Australian Bureau of Statistics

4102.0

Australian Social Trends

USING STATISTICS TO PAINT A PICTURE OF AUSTRALIAN SOCIETY

JUNE 2010

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11.30 AM (CANBERRA TIME) WEDNESDAY 30 JUNE 2010

Australian Social Trends June 2010

Brian Pink
Australian Statistician

AUSTRALIAN BUREAU OF STATISTICS CATALOGUE NO. 4102.0

ABS catalogue no. 4102.0

ISSN 1321–1781

Produced by the Australian Bureau of Statistics

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Introduction

Australian Social Trends draws on a wide range of data, sourced both from ABS and other agencies, to present a picture of Australian society. This publication aims to inform decision-making, research and discussion on social conditions in Australia. It covers social issues of current and ongoing concern, population groups of interest, and changes in these over time.

The selection of articles aims to address current and perennial social concerns and to provide answers to key social questions. Some topics are revisited as new data become available. The aim of this approach is for each report to remain responsive to contemporary concerns, while accumulating a more comprehensive picture of Australian social conditions over time. For this reason, articles often include cross references to other relevant articles in the current issue, and in previous issues. All articles published since 1994 are available on the ABS web site: www.abs.gov.au.

Australian Social Trends is structured according to the ABS Wellbeing Framework which identifies areas of social concern, population groups and transactions among people and entities within their social environments (see *Measuring Wellbeing: Frameworks for Australian Social Statistics, 2001* – ABS cat. no. 4160.0). The broad areas of social concern are:

- population
- family and community
- health
- education and training
- work
- economic resources
- housing
- crime and justice
- culture and leisure
- other areas - including environment, religion, and transport and communication.

Australian Social Trends is now issued on a quarterly basis (from 1994 to 2008 it was an annual publication). In the course of a year, the articles will cover a wide range of the areas of social concern.

The articles focus strongly on people and social concerns. Each article aims to tell a story, providing a sense of the social and historical context in which a particular topic is embedded, moving from the general to the specific, and using statistics to bring light to the issue. Articles aim to balance 'what' analysis (relating the relevant statistical facts surrounding the issue, e.g. number, characteristics, change over time, sex, age and other differences), with 'why' analysis (providing context and explanation by highlighting relevant social changes and events and the chronologies of these). For example, an article on work may examine current labour force participation, how the labour market has changed over time, how different groups of people are affected by social and economic conditions, and how these factors may be linked to observed employment trends.

Population growth: past, present and future

According to preliminary estimates, Australia's population passed 22 million people by the end of September 2009. The latest one million people were added to the population in less than 2 ½ years, which is one year less than the time taken for the previous million to be added, and almost two years less than the time taken to add the million before that. The recent pace of population growth has resulted in renewed discussion about the role of immigration, and the future size of the population.

Intelligence on how fast the population is growing, and to what size it may grow (given particular assumptions), is crucial for decision-makers and planners who need to consider implications for infrastructure, services, the broader economy and the environment. This article aims to inform the discussion on Australia's population growth by examining the composition of growth in recent years and the types of migration contributing to this growth. It also presents various scenarios for Australia's future population.

How fast are we growing?

In the year ending 31 December 2009, Australia's estimated resident population (ERP) had increased by 433,000 people to 22.2 million, a 2.0% increase from December 2008. This followed growth of 460,000 people (or 2.2%) between December 2007 and December 2008.

The rate of population growth has become considerably faster since the mid-2000s. Over the two decades prior to 2006, the annual growth rate had averaged 1.3%, adding an average of 234,000 people per year in that period. The recent growth rate of around 2% per year is faster than at any other time in the past several decades, and faster than nearly all other developed countries.

Data source and definitions

ABS produces Australia's official estimates of the population every quarter. The ***estimated resident population*** (ERP) is an estimate of the Australian population obtained by adding natural increase (the excess of births over deaths) and net overseas migration (NOM) occurring during the period to the population at the beginning of the period. ERP is based on the concept of usual residence. It refers to all people, regardless of nationality or citizenship, who usually live in Australia, with the exception of foreign diplomatic personnel and their families. Conceptually, it includes usual residents who are overseas for less than 12 months and excludes overseas visitors who are in Australia for less than 12 months.

The status of quarterly ERP data changes over time from ***preliminary*** to ***revised*** as new component data become available. It then becomes ***final*** based on adjustments made following the five yearly Census of Population and Housing.

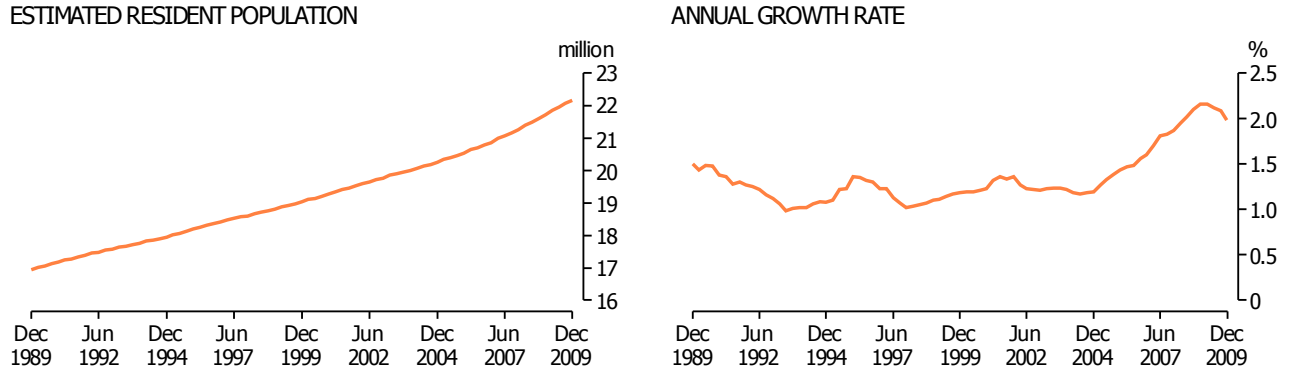
Net overseas migration is the net gain or loss of population through immigration to and emigration from Australia. It is based on the difference between the number of incoming travellers who stay in Australia for 12 months or more (NOM arrivals) and the number of outgoing travellers who leave Australia for 12 months or more (NOM departures). From September 2006, an improved method for counting NOM was introduced. Termed the '12/16 month rule', this method requires that people be in Australia for 12 months out of a 16 month period to be counted in the population.

Source: ABS *Australian Demographic Statistics* (cat. no. 3101.0)

What is driving growth?

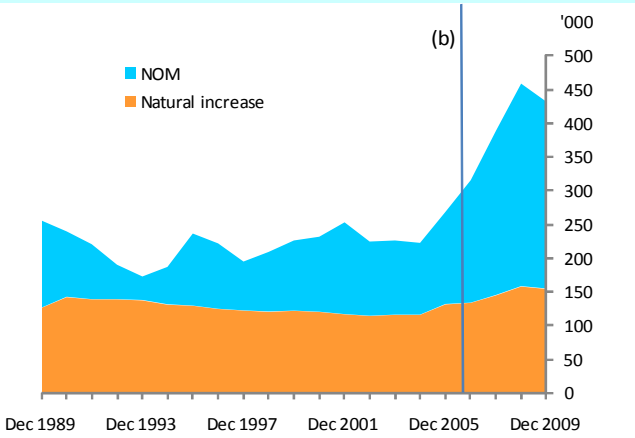
Australia's population growth has two components: natural increase (the number of births minus the number of deaths) and net overseas migration. Although the fertility rate (and the number of births) has lifted natural increase since the early 2000s, it is the growth in

Estimated resident population and annual growth rate



Source: ABS *Australian Demographic Statistics* (cat. no. 3101.0)

Components of annual population growth(a): Natural increase and net overseas migration



(a) Year ending December.

(b) NOM estimates contain a break in series. Estimates from September quarter 2006 use an improved methodology. Please refer to *Net Overseas Migration* in '*Data source and definitions*' box (previous page).

Source: ABS *Australian Demographic Statistics* (cat. no. 3101.0)

net overseas migration (NOM) that has been the main driver of population growth over the last few years. In the three years to December 2009, NOM made up almost two-thirds (64%) of population growth. This compares with the longer term average where NOM has contributed to less than half of the population increase.

Over recent decades, the economic incentives for people to migrate from less developed to more developed countries have increased. At the same time, more affordable international travel and communications are also likely to have increased the appeal for would-be migrants to resettle abroad.[1] For the receiving countries, immigration can provide both challenges and opportunities, and most governments have policies in place to regulate entry by foreigners. In Australia, successive governments have used overseas migration for economic and nation building goals.[2] Recent increases in immigration reflect Australia's relatively strong economic growth as well as the engagement of Australia in the wider global economy, and especially the provision of education services to large numbers of overseas students.

What comprises net overseas migration?

NOM is the net gain of migrants arriving less emigrants departing. For example, in 2007–08, there were a total of 501,300 arrivals (who were in Australia for at least 12 out of 16 months), and 224,000 departures (overseas for at least 12 out of 16 months) giving a NOM increase of 277,300 people.

The largest contribution to NOM in recent years has been from people on temporary visas. In 2007–08, these accounted for 186,500 people or two-thirds of all net migration. Students made up the largest category of temporary net migration and 39% of all NOM. The number of overseas students contributing to NOM has more than doubled from 45,300 in 2004–05 to 108,700 in 2007–08. Over half of the student component of NOM was made up of students who were citizens of India (33,300) and China

International comparison

Between 2005 and 2010, the world's population was projected to grow by an average 1.2% per year. Australia's growth between 2005 and 2009 averaged 1.9% per year, faster than most other developed countries and many developing countries. Among large developed countries, the United States and Canada had growth averaging 1.0% each, while the United Kingdom and France had growth of 0.5% per year. Japan is projected to have negative growth over the period as the number of deaths exceeds the number of births in that country. Elsewhere in the Asia-Pacific, New Zealand had growth lower than the world average at 0.9% as did China (0.6%), while Indonesia was about equal to the world average (1.2%). On the other hand, Singapore had rapid growth (2.5%) as did Papua New Guinea (2.4%).

Annual average population growth rates of selected countries(a)

	Reference year	*Annual average growth rate(b)*
		%
Australia	2005-2009(c)	1.9
Canada	2005-2010	1.0
China	2005-2010	0.6
France	2005-2010	0.5
Greece	2005-2010	0.2
Indonesia	2005-2010	1.2
Italy	2005-2010	0.5
Japan	2005-2010	-0.1
South Korea	2005-2010	0.4
Malaysia	2005-2010	1.7
New Zealand	2005-2010	0.9
Papua New Guinea	2005-2010	2.4
Singapore	2005-2010	2.5
Sweden	2005-2010	0.5
United Kingdom	2005-2010	0.5
United States of America	2005-2010	1.0
Vietnam	2005-2010	1.1
World total	**2005-2010**	**1.2**

(a) Medium variant projection. Figures rounded.

(b) Data is the average exponential rate of growth.

(c) uses ABS estimates rather than projections, latest data point is December 2009 (preliminary).

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *World Population Prospects: The 2008 Revision Population Database* <www.un.org>

Visa groups contributing to net overseas migration(a)

Visa category	2004-05(b) '000	2005-06(b) '000	2006-07 '000	2007-08 '000	2008-09(c) '000
Temporary					
Student	45.3	47.3	78.9	108.7	n.y.a.
Subclass 457 business (long stay)	9.8	19.2	26.4	33.4	n.y.a.
Visitor(d)	21.5	20.8	25.9	29.0	n.y.a.
Working holiday	9.4	14.2	17.0	21.4	n.y.a.
Other temporary entrant	-4.0	-4.7	-5.1	-5.9	n.y.a.
Total Temporary	**82.0**	**96.9**	**143.1**	**186.5**	**n.y.a.**
Permanent					
Family	25.8	27.8	29.7	30.1	n.y.a.
Skilled	32.1	39.0	43.4	47.0	n.y.a.
Humanitarian	13.1	12.0	12.2	9.3	n.y.a.
Total Permanent	**71.1**	**78.9**	**85.5**	**86.4**	**n.y.a.**
New Zealand citizens	20.6	23.1	29.8	36.1	n.y.a.
Australian citizens	-21.4	-18.9	-17.2	-20.3	n.y.a.
Other	-9.8	-8.5	-8.4	-11.4	n.y.a.
Total	**142.5**	**171.5**	**232.8**	**277.3**	**298.9**

(a) The visa category information in this table represents the net number of visas based on the visa type at the time of a traveller's specific movement. Therefore, the number of visas in this table should not be confused with information on number of visas granted.

(b) These estimates use the 12/16 month rule (described in definitions box on p1) for calculating NOM. However, this method was not used in the official estimated resident population ERP until 2006-07 onwards. Therefore totals for 2004-05 and 2005-06 in this table do not match NOM estimates published elsewhere.

(c) Total is preliminary estimate. Visa category information is not yet available because data cannot be compiled until 16 months following the end of the reference period.

(d) Visitor visas include tourists, business visitors, medical treatment and other.

Source: ABS *Migration Australia* (cat. no. 3412.0) and ABS Traveller Characteristics Database

(25,600). The third largest source of students in 2007–08 was Nepal with a NOM contribution of 7,300 (equal to 7% of the total NOM of students). The balance of overseas students was spread among more than 140 other countries, each contributing less than 4% of the net student arrivals.

People entering as temporary business entrants (the Subclass 457 – business visa), Visitors and Working holiday makers made up the balance of the temporary entrants. People entering on 457 visas are sponsored by an employer to fill skilled positions for a period of up to four years.[3] The net migration of people on 457 visas has more than tripled from 9,800 in 2004–05 to 33,400 in 2007–08. The countries of citizenship most represented by the 457 visas in 2007–08 were the United Kingdom and Philippines (18% each), South Africa (15%), India (13%) and China (11%).

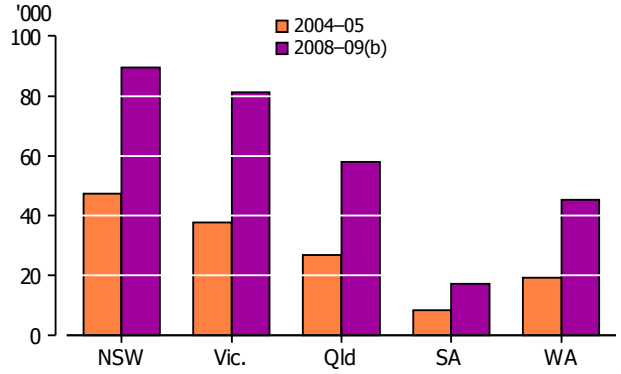
Within the permanent visa types, Skill and Family were the visa categories contributing the greatest numbers to NOM, together making up 28% of total NOM in 2007–08. Over the three years to 2007–08, the Permanent Skill visa category increased by 46% from 32,100 to 47,000, while the Family visa category increased by 16% to 30,100. The countries of citizenship with the greatest representation among the Skilled categories were the United Kingdom (13,700), India (8,700) and China (4,500). China, India and the United Kingdom were also the leading countries of citizenship of family migration, and together accounted for one-third of the NOM by Family visa.

Humanitarian visa holders made up 9,300 NOM in 2007–08, but have been closer to 12,000 in previous years. The main countries of citizenship for Humanitarian NOM were Burma (25%), followed by Iraq (18%) Afghanistan (12%) and Sudan (11%).

Where do migrants settle?

While all states and territories have had population increases from net overseas migration, the vast majority (97%) of net overseas migration in recent years was to the five most populous states. In 2008–09, just under one-third (30%) of Australia's increase in NOM was to New South Wales (89,500 people). Victoria had the second largest number of people added from net overseas migration with 81,200 (or 27%). Queensland and Western Australia added 58,000 and 45,200 respectively, and over the five years to 2008–09 had slight increases in their national share of NOM (to 19% and 15% respectively).

Net Overseas Migration gains - selected states(a)



(a) Not shown are Tasmania, Northern Territory and Australian Capital Territory. Together these State/Territories made up around 3% of NOM in 2008-09.

(b) Preliminary.

Source: ABS Traveller Characteristics Database and ABS *Migration Australia* (cat. no. 3412.0)

Where are the population growth centres?

In addition to the settlement pattern of newly arriving migrants, regional population growth is strongly influenced by the general mobility of Australians. While New South Wales had the greatest share of net overseas migrants in recent years, thanks to internal migration, Queensland had the largest increase in population. In the five years to June 2009, Queensland's population increased by over half a million people, or 29% of the Australian population growth. Victoria had the second largest gain (25%) followed by New South Wales (23%) and Western Australia (14%).

...cities and districts

In the five years to June 2009, Melbourne added more people to its population than any other city or region with a gain of 370,000 people (2.0% per year). Sydney had the second largest increase with an extra 290,000 people, although at 1.3% per year, this was a slower rate of growth than the national growth rate (1.8% per year in the five years to June 2009). Brisbane and Perth had gains of 219,000 (average annual growth of 2.3%) and 199,000 (2.6%) respectively.

The inner cities of the three largest capitals all grew faster than their respective city balances leading to continued increases in population densities. In the five years to 2009, Inner Melbourne gained 41,000 people, Inner Sydney added 33,000 and Inner Brisbane grew by 14,000. Inner Sydney remained the most densely populated inner city with 4,641 people per km^2, followed by Inner Melbourne (3,646 people per km^2) and Inner Brisbane with 3,359 people per km^2.

Asylum seekers and immigration detention

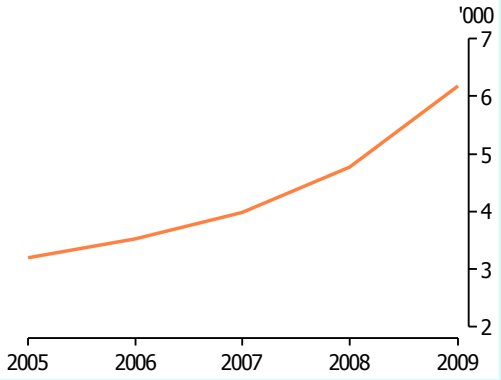
In Australia, asylum seekers can be people who arrive in an authorised manner (e.g. with visitor or student visas), or people who arrive in an unauthorised manner, usually by boat. People arriving without authority are confined in detention centres until they are granted a visa to remain in Australia, or they leave the country.

In May 2010, there were just over 3,600 people were held in detention in mainland Australia and Christmas Island. Around 93% were people who had arrived unlawfully by boat, 2% arrived unlawfully by air and 4% were visa overstayers.

