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Australian Bureau of Statistics

BIRTHS

AUSTRALIA

EMBARGO: 11:30AM (CANBERRA TIME) TUES 16 NOV 1999

CONTENTS

- For further information about these and related statistics, contact Client Services in any ABS office as shown on the back cover of this publication, or Katrina Phelan on Canberra 02 6252 6573.

NOTES

ABOUT THIS PUBLICATION

This publication brings together statistics and indicators for births in Australia.

DATA IN THIS PUBLICATION

This publication uses birth registration data except where otherwise stated.

SYMBOLS AND OTHER USAGES

ABS	Australian Bureau of Statistics
AIHW	Australian Institute of Health and Welfare
ASCCSS	Australian Standard Classification of Countries for Social Statistics
ERP	Estimated resident population
n.y.a.	not yet available
p	preliminary
SEIFA	Socio-Economic Indexes For Areas
SD	Statistical Division
SLA	Statistical Local Area
TFR	total fertility rate
. .	not applicable
—	nil, rounded to zero or less than three (see Explanatory Notes, paragraph 3)

W. McLennan
Australian Statistician

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MAIN FEATURES

FERTILITY CONTINUES TO DECLINE

- There were 249,600 births registered in Australia during 1998. This number has declined year after year from 1992 when 264,200 births were registered (see page 19).
- During 1998 the average number of births per woman (total fertility rate) continued its downward trend that began in the early 1990s. The 1998 average was 1.76 babies per woman compared to 1.78 in the previous year (see page 15).
- Over the past decade, the fertility of women in South Australia remained steady while it continued to decline in all other States and Territories (see page 29).
- Of all capital cities, Canberra had the lowest level of fertility (1.5 babies per woman) while Darwin had the highest level (2.0 babies per woman) in 1998 (see page 31).
- Of all rural regions, the Upper Great Southern Statistical Division of Western Australia had the highest level of fertility (at 2.6 babies per woman) in 1998 (see page 31).

THE AGE OF PARENTS CONTINUES TO INCREASE

- The fall in fertility can be attributed to younger women. The age-specific fertility rates of teenagers declined in 1998 to reach an all time low of 18.5 babies per 1,000 female teenagers (see page 15).
- The fertility of older women continued an upward trend (see page 16).
- The median age of parents has steadily increased over the past two decades. In 1978 the median age of mothers was 26.3 years increasing to 29.5 years in 1998. The median age of fathers increased from 29.2 years in 1978 to 32.0 years in 1998 (see page 24).

CHILDLESSNESS

- On current rates, 28% of women will not have children in their lifetime (see page 43).
- 11% of women aged 45 years who had completed their childbearing were childless, according to the 1996 Census (see page 42).

FAMILY SIZE

- The proportion of families with one or no children is increasing, while the proportion of families with three or more children is declining. Two child families are becoming the norm (see page 51).

MULTIPLE BIRTHS

- Multiple births are on the increase. Over the past twenty years the proportion of pregnancies resulting in a multiple birth has increased from 1.0% in 1978 to 1.5% in 1998 (see page 21).

BIRTH WEIGHT

- The average birth weight of babies was 3,360 g in 1996, similar to that recorded in 1997. Indigenous babies were lighter, with an average birth weight of 3,140 g. (see page 22).

REGIONAL DIFFERENCES

- The more disadvantaged Statistical Divisions of Australia (based on SEIFA Index of Disadvantage) have higher fertility rates than the more advantaged regions (see page 34).
- Statistical Divisions with an average low level of education and low level of skilled occupations or high unemployment have higher fertility rates than those regions with high average levels of educational qualifications and high skilled occupations (see page 34).

COUNTRY OF BIRTH

- Overseas-born women had a total fertility rate of 1.75 babies per woman, much the same as Australian-born women, masking considerable variation between birthplace groups. Lebanon-born women in Australia had a fertility rate of 3.70 babies per woman while Malaysia-born women had only 1.23 babies per woman in 1998 (see page 68).

