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; 1999 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: Survey 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* (ABS 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; 1999 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* (ABS 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* (ABS 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) 2001, *Report on Government Services 2001*, 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; 1999 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; 1999 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; 1999 Australian Housing Survey; and Surveys of Income and Housing Costs.

Housing experience through life-cycle stages

HOUSING COSTS

In 1999, 70% of Australian households owned or were buying their homes. However, levels of home ownership varied across life-cycle groups.

As people progress through different life-cycle stages and their family structures and financial situations change, so do their housing needs and preferences. An understanding of the relationships between life-cycle stage, income, housing costs and level of investment in home ownership can be useful in developing policies which enable home purchase among those who would otherwise find this difficult.

In 1999, 70% of Australian households owned their homes. The tenure of a household is strongly related to life-cycle stages, generally following a pattern of renting in early adulthood, moving to home purchase and mortgages as partnerships are formed and children are born, and owning the home outright in older age. However for some, family breakdown disrupts this pattern.

Between 1994 and 1999, the home ownership rates of various life-cycle groups showed little change. However, there were two exceptions. For young couple households without children, home ownership fell from 60% in 1994 to 52% in 1999, while home ownership for lone-parent families increased over the period (from 35% to 40%).

There are long-term benefits in home ownership. Initially, the cost of home purchase is often far greater than renting (due to the costs of deposits and fees, as well as ongoing mortgage repayments). However, the much lower costs associated with owning

Life-cycle and housing

The data in this article come from the ABS 1999 Australian Housing Survey. More information about this survey can be found in *Australian Housing Survey: Housing Characteristics, Costs and Conditions, 1999* (ABS Cat. no. 4182.0). The life-cycle groups in this article have largely been selected from those which appear in that publication, and include:

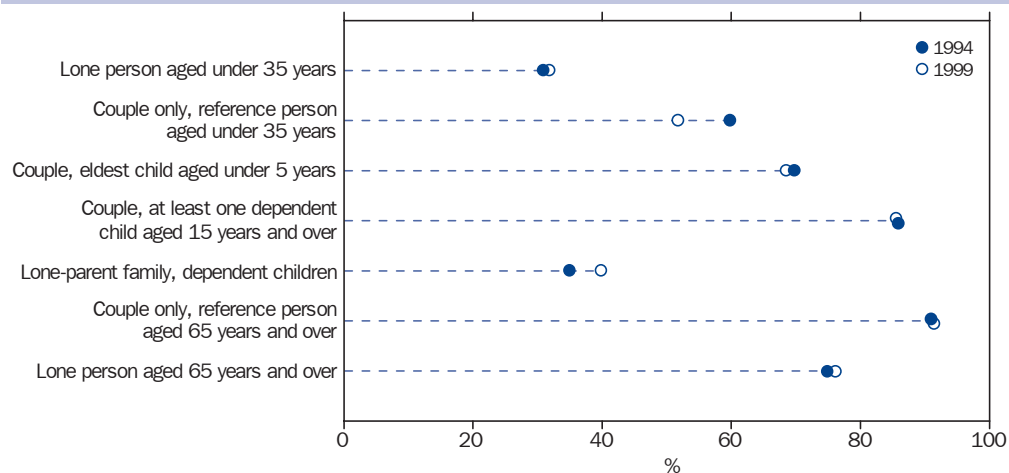
- ◆ lone person aged under 35 years;
- ◆ couple only, reference person aged under 35 years;
- ◆ couple, eldest child aged under 5 years;
- ◆ couple, at least one dependent child aged 15 years or over;
- ◆ lone-parent family with dependent children;
- ◆ couple only, reference person aged 65 years or over; and
- ◆ lone person aged 65 years or over.

Dependent children are those aged under 15 years; and full-time students aged 15 to 24 years living with a parent and without a partner or child of their own in the household.

The reference person for each household is chosen by applying, to all usual residents aged 15 years and over in the household, the following selection criteria below, in order of precedence:

- ◆ the person with the highest tenure type ranked from owner without a mortgage, owner with a mortgage, renter, other tenure;
- ◆ the person with the highest income;
- ◆ the eldest person.

Proportion of home owners by selected life-cycle groups



Source: ABS 1994 and 1999 Australian Housing Surveys.

a home outright and the investment that a home represents, can be major factors in the ongoing economic wellbeing of many Australians, particularly as many retire on considerably reduced incomes.

In 1999, the average weekly housing cost for all households was \$129. Outright owners (those without a mortgage) had the lowest average weekly housing costs (\$47), while those with a mortgage had the highest costs, spending an average of \$228 per week (although some of the cost for this group reflects the fact that 54% of these households chose to pay more than their minimum mortgage repayment). On average, those households which were renting paid \$146 per week in housing costs.

Most Australian households live in separate houses (80% in 1999). However, as with tenure, the type and size of dwellings and housing costs vary across different life-cycle groups.

Housing costs

Ongoing housing costs comprise:

- ◆ mortgage or loan repayments (secured or unsecured) where the purpose of the loan is to buy or build, add to or alter the dwelling;
- ◆ rental payments;
- ◆ water and general council rates;
- ◆ land tax payments;
- ◆ body corporate or strata title payments; and
- ◆ expenditure on repairs and maintenance for the dwelling.

Only payments which related to the dwelling occupied at the time of interview were included. Payments for other dwellings were not regarded as housing costs, even if the usual dwelling had been offered as security.

Young people, selected characteristics

	Household type	
	Lone person aged under 35 years	Couple only, reference person aged under 35 years
Tenure	%	%
Owner without a mortgage	4.8	5.4
Owner with a mortgage	27.0	46.3
Renters	62.2	46.4
Average housing costs as a proportion of income		
Owner without a mortgage	*7.5	*9.5
Owner with a mortgage	26.6	20.6
Renters	22.8	13.8
All households	22.2	16.9
Proportion of income spent on housing costs(a)		
25% or less(b)	54.9	75.2
More than 50%	12.2	3.7
Proportion in a separate house	46.1	67.5
Average weekly housing costs	\$	\$
Owner without a mortgage	*53	*139
Owner with a mortgage	227	324
Renters	130	164
All households	143	234
Average number of bedrooms in dwelling	no.	no.
	2.1	2.6
	'000	'000
Total households	327.6	366.2

(a) Households with unknown housing costs and households with nil or negative income were excluded prior to the calculation of percentages.

(b) Includes households which reported no housing costs.

Source: Australian Housing Survey: Housing Characteristics, Costs and Conditions, 1999 (ABS Cat. no. 4182.0).

Young households (under 35 years)

In 1999, young lone-person and couple-only households (those with a reference person aged under 35 years), comprised 10% of all households in Australia (each group around 5%). People in these households are generally more mobile. Many are studying or starting their careers, and are likely to be on lower incomes than they will be at later stages in their lives. In many cases, they are yet to move into home ownership.

Young lone-person households were most likely of all life-cycle groups to be renting (62%), most of these (84%) from private landlords. Less than one third of young lone-person households had moved into home ownership, most with a mortgage. However, young people are more inclined to move into home ownership as they take on partners. Just over half of young couple households without children owned their own home. As was the case for young lone-person households, most had a mortgage.

In keeping with their larger household size, young couples without children lived in dwellings where the average number of bedrooms was higher than for young lone persons (2.6 compared with 2.1). Young couple households without children were also more likely than young lone-person households to live in separate dwellings (68% compared with 46%), with the majority of young singles living in semidetached dwellings or flats.

Reflecting their lower household incomes, young lone persons spent on average over a fifth (22%) of their income on housing. Young couple households without children (many of whom are on dual incomes) on average spent a lower proportion of their

Families with children, selected characteristics

	Household type		
	Couple with eldest child aged under 5 years	Couple with at least one dependent child aged 15 years or over	Lone parent with dependent children
Tenure	%	%	%
Owner without a mortgage	12.7	35.0	15.0
Owner with a mortgage	55.9	50.6	24.8
Renters	28.5	12.4	58.3
Average housing costs as a proportion of income			
Owner without a mortgage	9.1	4.5	7.0
Owner with a mortgage	21.1	13.8	24.5
Renters	19.4	15.2	27.4
All households	18.8	10.5	22.1
Proportion of income spent on housing costs(a)			
25% or less(b)	69.0	87.5	56.2
More than 50%	5.7	2.8	10.3
Proportion in a separate house	84.5	95.6	75.9
Average weekly housing costs	\$	\$	\$
Owner without a mortgage	116	67	53
Owner with a mortgage	259	225	181
Renters	168	169	120
All households	211	159	124
Average number of bedrooms in dwelling	no.	no.	no.
Average household size	3.0	3.6	3.0
	3.4	4.4	2.8
	'000	'000	'000
Total households	415.4	708.9	415.5

(a) Households with unknown housing costs and households with nil or negative income were excluded prior to the calculation of percentages.

(b) Includes households which reported no housing costs.

Source: Australian Housing Survey: Housing Characteristics, Costs and Conditions, 1999 (ABS Cat. no. 4182.0).

income on housing costs (17%) than young lone-person households, despite the fact that they had much higher average weekly housing costs (\$234 compared with \$143).

Families with children

As families are formed and grow, housing needs and preferences change. The birth of children increases family size and often results in the household shifting back to dependence on a single income when children are very young. The trend to home purchase and moving into larger dwellings increases as couples and their children grow older. At this time, parents' incomes are likely to be higher than those in younger life-cycle groups due to their more established careers and the move of parents (mainly mothers) back into the workforce and full-time employment.

