4102.0

Australian Bureau of Statistics

Australian Social Trends 2007

Article: Recent increases in Australia's fertility

EMBARGO: 11.30 AM (CANBERRA TIME) TUES 7 AUG 2007

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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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SYMBOLS AND USAGES

billion	1,000 million
kg	kilogram
m	metre
n.a.	not available
n.e.c	not elsewhere classified
n.p.	not published
n.y.a.	not yet available
no.	number
'000	thousand
'000m	thousand million
$	dollar
$m	million dollars
$b	billion dollars
$US	American dollar
%	per cent
*	estimate has a relative standard error of 25% to 50% and should be used with caution
**	estimate has a relative standard error of greater than 50% and is considered too unreliable for general use
. .	not applicable
—	nil or rounded to zero (including null cells)

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

Recent increases in Australia's fertility

Australia's total fertility rate increased from 1.73 to 1.81 babies per woman between 2001 and 2005, with the largest increases in fertility occurring in the most advantaged areas of Australia.

In the 40 years from the peak of the baby boom in 1961, Australia's total fertility rate (TFR) declined from 3.55 babies per woman to the historic low of 1.73 in 2001. Sustained periods of fertility well below the replacement level of 2.1 babies per woman leads to a decline in population growth and is one of the drivers of population ageing. Given the potential economic impacts of an ageing population, fertility is of particular interest to policy makers as well as demographers.[1]

Since 2001, the TFR has trended upwards, reaching 1.81 babies per woman in 2005, the highest level recorded since 1995. This recent upswing has been one of very few periods of increase in the TFR since the peak of the baby boom in 1961.[2]

In Australia, fertility levels vary between areas with different socioeconomic conditions, between metropolitan and regional areas and among the states and territories. Differences may exist for a variety of reasons, such as culture, social norms, employment, the economy, and socioeconomic status.[3,4] This article examines the recent increase in Australia's TFR with regard to age of mother, socioeconomic conditions and place of usual residence (state/territory, capital city and balance of state) to provide some insight into changes in fertility in Australia.

Age of mother

Over the past few decades, the decline in Australia's TFR has been closely associated with the tendency for women to have their babies at older ages. The median age of all women who gave birth in 1995 was 29.1 years; by 2005 this had increased to 30.7 years. When women delay childbearing it reduces the remaining length of time in which they can have babies, generally leading to fewer babies than those who started earlier, and an increased level of childlessness.[5]

Data sources and definitions

Data in this article have been sourced from the ABS Births collection.

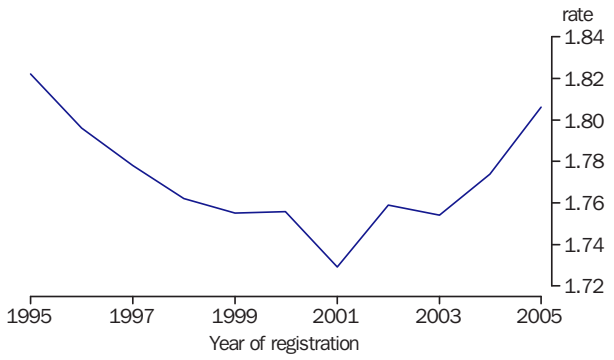
State and territory Registrars of Births, Deaths and Marriages are responsible for administering the registration of births in Australia based on information provided on the birth registration form by the parent(s) of the child.

The *total fertility rate* (TFR) for any given year is the sum of the age-specific fertility rates for that year. It is a hypothetical measure which represents the average number of babies a woman would give birth to during her lifetime if she experienced the current age-specific fertility rates at each age of her reproductive life.

Age-specific fertility rates (ASFR) are the number of live births in a year to mothers at each age per 1,000 of the female population of the same age.

Replacement level fertility is the value of the total fertility rate which is sufficient to replace a mother and her partner, taking into account those women who do not survive through reproductive ages. At current levels of mortality, replacement level is around 2.1 babies per woman.