INDIGENOUS

- 4% of births registered in Australia during 1998 were identified as of Aboriginal or Torres Strait Islander origin (see page 79).
- Almost eight out of every ten Aboriginal or Torres Strait Islander births registered were outside of a registered marriage (79%) (see page 79).
- The median age of all Aboriginal or Torres Strait Islander mothers was 24.6 years compared to 29.5 years for all mothers (see page 79).
- The Northern Territory had the highest proportion of Aboriginal or Torres Strait Islander births followed by Queensland and Western Australia (see page 79).
- In 1998, it is estimated that Aboriginal or Torres Strait Islander women had at least 2.2 babies each, compared to 1.76 for all women. Indigenous women in Queensland had the highest fertility rate of any State or Territory, at least 2.3 babies per woman on average (see page 79).
- In 1996 13% of Indigenous babies were of low birth weight (less than 2,500 g) compared to 6% of all babies (see page 79).

SUMMARY

	1988	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*
BIRTHS							
Total births	*246 193*	*260 229*	*258 051*	*256 190*	*253 834*	*251 842*	*249 616*
Males	126 223	133 572	132 625	131 432	130 572	129 179	128 016
Females	119 970	126 657	125 426	124 758	123 262	122 663	121 600
Proportion male (%)	51.3	51.3	51.4	51.3	51.4	51.3	51.3
Nuptial births (%)	81.0	75.1	74.4	73.4	72.6	71.9	71.3
Ex-nuptial births (%)	19.0	24.9	25.6	26.6	27.4	28.1	28.7
Paternity-not-acknowledged (%)	4.9	4.6	4.6	4.4	4.3	4.1	3.7
Crude birth rate	14.9	14.7	14.5	14.2	13.9	13.6	13.3
Age-specific fertility rate							
15–19	20.3	20.9	20.7	20.4	20.1	19.5	18.5
20–24	81.5	71.3	69.7	67.1	65.2	62.3	60.0
25–29	136.9	129.8	125.8	121.7	117.1	113.8	111.2
30–34	93.3	105.4	105.0	106.0	105.7	106.7	107.2
35–39	30.5	38.9	41.1	42.3	43.7	44.9	45.7
40–44	4.6	6.3	6.7	7.2	7.5	7.5	8.0
45–49	0.2	0.2	0.3	0.3	0.3	0.3	0.3
Total fertility rate	1.837	1.864	1.846	1.825	1.797	1.775	1.755
Net reproduction rate	0.877	0.893	0.884	0.875	0.861	0.854	0.842
CONFINEMENTS							
Total confinements	*243 193*	*256 703*	*254 547*	*252 708*	*250 363*	*248 246*	*245 898*
Nuptial	196 900	192 518	189 160	185 378	181 549	178 279	175 162
First nuptial	79 841	77 718	77 166	75 606	73 873	73 356	72 276
Ex-nuptial	46 293	64 185	65 387	67 330	68 814	69 967	70 736
Paternity-acknowledged	34 419	52 448	53 742	56 071	57 911	59 793	61 616
Median age of mother							
Nuptial (years)	28.6	29.7	29.9	30.1	30.2	30.4	30.5
First nuptial (years)	27.1	28.3	28.5	28.6	28.7	29.0	29.1
Ex-nuptial (years)	23.7	24.5	24.6	24.9	25.1	25.4	25.7
Paternity-acknowledged (years)	24.2	24.8	24.9	25.2	25.3	25.6	25.9
All confinements (years)	27.9	28.9	29.0	29.1	29.2	29.4	29.5
Median age of father							
Nuptial (years)	31.0	32.0	32.3	32.5	32.7	32.8	32.9
Paternity-acknowledged (years)	27.0	27.5	27.6	27.8	27.9	28.1	28.4
Total where father's age is known (years)	30.6	31.4	31.6	31.7	31.9	32.0	32.0
Median duration of marriage							
Nuptial (years)	4.6	4.6	4.6	4.6	4.6	4.6	4.6
First nuptial (years)	2.4	2.5	2.5	2.5	2.5	2.6	2.6
Previous births of current relationship							
0	79 841	77 718	77 166	75 606	73 873	73 356	72 276
1	68 432	68 389	67 123	66 175	65 293	64 341	63 446
2	33 419	31 801	31 118	30 252	29 167	28 047	27 284
3	10 650	10 145	9 598	9 200	9 037	8 621	8 335
4	2 856	2 731	2 500	2 504	2 590	2 366	2 320
5 and over	1 699	1 733	1 655	1 641	1 589	1 548	1 501