Although unauthorised arrivals do not have a visa, they are counted in NOM statistics and hence may be included in the population estimates, subject to their duration of stay.

Australia has had a recent increase in asylum applications made within Australia – with more than 6,000 in 2009. This was less than 2% of the total number of applications made worldwide, and many countries had much larger numbers. For example, in 2009, the United States had 49,000 new claims for asylum, while France had 42,000 and Canada had 33,000.

Asylum applications made within Australia



Source: Department of Immigration and Citizenship, *Managing Australia's Borders - Detention Services* <www.immi.gov.au> and The United Nations High Commissioner for Refugees (UNHCR), *Asylum Levels and Trends in Industrialized Countries 2009: Statistical Overview of Asylum Applications lodged in Europe and Selected Non-European Countries* <www.unhcr.org>

What will happen in the future?

Recent rapid population growth has led to renewed focus on the projections of the population, and in particular, what size the population might be by the middle of this century.

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 fertility, mortality, net overseas migration, and for states and territories, net internal migration, were to hold for the next 50 to 100 years.

Selected district/capital city growth

	June 2004	*June 2009*	*Average annual growth*
	'000	'000	%
Melbourne	3 626.0	3 995.5	2.0
Sydney	4 214.2	4 504.5	1.3
Brisbane	1 784.9	2 004.3	2.3
Perth	1 460.3	1 659.0	2.6
Gold Coast-Tweed	491.7	578.0	3.3
Adelaide	1 127.2	1 187.5	1.0
Sunshine Coast	210.7	245.3	3.1
Newcastle	507.4	540.8	1.3
Canberra-Queanbeyan	372.3	403.1	1.6
Cairns	121.9	147.1	3.8
Total Australia	**20 127.4**	**21 955.3**	**1.8**

Source: ABS *Regional Population Growth* (cat. no. 3218.0)

Because of the inherent uncertainty of the future with respect to levels of NOM as well as birth and death rates, a number of different assumptions are used and projections have been produced for all combinations of the assumptions.

...different assumptions, different results

The highest NOM assumption made in the latest ABS population projections was for a level of 220,000 per year. While this is less than the 270,000 averaged over the last three financial years up to 2008–09, it is well over the longer term trend in which NOM averaged 165,000 over the decade to 2008–09. The middle assumption has a NOM of 180,000 per year, which is also historically quite high, although not in relation to recent years.

The highest fertility assumption in the projections is for the total fertility rate (TFR) to be sustained at 2.0 births per woman. The actual TFR in 2008–09 was 1.98, although this too was considerably higher than the average throughout the past decade (1.8). The latest population projections' middle assumption of fertility is for the TFR to be sustained at 1.8 births per woman, and the low assumption is for a TFR of 1.6.

The third component of national population projection assumptions, mortality, is summarised by changes in life expectancy at birth. The highest assumption for mortality is for life expectancy to continue to increase in line with the long-term trend with around 15 year increases in male life expectancy at birth (to 94 years) and 12 year increases in female life expectancy (to 96 years) by 2056. The medium assumption for mortality, still assumes an increase in life expectancy at birth,

Population projections

The ABS produces Australia's official population projections after each census. Each release updates the base population and uses assumptions based on recent and long-term demographic trends, and takes account of possible future scenarios arising from research in Australia and elsewhere.

The latest projections span the period 2008 to 2101 for Australia and 2008 to 2056 for the states, territories and regions. The base population for the projections is the estimated resident population at 30 June 2007.

For simplicity, most analysis presented is limited to three main series which cover three sets of possible future population growth outcomes: high (Series A), medium (Series B) and low (Series C). However, there are a total of 72 series available for use, and these are available from the ABS website.

Population projection assumptions

	Total fertility rate(a)	*NOM(b)*	*Life exp. at birth, males(c)*	*Life exp. at birth, females(c)*
	Rate	'000	Years	Years
Series A	2.0	220.0	93.9	96.1
Series B	1.8	180.0	85.0	88.0
Series C	1.6	140.0	85.0	88.0

(a) From 2021 (b) From 2010-11 in Series A and C, from 2007-08 in Series B. (c) reaching this level by 2056.

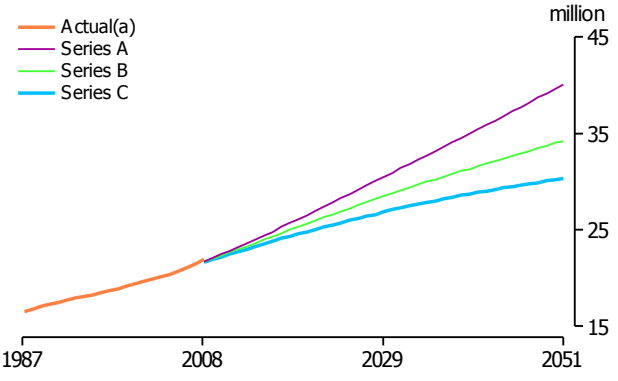
Source: ABS *Population Projections, Australia, 2006 to 2101* (cat. no. 3222.0)

but a slower rate, with male and female life expectancy to increase to 85 and 88 years respectively by 2056.

Series A, which uses the high assumptions for NOM, fertility and mortality, results in the Australian population being just over 40 million in 2051, equivalent to growth averaging 1.4% per year.

With the median settings of Series B, (where NOM is assumed to be 180,000, the TFR is 1.8 and life expectancy increases slowly), the

Population projections



(a) Estimated resident population.

Source: ABS *Population Projections, Australia, 2006 to 2101* (cat. no. 3222.0)

Australian population is projected to reach 34.2 million in 2051, which is equivalent to population growth of 1.1% per year.

...capital city growth

Despite the exceptions of certain large urban areas such as the Gold Coast and Sunshine Coast, Australia's capital cities have tended to grow faster than state balances. Under Series B (which also assumes moderate interstate migration), the concentration of Australia's population living in the capital cities is projected to increase from 64% in 2008 to 67% in 2051.

In Series B, Sydney is projected to remain the most populous city in Australia, with 6.7 million people in 2051, closely followed by Melbourne with 6.5 million people. However, in Series A, Melbourne's population is projected to exceed that of Sydney's in 2039. This is mainly due to the large migration losses for Sydney (which in this scenario is assumed to lose a net 48,000 people per year to the rest of Australia), while Melbourne only loses a net 15,000 people per year to the rest of Australia.

Under Series B, Perth is projected to experience the highest percentage growth (1.6% per year) of Australia's capital cities, increasing from 1.6 million people in 2008 to 3.2 million in 2051. The second highest percentage growth in Series B is projected for Brisbane, with an average annual increase of 1.5%, from 1.9 million people in 2008 to 3.8 million in 2051. Darwin's population is also projected to grow at 1.5% per year over the projection period, from 121,000 people in 2008 to 229,000 in 2051. The remaining capital cities are projected to experience smaller percentage increases, with the Australian Capital Territory increasing by 0.8% per year (from 344,000 in 2008 to 495,000 in 2051), Adelaide increasing 0.7% (from 1.2 million to 1.6 million) and Hobart increasing 0.6% per year, going from 209,000 to 275,000 people.

Population projections, capital cities

	2008	*2051 Series A*	*2051 Series B*
	'000	'000	'000
Sydney	4 399.7	7 262.8	6 733.8
Melbourne	3 892.4	7 492.6	6 515.9
Brisbane	1 945.6	4 580.6	3 764.4
Adelaide	1 172.1	1 772.8	1 612.7
Perth	1 602.6	3 856.7	3 181.3
Hobart	209.3	349.6	275.2
Darwin	120.7	307.1	229.2
Canberra	345.3	643.6	495.0
Total	**13 687.6**	**26 265.8**	**22 807.4**

Source: ABS *Population Projections, Australia, 2006 to 2101* (cat. no. 3222.0) and ABS *Australian Demographic Statistics* (cat. no. 3101.0)

State and territory projections

State and sub-state projections for each combination of assumptions of NOM, fertility and mortality have been published to complement the Australia level population projections. These are produced by applying differentials which reflect the relative differences in growth components in relation to the Australia level. In addition to this differentiation, the states and territories required further assumptions as to the population gains/losses due to interstate migration.

Three assumptions have been made about future net interstate migration levels:

- ***large interstate flows***: relatively large net interstate migration gains for some states and territories, and correspondingly large losses for other states and territories. For example, this equates to large net gains in Queensland, and correspondingly large net losses in New South Wales and Victoria;
- ***medium interstate flows***: medium net interstate migration for some states and territories, and medium losses for others; and
- ***small interstate flows***: relatively small net interstate migration gains for some states and territories, and small losses for others.

In addition to ABS' state and territory projections, many state and territory governments produce independent projections based on their own assumptions. It is arguable that the states and territories may be in better positions to project the population. If, for example, states have policy settings that are aimed at producing a particular local migration outcome, this may help refine the migration assumption.

Source: ABS *Population Projections, Australia, 2006 to 2101* (cat. no. 3222.0)

Endnotes

1 United Nations Development Programme, 2009, *Human Development Report 2009, Overcoming barriers: Human mobility and development*, New York, <www.undp.org>.

2 Metcalfe, A., July 2008, *Planned Evolution: Strategic Approach to Immigration Policy*. Speech to the Government Policy Evolution Conference, Department of Immigration and Citizenship, Canberra, <http://www.immi.gov.au>.

3 Department of Immigration and Citizenship, Employer Sponsored Workers, Temporary Business (Long stay) - Standard Business Sponsorship (Subclass 457), viewed 21st June 2010, <www.immi.gov.au>.

Appendix 1 – Components of population growth, Australia

	Births	*Deaths*	*Natural Increase*	*NOM arrivals(a)*	*NOM departures (a)*	*Net Overseas Migration(a)*	*Estimated Resident Population (b)*	*Growth on previous year(c)*	*Growth on previous year*
	'000	'000	'000	'000	'000	'000	'000	'000	%
1988-89	250.2	118.8	131.4	249.9	112.6	157.4	16 814.4	282.3	1.7
1989-90	257.5	125.1	132.4	231.9	128.1	124.6	17 065.1	250.7	1.5
1990-91	261.2	119.6	141.6	236.4	141.6	86.4	17 284.0	218.9	1.3
1991-92	259.2	120.8	138.4	234.2	144.3	68.6	17 494.7	210.6	1.2
1992-93	260.0	121.3	138.6	203.8	141.1	30.0	17 667.1	172.4	1.0
1993-94	258.3	123.5	134.8	207.4	140.0	46.5	17 854.7	187.6	1.1
1994-95	258.2	126.2	132.0	238.5	145.5	80.1	18 071.8	217.0	1.2
1995-96	250.4	126.4	124.0	262.7	153.1	104.1	18 310.7	239.0	1.3
1996-97	253.7	127.3	126.4	261.0	166.6	87.1	18 517.6	206.9	1.1
1997-98	249.1	129.3	119.9	265.4	186.3	79.2	18 711.3	193.7	1.0
1998-99	250.0	128.3	121.7	271.9	175.5	96.5	18 925.9	214.6	1.1
1999-00	249.3	128.4	120.9	305.1	197.8	107.3	19 153.4	227.5	1.2
2000-01	247.5	128.9	118.6	348.6	212.9	135.7	19 413.2	259.9	1.4
2001-02	247.3	130.3	117.0	353.4	219.7	110.6	19 651.4	238.2	1.2
2002-03	246.7	132.2	114.4	373.8	219.6	116.5	19 895.4	244.0	1.2
2003-04	249.1	133.2	115.9	401.3	236.7	100.0	20 127.4	231.9	1.2
2004-05	255.9	131.4	124.6	426.9	248.9	123.8	20 394.8	267.4	1.3
2005-06	263.5	134.0	129.5	457.4	258.1	146.8	20 697.9	303.1	1.5
2006-07(d)	277.7	136.0	141.7	437.5	204.7	232.8	21 072.5	374.6	1.8
2007-08(d)	289.5	140.7	148.8	501.3	224.0	277.3	21 498.5	426.1	2.0
2008-09(e)	300.9	143.1	157.8	529.7	230.8	298.9	21 955.3	456.7	2.1

(a) NOM estimates contain a break in series. Estimates from September quarter 2006 use an improved methodology. See definition of Net Overseas Migration.

(b) At end of period (30 June).

(c) Differences between total growth and the sum of the components of population change prior to 2007–08 are due to intercensal discrepancy.

(d) Revised estimates.

(e) Preliminary estimates.

Source: *Australian Historical Population Statistics* (cat. no. 3105.0.65.001) and *Australian Demographic Statistics* (cat. no. 3101.0)

Environmental awareness and action

In recent years environmental issues have attracted much interest at an international, national and local level. For example, in 2010, the Australian Government's Intergenerational Report identified climate change as one of the biggest challenges facing Australia, placing substantial pressures on Australia's economy, living standards and government finances over the next 40 years.[1]

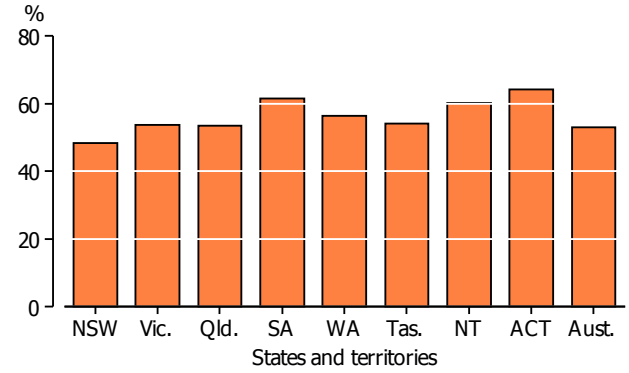
Public concern about environmental issues, such as drought, bushfires, water conservation and climate change, can influence actions taken to protect and restore the environment. These actions may be undertaken by individuals, governments, non-government organisations or industry, and may include the development of policy initiatives, public campaigning, petitions, membership of environmental groups, volunteering and donations. Individuals can also demonstrate concern for the environment by undertaking personal environment protection activities, such as recycling and reducing electricity and water consumption.

This article examines Australians' environmental concerns and their participation in environmental protection activities.

Concern about the environment

In 2007–08, 82% of Australian adults (12.8 million people) reported that they were concerned about at least one environmental problem. However, only around a quarter (26%) reported that the condition of the natural environment was bad while almost two-fifths (39%) felt that it was neither good nor bad. Nevertheless, over half of adults (53%) said they thought the natural environment was declining.

Proportion of adults who reported the natural environment was declining, by state and territory — 2007-08



Source: ABS 2007-08 Environmental Views and Behaviour Survey

Data source

This article uses data from the ABS 2007–08 Environmental Views and Behaviour Survey collected in the ABS Multi-Purpose Household Survey (MPHS). The analysis is restricted to all adults aged 18 years and over unless otherwise stated.

Some of the data used in this analysis are derived from ***attitudinal questions***. These questions attempt to measure a respondent's attitudes or feelings towards a particular topic, event, object or people. There are some constraints associated with attitudinal questions which should be considered when reading this analysis. Notably, a respondent's attitude does not necessarily correlate to their behaviour, and attitudes are subject to change over time. For example, a Newspoll survey found that the proportion of adults who believed that climate change was occurring fell from 84% in July 2008 to 73% in February 2010.[2]

Women (83%) were more likely to report being concerned about any environmental problems than men (80%). Younger adults (aged 18–24 years) and older adults (aged 65 years and over) were the least likely to be concerned about any environmental problems (74% and 77% respectively). And, while over half (55%) of all adults aged below 65 years reported that the natural environment was declining, less than half (44%) of those aged 65 years and over agreed.

Rates of concern about environmental problems were highest in the Australian Capital Territory (90%) and South Australia (86%); and the lowest in Tasmania (77%) and New South Wales (78%). New South Wales had amongst the lowest proportion of adults who felt the condition of the natural environment was bad (23%) or declining (48%) while South Australia and the Australian Capital Territory recorded some of the highest proportions (35% and 62% and, 33% and 64% respectively).

In part reflecting the age distribution of these groups, adults without a non-school qualification, such as a Bachelor Degree or Diploma, were less likely to report being concerned about the environment than those with a non-school qualification (76% compared with 87%). Similarly, under half (48%) of those without a non-school qualification thought the environment was declining compared with nearly three-fifths (57%) who had a non-school qualification.

In a similar pattern, those who were not employed were less likely to report being concerned about the environment than those who were employed (77% compared with 84%); and under half (47%) of those who were not

employed reported that the natural environment was declining compared with over a half (56%) who were employed.

Concerns about climate change

There is mounting scientific evidence to indicate that average temperatures are rising and these changes are very likely to be as a result of increasing greenhouse gas emissions and not the result of the natural variability of climate.[3] Australia's climate is already changing, and how adults and governments act now could have implications for the future sustainability of the environment. For more information see ABS *Australia's Environment Issues and Trends, 2010* (cat. no. 4613.0).

In 2007–08 almost three-quarters (73%) of adults said they were concerned about climate change, although there was some variation across population groups. Adults aged 65 years and over were less likely to report being concerned about climate change (60%) than adults in other age groups.

Across the states and territories 69% of adults living in the Northern Territory reported that they were concerned about climate change compared with 81% of adults in the Australian Capital Territory.

Adults who were not employed were less likely to be concerned about climate change than those who were employed (68% compared with 76%); and those without a non-school qualification were less likely to be concerned than those with a non-school qualification (69% compared with 77%). Adults with a Bachelor degree or above were more likely to be concerned about climate change (83%) than those with a diploma (78%) and those with a certificate (73%).

Personal environmental protection activities

...recycling

Recycling enables waste materials to be transformed into usable resources thereby reducing landfill and conserving resources.[4] In 2007–08, the vast majority (84%) of Australians sorted out recyclable from non-recyclable waste all or most of the time. In contrast, only one-third of adults reported composting or recycling food waste all or most of the time.

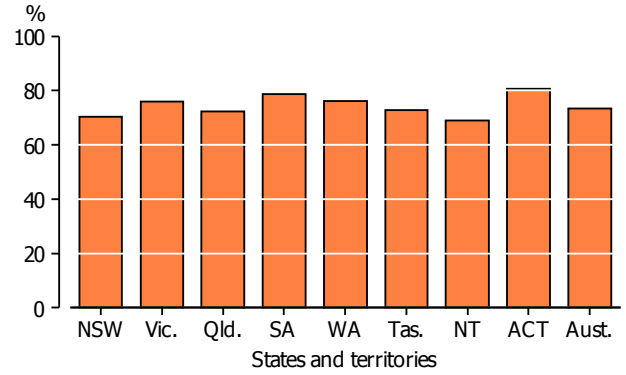
Overall, young adults (18–24 years) were the least likely to sort out recyclable waste (74%) compared with other age groups. The proportion of those who reported sorting out recyclable from non-recyclable waste varied across the states and territories. The Northern Territory and Western Australia had the lowest rates of recycling (64% and 69% respectively) compared with over nine-tenths (93%) in the Australian Capital Territory.