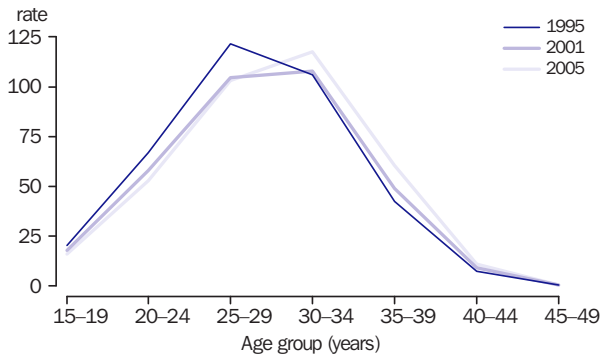
Total fertility rate(a)



(a) Babies per woman.

Source: Births, Australia, 2005 (ABS cat. no. 3301.0).

Age-specific fertility rates(a)



(a) Babies per 1,000 women.

Source: Births, Australia, 2005 (ABS cat. no. 3301.0).

Changes in the age pattern of fertility between 1995 and 2005 also show a shift to women having fewer babies at younger ages (less than 30 years) and more at older ages (30 years and over). Between 1995 and 2001, this transition occurred mostly in the younger age groups, with the fertility declines of women aged less than 30 years acting to reduce the 2001 TFR by around 8% on the 1995 level. However, minor increases in fertility from the older age groups provided a 3% offset, resulting in an overall 5% decline in the TFR between 1995 (1.82) and 2001 (1.73).

Between 2001 and 2005, the majority of change in the ASFRs occurred in the older age groups. Increases in the fertility of women aged 30 years and over (assuming no change in other ages) would have had the effect of lifting the 2005 TFR by around 7% on the 2001 level. However, slight declines in fertility of women aged under 30 years had the equivalent effect of reducing the TFR by 2%, resulting in the overall TFR increase of 4% in 2005 (to 1.81 babies per woman from 1.73 in 2001).

The transition to an older age-specific fertility pattern is also illustrated by the shift in peak fertility from women aged 25–29 years in 1995 (with 122 babies per 1,000 women) to 30–34 years in both 2001 and 2005 (108 and 117 babies per 1,000 women respectively).

The consequence of the shift to an older age-specific fertility pattern is a change in the proportion of TFR that can be attributed to different age groups. In 1995, 43% of the TFR could be attributed to fertility of women aged 30 years and over; by 2001 this proportion had increased to 48% and by 2005 it had further increased to 52%.

Socio-Economic Indexes for Areas (SEIFA)

The ABS has developed summary measures, or indexes, derived from the 2001 Census of Population and Housing to measure different aspects of socioeconomic conditions by geographic areas. One of these indexes (the Index of Relative Socio-Economic Advantage/ Disadvantage) has been used in this article to investigate the relationship between fertility and socioeconomic conditions in different regions of Australia.

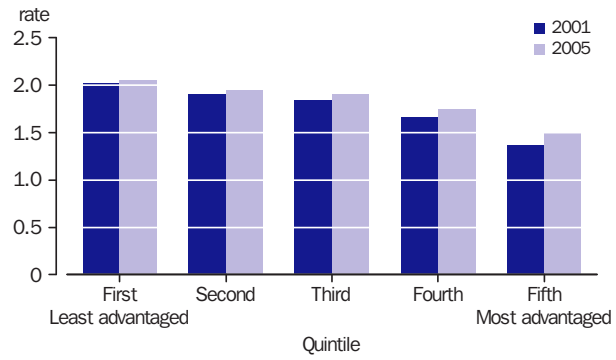
Statistical Local Areas (SLAs) within Australia were divided into quintiles (five groups, each containing around 20% of the population) based on their Index of Relative Socio-Economic Advantage/Disadvantage scores. The first quintile includes SLAs in Australia with the lowest index scores; that is, areas in Australia with the lowest proportions of people with high incomes or in skilled occupations, the highest proportions of people with low incomes, more employees in unskilled occupations, etc. In this article this group has been referred to as being 'least advantaged'.

Conversely, the fifth quintile represents areas with the highest index scores; that is, areas with the highest proportions of people with high incomes or in skilled occupations, the lowest proportions of people with low incomes and relatively few people in unskilled occupations, etc. This group has been referred to as being 'most advantaged'.

Socioeconomic status and changes in fertility

Levels of fertility in both 2001 and 2005 can be seen to vary according to the socioeconomic conditions of geographic areas. Areas of most advantage are associated with lower TFRs, that is, areas with higher proportions of people with high incomes or skilled occupations tend to have lower TFRs.