Of couple families with all children aged under 5 years, 69% were home owners (56% were paying off a mortgage). Among households containing couple families with older children (at least one aged 15 years or over), home ownership was higher (86%) than for those with younger children and over a third (35%) owned their home outright.

Income levels vary considerably over a person's life cycle (see *Australian Social Trends 1998*, Income distribution and life cycle, pp. 130–133). Household incomes for couples, and hence their capacity to pay for larger, more expensive homes, usually increase as their children grow older. In 1999, most couple households with young children lived in separate houses and in homes with three or more bedrooms (85% and 78% respectively). However, couple

households with older dependent children were even more likely to do so (96% and 97% respectively). Despite this, housing costs for couple households with young children were generally higher (\$211 on average per week, representing 19% of their average weekly income) than for couples with older children (\$159 which constituted 10% of their income). This is likely to reflect both the lower incomes of couple households with young children, and the fact that they usually have less equity in their homes than couples with older children. The former households are also more likely to have bought their home more recently and therefore to have purchased their house at a higher price.

For those who owned a house, average weekly housing costs for couples with young children ranged from \$259 for those with a mortgage to \$116 for those without a mortgage. For couples with older children, average weekly housing costs ranged from

\$225 for those with a mortgage, to \$67 for those without a mortgage. In contrast, households containing couple families which were renting had similar costs regardless of the age of children present.

When families are disrupted through divorce or separation, the trend towards home ownership is often reversed, reflecting reduced household incomes and the splitting of family assets. As a result, the household may move from home ownership back to renting, and also into a smaller more affordable home. Lone-parent households with dependent children were more likely to be renting (58%) than to own their home (40%), and they were the life-cycle group most likely to be renting through a State housing authority (21%). In 1999, while most lone-parent households with dependent children lived in separate dwellings (76%) and in dwellings with at least three bedrooms (77%), these proportions were lower than for couples with dependent children.

Average weekly housing costs for lone-parent households with dependent children were \$124, or 22% of their average weekly income. Among these households, private renters paid \$152, on average, in housing costs which represented 31% of average weekly income. Lone-parent households with dependent children were more than three times as likely as couple households with at least one dependent child aged 15 years or over to spend more than 25% of their income on housing (44% compared with 13%). Just over 10% of lone-parent households with dependent children spent more than 50% of their income on housing.

Older persons (65 years and over)

Home ownership is very high among older people, with outright ownership by far the most common tenure type for Australians aged 65 years and over. The benefits of this to older people include lower housing costs, security of tenure, and having an asset that may be realised for consumption or passed on to later generations as inheritance.

In 1999, older persons living in a couple-only household (those where the reference person was aged 65 years or over) had very high ownership rates (91%), with 88% owning their home outright. Older lone-person households (which are often formed after a partner dies) had a home ownership rate of 76%, with 73% owning their home outright. Older lone-person households were more likely to be renting than older couple-only households (19% compared with 7%), with 10% of older people living alone renting from State housing authorities.

Older people, selected characteristics

	Household type	
	Couple only, reference person aged 65 years or over	Lone person aged 65 years or over
Tenure	%	%
Owner without a mortgage	87.6	72.8
Owner with a mortgage	3.8	3.3
Renters	6.8	19.3
Average housing costs as a proportion of income		
Owner without a mortgage	7.4	11.4
Owner with a mortgage	15.7	22.0
Renters	26.7	33.7
All households	8.8	15.2
Proportion of income spent on housing costs(a)		
25% or less(b)	90.1	81.6
More than 50%	2.7	6.0
Proportion in a separate house	86.5	64.8
Average weekly housing costs	\$	\$
Owner without a mortgage	38	31
Owner with a mortgage	91	62
Renters	103	70
All households	44	40
	no.	no.
Average number of bedrooms in dwelling	2.9	2.4
	'000	'000
Total households	582.5	681.8

(a) Households with unknown housing costs and households with nil or negative income were excluded prior to the calculation of percentages.

(b) Includes households which reported no housing costs.

Source: Australian Housing Survey: Housing Characteristics, Costs and Conditions, 1999 (ABS Cat. no. 4182.0).

In 1999, the average weekly income of older person households was lower than that for any other life-cycle group (reflecting the likelihood that household members had retired), but so were average weekly housing costs (\$44 for couple households and \$40 for lone-person households). Even for those with a mortgage, average weekly housing costs were relatively low (\$91 for older couple households and \$62 for older lone-person households). This partly reflects the fact that many of these households would have purchased their first home some decades earlier when home prices and mortgages were considerably lower. However, for the small proportion who were renting, housing payments consumed a relatively large proportion of their incomes. The 7% of older lone-person households which were renting from private landlords spent a higher proportion of their income on housing costs than any other life-cycle group (49%).

Reflecting their smaller household size, the homes of older lone persons were more likely to be smaller than those of older couples. Older lone persons were less likely to live in separate dwellings than older couples (65% compared with 87%), and more likely to be living in dwellings with fewer bedrooms than older couples (2.4 bedrooms on average compared with 2.9).

For many older people, the onset of diminished health and disabilities, and the need for security and ready access to services such as public transport, are often key considerations in their choice of housing, especially after the death of a partner. The growing proportion of older persons (in particular of persons aged 80 years and over) in Australia has subsequently led to the emergence of new types of housing such as self-care dwellings in retirement villages. In 1999, 1% of older couples and 3% of older lone persons were living in such accommodation.

International Comparison

Compared with other countries, Australia has a relatively high level of home ownership.

Home ownership(a) in selected countries

Country	Year	%
New Zealand	1996	70.5
Australia	1999	70.1
England	1998–99	69.0
USA	1999	66.8
Canada	1999	63.7
France	1999	54.7
Netherlands	1998	50.8
Germany	1998	40.5

(a) Includes households with and without mortgages.

Source: Various from the United Nations; Statistics Canada; National Statistics (UK); Institut National de la Statistique et des Etudes Economiques (France); Statistics New Zealand; and United States Census Bureau.

Household amenities

HOUSING AND LIFESTYLE

While virtually all households have a telephone and a television, ownership of other household amenities, such as microwave ovens and dishwashers, is lower and is concentrated among certain household types.

Owning, or having ready access to, items such as cooking facilities, fridges, washing machines, telephones, computers and cars can help make the lives of Australians easier and more enjoyable, and improve their material standard of living. A measure of access to such amenities therefore provides a valuable adjunct to fundamental indicators in other areas of wellbeing, such as health and income.

Australians have high ownership levels of household amenities, and virtually all Australian households have basic amenities such as cooking facilities, a working bath or shower connection and toilet, a fridge and a telephone. However ownership of other amenities, such as computers, microwave ovens and dishwashers, is lower and is concentrated among certain household types.

A household can be considered to be disadvantaged if it lacks the resources to participate fully in society.¹ As household amenities often save time and effort, or provide access to social and work-related activities, having fewer amenities can impact on households' ability to maintain or improve

Household amenities

The main sources of data for this article are the ABS 1999 Australian Housing Survey and ABS 1997 Time Use Survey.

Amenities are 'features, facilities or services which make for a comfortable and pleasant life'.² For the purposes of this article, amenities include items such as fridges and freezers, cooking and bathing facilities, telephones and televisions.

Households with basic amenities

	Year	%
Working bath/shower connection	1999	99.6
Toilet	1999	99.5
Kitchen	1999	99.7
Working cooking facilities	1999	99.6
Kitchen sink	1999	99.5
Working refrigerator	1999	99.6
Telephone	1996	97.5
At least 1 television	1997	99.2

Source: Population Survey Monitor, September 1996 (ABS Cat. no. 4103.0); Australian Housing Survey, 1999 (ABS Cat. no. 4182.0); ABS 1999 Australian Housing Survey and ABS 1997 Time Use Survey.

Selected amenities of households in areas of high and low disadvantage

	Year	In areas of high disadvantage(a)	In areas of low disadvantage(b)	All households
		%	%	%
Housing conditions				
Dwelling in essential need of repair	1999	10.9	6.6	7.5
Sufficient number of bedrooms	1999	94.1	96.9	95.5
Spare bedrooms	1999	65.2	76.2	72.6
Heating	1999	n.a.	n.a.	79.6
Air-conditioning	1999	n.a.	n.a.	34.7
Access and communication				
At least one registered motor vehicle	1999	81.0	93.3	89.6
More than one registered motor vehicle	1999	32.6	58.7	48.8
More than one television	1997	50.0	58.2	55.8
VCR	1997	78.7	85.2	82.3
Personal computer(c)	1997	26.1	53.0	36.2
Internet access(c)	1997	7.3	19.8	11.6
Timesaving				
Washing machine	1999	92.7	94.3	94.8
Microwave oven	1997	73.9	83.9	78.9
Dishwasher	1997	16.1	46.5	29.1
Clothes dryer	1997	42.6	64.6	51.8

(a) Households in areas in the lowest SEIFA quintile.

(b) Households in areas in the highest SEIFA quintile.

(c) Data from the ABS 1999 Household Use of Information Technology Surveys are not available for SEIFA quintiles, however figures from these surveys show that in 1999, 48% of all households owned a computer and 22% had access to the Internet.