These differences were partially driven by differences in the availability of local waste collection services. In major cities, 97% of adults reported that they had recyclable waste collection services in their local area, compared with 65% in outer regional areas and 32% in remote areas.

Of those Australians who did grocery shopping, 43% reported using green or reusable shopping bags all or most of the time while around one-quarter (26%) reported rarely or never using them. Once again this varied with age, with 18–24 year olds being the least likely to use them all or most of the time (34%).

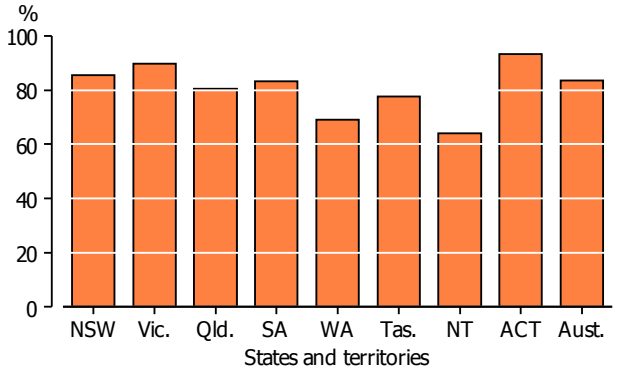
Adults in Queensland and the Northern Territory reported the lowest rates of use of green or reusable shopping bags (38%) compared with South Australia and the Australian Capital Territory who reported the highest rates (51% and 50% respectively).

Proportion of adults who were concerned about climate change, by state or territory — 2007-08



Source: ABS 2007-08 Environmental Views and Behaviour Survey

Proportion of adults who sorted out recyclable waste all or most of the time, by state or territory — 2007-08



Source: ABS 2007-08 Environmental Views and Behaviour Survey

...water use and conservation

Australia's urban water supply faces major challenges due to climate change and drought. At the same time, demand for water is increasing due to population growth and this in turn places pressure on our water storage capacity. In 2009, the Australian Government invested $12.9 billion into *Water for the Future* – a 10 year initiative to prepare Australia for a future with less water. At a household level, governments have imposed water restrictions in most states and territories since 2002.[5]

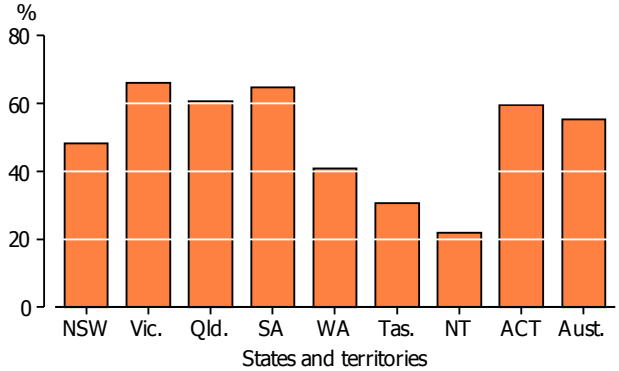
In 2007–08, over half (55%) of adults reported that their water consumption had decreased and 40% reported that it had remained the same (in the 12 months prior to interview). Of the 12.9 million adults who reported that they were concerned with the environment, nearly three-fifths (59%) reported that their water consumption had decreased, compared with two-fifths of those who were not concerned.

Of the 8.7 million Australians who reported that their water consumption had decreased, over three-quarters (76%) said it was because they were trying to conserve water at home and over two-fifths (42%) attributed it to water restrictions being imposed or increased. Moreover, from 1994 to 2007, the proportion of households with water conservation devices (such as a water-efficient shower head or a dual flush toilet) more than doubled.[5]

Victoria and South Australia had the highest proportions of adults who reported their water consumption had decreased (66% and 65% respectively) compared with the Northern Territory and Tasmania which had the lowest (22% and 31% respectively).

There were variations in the proportion of adults who reported that their water consumption had decreased, depending on the area of remoteness in which they lived. Almost three-fifths (59%) of adults living in major cities reported a decrease in their water consumption compared with under two-fifths (39%) in remote Australia.

Proportion of adults who decreased their water consumption, by state or territory — 2007-08



Source: ABS 2007-08 Environmental Views and Behaviour Survey

Actual water consumption

The most recent comprehensive data available for Australia-wide water consumption is the ABS *Water Account, Australia, 2004–05* (cat. no. 4610.0).

Between 2000–01 and 2004–05, total water consumption in Australia decreased by 14%. In 2004–05, the agricultural industry accounted for the highest water consumption (65%) and recorded a 19% decrease from 2000–01. In 2004–05, the household sector accounted for 11% of water consumption and recorded an 8% decrease from 2000–01.

New South Wales and the Australian Capital Territory combined showed the largest fall in water consumption (32%) between 2000–01 and 2004–05. This is mostly because of a 39% decrease in the consumption of water by the agriculture industry in these jurisdictions in this period.

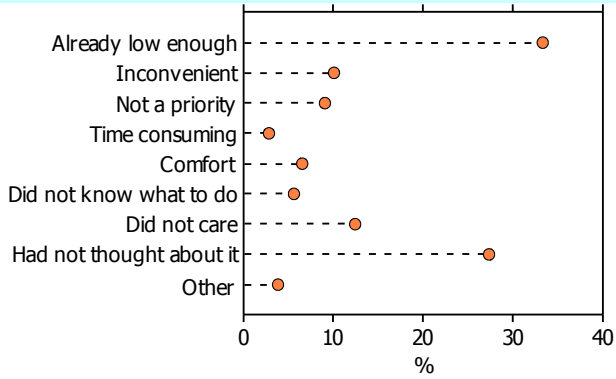
The next ABS water account will be released in December 2010.

...electricity use

Electricity consumption in the residential sector is a significant contributor to greenhouse gas emissions in Australia due to its reliance on fossil fuels (notably coal) to produce it.[6] In 2007–08, most Australians (88%) reported that they had taken steps to limit their personal electricity use. Of those who reported that they were concerned with climate change, a majority (92%) said that they had taken steps to limit personal electricity use. However, a large proportion of those not concerned with climate change (78%) had also taken steps to limit their electricity use.

Young adults (aged 18–24 years) were the least likely (74%) to report that they had taken steps to limit their personal electricity use, while around 90% of those aged 25 years and over reported they had. Of those who did not take steps to limit their electricity use, young adults were also the most likely to report they did not care how much electricity they used (19%) compared with around one-tenth for the age groups 25 years and over.

Reasons did not take steps to limit electricity use(a) — 2007-08



(a) As a proportion of all adults aged 18 years and over who did not reduce their electricity use.

Source: ABS 2007-08 Environmental Views and Behaviour Survey

The main reasons that adults gave for not taking steps to limit their electricity use was that their electricity consumption was already low enough (33%) or they had not thought about saving electricity (27%).

Household energy use

Energy consumption by households is an important contributor to greenhouse gas emissions. In 2007, Australia's residential sector accounted for around 9% of total greenhouse gas emissions, an increase of 25% in emissions since 1990.[7]

The ABS 2008 Energy Use and Conservation survey collected data on household energy sources and conservation measures.[8] Virtually every household in Australia (99.9%) used electricity as their main source of energy. In comparison to electricity, gas produces much lower carbon dioxide emissions and it was the second most common source of energy used in Australian households (61%). Use of solar energy increased from 5% in 2002 to 8% in 2008, but it was still the least common source of energy used by households.[6]

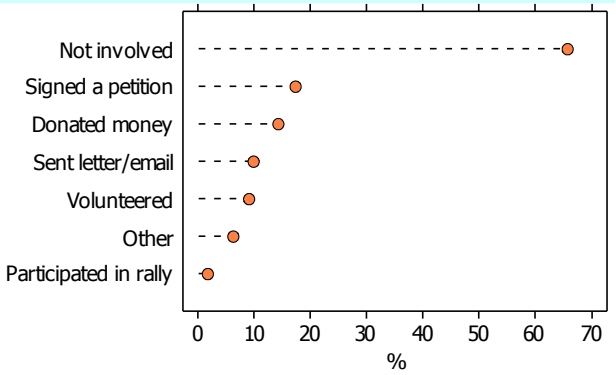
In 2006–07, heating and cooling accounted for the greatest proportion of energy consumed in households (almost 40%). This was followed by water heating (25%), household appliances, (19%), lighting (6%), and cooking (6%). Of household appliances, refrigerators and freezers were the largest contributors to household energy use, consuming 34% of all energy used by household appliances.[9]

In recent years, there has been an increase in the number of adults who reported that they were influenced by environmental factors when considering their household energy. For example, in 2008, energy efficiency was the most common factor considered by Australian households when replacing or buying most white good appliances compared with 2002, when the most common factor considered was cost. Nearly three-quarters (74%) of Australian households used cold water rather than warm water in washing machines, up from 61% in 1994. And, between 2005 and 2008, the proportion of households who used energy saving lights increased from 33% to 59%. However, there was also a substantial increase in the number of households who had coolers (air conditioners and evaporative coolers), more than doubling from 32% in 1994 to 67% in 2008.

Environmental involvement

Environmental involvement includes signing a petition, making a donation and taking part in a demonstration or rally. This participation may influence government behaviour and strengthen support for environmentally concerned organisations.

Environmental activities involved in during last 12 months(a) — 2007-08



(a) As a proportion of all adults aged 18 years and over.
Source: ABS 2007-08 Environmental Views and Behaviour Survey

While 12.8 million Australian adults reported that they were concerned about any environmental problems, only 5.4 million (34%) had been involved in some form of environmental activity in the 12 months prior to interview.[10]

The most common activity undertaken was signing a petition relating to environmental issues (17%), followed by donating money to protect the environment (14%), and expressing concern through a letter, email or talking to responsible authorities (10%). The least common environmental activity undertaken was participating in a demonstration or rally on environmental issues (2%).

Young adults (18–24 years) and those aged 65 years and over were the least likely to be involved in environmental activities (31% and 26% respectively). However, despite the disparities in concern about environmental problems between different states and territories, there was relatively little difference in the proportions of adults who were involved in environmental activities – levelling at around 33% to 38% across all the states and territories.

Adults with a non-school qualification were more likely to have participated in environmental activities than adults with no non-school qualification (41% compared with 27%); and those who were employed were more likely to have been involved in environmental activities than those who were not employed (38% compared with 28%).

Looking ahead

The Australian Government's climate change strategy aims to reduce Australia's emissions, adapt to climate change impacts we cannot avoid, and help shape a global solution.[11] This includes helping Australians change the way they act to help reduce carbon emissions, including encouraging the choice of energy efficient appliances, homes, and buildings. In addition, the *Environment Protection and Biodiversity Conservation Act 1999* enables the Australian Government to join with the states and territories in providing a national scheme of environmental protection and conservation.[12]

Endnotes

1 The Treasury, 2010, *The Intergenerational Report 2010, Australia to 2050: future challenges*, Commonwealth of Australia, Canberra, p. vii, <www.treasury.gov.au>.

2 Newspoll, 16 February 2010, Climate Change, Newspoll, <www.newspoll.com.au>.

3 Intergovernmental Panel on Climate Change (IPCC), 2007, *Climate Change 2007: Synthesis Report: Summary for Policymakers*, IPCC, p. 5, <www.ipcc.ch>.

4 Clean up, Recycling, viewed 10 March 2010, <www.cleanup.org.au>.

5 Australian Bureau Statistics, 2010, *Australia's Environment: Issues and Trends, 2010*, cat. no. 4613.0, ABS, Canberra, p. 23.

6 Australian Bureau Statistics, 2010, *Australia's Environment Issues and Trends, 2010*, cat. no. 4613.0, ABS, Canberra, p. 17.

7 Department of Climate Change, 2009, *National Inventory by Economic Sector, 2007*, Commonwealth of Australia, Canberra, p. 1, <www.climatechange.gov.au>.

8 Analysis on household energy use only includes the five most common energy sources: mains electricity, mains gas, LPG/bottled gas, wood and solar.

9 Sandu, S. and Petchey, R., 2009, *End use energy intensity in the Australian economy*, ABARE research report 09.17, Canberra, pp 39–41, <abare.gov.au>.

10 In this analysis environmental protection activities include: donated money to protect the environment, volunteered or became involved in environmentally related programs, signed a petition on environmental issues, expressed concern about environmental issues through letter, email or talking to responsible authorities, participated in a demonstration or rally on environmental issues and other.

11 Department of Climate Change and Energy Efficiency, viewed 31st May 2010, <www.climatechange.com.au>.

12 Department of Environment, Water, Heritage and the Arts, viewed 31st May 2010, <www.environment.gov>.

Men's health

Men's attitudes towards health and health services are different to those of women. These differences are due to both biological and gender factors. Men are more likely than women to engage in risky behaviours such as substance abuse and dangerous driving. They also have a higher incidence of many conditions, and are more likely to die from certain causes.[1]

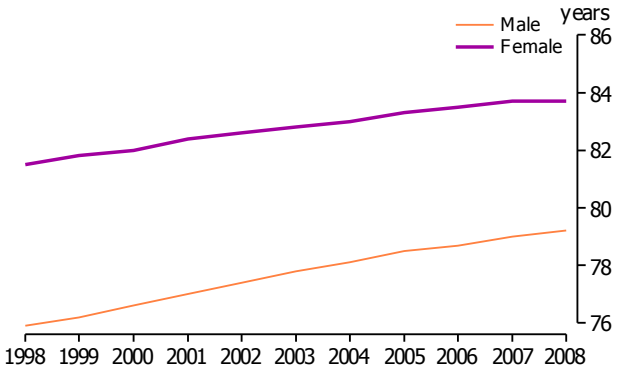
Understanding these gender and biological differences is an important step to achieving gender equity and in achieving the highest standard of public health.[2] In recognition of this, the Australian Government recently released a National Male Health Policy, providing a framework for improving male health across Australia, across different life stages and population groups.

This article will focus specifically on issues of men's health and complements information on issues relating to women's health included in *Australian Social Trends 2004*, 'How women care for their health'.

Life expectancy

Life expectancy provides a summary indicator of the different health outcomes of men and women. A male born in Australia in 2006–2008 could be expected to live 4.5 years *less* than a female born at the same time (79.2 years compared with 83.7). However, this gap has narrowed by one year over the preceding decade, down from 5.6 years in 1996–1998.

Life expectancy at birth — 1998-2008



Life expectancy has been calculated using data for the three years ending in the reference year.

Source: ABS *Deaths, Australia, 2008* (cat. no. 3302.0)

Data sources and definitions

This article uses data from a variety of sources, but mainly from ABS 2007–08 National Health Survey and ABS *Causes of Death, Australia, 2008* (cat. no. 3303.0) as well as unpublished ABS causes of death data.

The 10th revision of the International Classification of Diseases (ICD-10) has been used in this article to classify diseases or conditions, including as causes of death.

The 2008 Causes of Deaths data will be subject to revision when ABS Causes of Death, Australia, 2009 is released in 2011. Coroner certified deaths that had not been finalised will potentially be assigned a more specific cause of death after the case is closed. For more information see the Technical Notes in ABS *Causes of Death, Australia, 2008* (cat. no. 3303.0).

The ***underlying cause of death*** refers to the disease or injury which initiated the train of morbid events leading directly to death. Accidental and violent deaths are classified according to the external cause, that is, to the circumstances rather than to the nature of the injury.

A ***standardised death rate*** (SDR) enables the comparison of deaths rates between populations with different age structures by relating them to a standard population (i.e. the Australian 2001 estimated resident population).

A ***Male/Female SDR ratio*** is the male SDR divided by the female SDR. A ratio of 1.0 would indicate that the SDR is the same for men and women. A ratio greater than 1.0 would indicate a higher standardised death rate among men and a ratio below 1.0 indicates a higher standardised death rate among women.

An ***age-specific death rate*** (ASDR) is the number of deaths registered during the calendar year at a specific age, per 100,000 people of that age as at 30 June of that year.

Adjudications are court cases where the defendant has been found guilty or innocent of at least one of the charges laid against them. Multiple charges relating to the same incident are usually heard together as one case. However, a person involved in more than one criminal incident during the reference period may be adjudicated more than once that year.

Contributing to the gap between men's and women's life expectancy is the higher death rate of males across all age groups and most of the major causes of death. In 2008, the standardised death rate (SDR) of males was 50% higher than for women (737 deaths per 100,000 men, compared with 493 per 100,000 women).

Selected causes of death(a)(b) — 2008

	Standardised Death Rate (SDR)		*Male/Female SDR ratio*	*Percent of total deaths*	
	Male	*Female*		*Male*	*Female*
Underlying cause of death and ICD-10 code	Per 100 000	Per 100 000	Ratio	%	%
Prostate cancer (C61)	31.0	..	..	4.1	..
Suicide (X60-X84, Y87.0)	16.1	4.4	3.6	2.3	0.7
Transport accidents (V01-V99, Y85)	9.6	3.2	3.0	1.4	0.5
Skin cancer (C43-C44)	12.0	4.7	2.6	1.7	0.9
Diseases of the liver (K70-K77)	9.3	4.0	2.3	1.4	0.7
Parkinson's disease (G20)	7.8	3.7	2.1	1.0	0.8
Lung cancer (C34)	47.9	23.5	2.0	6.8	4.1
Ischaemic heart disease (I20-I25)	126.7	72.7	1.7	16.9	15.9
Chronic lower respiratory diseases (J40-J47)	34.6	21.0	1.6	4.6	4.1
Stroke (I60-I69)	49.5	47.0	1.1	6.4	10.3
Breast cancer (C50)	0.1	22.3	-	-	3.9
All causes of death	**736.9**	**492.9**	**1.5**	**100.0**	**100.0**
Total number of deaths (no.)	**..**	**..**	**..**	**73 548**	**70 398**

.. not applicable

- nil or rounded to zero

(a) Causes of death data for 2008 are preliminary and subject to a revisions process. See Technical Note 2: Causes of Death - Revisions Process in ABS *Causes of Death, Australia, 2008* (cat. no. 3303.0).