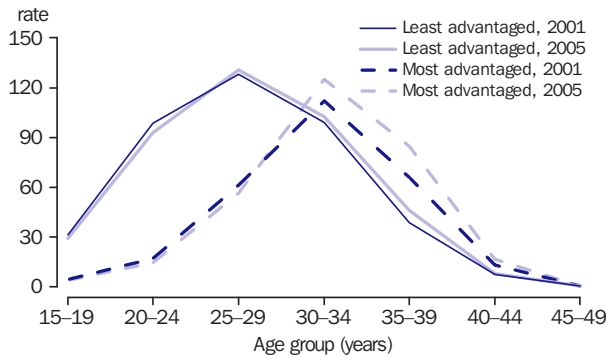
Total fertility rate(a), SEIFA quintiles(b)



(a) Babies per woman.
(b) SEIFA Index of Relative Socio-Economic Advantage/Disadvantage.

Source: ABS data available on request, Births Collection.

Age-specific fertility rates(a), most advantaged and least advantaged SEIFA quintiles(b)



(a) Babies per 1,000 women.
(b) SEIFA Index of Relative Socio-Economic Advantage/Disadvantage.

Source: ABS data available on request, Births Collection.

However, the TFR gradient across quintiles of advantage has decreased between 2001 and 2005 due to fertility increasing in the most advantaged areas. The TFR for the most advantaged (fifth) quintile increased by 10% between 2001 and 2005, from 1.37 to 1.51 babies per woman.

Over the same period the fourth quintile's TFR increased by 6% (from 1.66 to 1.75). The combined increase from the fourth and fifth quintiles accounted for 59% of the overall increase in Australia's TFR between 2001 and 2005.

While there were increases in the TFRs of each of the quintiles over the 2001 to 2005 period, the gains tended to be smaller in the least advantaged quintile. The smallest change occurred in the quintile with the least advantage (up 1%, from 2.02 to 2.05 babies per woman).

The age-specific fertility patterns of the most and least advantaged quintiles in 2001 and 2005 highlight two features: firstly, the younger age profile of mothers in the least advantaged areas of Australia, and secondly, the increases in fertility of women aged 30 years and over in the most advantaged areas.

In 2005, the fertility of young women (under 30 years) contributed 62% of the TFR in the least advantaged quintile, but only 25% in the most advantaged quintile. Teenage fertility (women aged 15–19 years) in the least advantaged quintile was over seven times greater than in the most advantaged quintile (29 babies compared to only 4 babies per 1,000 women aged 15–19 years, respectively). For women aged 20–24 years the fertility difference was six-fold (93 and 14 babies per 1,000 women respectively), while among women aged 25–29 years, the least advantaged quintile recorded a fertility rate more than double that of the most advantaged quintile (131 and 57 babies per 1,000 women respectively).

Between 2001 and 2005, there were significant increases in age-specific fertility rates of women aged 30 years and over in the most advantaged quintile. The fertility rate for women in the peak fertility age group of 30–34 years increased from 112 babies per 1,000 women in 2001 to 125 in 2005, while women aged 35–39 years recorded an increase from 66 to 85 babies per 1,000 women over the same period.

State and territory trends

Between 2001 and 2005, all states and territories except the Northern Territory recorded increases in TFRs. The Australian Capital Territory recorded the greatest proportional increase (up 9%), followed by Western Australia (8%), and Victoria and South Australia (both 7%), while the Northern Territory recorded a marginal decrease (down 0.2%).

Despite these increases, TFRs for both the Australian Capital Territory (1.65 babies per woman in 2005) and Victoria (1.72) remained lower than the national rate of 1.81. The TFRs for the ACT and Victoria are notable for the

Total fertility rate(a): states and territories

	Total fertility rate					
	1995	*2001*	*2005*	*% change 2001 to 2005*	*Proportion of TFR from mothers aged 30 years and over, 2005*	*Total births 2005*
	rate	rate	rate	%	%	'000
New South Wales	1.86	1.76	1.81	2.6	53.7	86.6
Victoria	1.75	1.61	1.72	7.0	58.4	63.3
Queensland	1.83	1.80	1.85	2.8	47.4	51.7
South Australia	1.76	1.68	1.79	6.9	48.6	17.8
Western Australia	1.85	1.73	1.86	7.8	50.4	26.3
Tasmania	1.89	2.08	2.10	1.1	43.5	6.3
Northern Territory	2.35	2.30	2.29	–0.2	36.1	3.7
Australian Capital Territory	1.68	1.52	1.65	8.8	61.1	4.2
Australia	**1.82**	**1.73**	**1.81**	**4.5**	**52.5**	**259.8**

(a) Babies per woman.