Source: ABS 1999 Australian Housing Survey; ABS 1997 Time Use Survey; ABS 1999 Environmental Issues Survey.

their life circumstances. This article discusses the ownership of household amenities in relation to geographical areas of relative disadvantage and across life-cycle groups.

Relative disadvantage

Households in areas of relatively high disadvantage (i.e. those in the lowest SEIFA quintile) are likely to have a lower material standard of living than households in areas with relatively low levels of disadvantage (i.e. those in the highest SEIFA quintile). This is because they tend to have poorer housing conditions and fewer amenities.

Although 96% of Australian households had a sufficient number of bedrooms in 1999, 6% of households in areas of high disadvantage did not have a sufficient number of bedrooms (compared with 3% in areas of low disadvantage). Households in areas of high disadvantage were less likely to have spare bedrooms and their dwellings were also in greater need of repair, with 11% in essential need of repair (compared with 7% in areas of low disadvantage).

Households in areas of high disadvantage were less likely to own a registered motor vehicle (81%) than those in areas of low disadvantage (93%) in 1999. Those in areas of high disadvantage who did own a registered motor vehicle were more likely to have just the one, as was the case with televisions (although 99% of all households had at least one television). Almost two thirds of households in areas of low disadvantage had two or more motor vehicles, compared with one third of those in areas of high disadvantage.

Households in areas of high disadvantage were also less likely than households in areas of low disadvantage to have many other amenities. In particular, they were unlikely to own amenities which save time and effort. For example, in 1997, 74% had a microwave (compared with 84% in areas of low disadvantage) and under 20% had a dishwasher (compared with almost 50% in areas of low disadvantage).

Life-cycle stages

Over time, the composition and needs of a household change, reflecting the different life-cycle stages of its members (see *Australian Social Trends 2001*, Housing experience through life-cycle stages, pp. 177–181). Associated with these changes are a range of factors which influence the standard of living of a household. In particular, as financial circumstances change, so do access to amenities and overall standard of living.

Generally households in the earlier life-cycle stages have fewer amenities, with ownership increasing as they progress through different

SEIFA

The Socio-Economic Index for Areas (SEIFA) Index of Relative Socio-Economic Disadvantage uses a selection of weighted variables, such as income, educational attainment and employment, to determine the level of disadvantage of a geographical area. Households are allocated the index score of their geographic area. Households falling in the lower quintiles have lower index scores. This occurs when the area has a relatively high level of disadvantage, with a high proportion of people on low incomes, who have a low educational attainment, who are in unskilled occupations or who are unemployed. Households in the higher quintiles have higher scores, representing areas with relatively low levels of disadvantage, where there are smaller proportions of people with these characteristics. (See *Information Paper, Census of Population and Housing – Socio-Economic Indexes for Areas, Australia 1996*, ABS Cat. no. 2039.0.)

Life-cycle stages

The life-cycle stages discussed in this article are:

- ◆ young lone-person households, where the person is under 35 years;
- ◆ young couple only households where the reference person is under 35 years;
- ◆ young couple family households where the eldest child is under 5 years;
- ◆ older couple family households with at least one dependent child aged 15–24 years (there may also be children of other ages);
- ◆ one-parent households with at least one dependent child;
- ◆ older couple only households where the reference person is 55 years or over; and
- ◆ older lone-person households where the person is 65 years or over.

life-cycle stages and their income increases (see *Australian Social Trends 1998*, Income distribution and life cycle, pp.130–133). However, lone-parent households are an exception to the tendency for households to accumulate amenities as their members progress through various life stages, as these households have generally been disrupted by the dissolution of a marriage, resulting in the division of household assets, and do not fit the general pattern of ownership of household amenities.

Young lone-person households had low ownership levels of many amenities. Ownership was higher for couples and higher again for couple households containing children (which had the highest ownership levels). However, ownership of amenities was lower for one-parent families. Older couple only, and especially older lone-person households, were also less likely to have certain amenities than couples with children, particularly newer technologies, such as computers and Internet access.

Selected household amenities by selected life-cycle groups

		Lone person under 35 years	Couple only, reference person under 35 years	Couple with eldest child under 5 years	Couple with at least one child 15–24 years(a)	Lone parent with dependent children	Couple only, reference person 55 years or over	Lone person 65 years or over	Total(b)
	Year	%	%	%	%	%	%	%	
Dwelling in essential need of repair	1999	8.7	6.9	7.5	6.5	15.3	3.0	5.8	7.5
Sufficient number of bedrooms	1999	97.0	99.8	98.2	94.9	91.8	99.8	99.1	95.5
Spare bedrooms	1999	76.4	93.1	75.9	61.1	46.3	97.4	85.9	72.6
At least one registered motor vehicle	1999	78.6	97.4	98.1	99.3	82.3	95.7	56.8	89.6
VCR	1997	67.9	90.4	95.3	95.0	85.3	82.1	42.7	82.3
Personal computer	1997	25.0	44.4	42.3	66.3	35.8	22.1	3.0	36.2
Internet access	1997	13.7	16.2	16.1	20.2	6.8	5.9	0.6	11.6
Washing machine	1999	75.0	93.3	97.7	99.4	94.9	98.6	92.6	94.8
Microwave oven	1997	67.0	87.4	91.6	87.6	76.3	78.9	58.4	78.9
Dishwasher	1997	10.4	21.3	28.5	46.0	16.6	36.0	9.7	29.1
Clothes dryer	1997	30.2	45.1	68.2	72.3	48.2	52.7	28.6	51.8

(a) Refers to dependent children only. 1999 data is limited to households with the eldest child aged 15–24 years.

(b) Includes life-cycle groups not defined above.

Source: ABS 1997 Time Use Survey; ABS 1999 Australian Housing Survey.

Housing conditions

Two of the key attributes for a dwelling to be considered appropriate for a household are that it has enough space for all members and is in reasonable condition. Using the Canadian National Occupancy Standard, it is possible to obtain an idea of the adequacy of dwelling sizes.

According to this standard, in 1999, 96% of Australian households had enough or more than enough bedrooms in their dwelling. Over three quarters of young lone-person and young couple only households and couple households with the eldest child aged under 5 years had one or more bedrooms spare. However, couple families with the eldest child aged 15–24 years were less likely to have spare bedrooms (61%). Despite these households having larger dwellings, they need more bedrooms as they have more household members (see *Australian Social Trends 2001*, Housing experience through life-cycle stages, pp. 182–186).

Over 4% of households were overcrowded, i.e. did not have a sufficient number of bedrooms. One-parent households were the most likely to be overcrowded, with 8% needing more bedrooms and under half having spare bedrooms. Over three quarters of older couple only households had more than one spare bedroom. This is likely to be the result of the couple's grown children having left the parental home. However, lone-person households aged 65 years and over had fewer spare bedrooms. As they

tended to also have fewer bedrooms it is likely that they had moved into a smaller home more suited to their needs.³

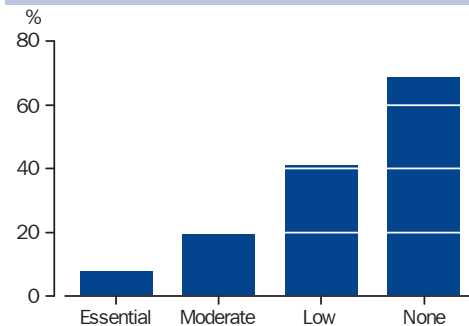
While 69% of Australia's households in 1999 reported that either the inside or the outside of their dwelling, or both, had no need for repairs, 7% reported that their dwellings were in essential need of repair. This included 2% for which the need of repair to either the inside or the outside of the dwelling, or both, was urgent. With the exception of lone-parent households, whose dwellings were in the greatest need of repair, the need for repairs decreased with progression through the life-cycle stages.

Housing occupancy

The Canadian National Occupancy Standard for housing appropriateness assesses the bedroom requirements of a household according to its size and composition and specifies that:

- ◆ there should be no more than two persons per bedroom;
- ◆ children aged under 5 years of different sexes may reasonably share a bedroom;
- ◆ children aged 5 years or older of opposite sex should have separate bedrooms;
- ◆ children aged under 18 years and of the same sex may reasonably share a bedroom; and
- ◆ Single household members aged 18 years or over should have a separate bedroom, as should parents or couples.

Households living in dwellings where this standard cannot be met are considered to be overcrowded, i.e. in need of more bedrooms.

Need for repairs to dwelling(a), 1999

(a) Refers to inside or outside of dwelling, or both. The inside of the dwelling may have a different level of need for repairs than the outside.

Source: ABS 1999 Australian Housing Survey.

Climatic conditions impact on the need for, and existence of, heating and cooling in dwellings. Where temperatures regularly drop below freezing, heating is essential. While nationally 80% of households had heating in 1999, almost all dwellings in Tasmania and the Australian Capital Territory were heated. Similarly, where high temperatures are common, cooling is more necessary. While the proportion of households in the Northern Territory which had air-conditioning was more than twice the national average, 16% of households in the Northern Territory remained without it.⁴

Access and communication

A household's access to the outside world, either through transport, media or other communication, increases educational, employment and other opportunities, including greater social interaction. Without these, a household may not have access to vital services and opportunities.

Ready access to transport provides a link with social and work-related activities. While public transport can adequately provide this link for some households, for others this access is achieved through owning a car. In 1999, motor vehicles ownership was highest for couple households, with and without children, of whom over 95% owned one or more registered motor vehicles. Couple family households containing older children, with more residents of driving age, tended to have the most cars. However, over 40% of lone person households 65 years and over and almost 20% of one parent households had no motor vehicle.