(b) 2008 causes of death data have been subject to process improvements which have increased the quality of these data. See Technical Note 1: 2008 COD Collection - Process Improvements for further information in ABS *Causes of Death, Australia, 2008* (cat. no. 3303.0).

Source: ABS *Causes of Death, Australia 2008* (cat. no. 3303.0) and unpublished ABS causes of death data.

Causes of death

The leading underlying cause of death for Australian males in 2008 was ischaemic heart disease (including angina, heart attacks and blocked arteries of the heart), with 12,444 deaths attributable to this cause (or 17% of male deaths), followed by trachea and lung cancer, with 5,025 deaths (6.8%). Stroke was third with 4,727 deaths (6.4%). These causes of death were also the three leading causes of death for males in 1998.[3]

In 2008, prostate cancer, a disease exclusive to men, was the fifth leading cause of death among men. Prostate cancer was an underlying cause of death for more men than breast cancer was for women (accounting for 3,031 deaths or 4.1% of male deaths compared with 2,774, or 3.9% of female deaths). Over the 10 years to 2008, the standardised death rates (SDR) of both breast cancer among women and prostate cancer among men dropped. Prostate cancer decreased from a SDR of 37 to 31 deaths per 100,000 men, while breast cancer dropped from a SDR of 27 to 22 deaths per 100,000 women.[3]

Men who died of prostate cancer also had a higher median age at death (81.0 years) than women who died of breast cancer (68.1 years). This difference in median age at death may indicate that prostate cancer is likely to be diagnosed or occur at an older age, given that prostate cancer and breast cancer have similar survival rates (i.e. the chance of surviving a certain period of time after initial diagnosis).[4] This also resulted in women having a higher number of Years of Potential Life Lost (a measure of premature deaths — see Explanatory notes 43–45 in ABS *Causes of Death, Australia, 2008*, cat. no. 3303.3) through breast cancer in 2008 (33,928 YPLL) than did men through prostate cancer (9,402 YPLL).

In 2008, men were over three and a half times as likely as women to have had suicide recorded as their underlying cause of death.

While the sex-specific nature of prostate and breast cancer is purely biological, factors related to gender, such as attitudes and behaviours, cause further differences in other major causes of death. For example, in 2008, the SDR for suicide was over three and a half times as high for men as for women (16.1 per 100,000 men compared with 4.4 per 100,000 women). While women were more likely to have ever planned or attempted suicide (6.5% of women aged 16–85 years compared with 3.9% of men — according to the ABS 2007 Survey of Mental Health and Wellbeing), gendered behaviours and societal expectations may explain the gender gap in suicide rates by influencing the severity of suicide attempts.

Selected causes of death (a)(b) of males across the life course — 2008

Underlying cause of death and ICD-10 code	Age specific death rates for males (i.e. deaths per 100 000 men in age group) 1-14	15-24	25-44	45-64	65 or over
Cancer (C00-D48)	**2.2**	**4.2**	**17.2**	**193.9**	**1 407.3**
Cancer of the digestive organs (C15-C26)	0.1	0.3	4.1	65.0	367.2
Lung cancer (C34)	0.0	0.0	2.0	44.1	294.1
Skin cancer (C43-C44)	0.0	0.3	2.3	11.4	67.4
Prostate cancer (C61)	0.0	0.0	0.1	8.1	218.8
Brain cancer (C71)	0.7	0.4	2.5	9.7	27.5
Blood and lymph cancer (C81-C96)	0.6	1.6	2.4	16.1	130.3
Diseases of the circulatory system (I00-I99)	**0.6**	**1.9**	**16.5**	**112.8**	**1 492.3**
Ischaemic heart diseases (I20-I25)	0.1	0.3	8.6	73.5	794.4
Stroke (I60-I69)	0.2	0.5	2.7	14.3	330.5
Diseases of the respiratory system (J00-J99)	**0.9**	**1.0**	**2.4**	**18.0**	**413.1**
Influenza and pneumonia (J10-J18)	0.1	0.1	0.7	2.5	48.1
Chronic lower respiratory diseases (J40-J47)	0.6	0.4	1.0	10.3	237.9
External causes of morbidity and mortality (V01-Y98)	**5.5**	**45.4**	**62.4**	**53.1**	**129.8**
Transport accidents (V01-V99, Y85)	2.0	16.4	12.2	8.3	11.3
Other external causes of accidental injury (W00-X59)	1.9	5.5	13.4	12.9	80.9
Suicide (X60-X84, Y87.0)	0.3	14.3	23.4	19.7	19.1
Other selected causes of death					
Diabetes (E10-E14)	0.0	0.1	1.5	10.7	140.7
Dementia and Alzheimer's disease (F01, F03, G30)	0.0	0.0	0.0	1.3	207.7
All causes of death	**14.9**	**60.1**	**117.5**	**462.4**	**4 331.0**

(a) Causes of death data for 2008 are preliminary and subject to a revisions process. See Technical Note 2: Causes of Death - Revisions Process in ABS *Causes of Death, Australia, 2008* (cat. no. 3303.0).

(b) 2008 causes of death data have been subject to process improvements which have increased the quality of these data. See Technical Note 1: 2008 COD Collection - Process Improvements in ABS *Causes of Death, Australia, 2008* (cat. no. 3303.0).

Source: ABS *Causes of Death, Australia 2008* (cat. no. 3303.0) and unpublished ABS causes of death data.

Other causes of death that were higher among men in 2008 included transport accidents (with a male to female SDR ratio of 3.0), skin cancer (2.6), diseases of the liver (2.3), Parkinson's disease (2.1), lung cancer (2.0), and ischaemic heart disease (1.7).

In 1998, the pattern was similar to that of 2008. However there has been a change in the SDR male/female ratio for lung cancer deaths. In 1998, males were almost three times (2.8 times) as likely as females to die from lung cancer, however an increase in the female SDR and a decrease in the male SDR, reduced this ratio to twice as likely (2.0 times) in 2008.[3]

...across the life-course

While death rates are much lower for boys and young men than older men, the main causes of death differed across stages of the life-course. Boys and young men were more likely to die from external causes, but as age increased, cancers and diseases of the circulatory system became the main causes of death.

In 2008, the death rate among boys aged 1–14 years was 15 deaths per 100,000. External causes, mostly accidents, contributed over a third of these deaths (37%). Cancer caused 15% of boys' deaths.

For young men aged 15–24 years, the death rate was 60 deaths per 100,000. External causes claimed the majority of these deaths (75%) – a much higher proportion than for females of the same age (56%) or males of other ages (37% for boys, 53% for those aged 25–44 years, 11% for those aged 45–64 years and 3% for older men). More specifically, transport accidents caused 27% of deaths for young men and suicide caused 24%.

The death rate for men aged 25–44 years was 118 deaths from all causes per 100,000 men, over half of which were attributable to external causes (53%), specifically suicide (20%) and transport accidents (10%). Cancers caused 15% of deaths for men at this age and diseases of the circulatory system caused a further 14% of deaths.

HIV/AIDS

Although HIV affects only a relatively small proportion of Australians, the majority of those affected are men. The human immunodeficiency virus (HIV) can be transmitted through behaviours such as unprotected sexual contact and the sharing of contaminated needles. A HIV infection acts as a long-term risk to health by increasing the chance of 'opportunistic infections' taking advantage of a weakened immune system. Acquired immunodeficiency syndrome (AIDS) refers to the advanced stages of HIV infection.

The United Nations estimates that in 2007, 18,000 Australians aged 15 years or over were living with HIV, with only a minority of these cases being women (1,200).[5] The Australian National HIV Registry found that 86% of HIV infections diagnosed in 2008 were of males. In over two-thirds (69%) of all newly diagnosed HIV cases in 2008, male homosexual/bisexual contact was reported.[6]

For men aged 45–64 years, there were 462 deaths from all causes per 100,000 men. Cancers were the underlying causes of death in 42% of these (14% were due specifically to cancer of the digestive organs, such as the colon or pancreas, and 10% due to lung cancer). Diseases of the circulatory system caused a further 24% of deaths of men of this age, with 16% due specifically to ischaemic heart disease. External causes contributed 11% of male deaths of this age.

For men aged 65 years or over, the death rate from all causes was 4,331 deaths per 100,000 in 2008. Diseases of the circulatory system caused over one-third (34%) of these deaths – (18% due to ischaemic heart disease and 7.6% due to stroke). Cancers claimed almost a further third (32%) – (8.5% due to cancer of the digestive organs, 6.8% due to lung cancer and 5.1% due to prostate cancer). Diseases of the respiratory system claimed a higher proportion of deaths than in other age groups (9.5%), as did dementia or Alzheimer's disease (4.8%). Although suicide only made up a very small proportion of male deaths of this age (0.4%), age-specific death rates for suicide among men aged 65 years or over were higher than for young men aged 15–24 years (19 deaths per 100,000 compared with 14).

Diseases or conditions

As with causes of death, certain conditions or diseases were more likely to affect males than females. In 2007–08, 15% of males of all ages had a chronic condition caused by injury, 13% were partially or completely deaf, 4.3% had chronic ischaemic heart disease and 1.9% had cancer.[7] After adjusting for different age profiles between males and females, chronic ischaemic heart disease was more than twice (2.1 times) as common among males than females, partial or complete deafness was 1.9 times as common, having chronic conditions caused by injury was 1.6 times as high, while having cancer was one and a half times as likely for males as for females. Towards half (44%) of Australian males will have been diagnosed with cancer at some stage of their life by the age of 75 years, compared with under one-third (30%) of females.[8]

...mental health

The ABS 2007 Survey of Mental Health and Wellbeing showed that of those aged 16–85 years, substance use disorders (mostly alcohol related) were more common in men (7.0%) than in women (3.3%). This difference was mostly driven by a gap between men and women aged 16–24 years (15.5% and 9.8% respectively) and those aged 25–34 (11.3% and 3.3% respectively).

Health risks or protective factors

Many factors can raise or lower a person's risk of ill health. Moderate to high levels of exercise and good nutrition are considered positive behaviours, while health risks include smoking, obesity, risky drinking and dangerous driving.

Positive behaviours

...exercise

Exercise has many health benefits, one of the chief ones being that it enables the body to burn off surplus energy stores. The ABS 2007–08 National Health Survey graded a person's level of exercise against the National Physical Activity guidelines (see the box *'Nutrition and physical activity guidelines'* for more information).

In 2007–08, men aged 18 years or over were more likely to have a level of exercise that met the National Physical Activity guidelines in the week prior to interview than were women (33% compared with 29%), however, there were variations across the life course. While almost two-fifths (37%) of young men aged 18–24 years met the physical activity guidelines, the levels were lower for men aged 25–44 years (32%).

There was larger variation by socioeconomic area. Men living in the least disadvantaged areas were about 1.4 times as likely to have met the physical activity guidelines as those living in the most disadvantaged areas (41% compared with 30%).

Just over one-fifth (21%) of men reported being more physically active than 12 months before. This rate was slightly lower than for women (24%).

Nutrition and physical activity guidelines

The National Health and Medical Research Council (NHMRC) has recommended a minimum of two serves of fruit and five serves of vegetables per day for adults (the guidelines differ for those aged less than 18 years). One serve of fruit is approximately 150 grams of fresh fruit or 50 grams of dried fruit. One serve of vegetables is approximately half a cup of cooked vegetables or one cup of salad vegetables.

The National Physical Activity Guidelines for Australia recommend exercise of at least a moderate level (including brisk walking), for most days of the week for at least 30 minutes or more on each of those days, and with each exercise session lasting 10 minutes or more.

Health literacy

The ability to access and use health information is a fundamental skill which allows people to make informed decisions and helps them to maintain their basic health.

In 2006, health literacy levels were similar for men and women across most ages although males aged 20–29 years were less likely to have adequate health literacy levels compared with women of the same age (43% compared with 51%) and men aged 55–64 years were more likely to have adequate health literacy levels (35%) than women of the same age (28%). For more information see *Australian Social Trends June 2009*, 'Health Literacy'.

...nutrition

In 2007–08, only a small proportion of people aged 15 years or over met the recommended guidelines for vegetable and fruit consumption (6.2%). The rate among men (4.8%) was lower than for women (7.6%). It was also lower for younger men (3.6% for those aged 15–24 and 3.1% for those aged 25–44) than those aged 65 years or over (9.3%).

...health service use

In 2007–08, men were less likely to report that they have GP check-ups at least annually than were women (49% compared with 62%). While there was no significant gap for those aged 65 years and over (around 86% for both men and women), the gap is mainly driven by differences in men and women aged 15–24 years (20% for men and 44% for women) and 24–44 years (36% for men and 53% for women). Women of child bearing age may be more accustomed to routine medical care than men due to their use of reproductive medical services.[9]

Younger people are more likely to assess their health as good, very good or excellent, and this may be reflected in the lower rates of GP check-ups among younger people as a whole. Nevertheless, there was a clear gap in GP use between young men with poor or fair health and young women with the same health status – that is, people more likely to be in need of a GP check-up. Only around one-third (34%) of young men who assessed their own health as poor or fair had GP check-ups, compared with around two-thirds (65%) of young women with the same self-assessed health status.

Positive or negative behaviours or risks among men aged 15 years and over — 2007-08

	Age group (years)				
	15-24	*25-44*	*45-64*	*65 or over*	***Total 15+***
	%	*%*	*%*	*%*	***%***
Positive behaviours					
Met National Physical Activity guidelines (excluding 15-17 years)	37.3	31.9	33.0	34.0	**33.3**
Consumed recommended daily intake of fruit and vegetables	3.6	3.1	5.3	9.3	**4.8**
Have GP check-ups at least annually	20.1	36.4	63.2	85.2	**49.3**
Discussed healthy lifestyle with GP or other health professional	21.3	36.8	47.1	47.1	**38.9**
Negative behaviours or risks					
Current smoker	19.8	30.4	20.6	8.3	**22.2**
Risky drinker - long-term risk(a)	12.0	16.3	16.2	8.9	**14.4**
Risky drinker - short-term risk(b)	15.4	16.3	11.4	3.8	**12.8**
Overweight or obese(c)	38.0	66.2	75.9	77.0	**66.0**
High blood cholesterol	n.p.	n.p.	12.3	16.9	**7.6**
High blood pressure	**0.8	3.0	16.6	31.1	**11.1**

n.p. not available for publication but included in total

** proportion has a relative standard error greater than 50% and is considered too unreliable for general use

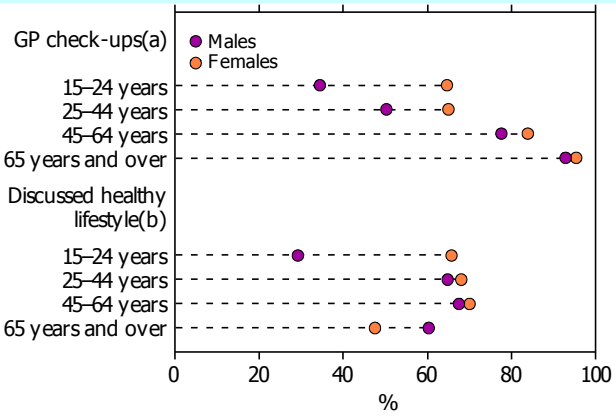
(a) Exceeded 2001 National Health and Medical Research Council's guidelines to minimise risk in the long-term (no more than an average of 4 standard drinks a day for men and 2 standard drinks a day for women) over a seven day average.

(b) Exceeded 2001 National Health and Medical Research Council's guidelines to minimise risk in the short term (no more than 6 standard drinks a day for men and 4 standard drinks a day for women) at least weekly within the last 12 months.

(c) Based on measured BMI.

Source: ABS 2007-08 National Health Survey

People with fair or poor self-assessed health, actions taken — 2007-08



(a) Whether people reported that they have check-ups with a GP at least annually.

(b) People who had discussed a healthy lifestyle with a GP or other health professional in the last 12 months.

Source: ABS 2007-08 National Health Survey

The National Health Survey assessed whether a person had discussed healthy lifestyle issues with a GP or other health professional in the 12 months prior to the survey. Discussing healthy lifestyle issues included talking about reducing or quitting smoking, drinking alcohol in moderation, increasing physical activity and eating healthy food or improving their diet.

In 2007–08, men were almost as likely as women to have discussed a healthy lifestyle with any health professional (39% compared with 42%). However, there were big differences by age, especially for those with fair or poor self-assessed health.

While around two-thirds (66%) of young women with fair or poor self-assessed health had such a discussion, the rate was half that (29%) for young men of the same health status. However, the pattern was reversed for men and women aged 65 years or over (60% of men with fair or poor self-assessed health compared with 47% of women).

Negative behaviours or risks

...long-term risk

Lifestyle behaviours such as tobacco smoking, risky alcohol consumption, along with obesity, are three of the more prominent chronic health risks in modern Australian society. Such risk factors not only impact upon the people's health, but affect their ability to participate in other aspects of life such as family and community activities.

In 2007–08, men aged 15 years or over were more likely than women to have each of these risk factors. They were more likely to be current smokers (22% compared with 18%), more likely to drink to levels considered risky or high risk to health in the long-term (14% compared with 11%), and more likely to be overweight or obese (66% compared with 54%). For more information see *Australian Social Trends December 2009*, 'Smoking, risky drinking and obesity'.

Alcohol guidelines

In 2001, the National Health and Medical Research Council (NHMRC) provided guidelines for drinking alcohol. The main guideline for reducing health risks in the long-term limits consumption to 4 standard drinks a day for men and 2 standard drinks a day for women. To minimise risks in the short term, consumption is limited to no more than 6 standard drinks a day for men and 4 standard drinks a day for women. Although these guidelines were revised in mid-2009, the 2001 guidelines have been used here as these were the guidelines in place when the data was collected in the the 2007–08 National Health Survey.

Men who had consumed alcohol in the past 12 months were just as likely as women to have reported that their usual consumption had decreased over that period (19% of those who had consumed alcohol in the past 12 months). Around one third of men who were current smokers reduced their smoking level compared with 12 months ago (30% compared with 34% of women).