Source: Births, Australia, 2005 (ABS cat. no. 3301.0).

high contributions made by women aged 30 years and over (61% and 58% respectively) compared to Australia overall (52%) in 2005.

The Northern Territory (2.29 babies per woman) and Tasmania (2.10 babies per woman) recorded the highest TFRs of the states and territories in 2005, equalling or exceeding replacement level fertility (2.1). In 2005, around 64% of the Northern Territory's TFR and 56% of Tasmania's TFR was attributable to births to mothers aged less than 30 years, compared to 48% for Australia overall.

...capital cities and state balances

In both 2001 and 2005, the TFR of the eight capital cities combined was lower than for the combined state balances. In 2005, the capital city aggregate TFR was 1.74 babies per woman compared with 1.95 for the state balances. The capital city aggregate TFR grew 6% between 2001 and 2005, compared with 1% for the combined state balances. This faster growth, combined with the weight of having 64% of Australia's population living in the capital cities has resulted in capital cities being responsible for the vast majority (87%) of the increase in TFR since 2001.

The pattern of fertility for capital city compared with balance of state is similar to the pattern of fertility for the most advantaged SEIFA quintile compared with the least advantaged group. This is not surprising as capital cities have a higher proportion of their population (31%) in the most advantaged SEIFA quintile compared with the state balances (1%).

For both the capital cities and state balances, all of the increases in age-specific rates between 2001 and 2005 occurred for women aged 30 years and over.

In the aggregate of capital cities, women aged 30–34 years recorded the highest fertility (121 babies per 1,000 women) in 2005, followed by women aged 25–29 years (93). For the state balances, women aged 25–29 years recorded the highest fertility (124), followed by women aged 30–34 years (111). This pattern was consistent with that in 2001.

In 2001, women aged 30 years and over contributed 53% to the TFR of the capital cities aggregate, and 39% of the TFR of the balances of state. These proportions had increased by 2005, with women aged 30 years and over accounting for 57% of the TFR in the capital cities and 43% in the balances of the states.

Endnotes

1 Department of Treasury 2007, *Intergenerational Report 2007*, viewed 11 July 2007, <http://www.treasury.gov.au/contentitem.asp?NavId=&Content ID=1239>.

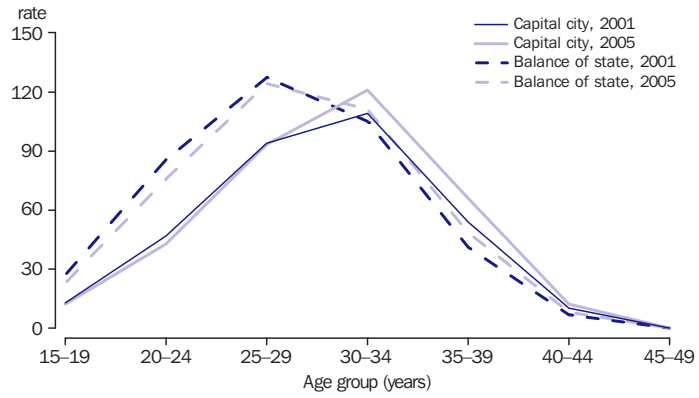
2 Australian Bureau of Statistics 2006, *Births, Australia, 2005*, cat. no. 3301.0, ABS, Canberra.

3 Barnes, A 2001, *Low fertility: A Discussion Paper,* Occasional Paper No. 2, Department of Family and Community Services, Canberra.

4 Martin, J 2004, 'The Ultimate Vote of Confidence. Fertility Rates and Economic Conditions in Australia, 1976–2000', *Australian Social Policy 2002–03*, Department of Family and Community Services, Canberra, viewed 1 July 2007, <http://www.facsia.gov.au/research/austsocpolicy_2002-03/major.htm>.

5 Weston, R 2004, 'Having children or not', *Family Matters*, no. 69, pp. 4–9.

Age-specific fertility rates(a), capital city and balance of state



(a) Babies per 1,000 women.

Source: Births, Australia, 2005 (ABS cat. no. 3301.0).

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