Having access to a telephone or the Internet provides a means of communicating with friends and family, as well as services, employers and schools. In 1996, virtually all households had at least one telephone connection.⁵ In 1999, 48% of households owned a computer, and in the March quarter

2000, a further 7% of households intended to purchase a personal computer.⁶ Access to the Internet was lower, at 22% in 1999.

Ownership of computers and Internet access were concentrated among couple families with children and, to a lesser extent, households with the reference person under 35 years. However, ownership of computers and access to the Internet have been growing rapidly across many household types.

Time and effort saving

Many appliances in modern Australian households are designed to save time and effort, particularly for labour-intensive tasks such as cooking and cleaning. While some of these items are now very common and are seen more as essentials, others, such as microwave ovens and dishwashers, are less common and are thought of only as timesaving devices.

Ownership of microwaves (79%), clothes dryers (52%) and dishwashers (29%) in 1997 was lower than that of more essential items, but the pattern of variation with life-cycle stages remained similar. Couples with children were the most likely to have these amenities, followed by couple only households. This also reflects the higher incomes of such households. Lone persons were the least likely to have these items, which could be due to reduced financial ability, or the potentially lower need for these items in a lone-person household.

As with other household amenities, these time and effort saving appliances were not distributed evenly across the geographic regions. For example, clothes dryers were more common in the cooler States.⁴ An indication that these items are not essential is the fact that of the households with clothes dryers, one third were rarely if ever used while another 40% received only seasonal use, and 10% of households with dishwashers rarely or never used them.⁴

Endnotes

- 1 Townsend, P. 1987, 'Deprivation', *Journal of Social Policy*, vol. 16, pp. 125-146.
- 2 The Macquarie Library Pty. Ltd. 1997, *The Macquarie Dictionary, Third Edition*, Macquarie University, New South Wales.
- 3 National Housing Strategy 1992, *Housing for Older Australians*, Background paper no. 8, AGPS, Canberra.
- 4 Australian Bureau of Statistics 1999, *Environmental Issues, Australia, March 1999*, Cat. no. 4602.0, ABS, Canberra.
- 5 Australian Bureau of Statistics 1996, *Population Survey Monitor, September 1996*, Cat. no. 4103.0, ABS, Canberra.
- 6 Australian Bureau of Statistics 2000, *Population Survey Monitor, November 1999*, Cat. no. 4103.0, ABS, Canberra.

Aboriginal and Torres Strait Islander housing in non-remote areas

HOUSING STOCK

In 1999, nearly 60% of Indigenous households were renting their homes, compared with 27% of non-Indigenous households.

Housing satisfies many fundamental personal and social needs, providing shelter, security, privacy, living space and necessary facilities. However, the housing conditions of Indigenous people have historically been reported as less favourable than those of other Australians (see *Australian Social Trends 1996*, Housing conditions of Indigenous people, pp. 142–145).

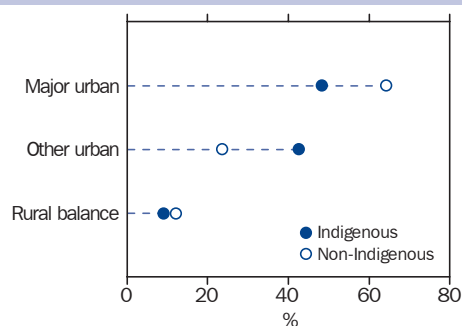
In recent years the relationship between adequate housing and the general health and wellbeing of the Indigenous community has been a focus of concern, underlying a range of programs and policies targeted towards the needs of the Indigenous population.¹ This article examines a number of the issues affecting Indigenous households in non-remote areas, including levels of home ownership, dwelling condition, housing costs, and crowding.

Location of households

In 1999, approximately 82% of the Indigenous population and 99% of the non-Indigenous population lived in non-remote areas. Two thirds of these Indigenous households were located in New South Wales and Queensland. Information about Indigenous housing in remote areas can be found in *Australian Social Trends 2000*, Housing in remote Aboriginal and Torres Strait Islander communities, pp. 175–178.

The majority of both Indigenous and non-Indigenous households in non-remote areas were located in urban areas (91% and 88% respectively), although Indigenous households were less likely to be found in

Location of households, 1999



Source: 1999 Australian Housing Survey, *Aboriginal and Torres Strait Islander Results* (ABS Cat. no. 4712.0).

Australian Housing Survey

This article uses data from the 1999 ABS Australian Housing Survey, which collected information about demographic and housing characteristics of persons in private dwellings in non-remote areas. For more information, see 1999 Australian Housing Survey, *Aboriginal and Torres Strait Islander Results* (ABS Cat. no. 4712.0).

Non-remote areas are Statistical Local Areas which have an overall housing density of at least 57 dwellings per 100 square kilometres.

Indigenous households are those households which contain at least one person who is of Aboriginal or Torres Strait Islander origin who is aged 15 years or over.

Tenure type is the nature of a household or social group's legal right to occupy the dwelling in which they usually reside (e.g. owner, renter).

Towns and areas classified according to their population:

- ◆ *major urban* are all centres with a population of 100,000 or over;
- ◆ *other urban* are urban centres with a population of 1,000–99,999; and
- ◆ *rural balance* is where most of the balance of the population live, excluding areas with less than 57 dwellings per square kilometre.

major urban areas (48% compared with 64% of non-Indigenous households). A lower proportion of Indigenous households (9%) were in non-remote rural areas compared with non-Indigenous households (12%).

Household composition

The composition of a household is generally related to the age and stage of life of its members. Many of the reported differences in household composition between Indigenous and non-Indigenous households can be attributed to the younger age profile of the Aboriginal and Torres Strait Islander population (stemming from their higher fertility rate and lower life expectancy). For more information see *Australian Social Trends 2000*, Social conditions of Aboriginal and Torres Strait Islander people, pp. 21–26.

Couples with children made up 40% of Indigenous households in non-remote areas, compared with 33% of non-Indigenous households. The proportion of one-parent families was also higher in Indigenous households (15%) compared with non-Indigenous households (8%).

Household composition and dwelling utilisation, 1999

	Indigenous households		Non-Indigenous households	
	'000	%	'000	%
<i>Family households</i>	114.6	78.8	5 056.8	71.6
One-family household (family members only)				
Couple only	18.1	12.4	1 727.7	24.5
Couple with children	58.7	40.4	2 359.1	33.4
One-parent household	21.6	14.8	578.7	8.2
One family household (with non-family members present)	12.6	8.7	312.1	4.4
Multiple family household	*3.6	*2.5	79.2	1.1
<i>Non-family households</i>	30.9	21.2	2 000.2	28.3
Lone-person household	24.4	16.8	1 725.3	24.4
Group household	6.5	4.5	274.9	3.9
Total households	145.5	100.0	7 057.0	100.0
1 or more bedrooms needed	18.5	12.7	311.2	4.4
No extra bedrooms needed	49.0	33.6	1 601.2	22.7
1 bedroom spare	49.1	33.8	2 555.3	36.2
2 or more bedrooms spare	28.9	19.9	2 589.3	36.7
Total households	145.5	100.0	7 057.0	100.0

Source: 1999 Australian Housing Survey, Aboriginal and Torres Strait Islander Results (ABS Cat. no. 4712.0), and ABS 1999 Australian Housing Survey.

Aboriginal and Torres Strait Islander people were less likely to be living alone (17% of households) than non-Indigenous people (24% of households). However, the lower proportion of lone-person households in the Indigenous population can be partly attributed to their younger age profile, as nearly half of the non-Indigenous people living alone were aged 60 years and over. The proportion of group households was similar for both the Indigenous (5%) and non-Indigenous (4%) populations.

Housing utilisation and condition

Housing utilisation is an indicator of crowding in a dwelling, calculated according to the number of bedrooms available to a household in proportion to its size and composition (the ABS has used the Canadian National Occupancy Standard as a model as it is considered to conform reasonably to social norms in Australia). As overcrowding can accelerate the deterioration of a dwelling and aggravate environmental health problems,¹ the reported level of housing utilisation can reflect the quality of a household's housing conditions.

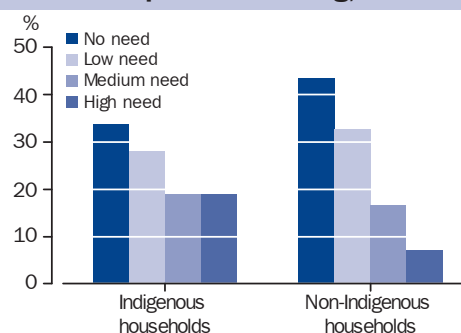
In 1999, Indigenous households in non-remote areas had a higher average number of usual residents (3.3) than non-Indigenous households (2.6). However,

this was lower than the 3.6 persons per Indigenous household reported in the 1991 Census.

While the majority (95%) of Australian households had enough bedrooms for their needs, 13% of Indigenous households needed more bedrooms to adequately accommodate all members of the household (compared with 4% for non-Indigenous households). Over 87% of the Indigenous households needing more bedrooms were renting their dwelling.