...high blood pressure or cholesterol

High blood pressure or high levels of cholesterol can contribute to, and impede recovery from chronic illness.[10]

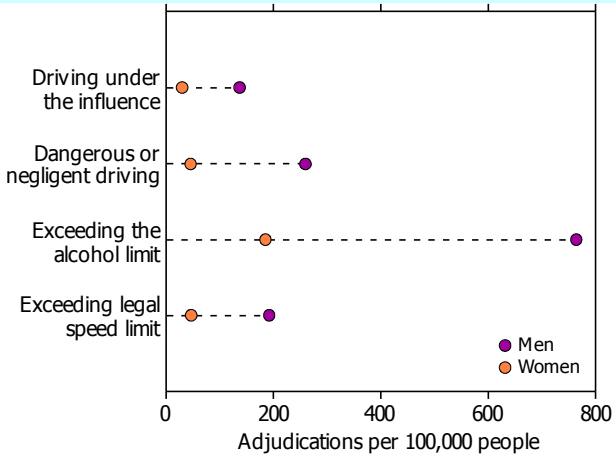
In 2007–08, men aged 18 years or over were slightly less likely than women to have had their blood pressure checked in the two years prior to the survey (87% compared with 94%). Of those aged 15 years or over, similar rates of men (11%) and women (12%) reported high blood pressure. A similar rate of men and women also reported high cholesterol (7.6% compared with 6.7%).

Men, aged 15 years or over and living outside Major Cities were slightly more likely than those living in Major Cities to report having high blood pressure (14% compared with 10%) or high cholesterol (8.7% compared with 7.0%).

...short-term risk

In addition to having higher rates of long-term risks to health, men, especially younger men, are more likely than women to partake in certain activities dangerous to health in the short-term. These activities include drinking alcohol at dangerous levels, the use of illicit drugs and dangerous driving.

Rates of adjudications for selected offences — 2008-09



Source: Unpublished ABS 2008-09 Criminal Courts collection data and 2008 estimated residential population.

In 2007–08, 13% of men aged 15 years or over drank alcohol to levels considered risky or high risk to health in the short-term at least once a week. This was much higher than the rate for women (5.9%) and was highest for young men aged 15–24 years (15%) and men aged 25–44 years (16%).

In the 2007 National Drug Strategy Household Survey, 23% of people aged 15–24 years reported using illicit drugs during the previous 12 months – around twice the proportion of people aged 25 years and over (11%). Young men showed a higher prevalence of marijuana/cannabis use than young women (21% compared with 16%). Young men also had a younger age of initiation to alcohol than women (15.1 years of age compared with 17.4).

According to the ABS Criminal Courts collection, in 2008–09, men were more likely than women to appear in court charged with offences relating to dangerous or negligent driving (259 adjudications per 100,000) or driving under the influence of alcohol or other substance (137 adjudications per 100,000). These rates were much higher than for women (around six and four times respectively — 46 and 31 adjudications per 100,000).

Men were also more likely to appear in court charged with exceeding the legal alcohol limit (764 adjudications per 100,000) or exceeding the speed limit (193 adjudications per 100,000) than were women. These rates were around four times higher than for women (186 and 47 adjudications per 100,000 respectively).[11]

Among young men aged 20–29 years, rates of adjudications for dangerous or negligent driving, driving under the influence and exceeding the legal alcohol limit were all higher than for older age groups. However, adjudications for exceeding the speed limit did not show the same pattern, being higher for men aged 40–44 years, than young men.

Vulnerable groups

...Indigenous men

An Indigenous male born in Australia in 2005–2007 could be expected to live 11.5 years *less* than a non-Indigenous male born at the same time (67.2 years compared with 78.7).[12] The 2004–05 ABS National Aboriginal and Torres Strait Islander Health Survey and National Health Survey, reveals some of the poorer health outcomes of Indigenous men that may relate to their lower life expectancy. After adjusting for age differences, Indigenous men aged 18 years or over were 2.8 times as likely to have chronic diabetes/high sugar levels and 1.6 times as likely to be obese as non-Indigenous men. Related to this, Indigenous men were 1.7 times as likely to report their health as fair or poor.

...men with disabilities

People with a disability or restrictive long-term health condition may find it more difficult than others to function from day to day, within their personal lives and in their wider community. In 2007–08, according to the National Health Survey, around 350,000 men had a profound or severe restriction to their core activities of self-care, mobility or communication (this translated to 4.3% of all men aged 15 years or over and compared with around 430,000 women or 5.1%).

Men with a profound or severe restriction were more likely to be living in the most socioeconomically disadvantaged areas (29%), and less likely to be in the least disadvantaged areas (12%) than men with no disability or long-term health condition (15% and 25% respectively). While low income can reduce access to medical services, the direction of causality is not necessarily one way. People with a disability may have a reduced capacity to earn income or family members may reduce or cease employment to provide care.[13]

Men with a profound or severe core activity limitation were less likely to have private health insurance than men with no disability or long term-health condition (29% compared with 56%). They were also less likely to have private health insurance than women with the same level of core activity limitations (29% compared with 41%). This was related to the fact that men with a profound or severe core activity limitation were more likely to have a government health concession card (78%) than were men with no disability or long-term health condition (16%) or even women with the same level of core activity limitation (69%).

...prisoners

Historically, limited information has been available surrounding the health of prisoners. Despite this, it has generally been acknowledged that prisoners have relatively poor health outcomes when compared with others. Men make up the vast majority of prisoners (93%), with a rate of 329 male prisoners per 100,000 men in the wider population (compared with 24.7 female prisoners per 100,000 women).

Indigenous people are greatly over represented within the prison population. In 2009, the prison rate among Indigenous men was 4,230 prisoners per 100,000, while for Indigenous women it was 359 prisoners per 100,000.

The inaugural national report, *The Health of Australia's Prisoners 2009* was released by the Australian Institute of Health and Welfare in June 2010 and aims to help fill the gap in data surrounding prisoner health. During a one-week census period in 2009, just over four in five (81%) prison entrants reported that they were smokers; nearly three quarters (71%) reported illicit drug use over the previous 12 months; and over half (52%) reported a risk of alcohol related harm over the same period. Over a third (37%) of prison entrants reported that they had been told by a doctor, psychiatrist or nurse that they have a mental health disorder.

Male prisoners were less likely than female prisoners to have attended a prison clinic during the one-week census period (21% compared with 34%).

Looking ahead

The new Australian Government National Men's Health policy has identified six priority areas for action. These include optimal health outcomes for males; health equity between population groups; improved health at different life stages; a focus on preventative health; building a strong evidence base; and improved access to health care.[14]

The ABS 2009 Survey of Disability, Ageing and Carers, 2011–12 Australian Health Survey and annual mortality data will monitor the impact of this intervention.

Endnotes

1 Sarah Payne, 2009, *How can gender equity be addressed through health systems?*, World Health Organization, Copenhagen, p. 1, <www.who.int>.

2 World Health Organization, 2001, *Madrid Statement* <www.who.int>.

3 When discussing leading causes of death, Trachea cancer has been grouped with Lung cancer as per the WHO recommended tabulation of leading causes. Trachea cancer has not been grouped with Lung cancer in the rest of the analysis as it only contributes small numbers. 1998 data are based on unpublished causes of death data, using the 10th revision of the International Classification of Diseases <www.who.int>.

4 Australian Institute of Health and Welfare, 2008, *Australia's Health 2008*, pp. 178–179, <www.aihw.gov.au>.

5 UNAIDS/World Health Organisation, 2008, *Epidemiological Fact Sheet on HIV and AIDS: Core data on epidemiology and response*, Australia, p. 4, <www.who.int>.

6 National Centre in HIV Epidemiology and Clinical Research, 2009, *HIV/AIDS, Viral Hepatitis and Sexually Transmissible infections in Australia: Annual surveillance report 2009*, p. 33, <www.nchecr.unsw.edu.au>.

7 Actual rates for cancer would be higher, as people in institutions were out of scope of the National Health Survey.

8 Australian Institute of Health and Welfare, *Australian Cancer Incidence and Mortality (ACIM) books*, last viewed 8th June, 2010 <www.aihw.gov.au>.

9 Uncommon Insights, 2007, *Literature Review on Effective Sex and Gender-Based Systems/Models of care*, U.S. Department of Health and Human Services, p. 2, <www.womenshealth.gov>.

10 Australian Institute of Health and Welfare, *Australia's Health 2008*, p. 153,156, <www.aihw.gov.au>.

11 The rates for exceeding the speeding limit are lower than for exceeding the legal alcohol limit because this data only relates to charges that have been heard by the courts. Any charges that are dealt with by the issuing of an infringement notice are not included.

12 Australian Bureau of Statistics, *Experimental Life Tables for Aboriginal and Torres Strait Islander Australians, 2005–2007*, cat. no. 3302.0.55.003, <www.abs.gov.au>.

13 Australian Institute of Health and Welfare, 2009, *Australia's Welfare 2009*, cat. no. AUS 117, AIHW, Canberra, p. 153, <www.aihw.gov.au>.

14 Australian Government Department of Health and Ageing, *'National Male Health Policy'*, viewed 24 June, <www.health.gov.au>.

Who's afraid? Feelings of personal safety

Fear of crime can affect the health and wellbeing of individuals and communities.[1] If people feel unsafe, this can influence their socialisation patterns through limiting or avoiding social activities,[2] and can reduce trust within neighbourhoods by weakening an individual's sense of community.[3]

Feeling unsafe can be shaped by personal experience of crime, but is also associated with personal characteristics such as age, sex, ethnicity, education, health and economic status. Media reports and social networks can also influence people's perceptions about their personal safety in the wider social and physical environment in which they live.[2]

Using information on feelings of safety when alone at home, when walking in the neighbourhood or when using public transport alone at night, this article examines the characteristics of people who feel unsafe.

Prevalence of feeling unsafe

In 2008–09, over four million adults, or 26% of those aged 18 years and over, reported feeling unsafe alone at home, walking alone at night in their neighbourhood, or taking public transport at night alone. Included in this 'felt unsafe alone' population were 19% of people who avoided being alone in at least one of these situations because they thought it was unsafe.

Characteristics influencing feelings of safety

...crime victimisation

In the 12 months prior to the survey, 6% of the adult population had experienced at least one robbery, physical assault, threatened assault and/or sexual assault. Victims of these types of personal crimes were generally more likely than those who had not been a victim to report that they felt unsafe (38% compared with 25%). Men who had been victims of crime were twice as likely as other men to feel unsafe (26% and 13% respectively), and similarly among women, 54% of female crime victims reported feeling unsafe compared with 36% of those who had not been a victim. Despite being more likely to feel unsafe, victims only accounted for 9% of the adult population who felt unsafe.

Data source and definitions

This article uses data from the ABS 2008–09 Crime Victimisation Survey, which is collected as part of the Multi-Purpose Household Survey. The summary of findings from this survey is contained in ABS *Crime Victimisation, Australia, 2008–09* (cat. no. 4530.0).

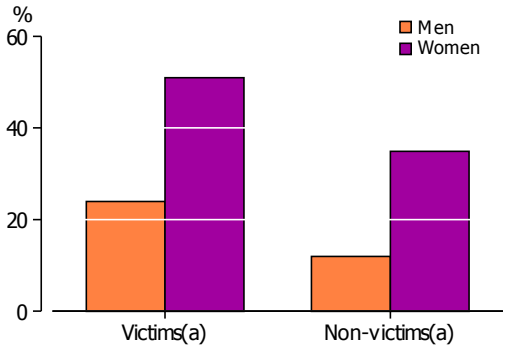
Felt unsafe refers to people aged 18 years and over who felt unsafe when alone in at least one of the following situations: at home during the day or night, or when walking in their neighbourhood or taking public transport after dark. It includes people who were never alone in at least one of these situations because they thought it was unsafe.

Neighbourhood problems refer to louts or youth gangs; prowlers or loiterers; drunkenness; vandalism, graffiti or damage to property; dangerous or noisy driving; illegal drugs; and problems with neighbours that respondents identified as occurring in their neighbourhood (a given area, street or whole suburb, as defined by the respondents themselves).

Perceptions of crime refers to car theft, other theft, household break-ins, sexual assault and other types of assault that people reported as problems in their neighbourhood.

Personal crime refers to a robbery, physical assault, threatened assault or sexual assault. Victims of personal crime refers to people who experienced at least one of these offences in the 12 months prior to the survey.

Feeling unsafe alone, by sex — 2008-09



(a) Victims refers to people who experienced robbery, physical assault, threatened assault and/or sexual assault during the 12 months prior to survey.

Source: ABS 2008-09 Crime Victimisation Survey

...sex

Women were more likely than men to feel unsafe alone in their community (37% and 14% respectively). Almost three-quarters (74%) of adults who felt unsafe were women, although men were more likely to be victims of crime – 58% of adults who experienced personal crime were male in 2008–09. The disproportionate number of women who felt unsafe alone compared with men may be attributed to women's greater sense of personal vulnerability.[4]

...age

While 18–24 year olds were twice as likely to be victims of personal crime as people aged 25 years and over (11% and 5% respectively) young adults felt no more unsafe than older age groups (with around 26% of each age group reporting feeling unsafe).

Older people were overall no more likely than the rest of the adult population to report feeling unsafe. However, this was in part because they were less likely to be alone in situations outside of the home. For example, around three-quarters (76%) of people aged 55 years and over did not use public transport at night for reasons other than feeling unsafe. Excluding these people from the population aged 55 years and over, 44% (530,000) avoided using public transport because they thought it was unsafe.

Among adults aged less than 55 years, 62% didn't use public transport at night for reasons other than safety. Of the remaining 38% of adults this age, one-quarter (one million) avoided using public transport because they felt unsafe doing so.

Around half (51%) of people aged 55 years and over did not walk alone in their neighbourhood after dark for reasons other than their personal safety. Excluding these people from the population aged 55 years and over, just over one-third (36%) of them avoided this activity because it felt unsafe.

Less than one-third (31%) of adults aged less than 55 years did not walk alone after dark in their neighbourhood for reasons other than feeling unsafe. Of the remaining 69% of adults less than 55 years, one in five did not walk alone because it felt unsafe to them.

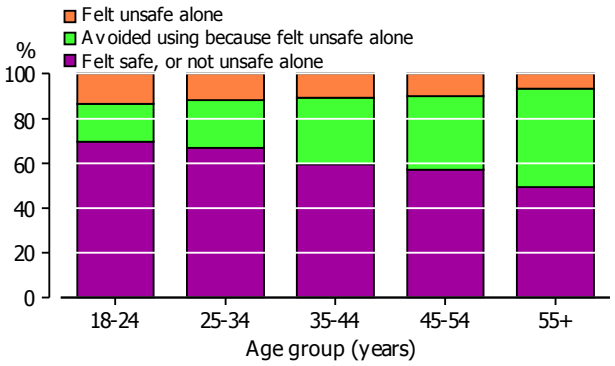
...neighbourhood problems

Perceptions of anti-social neighbourhood problems, including the occurrence of crime, can erode people's sense of social order. This may lead to some people sensing a breakdown of morals in the community and affect people's sense of safety.[5]

Just over two-thirds (69%) of adults reported at least one anti-social or criminal problem in their neighbourhood. Adults who felt unsafe were almost twice as likely as those who felt safe to have reported four or more neighbourhood problems (42% compared with 22%).

The types of problems most commonly reported by adults who felt unsafe were dangerous driving (59%); vandalism, graffiti or damage to property (49%); house break-ins (43%); and louts or youth gangs (33%). Although adults who felt unsafe reported similar types of neighbourhood problems as those who felt safe, the prevalence of problems was higher in their neighbourhoods. For example, break-ins, thefts, and problems with louts or youth gangs were around twice as likely to be reported by adults who felt unsafe.

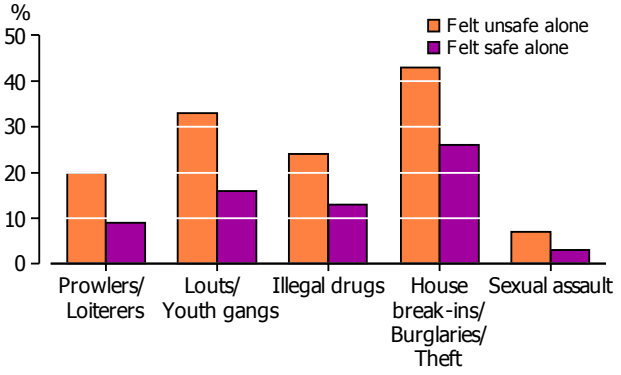
Feelings of safety at night, using public transport by age(a) — 2008-09



(a) Excluding people who did not use public transport at night for reasons other than they felt it was unsafe.

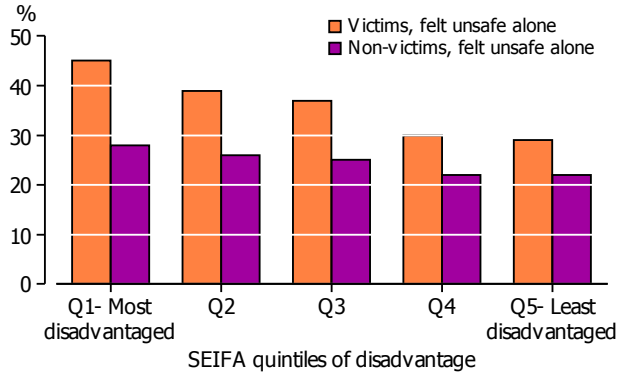
Source: ABS 2008-09 Crime Victimisation Survey

Selected types of neighbourhood problems reported — 2008-09



Source: ABS 2008-09 Crime Victimisation Survey

Experience of crime and feeling unsafe, by relative disadvantage of area — 2008-09



Source: ABS 2008-09 Crime Victimisation Survey

Areas of socioeconomic disadvantage

Neighbourhoods with high levels of perceived crime problems are often areas that are socioeconomically relatively disadvantaged. Living in areas of social disadvantage may place people at greater risk of being a victim and increase the likelihood of people feeling unsafe.

The ABS Socio-Economic Indexes for Areas (SEIFA) Index of Relative Disadvantage combines social and economic indicators of geographic areas in which people live and ranks areas according to level of socioeconomic disadvantage. In 2008–09, adults living in the areas of most disadvantage were twice as likely to be victims of personal crime (8%) as adults living in areas of least disadvantage (4%).

Victims of crime felt more unsafe than non-victims regardless of their level of socioeconomic disadvantage. However, victims of crime in the most disadvantaged locations were more likely to feel unsafe than victims living in the least disadvantaged locations (46% and 29% respectively). Adults who had not been a victim of crime, and who were living in the most disadvantaged areas, felt more unsafe than those living in the least disadvantaged areas.

...trust

Based on information from the 2006 General Social Survey, adults who felt safe reported lower levels of general distrust in others, compared with those who felt unsafe (39% compared with 28%).