STATE AND TERRITORY SUMMARY

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
BIRTHS									
Total births	*85 499*	*60 492*	*47 046*	*18 226*	*24 717*	*5 978*	*3 641*	*3 982*	*249 616*
Males	43 763	31 303	24 042	9 266	12 655	3 053	1 913	2 006	128 016
Females	41 736	29 189	23 004	8 960	12 062	2 925	1 728	1 976	121 600
Proportion male (%)	51.2	51.7	51.1	50.8	51.2	51.1	52.5	50.4	51.3
Indigenous births	3 014	590	3 085	661	1 468	. .	1 284	. .	10 445
Nuptial births (%)	73.4	76.7	66.3	69.6	68.2	61.2	41.7	73.6	71.3
Ex-nuptial births (%)	26.6	23.3	33.7	30.4	31.8	38.8	58.3	26.4	28.7
Paternity-not-acknowledged (%)	3.7	1.9	4.6	3.2	4.5	4.3	18.9	4.1	3.7
Crude birth rate	13.5	13.0	13.6	12.3	13.5	12.7	19.2	12.9	13.3
Age-specific fertility rate									
15–19	18.5	12.4	23.3	15.3	20.9	24.2	68.7	11.9	18.5
20–24	63.3	46.9	70.2	55.1	61.1	75.9	105.0	40.2	60.0
25–29	113.4	104.7	115.0	109.4	113.5	121.2	118.7	100.3	111.2
30–34	107.6	113.2	101.9	107.1	105.5	96.7	93.6	102.9	107.2
35–39	46.8	49.4	40.8	44.8	44.0	37.4	44.9	46.9	45.7
40–44	8.7	8.3	6.7	8.6	7.3	6.1	7.6	8.6	8.0
45–49	0.3	0.3	0.3	0.4	0.4	0.4	0.7	0.2	0.3
Total fertility rate	1.8	1.7	1.8	1.7	1.8	1.8	2.2	1.6	1.8
Net reproduction rate	0.858	0.799	0.865	0.830	0.852	0.880	1.013	0.763	0.842
CONFINEMENTS									
Total confinements	*84 279*	*59 531*	*46 360*	*17 933*	*24 345*	*5 891*	*3 607*	*3 917*	*245 898*
Nuptial	61 780	45 595	30 716	12 467	16 583	3 606	1 498	2 887	175 162
First nuptial	25 980	18 845	12 341	5 168	6 601	1 570	589	1 174	72 276
Ex-nuptial	22 499	13 936	15 644	5 466	7 762	2 285	2 109	1 030	70 736
Paternity-acknowledged	19 405	12 820	13 504	4 898	6 663	2 027	1 424	870	61 616
Median age of mother									
Nuptial (years)	30.3	30.8	30.0	30.8	30.4	30.0	29.9	30.7	30.5
First nuptial (years)	29.0	29.5	28.7	29.5	29.1	28.6	28.8	29.3	29.1
Ex-nuptial (years)	25.7	26.6	25.0	26.0	25.5	25.1	24.7	26.4	25.7
Paternity-acknowledged (years)	25.9	26.7	25.3	26.2	25.8	25.3	25.5	26.6	25.9
All confinements (years)	29.5	30.2	28.8	29.8	29.3	28.6	27.4	29.9	29.5
Median age of father									
Nuptial (years)	33.0	33.1	32.3	33.1	32.9	32.4	32.7	32.9	32.9
First nuptial (years)	31.4	31.5	30.8	31.7	31.4	30.8	31.3	31.7	31.4
Paternity-acknowledged (years)	28.5	28.9	27.7	28.8	28.3	27.9	27.9	28.8	28.4
Total where father's age is known (years)	32.2	32.5	31.2	32.2	31.9	31.1	30.6	32.2	32.0
Median duration of marriage									
Nuptial (years)	4.5	4.8	4.5	4.8	4.5	4.5	4.1	4.6	4.6
First nuptial (years)	2.5	2.7	2.6	2.8	2.5	2.6	2.3	2.5	2.6
Previous births of current relationship									
0	25 980	18 845	12 341	5 168	6 601	1 570	589	1 174	72 276
1	22 040	16 640	11 030	4 608	6 264	1 259	513	1 084	63 446
2	9 488	7 128	4 935	1 944	2 577	523	252	428	27 284
3	2 966	2 049	1 638	538	758	151	83	148	8 335
4	801	541	471	123	255	65	31	32	2 320
5 and over	505	392	301	86	128	38	30	21	1 501
Average births of the current relationship	1.9	1.9	2.0	1.9	1.9	1.9	2.1	1.9	1.9