Indigenous households in non-remote areas were also more likely than non-Indigenous households to report that their dwelling was in need of repair (interior and/or exterior),

Need for repairs to dwelling, 1999



Source: 1999 Australian Housing Survey, Aboriginal and Torres Strait Islander Results (ABS Cat. no. 4712.0).

Household tenure, 1999

	Indigenous households		Non-Indigenous households	
	Original	Standardised(a)	Original	Standardised(a)
	%	%	%	%
Total owner/purchaser	38.8	43.2	70.7	70.5
Owner without a mortgage	12.8	21.2	39.3	39.0
Owner with a mortgage	26.0	22.0	31.4	31.5
Total renters(b)	58.2	45.5	26.7	26.0
State housing authority	22.4	23.1	4.8	4.8
Private landlord	27.3	18.9	20.1	20.3
	'000		'000	
Total households(c)	145.5	..	7 057.0	..

(a) Indirect standardisation applied to remove the effect of different age profiles of the Indigenous and non-Indigenous populations in non-remote areas.

(b) Includes other renters.

(c) Includes rent-free and other tenures.

Source: 1999 Australian Housing Survey, Aboriginal and Torres Strait Islander Results (ABS Cat. no. 4712.0).

especially if they lived in a rented dwelling. Overall, 20% of Indigenous households reported that their dwelling was in high need of repair (26% for those renting) compared with 7% of non-Indigenous households (13% for those renting).

Nature of occupancy

In 1999, Indigenous households in non-remote areas were more likely to be renting their home (58%) than non-Indigenous households (27%). Of those Indigenous households which rented, 39% were renting their home from a State housing authority, compared with 18% of non-Indigenous households which rented.

In 1999, 39% of Indigenous households either owned or were purchasing their own home, compared with 71% of non-Indigenous households. The proportion of Indigenous households which owned their home outright was also much lower (13%) than for non-Indigenous households (39%).

As household tenure is closely associated with age, it is likely that the younger age profile of the Aboriginal and Torres Strait Islander population is at least partly responsible for their higher proportion of renters and lower proportion of home owners. Applying (age) standardisation allows a more valid comparison of types of tenure, by presenting the rates which might occur if both populations had the same age profile as the overall Australian population.

Using standardised figures, 43% of Indigenous households in non-remote areas were home owners or purchasers, compared with 71% of non-Indigenous households. While the proportion of Indigenous households owning their dwelling outright was similar to the proportion of Indigenous households with a mortgage (21% and 22% respectively), a larger proportion of non-Indigenous households owned their home outright (39% compared with 32% with a mortgage).

Housing costs as proportion of household income, 1999

	Indigenous households					Non-Indigenous households				
	Owner		Renter			Owner		Renter		
	Without a mortgage	With a mortgage	State housing authority	Private landlord	Total(a)	Without a mortgage	With a mortgage	State housing authority	Private landlord	Total(a)
Proportion of income	%	%	%	%	%	%	%	%	%	%
Less than 15%	82.6	24.3	24.0	32.0	37.5	80.6	34.4	14.7	25.1	51.2
15%–25%	*6.5	31.4	51.9	25.1	30.5	6.3	30.1	64.1	31.0	21.8
More than 25%	**4.0	36.6	*17.8	38.2	26.0	5.6	25.3	16.9	39.4	19.4
Total(b)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) Includes other renters, rent-free and other tenure.

(b) Includes households with housing costs not known or with nil or negative income.

Source: 1999 Australian Housing Survey, Aboriginal and Torres Strait Islander Results (ABS Cat. no. 4712.0).

Housing history(a), 1999

	Indigenous household reference person %	Non-Indigenous household reference person %
Years in current dwelling		
One or less	41.6	25.6
Two	9.6	7.9
Three	6.9	5.8
Four	4.8	5.0
Five or more	37.1	55.7
Number of times moved in the last 5 years		
None	37.1	55.7
Once	16.8	17.6
Twice	11.4	8.2
Three or more	32.3	17.2
Area of previous dwelling(b)		
Same suburb/town/locality	48.2	39.1
Same State/Territory	48.8	53.3
Different State/Territory	3.0	5.4

(a) Housing history describes the experience of a household's reference person. The reference person is the person (in order of importance) with either the: highest tenure type, highest income, or the eldest person in the household.

(b) Applies only to household reference persons who had been in their current dwelling less than nine years.

Source: 1999 Australian Housing Survey, Aboriginal and Torres Strait Islander Results (ABS Cat. no. 4712.0).

After standardisation, there was still a higher proportion of renters in the Indigenous population (46%), compared with the non-Indigenous population (26%). Similar proportions of Indigenous and non-Indigenous households were renting from private landlords (19% and 20% respectively), but a higher proportion of Indigenous households were renting from a State housing authority (23% compared with 5% for non-Indigenous households).

Housing costs

Housing costs can involve a range of components, including mortgage repayments, rent, rates, land tax, and body corporate fees, which vary depending on the tenure type of the household. In 1999, the average weekly housing cost across all Aboriginal and Torres Strait Islander households in non-remote areas was \$139. This compared with \$129 for non-Indigenous households, which reflected, at least partly, the different proportions of owners and renters in the two populations.

Purchasing a home often represented a larger financial burden for Indigenous households, with 37% spending more than a quarter of their weekly income on housing costs (compared with 25% of non-Indigenous

homebuyers). As Indigenous people have a lower median income than non-Indigenous people (see *Australian Social Trends 2000*, Social conditions of Aboriginal and Torres Strait Islander people, pp. 21–26), this level of financial commitment is more likely to cause housing-related income stress than for non-Indigenous households (see *Australian Social Trends 2000*, Housing costs, pp. 171–174).

A similar proportion of both Indigenous and non-Indigenous households renting from private landlords spent more than 25% of their weekly income on housing costs (38% of Indigenous households and 39% of non-Indigenous households). In contrast, the financial burden for households renting from a State housing authority was often considerably less, with 24% of Indigenous households and 15% of non-Indigenous households paying less than 15% of their weekly income on housing costs.

Housing history

There is a certain level of wellbeing and social attachment a household gains from having secure or permanent tenure on their home. Moving house often involves a financial cost and disruption to established community networks. The high proportion of renters within the Indigenous population meant that Indigenous households were generally more mobile than non-Indigenous households.

In 1999, 63% of the reference persons for Indigenous households in non-remote areas had lived in their current dwelling for less than five years, compared with 44% of the reference persons for non-Indigenous households. Two thirds of these persons in Indigenous households (42% of all Indigenous household reference persons) had been in their current dwelling twelve months or less. Reference persons in Indigenous households also tended to move more often, with 32% moving three or more times in the preceding five years, compared with 17% in non-Indigenous households.

However, reference persons in Indigenous households were more likely to move within the same suburb, town, or locality (48%) than non-Indigenous households (39%). They were also more likely to move within the same state, with 3% moving interstate compared with 5% of reference persons in non-Indigenous households.

Endnotes

- 1 Aboriginal and Torres Strait Islander Commission, Issues, <URL:<http://www.atsic.gov.au/issues/housing>> (Accessed 7 March 2001).

Housing finance

HOUSING COSTS

In 1999, almost a third of all home owners with a mortgage were using their home to secure loans for purposes other than to buy or build their home.

Owning the family home has long been a part of the Australian way of life and is still something that most Australians aspire to today. With 70% of households either buying or owning their home in 1999, Australia has one of the highest home ownership rates in the world (see *Australian Social Trends 2001*, Housing experience through life-cycle stages, pp. 177–181).

While buying a home may be an Australian tradition, the conditions under which home buyers have been able to acquire and use housing finance have changed considerably since deregulation of the financial system during the 1980s.¹ The nineties, in particular, have been characterised by increasing competition between housing finance lenders, falling interest rates, larger average loan sizes, higher rates of refinancing, and increased use of the home to secure loans or credit for other purposes.

Home owners with a mortgage

In 1999, 45% of all Australian home owners (2.3 million) were paying off one or more mortgages or loans secured against their home. However, not all mortgages were used solely to buy or build a home. In 1999, 21% of owners with a mortgage were repaying loans which had been used exclusively for other purposes (compared with 9% in 1988) while 11% had combination home and other-purpose loans. Overall, 31% of all home owners with a mortgage in 1999 were using their home to secure loans for purposes other than to buy or build their home.

Home owners with a mortgage, 1999

Purpose(s) of secured loan(s)	'000	%
To buy/build home only	1 691.7	75.0
To buy/build home and other purpose(s)	243.7	10.8
For other purpose(s) only	477.3	21.2
<i>Total with loan(s) for other purposes(a)</i>	<i>708.4</i>	<i>31.4</i>
Total with a mortgage(a)	2 256.1	100.0
Owners with a mortgage as a proportion of all home owners	. .	44.6

(a) Some households have more than one type of loan or mortgage and therefore components do not add to total.

Source: ABS 1999 Australian Housing Survey.

Housing finance statistics

Most of the statistics on housing finance presented in this article are drawn from two ABS surveys: the Australian Housing Survey, most recently conducted in 1999; and the Survey of Housing Finance for Owner Occupation, collected monthly since December 1980.

Home owners are households which own or are purchasing their home, regardless of whether or not they have a mortgage.

Owners with a mortgage are households in which anyone is making payments on a mortgage or loan secured against the dwelling, regardless of the purpose of the mortgage or secured loan.

Owners without a mortgage are households in which no one is making payments on a mortgage or loan secured against the dwelling.