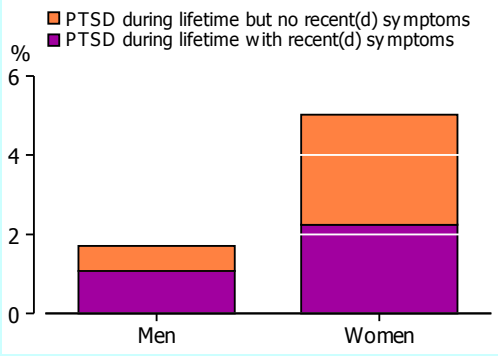
The socioeconomic status of the area in which a person lived was also associated with levels of trust. Among adults who felt unsafe, those living in the most disadvantaged locations were more likely to disagree that most people can be trusted (47%) compared with those living in the least disadvantaged locations (31%).

Mental health consequences of experience of violence

Experience of violent crime can have a range of mental health consequences for the victim, such as the development of Post-Traumatic Stress Disorder (PTSD). In 2007, around one million people aged 18–85 years said that the most traumatic event in their lives was being beaten, held up or threatened with a weapon, or sexually assaulted. Of these people, 521,000 (3.4% of all people in this age range) experienced symptoms such as flashbacks, nightmares or anxiety, that were sufficiently severe and long-lasting for a diagnosis of PTSD.

Around half of those diagnosed with PTSD (1.7% of all people aged 18–85 years) had experienced violent crime-related symptoms of PTSD during the 12 months prior to being surveyed. Women were around twice as likely as men to have had PTSD with recent symptoms, and around four times as likely to have had PTSD but with no recent symptoms.

People(a) who experienced violent crime(b) related symptoms of Post-Traumatic Stress Disorder(c) — 2007



(a) Aged 18-85 years.

(b) Being beaten, held up or threatened with a weapon, or sexually assaulted.

(c) A delayed and/or protracted response to a psychologically distressing event that is outside the range of usual human experience.

(d) During the 12 months prior to survey.

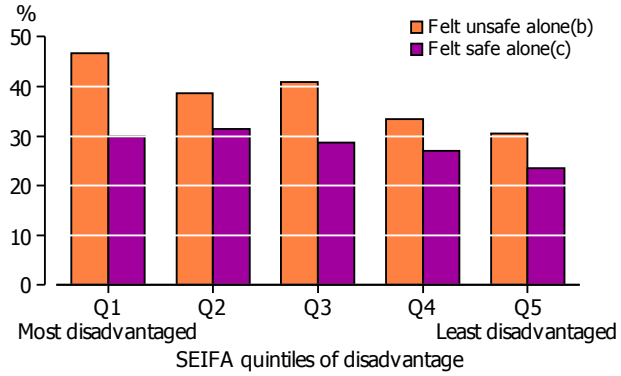
Source: ABS 2007 National Survey of Mental Health and Wellbeing

People aged 18–54 years were around twice as likely as those aged 55–85 years to have recently experienced violent crime related PTSD (2.1% compared with 0.8%).

For more information on PTSD see ABS *National Survey of Mental Health and Wellbeing: Summary of Results, 2007* (cat. no. 4326.0).

People living in the areas of greatest disadvantage who felt safe reported slightly higher levels of distrust than those living in the areas of least disadvantage (30% compared with 24%).

Proportion(a) who disagree that most people can be trusted, by relative disadvantage of area — 2006



(a) Of people aged 18 years and over living in each quintile.

(b) People who reported feeling unsafe when alone in any of three situations: at home during the day, or night, or when walking in their neighbourhood after dark.

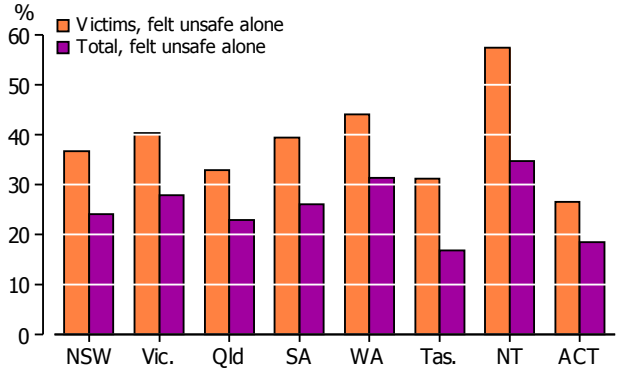
(c) People who did not report feeling unsafe when alone in any of the above three situations and who felt safe in at least one situation.

Source: ABS 2006 General Social Survey

...states and territories

The proportion of adults who felt unsafe varied considerably between jurisdictions. Whilst nationally, 26% of adults felt unsafe, the proportion in the Northern Territory who felt unsafe was 35%. The Northern Territory also had the highest crime victimisation rate (12%), and the highest proportion of victims who felt unsafe (58%). Western Australia had the second highest proportion of the adult population who felt unsafe with 31%, while Victoria was just over the national rate with 28%. Four states and territories recorded below the national average for feeling unsafe – New South Wales (24%), Queensland (23%), ACT (19%) and Tasmania (17%).

Experience of crime and feeling unsafe, by State and Territory — 2008-09



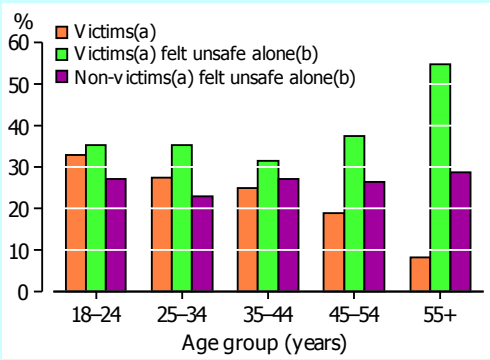
Source: ABS 2008-09 Crime Victimisation Survey

Feelings of safety among Aboriginal and Torres Strait Islander people

In 2008, 29% of Aboriginal and Torres Strait Islander people aged 18 years and over said that they felt unsafe when alone at home during the day and/or night, or when walking alone in their neighbourhood after dark. Indigenous women were three times as likely as men to report feeling unsafe (42% compared with 14%). However, Indigenous men and women had the same victimisation rate for actual and/or threatened physical violence during the last 12 months (24%).

Indigenous adults who had been a victim of violence were more likely than those who had not been a victim to say they felt unsafe (36% compared with 26%). Indigenous women were much more likely than men to report that they felt unsafe – 51% of Indigenous female victims reported feeling unsafe, compared with 19% of male Indigenous victims. Indigenous women who were not victims were around three times as likely as men who were not victims to feel unsafe (39% compared with 12%).

Indigenous people aged 18 years and over, victims of physical violence(a) and feeling unsafe(b) by age — 2008



(a) Victims refers to people who experienced actual and/or threatened physical violence during the 12 months prior to survey.

(b) People who reported feeling unsafe when alone at home during the day or night, and/or when walking alone in their neighbourhood after dark.

Source: ABS 2008 National Aboriginal and Torres Strait Islander Social Survey

The likelihood of Indigenous adults experiencing violence decreased with age. Indigenous people aged 18–24 years were four times as likely as people aged 55 years and over to have been victimised recently (33% compared with 8%). Older victims of violence were more likely than victims aged less than 55 years to feel unsafe.

Awareness of neighbourhood problems or crimes was generally more commonly reported among Indigenous adults who felt unsafe, while those who felt safe were more likely to report no problems (29% compared with 16%). Among those who felt unsafe, 48% said that they thought alcohol was a problem in their neighbourhood, compared with 39% of those who felt safe. Almost half (47%) of Indigenous adults who felt unsafe disagreed that most people could be trusted, while 36% of those who felt safe reported general distrust in others.

Information from the 2008 National Aboriginal and Torres Strait Islander Social Survey should not be compared with other data used in this article, due to differences in definitions and survey methodology.

Conclusion

Feeling unsafe is a significant issue for many people and affects individual and community mental health and wellbeing. Feeling unsafe is strongly linked with experience of crime, and with the number and type of problems reported in a neighbourhood. Gender is also a factor, as women, whether they had been a victim of crime or not, disproportionately felt unsafe. Adults living in areas of socioeconomic disadvantage experienced more crime, and felt more unsafe compared with adults living in less disadvantaged areas.

Endnotes

1 Stafford, M, Chandola T, and Marmot, M., 2007, 'Association between fear of crime and mental health and physical functioning', *The American Journal of Public Health,* 97(11), pp. 2076–2081.

2 Ferraro, K. F., 1995, 'Fear of crime: Interpreting Victimization Risk', New York, State University of New York Press, pp. 1–179.

3 Jackson, J., 2004, 'Experience and expression: Social and cultural significance in the fear of crime', *British Journal of Criminology,* 44(6), pp. 946–966.

4 Carcach, C. and Mukherjee, S., 1999, 'Women's fear of violence in the community', *Trends and Issues in Crime and Criminal Justice,* No.135. Australian Institute of Criminology, pp. 1–6.

5 Innes, M., 2004, 'Signal crimes and signal disorders: Notes on deviance as communicative action', *British Journal of Sociology,* 55(3), pp. 335–355.

Child care

Decisions by parents with young children about participation in paid employment are strongly tied to decisions about who will care for their children. Access to appropriate and affordable child care is a key element in ensuring parents with young children can effectively participate in paid employment. If parents are not able to access affordable child care then they may not be able to participate fully in the labour force.[1]

Improving access to, and the quality of, early childhood education programs and care is part of a series of Australian Government reforms designed to improve early childhood development. These reforms include access to early education programs for all children in the year prior to formal schooling and improving the affordability of child care.[2]

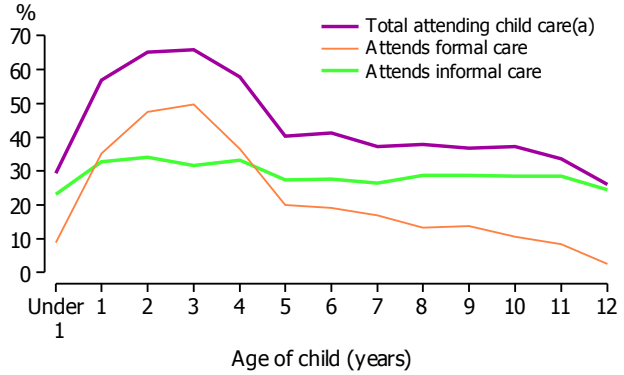
Use of child care

In 2008, 1.5 million Australian children aged 12 years or less had regular child care arrangements. Around 750,000 children usually attended formal child care and about one million children attended some type of informal care. Around 250,000 children attended both formal care and informal care. About two million children had no usual child care arrangements.

Use of formal child care varies with age and is primarily used by children aged 12 months to 4 years, whereas the use of informal care is more consistent across age groups.

In 2008, 9% of children aged less than 12 months were in formal child care. For children aged three years, the proportion usually attending formal care peaked at 50%, after which it declined to 20% by age five, 14% by age nine, and only 3% by age 12.

Usual child care arrangements, by age — 2008



(a) Children with more than one type of care arrangement are only counted once.

Source: ABS 2008 Childhood Education and Care Survey

Data source and definitions

Data in this article mainly comes from the ABS 2008 Childhood Education and Care Survey (CEaCS), the main findings of which can be found in ABS *Childhood Education and Care, Australia, June 2008* (cat. no. 4402.0).

This article presents data on the usual child care arrangements of children aged 0–12 years. However, for time series comparisons of child care arrangements, including reasons for using child care, data is for children aged 0–11 years, and for care attended in the week prior to the survey.

Child care arrangements are types of care which may be formal or informal.

Formal care refers to regulated care away from the child's home. The main types of formal care are before and/or after school care, long day care, family day care and occasional care.

Informal care refers to non–regulated care, arranged by a child's parent/guardian, either in the child's home or elsewhere. It comprises care by (step) brothers or sisters, care by grandparents, care by other relatives, and care by other people such as friends, neighbours, nannies, or babysitters. It may be paid or unpaid.

Cost of care is the cost, net of Child Care Benefit (CCB) and the Child Care Tax Rebate (CCTR), to parents for a child to attend care.

Working families refers to families where at least one parent was employed.

This decline is associated with children attending preschool and school rather than formal child care. For broader analysis of preschool and early childhood education, see *Australian Social Trends December 2009*, 'Preschool attendance' (cat. no. 4102.0).

Use of informal child care remains fairly stable regardless of age, with 32% of three year olds in an informal care arrangement, compared with 27% of five year olds, 29% of nine year olds, and 24% of 12 year olds. This indicates that many parents still have a need for some form of regular child care arrangements after their children start school.

...trends over time

Since 1999, there has been a trend towards an increased use of formal care. The proportion of children attending formal care in the week prior to the survey increased from 17% in 1999 to 22% in 2008. This was mainly due to an increasing proportion of children aged less than five years attending long day care over this period.

The increase in the use of formal child care for young children is in part due to the increase in the labour force participation rate of women with young children. In 2008, the labour force participation rate for women with children aged less than five years was 53%, an increase of six percentage points since 1999.

The increase in the use of formal care meant that while the use of informal care arrangements fell three percentage points from 37% in 1999 to 34% in 2008, the use of child care overall remained steady. In June 1999, and June 2008, 48% of children aged 0–11 years attended child care in the last week.

Family and employment characteristics of parents

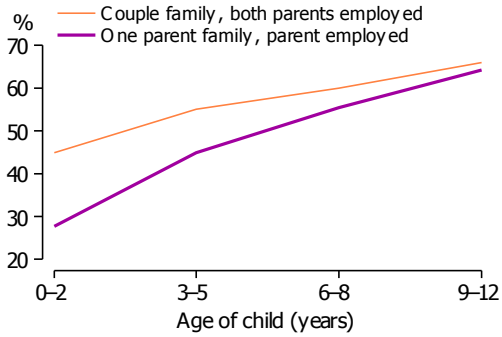
The decision to send children to child care is often influenced by the labour force status of parents, family composition and the type of care the parent feels is appropriate for the child. Many parents with young children, particularly mothers, tend to take time out of the workforce, or reduce their level of participation for a period of time while their children are young. Once the children are older, many parents choose to return to work or increase their participation in the workforce.

For couple families, 45% of children aged 0–2 years had both parents employed. For older children (aged 9–12 years), the proportion with both parents employed increased to 66%.

The story was similar for one parent families. For one parent families, only 28% of children aged 0–2 years had their parent employed, compared with almost two-thirds of children (64%) who were aged 9–12 years.

The choice to increase workforce participation once children are older is particularly evident for employed mothers. In couple families where the father was employed, 13% of children aged 0–2 years had their mother employed full time, compared with 30% of children aged 9–12 years.

Proportion of children with parent(s) employed, by age of child — 2008



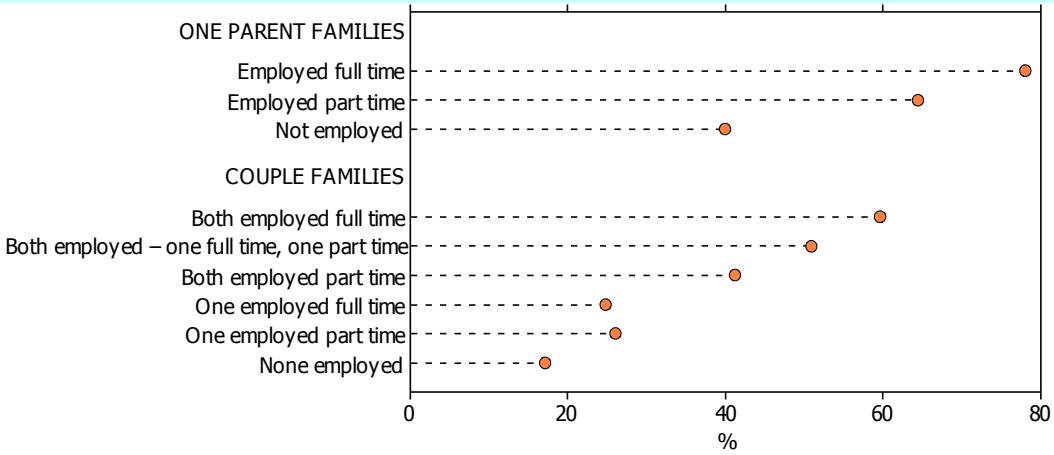
Source: ABS 2008 Childhood Education and Care Survey

...use of child care

As might be expected, the use of childcare was highest (78%) for children in one parent families where the parent was employed full time. Around two-thirds (64%) of children attended care if their parent was employed part time, while the proportion of children attending care dropped to 40% if the parent was not employed.

For couple families, the story was similar. If both parents were in full-time employment, 60% of children usually attended child care. This fell to 51% for children in families where one parent was employed full time and the other part time. The proportion of children in child care was lower if both parents were employed part time (41%) or if only one parent was employed full time (25%) or part time (26%). The proportion of children in child care was only 17% for couple families where neither parent was employed.

Proportion of children aged 0-12 in child care, by labour force status of parents — 2008



Source: ABS 2008 Childhood Education and Care Survey

Attendance at child care also varied according to the number of children in the household. Children were more likely to attend child care if they were from families with one or two children aged between 0–12 years (49% and 47% respectively) than if they belonged to families with three or more children (33%). This is due to parents with three or more children being more likely to not be employed.

Type of care usually attended

Finding the right type of child care can often be dependent on household income and parental participation in the workforce, as well as the amount and frequency of care required. Also, the type of care attended by children varies considerably depending on the age of the child.

Overall, the most commonly used type of child care was informal care, used by 29% of all children aged 0–12 years. Care provided by grandparents was the most common type of informal care and was used by 19% of children. Child care provided by grandparents was most likely for younger children aged 0–2 and 3–5 years (24% and 21% respectively), however, it also remained the most popular choice for school aged children. Around 16% of 6–8 year olds and 15% of 9–12 year olds were in the regular care of grandparents. Grandparents, in some circumstances, may be eligible for Government assistance for the regular care they provide to their grandchildren.[6]

Child care industry

There has been steady growth and change within the child care industry over the last few years. From 2004 to 2007, the number of child care businesses increased by 19%. The growth in the industry has come from smaller child care businesses employing less than 20 staff. Over this time period, businesses employing 1–19 staff increased by 93%, from 1203 businesses in 2004 to 2318 child care businesses in 2007.[3] Employment within the child care industry is overwhelmingly female, with women accounting for 95% of all child care workers.[4]

In December 2009, the Council of Australian Governments (COAG) agreed to a new National Quality Agenda for early childhood education and care and outside school hours care. The new framework will ensure that all early childhood services meet national quality standards. It aims to:

- improve interactions between children and carers based on better qualified staff and lower child-to-staff ratios;
- provide national uniform standards in the areas of education, health and safety, physical environment and staffing; and
- introduce a new ratings system, allowing parents to compare child care services.