Home loans are any loans/mortgages for which the sole or main purpose is to buy or build the dwelling in which the household is currently living.

Recent home buyers are households which purchased, built, or otherwise came to own their current home in the previous three years.

First home buyers are households where none of the current owners have previously owned or been purchasing a home.

Changeover buyers are households where all current owners have previously owned or been purchasing a home.

Getting a housing loan

For most Australians, buying a home involves raising a deposit then borrowing a substantial amount of money from a bank or other lending institution which then holds a mortgage on the property. Banks have always dominated the home lending market, increasing their market share during the early nineties to reach 90% in 1993–94, mainly as a result of several building societies becoming banks or merging with banks. However, since the mid-nineties, mortgage managers have entered the home lending market, undercutting bank lending rates and attracting both new and existing customers away from banks.² By 1998–99, mortgage managers accounted for 7% of all home loans approved, while the share of banks had dropped to 83%.

Approved housing finance(a)

	Year ended 30 June		
	1989	1994	1999
	%	%	%
Banks	78.5	90.1	82.8
Building societies	12.7	6.6	3.9
Other lenders(b)	8.8	3.2	13.3
Mortgage managers	6.8
Total loans	100.0	100.0	100.0
	'000	'000	'000
Total loans	359.7	544.5	488.2

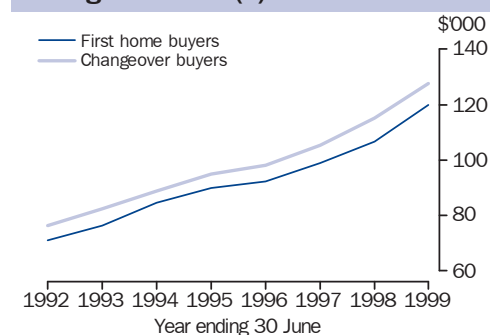
(a) Approved during the reference year, not all approvals become loans. Excludes approvals mainly for home alterations or additions.

(b) As only the largest other lenders are included, estimates of overall market share are approximate.

Source: *Housing Finance for Owner Occupation, Australia* (ABS Cat. no. 5609.0).

Raising a deposit

In 1999, savings were the most common source of home loan deposits among all recent home buyers, particularly among first home buyers (83% of whom sourced some or all of their deposit through savings). While over a half (53%) of changeover buyers also saved for all or part of their deposit, a substantial proportion (35%) used the proceeds from the sale of their former home. First home buyers were more likely than changeover buyers to have received help from family or friends, either in the form of a gift (7% compared with 1%) or informal loan (5% compared with 2%).

Average loan size(a)

(a) Approved during the reference year, not all approvals become loans. Excludes approvals mainly for home alterations or additions.

Source: *Housing Finance for Owner Occupation, Australia* (ABS Cat. no. 5609.0).

Average loan size

The average amount borrowed for home loans has increased steadily during the nineties, and at a faster rate than both house prices and household incomes. Between 1988–89 and 1998–99, the average loan size increased from 1.9 times to 2.8 times the average annual household income. Associated with their younger age profile and lower average incomes, first home buyers borrowed less, on average, than changeover buyers. However the rate of increase in average loan size was similar for both groups.

Increased competition between lenders during the nineties has seen a continuation of the trend towards higher loan to value ratios (i.e. lenders have been willing to lend higher

Source of deposit of recent home buyers(a), 1999

Source of deposit	First home buyer	Changeover buyer	Total(b)
	%	%	%
Savings	83.1	53.4	64.7
Sale of former home	..	35.3	22.5
Loan(c)	6.7	6.5	6.5
Family/friends	4.6	2.2	2.9
Formal (e.g. bank)	*1.8	4.1	3.2
Gift from family/friends	7.0	*1.4	3.6
Other source(s)(d)	9.8	8.5	8.6
Total(e)	100.0	100.0	100.0
	'000	'000	'000
Total(e)	279.2	479.0	826.5

(a) Includes only those households that paid a deposit.

(b) Includes households with a combination of first home buyer and changeover buyer.

(c) Includes informal loans from all sources.

(d) Includes inheritance, sale of car or other possessions, and other sources.

(e) Some home buyers report more than one source of deposit and therefore components do not add to total.

Source: ABS 1999 Australian Housing Survey.

Trends in average loan size and mortgage repayments

	Year ended 30 June	
	1989	1999
Ratio of average loan size(a) to average gross annual household income(b)	ratio 1.9	ratio 2.8
Average annual housing loan interest rate (standard variable bank rate)	% 15.3	% 6.6
Interest as a proportion of average weekly mortgage repayments(c)	77.0	48.4
Average weekly mortgage repayments(c) as a proportion of average gross weekly household income(d)	14.1	15.3

(a) Refers to home loans approved during the reference year, including refinancing. Excludes loans mainly for alterations or additions.

(b) Refers to average gross annual income of all households.

(c) Relates to all home mortgages existing in the reference year, regardless of when the loan was taken out.

(d) Refers to average gross annual income of households with a mortgage.

Source: *Housing Finance for Owner Occupation, Australia* (ABS Cat. no. 5609.0); ABS 1988–89 and 1993–94 Household Expenditure Survey; Reserve Bank of Australia, *Bulletin*.

proportions of the value of the property).¹ Consequently, the amount of deposit required, as a proportion of the purchase price, has declined during the period. This may have enabled buyers who would otherwise have been restricted by deposit considerations, rather than the ability to repay a larger loan, to borrow more.

At the same time, the sharp decline in housing interest rates (from 15% in 1988–89 to 7% in 1998–99) would have made the repayments on larger loans much more affordable. Another contributing factor to the growth in average loan size is the increasing tendency for households to take out combination home and other-purpose loans.¹

Mortgage repayments

Declining interest rates during the nineties have moderated the effects that higher average loan sizes would otherwise have had on average mortgage repayments. As a result, average weekly mortgage repayments (as a proportion of average weekly household income) increased only slightly during the nineties, from 14% in 1988–89 to 15% in 1998–99. During the same period, interest payments as a proportion of total mortgage repayments decreased from 77% to 48%, indicating that many home owners were taking the opportunity of declining interest rates to pay off their home loans more quickly rather than opting to reduce repayments. In 1999, 54% of all home owners with a mortgage were making above the minimum required loan repayments.

Refinancing

Refinancing involves contracting a new loan agreement, usually with a different lender, and borrowing enough money to pay out the original loan(s), and possibly an additional amount for other purposes. Borrowers incur costs when refinancing, in the form of new loan establishment fees and, in some cases, penalties for early repayment of the original loan(s). However, for many home owners with a mortgage, the advantages of refinancing (e.g. lower interest rates or better loan conditions associated with newer types of home loan) outweigh the costs.

Of all home owners with one or more loans in 1999, one in five had refinanced since January 1997. The most common reasons for refinancing were; to get better loan conditions (reported by 25% of all owners

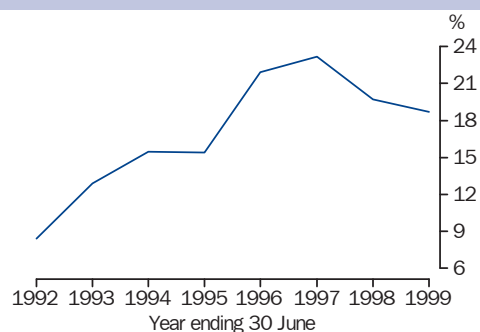
Reasons for refinancing, 1997–1999

	%
Better interest rate	23.3
Better loan conditions	25.1
Extension of loan period	5.1
Home renovations	9.5
Other purchase (e.g. car, holiday)	21.0
Consolidation of debts	15.2
Business related reasons	7.5
Other reasons	17.4
<i>All home owners who refinanced(a)</i>	<i>100.0</i>
	'000
All home owners who refinanced(a)	510.7

(a) Some owners report more than one reason for refinancing and therefore components do not add to total.

Source: ABS 1999 Australian Housing Survey.

Proportion of home loan approvals(a) which involved refinancing with a different lender



(a) Approved during the reference year, not all approvals become loans. Excludes approvals mainly for home alterations or additions.

Source: *Housing Finance for Owner Occupation, Australia* (ABS Cat. no. 5609.0).

who refinanced), to get a better interest rate (23%), or to finance large purchases such as a car or holiday (21%).

Housing loan refinancing has become more common during the nineties. Between 1991–92 and 1996–97, the proportion of all new home loans which involved refinancing with a different lender almost trebled, from 8% to 23%, but has since dropped back to around 19% in 1998–99.

Owners with mortgages for other purposes(a), 1999

Purpose(s) of loan(s)	%
Motor vehicle	31.8
Home alterations/additions	30.6
Buy or build other property	25.8
Alterations/additions to other property	2.7
Holiday	2.8
Other purposes	29.0
<i>Total(b)</i>	<i>100.0</i>
<hr/>	
Total	708.4

(a) Includes multipurpose home loans and loans used solely for purposes other than to buy or build the home.

(b) Owners may have more than one 'other purpose' loan or loans with more than one 'other purpose', and therefore components do not add to total.

Source: ABS 1999 Australian Housing Survey.

Using the home to secure loans for other purposes

In 1999, 708,000 Australian households (31% of all home owners with a mortgage) were using their home to secure loans for purposes other than to buy or build that home. The most common 'other purposes' were to buy a car (reported by 32% of all home owners with such loans), to fund home alterations or additions (31%) and to buy or build another property (26%).

Endnotes

- 1 Berry, M. Dalton, T. Engels, B. and Whiting, K. 1999, *Falling Out of Home Ownership: Mortgage Arrears and Defaults in Australia*, University of Queensland Press, Brisbane.
- 2 Reserve Bank of Australia 1999, 'Recent Developments in Interest Rates on Bank Lending' in *RBA Bulletin*, April 1999, pp. 1–7.



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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	2000	19 138	21	63	16
Canada	2000	30 757	19	64	17
China (excludes SARs and Taiwan Province)	2000	1 275 133	25	65	10
France	2000	59 238	19	61	21
Greece	2000	10 610	15	62	23
Hong Kong (SAR of China)	2000	6 860	16	69	14
Indonesia	2000	212 092	31	62	8
Italy	2000	57 530	14	62	24
Japan	2000	127 096	15	62	23
Korea (Republic of)	2000	46 740	21	68	11
Malaysia	2000	22 218	34	59	7
New Zealand	2000	3 778	23	62	16
Papua New Guinea	2000	4 809	40	56	4
Singapore	2000	4 018	22	68	11
Sweden	2000	8 842	18	59	22
United Kingdom	2000	59 415	19	60	21
United States of America	2000	283 230	22	62	16
Viet Nam	2000	78 137	33	59	8

Source: United Nations World Population Prospects: The 2000 Revision <URL:<http://www.undp.org/popin>>, (Accessed 28 March 2001).



Population growth

Country	Reference year	Annual average growth rate %	Crude birth rate(a) rate	Crude death rate(a) rate	Total fertility rate rate
Australia	2000–2005	1.0	13	8	1.8
Canada	2000–2005	0.8	11	8	1.6
China (excludes SARs and Taiwan Province)	2000–2005	0.7	15	7	1.8
France	2000–2005	0.4	12	10	1.8
Greece	2000–2005	0.0	9	10	1.2
Hong Kong (SAR of China)	2000–2005	1.2	10	6	1.2
Indonesia	2000–2005	1.2	20	7	2.3
Italy	2000–2005	–0.1	9	11	1.2
Japan	2000–2005	0.1	10	9	1.3
Korea (Republic of)	2000–2005	0.7	14	7	1.5
Malaysia	2000–2005	1.7	22	5	2.9
New Zealand	2000–2005	0.7	14	8	2.0
Papua New Guinea	2000–2005	2.2	30	9	4.3
Singapore	2000–2005	1.7	13	5	1.5
Sweden	2000–2005	–0.1	10	11	1.3
United Kingdom	2000–2005	0.2	11	11	1.6
United States of America	2000–2005	0.9	13	9	1.9
Viet Nam	2000–2005	1.3	20	6	2.3

(a) Per 1,000 population.

Source: United Nations *World Population Prospects: The 2000 Revision* <URL:<http://www.undp.org/popin>>, (Accessed 28 March 2001) ; United Nations *World Population Prospects: The 1998 Revision*.



Population projections(a)

Country	Population			Median age			0-14 years			65 years and over		
	2005	2020	2050	2005	2020	2050	2005	2020	2050	2005	2020	2050
	million	million	million	years	years	years	%	%	%	%	%	%
Australia(b)	19.8	22.3	r26.5	36.7	39.8	42.2	19.6	18.2	17.2	12.5	16.8	22.6
Canada	32.6	36.6	r40.4	38.6	41.6	42.6	17.6	16.8	17.0	13.3	18.2	23.8
China (excludes SARs and Taiwan Province)	1 326.4	1 454.5	r1 462.1	32.4	37.3	43.7	21.9	19.1	16.3	7.5	11.5	22.6
France	59.9	61.5	r61.8	39.0	42.3	43.9	18.0	17.3	16.8	16.4	20.1	25.5
Greece	10.6	10.1	r9.0	41.1	46.6	52.5	14.0	12.6	12.6	19.6	22.7	34.3
Hong Kong (SAR of China)	7.3	7.8	r9.6	38.2	44.5	52.2	15.5	14.0	12.3	11.2	17.0	33.3
Indonesia	225.5	262.3	r311.3	26.6	31.6	38.0	28.3	23.6	19.9	5.3	7.2	16.5
Italy	56.8	52.9	r43.0	42.7	49.0	53.2	13.7	11.6	12.0	19.7	24.1	34.9
Japan	127.5	123.9	r109.2	42.5	46.9	49.0	14.6	13.9	13.8	19.2	26.2	31.8
Korea (Republic of)	48.5	51.9	r51.6	33.7	39.7	44.4	20.9	17.7	16.0	8.1	12.3	24.7
Malaysia	24.2	29.3	r37.9	24.6	29.9	38.1	32.1	23.8	19.6	4.7	7.7	15.9
New Zealand	4.0	4.5	r4.4	35.2	37.8	40.6	21.6	19.7	18.5	11.9	15.6	20.8
Papua New Guinea	5.4	7.0	r11.0	21.1	24.3	34.5	37.4	31.8	22.3	3.2	4.0	10.0
Singapore	3.8	4.1	r4.6	37.0	42.4	45.5	21.0	16.4	15.5	8.3	16.1	25.6
Sweden	9.0	9.1	r7.8	41.3	44.9	46.3	16.8	15.1	15.9	17.8	23.1	26.7
United Kingdom	59.1	59.8	r58.9	39.7	42.6	44.5	17.7	16.6	16.2	16.4	19.8	24.9
United States of America	288.4	317.1	r397.1	37.0	39.0	42.1	20.3	18.4	17.1	12.6	16.6	21.7
Viet Nam	85.3	102.5	r123.8	25.0	30.9	38.5	29.5	24.2	19.6	5.4	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.

Source: United Nations World Population Prospects: The 2000 Revision <URL:<http://www.undp.org/popin>>, (Accessed 28 March 2001); 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	2000–2005	5	76.0	81.6	1999	70.8	75.5
Canada	2000–2005	5	76.6	82.3	1999	70.0	74.0
China (excludes SARs and Taiwan Province)	2000–2005	37	69.1	73.5	1999	61.2	63.3
France	2000–2005	5	75.0	82.5	1999	69.3	76.9
Greece	2000–2005	6	76.1	81.2	1999	70.5	74.6
Hong Kong (SAR of China)	2000–2005	4	76.6	81.9	..	n.a.	n.a.
Indonesia	2000–2005	40	65.3	69.3	1999	58.8	60.6
Italy	2000–2005	5	75.8	81.7	1999	70.0	75.4
Japan	2000–2005	3	77.2	83.3	1999	71.9	77.2
Korea (Republic of)	2000–2005	7	70.0	77.0	1999	62.3	67.7
Malaysia	2000–2005	10	71.1	75.5	1999	61.3	61.6
New Zealand	2000–2005	6	74.9	80.5	1999	67.1	71.2
Papua New Guinea	2000–2005	62	59.2	60.7	1999	45.5	48.5
Singapore	2000–2005	5	75.9	80.3	1999	67.4	71.2
Sweden	2000–2005	3	77.1	81.6	1999	71.2	74.9
United Kingdom	2000–2005	5	75.3	80.6	1999	69.7	73.7
United States of America	2000–2005	7	74.2	80.6	1999	67.5	72.6
Viet Nam	2000–2005	34	66.9	71.6	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'.

Source: United Nations World Population Prospects: The 2000 Revision <URL:<http://www.undp.org/popin>>, (Accessed 28 March 2001); United Nations World Population Prospects: The 1998 Revision; World Health Organisation Statistical Information System <URL:<http://www.who.int/whosis>>, (Accessed 21 March 2001).



Standardised death rates(a) for selected causes of death

Country	Reference year	Malignant neoplasms (cancer) rate	Ischaemic heart disease rate	Cerebro-vascular disease (stroke) rate	Motor vehicle traffic accidents rate	Suicide and self-inflicted injury(b) rate	All causes rate
Australia	1995	139.5	110.9	45.6	10.2	11.3	503.2
Canada	1997	142.1	94.9	33.3	9.3	11.3	497.6
China (rural) (excludes SARs and Taiwan Province)	1994	111.9	26.5	110.2	13.8	25.8	698.7
China (urban) (excludes SARs and Taiwan Province)	1994	119.4	57.6	125.0	10.1	5.9	594.7
France	1996	147.2	39.8	33.1	12.5	16.0	489.3
Greece	1997	124.6	68.8	84.0	19.9	3.0	516.9
Hong Kong (SAR of China)	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	1995	145.0	65.2	55.2	12.4	6.1	512.6
Japan	1997	125.4	30.0	56.7	8.3	14.4	405.6
Korea (Republic of)(c)	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	1996	157.1	127.3	48.1	14.2	14.2	569.2
Papua New Guinea	..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Singapore	1997	148.4	116.6	61.0	9.4	10.8	550.3
Sweden	1996	122.6	110.1	45.2	4.9	11.8	484.2
United Kingdom	1997	151.7	122.0	51.8	6.0	6.4	564.3
United States of America	1997	143.4	106.5	34.8	15.3	10.5	577.7
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. Since 1996 a new WHO standard population has been introduced (see <http://www.who.int/whosis/statistics>). Age-standardized death rates which appear since this publication are therefore not directly comparable. 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) 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 1997-1999 World Health Statistics Annual <URL:<http://www.who.int/whosis>>, (Accessed 29 March 2001); 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	Health expenditure per	Reference year	Doctors per	Reference year	Acute hospital
		% of GDP	capita at PPP(a)		1,000 population		beds per 1,000 population
		%	\$US '000		no.		no.
Australia	1998	8.5	2.0	1998	2.5	1998	3.9
Canada	1999	9.5	2.4	1999	2.1	1997	2.9
China (excludes SARs and Taiwan Province)	..	n.a.	n.a.	..	n.a.	..	n.a.
France	1999	9.5	2.1	1998	3.0	1998	4.3
Greece	1998	8.3	1.2	1997	4.1	1997	4.0
Hong Kong (SAR of China)	..	n.a.	n.a.	..	n.a.	..	n.a.
Indonesia	..	n.a.	n.a.	..	n.a.	..	n.a.
Italy	1999	8.4	1.8	1998	5.9	1997	5.2
Japan	1998	7.6	1.8	1998	1.9	..	n.a.
Korea (Republic of)	1998	5.0	0.7	1998	1.3	1998	4.4
Malaysia	..	n.a.	n.a.	..	n.a.	..	n.a.
New Zealand	1998	8.1	1.4	1999	2.3	1991	7.0
Papua New Guinea	..	n.a.	n.a.	..	n.a.	..	n.a.
Singapore	..	n.a.	n.a.	..	n.a.	..	n.a.
Sweden	1998	8.4	1.8	1998	3.1	1999	2.5
United Kingdom	1999	7.0	1.6	1998	1.7	1998	2.4
United States of America	1999	13.7	4.4	1998	2.7	1998	3.1
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.