The framework will replace the current licensing and accreditation processes undertaken by the Commonwealth and state and territory governments, while individual care services will liaise with only one organisation for quality assessment. The National Quality Standard will begin to be implemented from 1 July 2010.[5]

Type of child care arrangement for children aged 0-12 years — 2008

	0-2 years	*3-5 years*	*6-8 years*	*9-12 years*	***Total 0-12 years***
Type of usual child care used	%	%	%	%	%
Formal care					
Before and/or after school care	–	5.1	15.6	8.1	7.2
Long day care	24.4	26.2	–	–	11.7
Other formal care(a)	7.1	5.6	*0.8	0.7	3.3
Total formal care(b)	**30.3**	**35.5**	**16.4**	**8.8**	**21.6**
Informal care					
Grandparent	24.2	21.3	16.5	14.8	18.9
Other relative care(c)	3.4	4.3	5.2	6.5	5.0
Non-resident parent	2.2	3.7	5.6	6.5	4.6
Other person	3.3	4.6	4.2	4.0	4.0
Total informal care(b)	**29.9**	**30.8**	**27.6**	**27.5**	**28.8**
Total usually attending care(b)	**50.2**	**54.7**	**38.8**	**33.4**	**43.4**
	'000	'000	'000	'000	'000
Total children aged 0-12 years	**826.0**	**785.2**	**798.5**	**1088.8**	**3498.4**

* estimate has a relative standard error of 25% to 50% and should be used with caution.

– nil or rounded to zero (including null cells).

(a) 'Other formal care' includes 'Family day care' and 'Occasional care'.

(b) Children with more than one type of care arrangement are only counted once.

(c) 'Other relative care' includes 'Brother/sister care'.

Source: ABS *Childhood Education and Care, Australia, June 2008* (cat. no. 4402.0)

Formal child care was used by 22% of children aged 0–12 years, but most commonly by children aged less than six years. Long day care was the most common type of formal care used, with around one in four children aged 0–5 years attending. Before or after school care was commonly used in the early years of schooling, with 16% of 6–8 year olds attending before or after school care compared with 8% of children aged 9–12.

A small proportion (5%) of children were in the regular child care of other relatives, such as older brothers or sisters or aunts and uncles. Also, 5% of children were in the regular care of a non-resident parent. This was more common for older children.

Reasons for using child care

In 2008, the main reason given by parents for using child care was work-related. For children attending formal care (many of whom were not yet at school), 70% were in care due to work-related reasons, while 49% of children in informal care attended for this reason.

A further 12% of children attending formal care, and a much higher proportion of children receiving informal care (33%), did so due to personal reasons of the parent. Personal reasons include giving parents a break, time alone or time to care for other relatives; as well as allowing parents to study or undertake sport and other recreational activities.

One other main reason for child care was the benefit to the child, including preparing children for school. This reason was given for 18% of children attending formal care, and for 16% of children attending informal care.

Since 1999, the proportion of parents reporting work-related reasons as the main reason for using child care has increased reflecting, in part, the increased participation of women in the workforce over this time.

Also, the proportion of parents reporting 'beneficial for child' as the main reason for using informal care has increased almost five-fold since 1999. In contrast, the proportion of parents reporting 'beneficial for child' as the main reason for using formal care has remained fairly stable in the last decade.

Usual weekly hours of child care

In 2008, the 1.5 million children who usually attended child care spent an average of 17 hours a week in care. Around half (47%) of children in child care spent less than 10 hours per week in care. A further 37% were in care for 10–29 hours, while 16% of children spent more than 30 hours per week in child care.

While grandparents were the most commonly used type of care, the average weekly hours spent in the care of grandparents was less than most other care choices. Children spent, on average, nine hours per week in the care of grandparents, whereas children who attended long day care or family day care, did so for an average of 19 and 16 hours per week respectively.

For the 5% of children who were being cared for by a non-resident parent, an average of 39 hours per week was spent in that type of care. This was significantly more hours per week than other formal and informal care arrangements, possibly indicating a shared custody arrangement between the residences of the children's parents.

Main reason for using child care(a)

	1999		*2008*	
	Formal care	*Informal care*	*Formal care*	*Informal care*
Main reason for care	%	%	%	%
Work-related	61.1	44.9	69.8	49.5
Personal	15.3	42.3	11.8	32.8
Beneficial for child	19.7	3.5	17.9	15.7
Total children who attended care last week(b)(c)	'000	'000	'000	'000
	533.1	**1162.1**	**710.7**	**1106.1**

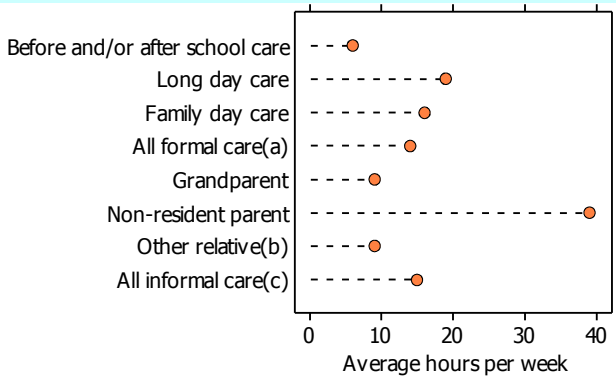
(a) Children aged 0-11 years.

(b) Includes 'Other' reason.

(c) Includes children who attended both formal and informal care.

Source: ABS 1999 Child Care Survey and 2008 Childhood Education and Care Survey

Average hours spent in child care per week, by type of care — 2008



(a) Children who usually attended formal care includes children who attended 'Occasional care' and 'Other formal care'.

(b) 'Other relative' includes 'Brother/sister care'.

(c) Includes 'Other person care'.

Source: ABS *Childhood Education and Care, Australia, June 2008* (cat. no. 4402.0)

Cost of care

The Australian Government provides support to families in meeting the costs of child care through the Child Care Benefit (CCB) and the Child Care Tax Rebate (CCTR).

The average net cost to parents for formal care (taking into account the Child Care Benefit and Child Care Tax Rebate entitlements) was $53 per week. Children who attended long day care had the highest average net weekly cost of $73, reflecting the average hours per week children spend in long day care (19 hours). Over half of all children who usually attended formal care (55%) had net costs of less than $40 per week. Almost 30% of children in formal care had a net weekly cost of $40–$99 and 15% of children had a net weekly cost of $100 or more.

Overall, the average net hourly cost of formal child care was around $3.80 per hour. On average, before and/or after school care had a net hourly cost of around $4.35 per hour, long day care was around $3.85 per hour, while family day care was the least expensive, with a net hourly cost of $2.25 per hour.

Work arrangements used by parents to care for children

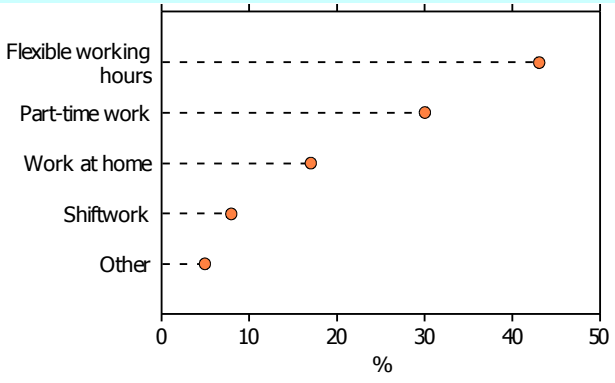
In addition to their use of formal or informal child care arrangements, many parents also make use of flexible work arrangements to help care for their children. Such arrangements include flexible working hours, part-time work, shiftwork, working from home and job sharing arrangements.

Under the National Employment Standards (NES), in force since 1 January, 2010, parents with children under school age or with children less than 18 years with a disability, are able to request flexible working arrangements.[7]

In 2008, almost two-thirds (64%) of all working families with children 12 years and under had a parent who made use of flexible working arrangements to help care for their children. Flexible working hours (43%) and part-time work (30%) were the most commonly used work arrangements used by these families.

For those in couple families, a higher proportion of employed mothers (73%) used work arrangements to help care for their children than employed fathers (40%). Employed mothers in couple families were also much more likely than employed fathers to use part-time work arrangements to help care for children (41% compared with 5%). They also made greater use of flexible working hours (42% compared with 30%), reflecting that mothers are more likely to be the main care givers even when in the labour force.

Use of work arrangements by working families with children aged 0-12 years(a) — 2008



(a) Families where at least one parent was employed.

Source: ABS *Childhood Education and Care, Australia, June 2008* (cat. no. 4402.0)

International comparison: employment rates for women in OECD countries

Paid work gives women the opportunity to ensure their own financial security, contribute to the family budget and secure their economic future into retirement.[8] For many women who have children, maintaining a connection to the workforce while providing care for children, especially prior to school age, can be challenging.

The 2007 Organisation for Economic Cooperation and Development (OECD) report, Babies and Bosses - Reconciling Work and Family Life, compares the employment rates of women with children aged 0–16 years across 30 OECD countries. Compared with other OECD countries, Australia has a lower employment rate for mothers with young children than Canada, New Zealand and the United States, but higher employment rates than the United Kingdom and Germany.[9]

Once the early childhood years are over and children attend formal schooling, returning to the workforce appears to be common for many women, including Australian women. For Australian mothers with children aged 6–16 years, the employment rate almost equalled the female employment rate of Canada, and was, once again, higher than the female employment rates for the United Kingdom and Germany.[9]

Female employment rates for women with children aged 0-16 years(a) — 2005

Age of youngest child	*0-16 years* %	*6-16 years* %
Australia	**63.1**	**70.5**
Canada(b)	70.5	71.1
Germany	54.9	62.7
New Zealand	64.6	75.3
United Kingdom	61.7	67.7
United States	66.7	73.2
OECD average	**61.5**	**66.3**

(a) Women aged 15-64 years.

(b) 2001 data.

Source: Babies and Bosses — Reconciling Work and Family Life: A Synthesis of Findings for OECD Countries, 2007

Employed fathers in one parent families were more likely than those in couple families to use flexible working hours to help care for their children (40% compared with 30%), and about three times as likely to use part–time work (15% compared with 5%). However, employed mothers in one parent families used flexible working hours and part-time work at about the same rates as employed mothers in couple families.

Since many parents increase their participation in the workforce as children get older, use of flexible work arrangements to help care for their children is also more common as children get older. For families where there were children aged 9–12 years, 66% of working families used flexible work arrangements compared with 60% of working families with children aged 0–2 years.

...work arrangements over time

The use of flexible work arrangements, in the week prior to the survey, by working families has risen over time from 53% in 1999 to 64% in 2008. This has been driven in part by an increase in the use of flexible working hours from 33% in 1999 to 43% in 2008. The use of part-time work to help care for children aged 0–11 years also increased from 23% to 31% over this same time period.

The increase in the use of flexible working hours was particularly evident amongst employed fathers, increasing from 18% in 1999 to 30% in 2008. For employed mothers, there was an increase in the proportion using part-time work arrangements to help care for their children from 34% in 1999 to 42% in 2008.

Unmet need for child care

In 2008, parents of 89,000 children aged 0–12 indicated that they currently had an unmet need for formal child care. Around 32% (28,000) were already in formal child care and needed additional care, and 68% (61,000) were not currently in formal child care.

Most of the children in need of child care (54,000) were not yet at school. Many of those not yet at school required long day care (71%). For children at school (35,000), 88% required before or after school care. Parental work commitments was the main reason formal care was needed (59%).

Of the 89,000 children with an unmet need for formal care, one-third (30,000) had parents who had applied for a child care place. However, for around 55% (17,000) of these children, a place was not available. Of those children who had parents that did not apply for a child care place, (59,000), 29% had parents that reported the main reason they did not apply was due to concerns over child care costs. The next most commonly reported reason by parents for not applying was that there was no child care services in their area or that they did not know of any child care in the area (21%).

Looking ahead

For many families, having access to child care services allows them to participate in the workforce, while also providing early educational benefits and socialisation skills for children.

To assist families with child care, the Australian Government has provided financial assistance for child care since 1972.[10] In 2007–08, around 1.3 million families received the Child Care Benefit or the Child Care Rebate.[2] Funding for child care is expected to increase in the future, rising from $3.7 billion in 2008–09 to $4.4 billion by the year 2012–13.[10]

Demand for child care is set to increase into the future, with the number of children aged 0–12 years projected to grow by around 500,000 children by the year 2020.[11]

Endnotes

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Underemployment

The recent economic downturn, or what has been labelled the Global Financial Crisis (GFC), has reinforced the need to look beyond the unemployment rate in order to better explain what is happening in the labour market. There has been considerable discussion on why the unemployment rate in Australia did not rise as much as some had predicted and this has led to more attention on other measures of labour underutilisation such as the underemployment rate. As a result, underemployment has increasingly been recognised as a key measure of spare capacity in the labour market.

Being underemployed represents lost opportunities for people to engage more fully in work and derive financial and personal benefits. Not working as many hours as desired may also cause underemployed people distress and reduce their life satisfaction.[1]

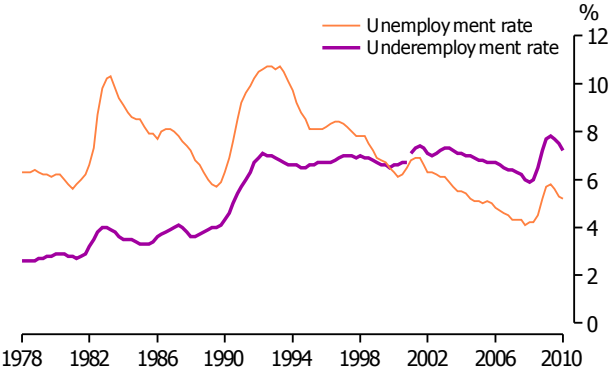
There are more underemployed workers than unemployed people in Australia.

Since 2000, underemployed workers have outnumbered unemployed people. In May 2010, there were 837,000 underemployed workers and 610,000 unemployed people. The underemployment rate was 7.2% compared with the unemployment rate of 5.2%.

Long-term trends

Although underemployed workers make up a small proportion of employed people, underemployment has been increasing over the last 30 years. Unlike the unemployment rate, which rises and falls with the business cycle, historically, the underemployment rate has

Underemployment(a) and unemployment rates



Trend data
(a) break in series in 2001

Source: ABS *Labour Force, Australia, May 2010* (cat. no. 6202.0)

Data sources and definitions

The information in this article comes from the ABS *Labour Force Survey* and the *Survey of Underemployed Workers*. The information collected in these surveys is published in the following ABS publications:

- ABS *Labour Force, Australia* (cat. no. 6202.0) – published monthly and is the main source of information on the Australian labour force. It includes the quarterly underemployment rate.
- ABS *Australian Labour Market Statistics* (cat. no. 6105.0) – published quarterly and brings together a range of ABS labour statistics to present a summary of the Australian labour market. It contains information on underemployed workers by industry.
- ABS *Underemployed Workers, Australia* (cat. no. 6265.0) – published annually and provides detailed information on the characteristics of underemployed workers.

Definitions:

- ***Labour force*** is the total number of people aged 15 years and over who are classified as either employed or unemployed according to their activities during the reference period by using a specific set of priority rules.
- ***Full-time workers*** are employed people who usually worked 35 hours or more a week (in all jobs) and those who, although usually working less than 35 hours a week, worked 35 hours or more during the reference week.
- ***Part-time workers*** are employed people who usually worked less than 35 hours a week (in all jobs) and either did so during the reference week, or were not at work in the reference week.
- ***Underemployed workers*** are employed people who want, and are available for, more hours of work than they currently have. They comprise:
  - people employed part time who want to work more hours and are available to start work with more hours, either in the reference week or in the four weeks subsequent to the survey; and
  - people employed full time who worked part time hours during the reference week for economic reasons (such as being stood down or insufficient work being available). It is assumed that these people wanted to work full time in the reference week and would have been available to do so.
- ***Underemployment rate*** is the number of underemployed workers expressed as a percentage of the labour force.
- ***Long-term underemployed*** are workers who have been underemployed for 12 months or more.

Rounding: estimates of change have been calculated using unrounded estimates, and may be different from, but are more accurate than, movements obtained from the rounded estimates.

For more detailed definitions please see ABS *Australian Labour Market Statistics* (cat no. 6105.0).

tended to rise in economic downturns but not recover as quickly when the economy begins to improve.

For example, during the recession in the early 1990s, the unemployment rate increased from 5.9% in February 1990 to 10.7% in February 1993, while the underemployment rate rose from 4.1% to 7.0%. However, by August 1995, the unemployment rate had fallen by 2.6 percentage points whereas the underemployment rate had decreased by just 0.3 percentage points. In fact, after the recession in the early 1990s, the underemployment rate did not fall below 5.9%, while the unemployment rate fell as low as 4.1% in early 2008.

Global Financial Crisis

While in previous downturns, unemployment increased more than underemployment, in the Global Financial Crisis, underemployment had the greater increase. From May 2008 to August 2009, the underemployment rate rose 2.0 percentage points to 7.8%, while the unemployment rate increased 1.6 percentage points to 5.8%. The greater rise in underemployment compared with unemployment during the GFC has been attributed to employers reducing people's work hours instead of laying off staff.[2] This suggests that employers are keeping in mind the skills shortage Australia experienced prior to the economic slowdown.[3]

Also differing from previous downturns was the rapid fall in underemployment from the height of the GFC. Since August 2009, the underemployment rate has fallen by 0.7 percentage points while the unemployment rate has fallen by 0.5 percentage points by May 2010.

Most part-time workers do not want to work additional hours.

...part-time work

The overwhelming majority (91%) of underemployed workers are employed part time and the proportion of employed people working part time has been steadily increasing from 15% in February 1978 to 30% in May 2010. This increase in part-time employment makes the labour market more sensitive to changes in underemployment. Importantly, during economic slowdowns, like the early 1990s recession or the recent downturn, the shift to part-time work accelerates.

From May 2008 to February 2010, the proportion of men employed part time increased from 15% to 17%, and the proportion of women increased from 44% to 46%.