Source: Organisation for Economic Co-operation and Development, *OECD Health Data 2000: a comparative analysis of 29 countries* [CD-ROM], 2000.



Distribution of persons aged 25–64 by level of educational attainment

Country	Reference year	Below upper secondary education(a)	Upper secondary education and post-secondary non tertiary education(b)	Tertiary type B education(c)	Tertiary type A and advanced research programs (d)	Total
		%	%	%	%	%
Australia	1998	44	31	9	17	100
Canada	1998	20	41	20	19	100
China (excludes SARs and Taiwan Province)	..	n.a.	n.a.	n.a.	n.a.	100
France	1998	39	40	10	11	100
Greece	1997	54	30	4	11	100
Hong Kong (SAR of China)	..	n.a.	n.a.	n.a.	n.a.	100
Indonesia	..	n.a.	n.a.	n.a.	n.a.	100
Italy	1998	56	35	(e)	9	100
Japan	1998	20	50	13	18	100
Korea (Republic of)	1998	35	43	5	17	100
Malaysia	..	n.a.	n.a.	n.a.	n.a.	100
New Zealand	1998	27	46	14	13	100
Papua New Guinea	..	n.a.	n.a.	n.a.	n.a.	100
Singapore	..	n.a.	n.a.	n.a.	n.a.	100
Sweden	1998	24	48	15	13	100
United Kingdom	1998	19	57	8	15	100
United States of America	1998	14	52	8	27	100
Viet Nam	..	n.a.	n.a.	n.a.	n.a.	100

(a) International Standard Classification of Education (ISCED) levels 0, 1 and 2. For Australia this includes Preschool, Primary School and lower Secondary School levels as well as the Basic Vocational level.

(b) International Standard Classification of Education (ISCED) levels 3 and 4. For Australia this includes Year 12 completion as well as the Skilled Vocational level.

(c) International Standard Classification of Education (ISCED) level 5B. For Australia this includes Associate Diplomas and Undergraduate Diplomas.

(d) International Standard Classification of Education (ISCED) levels 5A and 6. For Australia this includes Bachelor degree level or higher.

(e) Data is included in another column of the table.

Source: Organisation for Economic Co-operation and Development, *Education at a glance OECD Indicators, 2000 Edition*.



Educational participation(a) and expenditure

Country	Reference year(b)	Enrolment rates age group (years)				Reference year(b)	Direct public expenditure as a proportion of GDP(c)	Total public and private expenditure as a proportion of GDP(d)
		15-19	20-29	30-39	40 and over			
		%	%	%				
Australia	1998	81.6	27.1	14.5	6.0	1997	4.3	5.6
Canada	1998	78.0	19.8	4.4	1.1	1997	5.4	6.5
China (excludes SARs and Taiwan Province)	..	n.a.	n.a.	n.a.	n.a.	..	n.a.	n.a.
France	1998	87.8	19.1	1.9	(e)	1997	5.8	6.3
Greece	1998	77.6	18.4	-	-	1997	3.5	4.9
Hong Kong (SAR of China)	..	n.a.	n.a.	n.a.	n.a.	..	n.a.	n.a.
Indonesia	1998	37.0	3.3	-	-	..	n.a.	n.a.
Italy	1998	69.8	16.8	1.7	0.1	1997	4.6	4.8
Japan	..	n.a.	n.a.	n.a.	n.a.	1997	3.6	4.8
Korea (Republic of)	1998	78.6	20.9	1.1	0.2	1997	4.4	7.4
Malaysia	1998	38.2	4.9	0.3	-	1997	4.4	4.7
New Zealand	1998	71.7	20.3	8.4	2.7	1997	6.1	n.a.
Papua New Guinea	..	n.a.	n.a.	n.a.	n.a.	..	n.a.	n.a.
Singapore	..	n.a.	n.a.	n.a.	n.a.	..	n.a.	n.a.
Sweden	1998	86.1	30.4	13.3	2.7	1997	6.8	6.9
United Kingdom	1998	69.5	18.1	8.8	3.2	1997	4.6	n.a.
United States of America	1998	74.2	21.4	5.6	1.6	1997	5.2	6.9
Viet Nam	..	n.a.	n.a.	n.a.	n.a.	..	n.a.	n.a.

(a) Participation rates are based on 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.

(e) Data is included in another column of the table.

Source: Organisation for Economic Co-operation and Development, *Education at a glance OECD Indicators*, 2000 Edition.



Labour force

Country	Reference year	Economically active population(a) '000	Reference year	Participation rate of persons aged 15 to 64 years		
				Total %	Men %	Women(a) %
Australia	1999	9 469.9	1997	72.5	81.9	63.0
Canada	1999	15 721.3	1997	74.9	81.8	68.0
China (excludes SARs and Taiwan Province)	1990	647 244.7	1997	85.4	90.1	80.4
France	1998	26 435.0	1997	67.1	74.3	60.1
Greece	1998	4 445.7	1997	60.8	76.9	46.0
Hong Kong (SAR of China)	1998	3 359.4	1997	69.6	83.9	55.1
Indonesia	1999	95 793.2	1997	69.5	84.2	54.9
Italy	1998	23 363.0	1997	57.4	71.4	43.6
Japan	1999	67 800.0	1997	72.6	85.4	59.7
Korea (Republic of)	1999	21 635.0	1997	65.6	78.4	53.0
Malaysia	1999	9 151.4	1997	66.2	83.3	48.9
New Zealand	1999	1 878.1	1997	75.5	84.1	67.1
Papua New Guinea	..	n.a.	1997	79.2	88.8	68.8
Singapore	1998	1 931.9	1997	69.0	82.9	55.8
Sweden	1999	4 308.0	1997	76.8	79.1	74.5
United Kingdom	1999	29 194.0	1997	76.2	84.4	68.0
United States of America	1999	139 368.0	1997	77.4	84.2	70.7
Viet Nam	1989	29 525.5	1997	82.7	86.1	79.4

(a) 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.

Source: International Labour Office, *Year Book of Labour Statistics* 1998, 1999 and 2000; International Labour Office, *Key Indicators of the Labour Market* 1999.



Employment and unemployment(a)

Country	Reference year	Employment	Reference year	Unemployment	Unemployment rate
		'000		'000	%
Australia	1999	8 747.4	1999	685.4	7.2
Canada	1999	14 531.2	1999	1 190.1	7.6
China (excludes SARs and Taiwan Province)(b)	1998	699 570.0	1999	5 750.0	3.1
France	1999	22 923.0	1999	3 059.7	11.9
Greece	1998	3 967.2	1998	478.5	10.8
Hong Kong (SAR of China)	1999	3 133.0	1999	209.4	6.3
Indonesia	1998	87 672.4	1998	5 062.5	5.5
Italy	1999	20 864.0	1999	2 669.0	11.4
Japan	1999	64 620.0	1999	3 170.0	4.7
Korea (Republic of)	1999	20 281.0	1999	1 353.0	6.3
Malaysia	1999	8 837.8	1999	313.7	3.4
New Zealand	1999	1 750.3	1999	127.8	6.8
Papua New Guinea	..	n.a.	..	n.a.	n.a.
Singapore	1999	1 885.9	1999	90.1	4.6
Sweden	1999	4 058.0	1999	241.0	5.6
United Kingdom	1999	27 442.3	1999	1 751.7	6.0
United States of America	1999	133 488.0	1999	5 880.0	4.2
Viet Nam	1997	36 994.0	..	n.a.	n.a.

(a) For most countries the employed and unemployed populations are aged 15 years and over. However, the age range varies for some countries: China and Viet Nam — Not specified; Greece — 14 years and over; Indonesia — 10 years and over; Malaysia — 15–64 years; Sweden — 16–64 years; UK and USA — 16 years 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.

Source: International Labour Office, *Year Book of Labour Statistics* 2000.

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