Different types of underemployment

The ABS collects information on ***time-related underemployment***. This exists when the hours of work of an employed person are below the threshold of full-time hours (35 hours per week), and the person wanted to work more hours and was available to do so.

However, an alternative way of considering time-related underemployment would look at all workers who wanted extra work hours, regardless of how many hours they currently work and then classify them as underemployed if their preferences were not met.

There are also other types of working situations which could be considered underemployment:

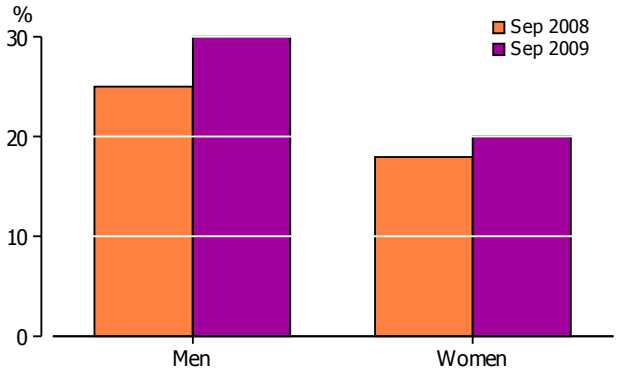
- ***Skill-related underemployment***. This exists when an employed person wants or seeks to change their current work situation in order to use their current occupational skills more fully, and were available to do so.
- ***Income-related underemployment***. This exists when an employed person wants or seeks to change their current work situation in order to increase their income limited by factors such as those listed below, and were available to do so. Factors contributing to income-related underemployment include low levels of organisation of work or productivity, insufficient tools and equipment, lack of training or deficient infrastructure.

For more information on the types of underemployment please see ABS *Labour Statistics: Concepts, Sources and Methods, April 2007* (cat. no. 6102.0.55.001)

This was a greater rate of increase than for the corresponding period before the GFC.

Most part-time workers do not want to work additional hours, and importantly, part-time work gives workers the flexibility to balance their work and personal lives. However, between September 2008 and September 2009, the proportion of part-time working men who were underemployed increased from 25% to 30%, and for women, increased from 18% to 20%.

Proportion of part-time workers who are underemployed



Source: ABS 2009 Underemployed Workers Survey

In September 2009, 69% of male and 45% of female underemployed part-time workers wanted to work *full-time* hours.

...full-time underemployment

The GFC also resulted in increased numbers of full-time underemployed workers. Full-time workers are considered underemployed when they are stood down or if there is not enough work and as a result, their work hours are reduced to less than 35 hours during the reference week of the survey. From September 2008 to September 2009, the proportion of full-time working men who were underemployed increased from 0.8% to 1.3%, while the proportion of women remained steady at 0.4%.

Who is underemployed?

...by sex and age

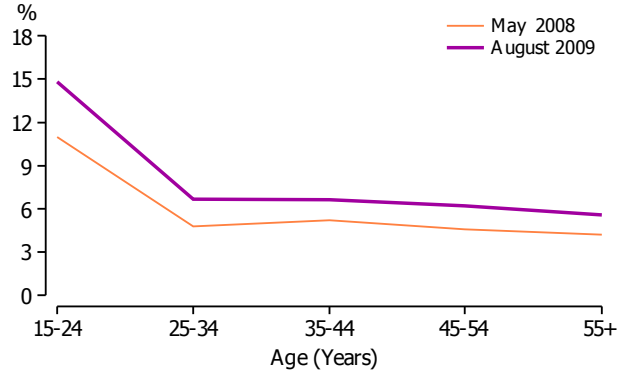
Consistent with most part-time workers being female, women make up the majority of underemployed workers. In May 2010, 70% of part-time workers were women as were 58% of underemployed workers. The underemployment rate for women was 9.3% compared with 5.4% for men. Although there are more female workers who are underemployed (347,000 men and 489,000 women in May 2010), those men who do work part time are more likely to experience underemployment.

During the GFC, the underemployment rate for men increased from 4.2% in May 2008 to 6.3% in August 2009, compared with an increase from 7.8% to 9.7% for women over the same period. Since the height of the GFC, the underemployment rate for men has fallen 0.8 percentage points compared with 0.5 percentage points for women.

Young people tend to be one of the most affected groups in economic slowdowns and this was also the case in the GFC. The underemployment rate for young people (aged 15–24), jumped from 11.0% in May 2008 to 14.8% in August 2009. For young women, the rate increased from 12.8% to 16.9%, compared with an increase from 9.3% to 12.9% for young men. For older workers (those aged 55 and over), the underemployment rate increased from 4.2% to 5.6% over the same period.

In May 2010, 35% of underemployed workers were young people. The underemployment rate for young people was 13.9% compared with 5.1% for older workers (aged 55 and over).

Underemployment rate by age



Trend data

Source: ABS *Labour Force, Australia, May 2010* (cat. no. 6202.0)

...by education

Underemployment is more common for those with lower levels of qualifications. In September 2009, more than half (54%) of underemployed workers had Year 12 or below as their highest educational attainment.

However, during the economic slowdown the proportion of underemployed workers whose highest educational attainment was a Bachelor

Total monthly hours worked

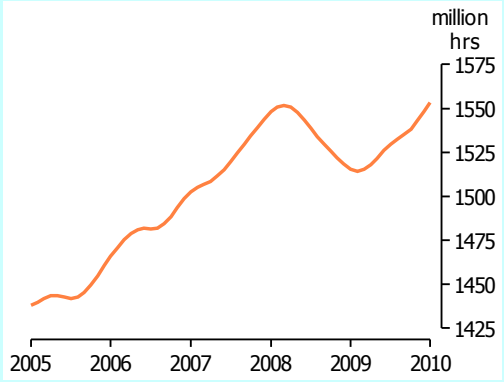
Total (aggregate) monthly hours worked measures the total number of hours worked by all employed people (full-time and part-time) in Australia. The number has generally increased over time reflecting the growing population and growing labour force.

However, the GFC resulted in a reduction in total hours worked from a high of 1,552 million hours in July 2008, before the economic slowdown to a low of 1,514 million hours in June 2009. The decrease was largely a result of a reduction in the number of total hours worked by full-time workers. Only by May 2010 did the total monthly hours worked exceed the level set before the GFC.

The fall in total hours worked was not only a result of people becoming unemployed, as shown by the rise in the unemployment rate, but also a result of a cut in the hours employed people worked in their current jobs. This cut played a major role in the rise in underemployment during the recent economic slowdown.

For more information on aggregate hours worked please see ABS *Labour Force, Australia* (cat. no. 6202.0).

Aggregate monthly hours worked



Trend data

Source: ABS *Labour Force, Australia, May 2010* (cat. no. 6202.0)

degree or above increased from 15% in September 2008 to 18% in September 2009, and for those who had completed a Certificate III/IV increased from 14% to 16%.

...by industry

Generally, industries that have a large proportion of part-time workers have a higher rate of underemployed workers. These industries also tend to be dominated by women and by younger workers. For example, in February 2010, in the Accommodation and food services industry, 57% of workers were working part time, and 55% of workers were women. This industry had the highest proportion of underemployed workers at 20% (up from 16% in February 2008). Retail trade, which also had a high number of part-time and female workers had the second highest proportion of underemployed workers at 15% (up from 11% in February 2008) .

In other industries like Mining, where only 3% of workers were employed part time, and just 13% of workers were women, only 0.6% of workers were underemployed in February 2010.

Why are people underemployed?

Apart from economic conditions, factors like age, family circumstances and training influence why people are underemployed.

In September 2009, almost half (47%) of underemployed workers who were actively looking for more hours said their main difficulty in finding a job with more hours was that there were not enough vacancies, up from almost a third (32%) in September 2008, reflecting more competition for jobs in 2009. Men were more likely to report this as their main difficulty compared with women (53% for underemployed men compared with 42% for women).

The next most commonly reported main difficulty in finding work with more hours was a lack of skills or experience (11%). As people grew older this became a less common reason (17% for people aged 15–19 compared with 8% for 35–44 year olds).

One notable difference between underemployed men and women is the proportion who reported family responsibilities as their main difficulty in finding work with more hours with 8% for women, and 2% for men.

How long have people been underemployed?

There is a clear relationship between age and how long people have been underemployed. Long-term underemployment (52 weeks or more) is more common among older workers.

Main difficulty in finding work with more hours for underemployed workers(a)

	September 2008			*September 2009*		
	Male	*Female*	*Total*	*Male*	*Female*	*Total*
	%	%	%	%	%	%
Not enough vacancies (b)	35.2	29.6	31.8	52.6	42.2	46.7
Lacked skill or experience(c)	15.7	14.3	14.8	12.1	10.2	11.0
Unsuitable hours	*5.7	13.3	10.4	*4.9	8.8	7.1
Family responsibilities(d)	*2.7	7.5	5.7	*1.7	7.8	5.1
Considered too old by employers	*6.7	*2.4	4.1	3.7	*3.3	3.5
Own ill health or disability	*5.3	*2.1	3.3	*3.2	*2.5	2.8
Too far to travel/transport problems	*3.1	*4.9	*4.2	*2.5	*2.5	2.5
Other difficulties(f)	18.3	14.1	15.7	13.9	14.7	14.3
No difficulties reported	*7.3	11.7	10.0	5.4	8.1	7.0
Total	**100**	**100**	**100**	**100**	**100**	**100**

* estimate has a relative standard error of 25% to 50% and should be used with caution

(a) only includes those workers who were actively looking for more hours.

(b) includes no vacancies in line of work, no vacancies at all and too many applicants for available jobs.

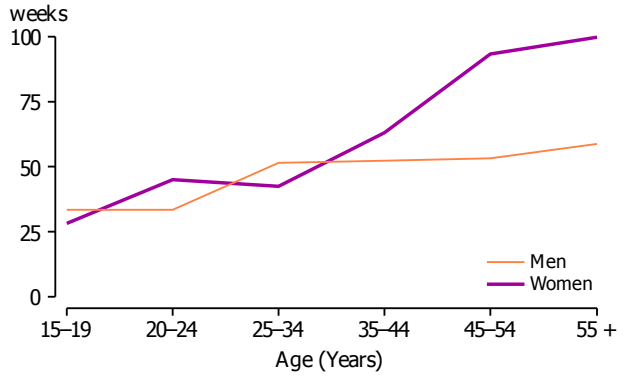
(c) includes lacked necessary skill or education and insufficient work experience.

(d) includes difficulties in finding child-care and other family responsibilities.

(f) includes language difficulties, difficulties with ethnic background, considered too young by employers and other difficulties.

Source: ABS 2008 and 2009 Underemployed Workers Surveys

Mean duration of underemployment in weeks — September 2009



Source: ABS 2009 Underemployed Workers Survey

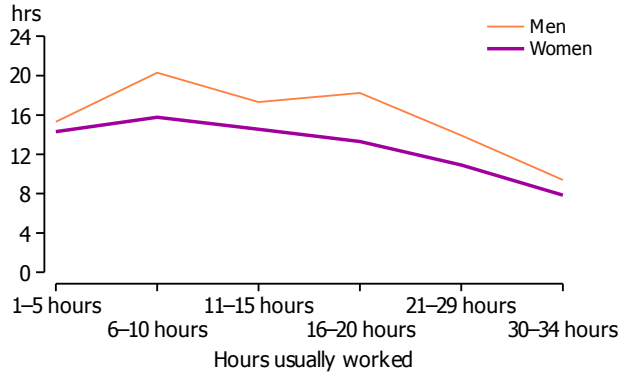
In September 2009, the average number of weeks a 15–19 year old was underemployed for was 30.5 weeks, compared with 77.5 weeks for someone aged 55 years and over. One-fifth (20%) of 15–19 year old underemployed workers had been in long-term underemployment compared with 41% of those aged 55 and over. One third of women (33%) and 29% of men were in long-term underemployment. After the age of 35, women had a longer duration of underemployment than men.

Long-term underemployment was common among workers who said their main difficulty in finding work with more hours was because of family responsibilities, their own ill health or disability, transport problems or they were considered too old by employers. These difficulties are not necessarily a result of current economic conditions but broader social and structural issues.

How many additional hours do underemployed workers want?

How people feel towards work and the different responsibilities they face in everyday life will influence how many additional hours they will want to work.

Mean number of additional hours wanted by underemployed part-time workers — September 2009



Source: ABS *Underemployed Workers, Sep 2009* (cat. no. 6265.0)

Related measures of labour underutilisation

Other measures of labour underutilisation include:

- ***Unemployment rate*** which is the number of unemployed people, as a percentage of the labour force.
- ***Labour force underutilisation rate*** which is the sum of the unemployed and the underemployed, as a percentage of the labour force.
- ***Extended labour force underutilisation rate*** which is the sum of the unemployed and underemployed and two marginally attached groups (people not in the labour force), as a proportion of the labour force augmented by the number of people in the two marginally attached groups:
  - persons actively looking for work, not available to start work in the reference week, but available to start work within four weeks, and
  - discouraged job seekers (people who wanted to work and were available to start work within the next four weeks but whose main reason for not actively looking for work was that they believed they would not find a job)
- ***Volume measures of labour underutilisation***. Unlike the headline rates for unemployment or underemployment, which show the spare capacity in the labour force in terms of people (headcount), volume measures of labour underutilisation shows the spare capacity in terms of hours. The volume labour force underutilisation rate is the total volume of underutilisation in the labour force (hours sought by unemployed people, plus additional hours preferred by underemployed people), as a percentage of the potential hours in the labour force. Although there are more underemployed workers than unemployed people, the volume rates will show a different picture because unemployed people are able to offer more additional hours than underemployed workers.

For more information on these please see ABS *Australian Labour Market Statistics* (cat. no. 6105.0).

Generally, people who currently work fewer hours are more likely to want to work a greater number of hours. In September 2009, those who worked between 6–10 hours a week, on average wanted to work 17.3 extra hours, while those who worked 30–34 hours a week wanted to work an additional 8.7 hours.

There are differences in the number of extra hours men and women want to work. The differences are most likely driven by the different pressures faced by men and women. For example, women often have increased family responsibilities compared with men (for more information please see *Australian Social Trends March 2009* 'Trends in Household Work').

In September 2009, underemployed part-time working men wanted to work on average 15.7 hours extra compared with 13.1 hours for women.

From 2008 to 2009, the average number of additional hours wanted by underemployed part-time workers increased from 13.4 hours to 14.1 hours. This increase may have been driven by people wanting to return to their work hours before the number of hours they worked was reduced as a result of the GFC (see box *'Total monthly hours worked'*).

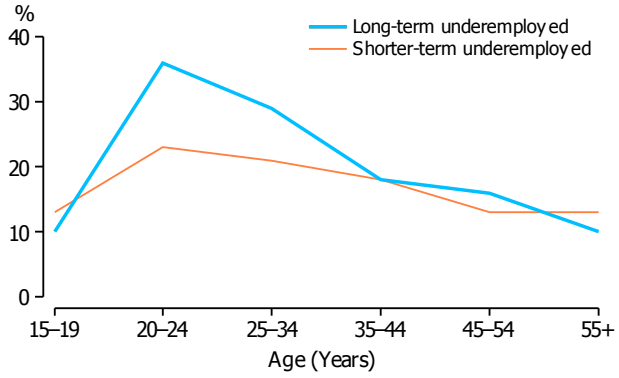
What have underemployed workers done to get more hours?

In September 2009, almost half (49%) of underemployed workers were actively looking for more hours. And of those workers who were looking, the most commonly reported step people took to get extra hours was to ask their current employer (60%). Over half (55%) of underemployed part-time workers contacted prospective employers; half (50%) searched Internet sites; half (50%) looked at in newspapers; and just under a third (31%) contacted friends or relatives to find work with extra hours.

What are underemployed workers prepared to do for more hours?

Underemployed workers in their early 20s are more prepared to move interstate or change employers to get a job with more hours than those in other age groups. It is in this age group when most people start to leave the family home or finish their studies, so they are more mobile than most other age groups (for more information please see *Australian Social Trends June 2009* 'Home and Away: the living arrangements of young people'). As people get older, they start to build their families and establishing stronger bonds to their careers and employers, making it more difficult to move.

Long-term underemployed workers and whether prepared to move interstate — September 2009



Source: ABS 2009 Underemployed Workers Survey

In September 2009, 12% of underemployed workers aged 15–19 years said they would move interstate if offered a suitable job. This more than doubled to 27% for those aged 20–24 years and gradually fell to 12% for those aged 55 and over.

Men were also more likely to move interstate for a suitable job than women. In September 2009, 23% of underemployed men said they would move interstate compared with 14% for women.

Younger workers who were long-term underemployed were more likely to be prepared to move interstate than those in shorter-term underemployment. More than one-third (36%) of people aged 20–24 years who were in long-term underemployment were prepared to move interstate compared with 23% for workers who were in shorter-term underemployment. However, after the age of 35, people were no more likely to move interstate if they were in long-term or shorter-term underemployment.

Younger workers were also more likely than older workers to be prepared to change employers in order to get a job with extra hours. In September 2009, 30% of underemployed workers aged 15–19 years old said they would change employers to work more hours and this gradually fell to 16% for those aged 55 and over.

Looking ahead

The impact of the slowdown on long term trends in underemployment will not be known for some time, but it is clear that the slowdown has had a substantial effect on the labour market.

The trend towards more part-time work observed over the last 30 years seems to be continuing. And as more and more people are working part time, the underemployment rate will become increasingly useful as a tool of gauging the amount of spare capacity in the labour market.

It is projected in the 2010 Intergenerational Report that the ratio of working age people to people aged 65 years and over will almost be halved by 2050.[4] If this occurs, it will be important for Australia to make the most of its labour force by not only increasing rates of participation in employment, but also increasing the levels of participation of those who are currently working and are willing and able to work more hours.

Endnotes

1 1. Wilkins, R., 2007, 'The Consequences of Underemployment for the Underemployed' in *Journal of Industrial Relations* 46(2), Sage Publications.

2 2. The Australian, 29 March 2010, 'GFC's part-timers given short shift', <www.theaustralian.com.au>.

3 3. Thistleton , 25 January 2010, 'Skill crisis to return, ACT short of 120,000' in the *Canberra Times*, <www.canberratimes.com.au>.

4 4. The Treasury, *The 2010 Intergenerational Report*, p. 5, <www.treasury.gov.au>; ABS *Population Projections, 2006 to 2101* (cat. no. 3222.0), show a similar trend to *The 2010 Intergenerational Report*. ABS projections can be accessed from the ABS website.

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