CHAPTER 1 BIRTHS IN CONTEXT

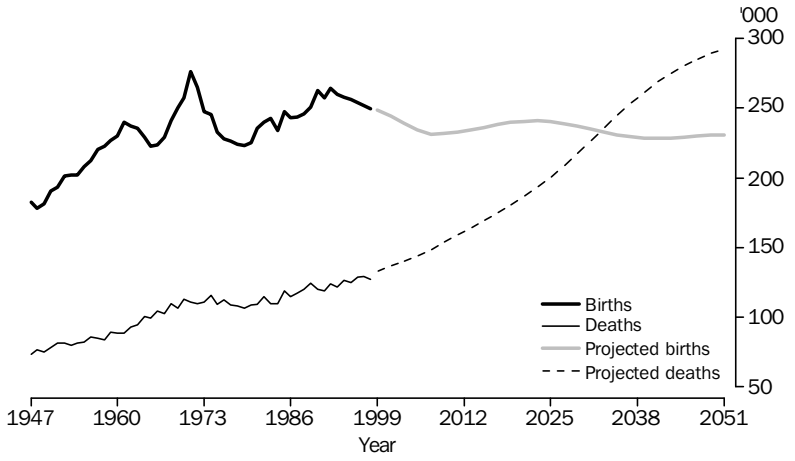
INTRODUCTION

During 1998, the average number of births per woman (total fertility rate (TFR)) continued the downward trend that began in the early 1990s. The 1998 average was estimated at 1.76 babies per woman, compared to 1.78 in the previous year, 1.84 a decade ago and 1.95 two decades ago. There were 249,600 births registered in Australia, the lowest number since 1988 and 1% less than in 1997. There were 245,900 women who gave birth in 1998. The difference between these two numbers is due to the occurrence of multiple births (3,700). Around 29% of births were to unmarried mothers and these included 4% where the father was not acknowledged on the birth certificate.

BIRTHS AS A COMPONENT OF POPULATION GROWTH

Births form an important component of population growth (table 1.2). Each year, about a quarter of a million births occur. This is roughly twice the number of deaths, resulting in natural increase of around 120,000 to 140,000 each year. From 1976, Australia has had below replacement level fertility, that is, the number of births required to replace a woman and her partner (currently 2.1). On current fertility rates, on average, women can expect to have 1.8 babies each throughout their life time, well below the 2.1 needed for replacement. Despite this, natural increase is still positive because of the relatively young age structure of the population. While women are not having very many babies each, there are enough women in child-bearing ages to keep the total number of births relatively high. Conversely, there are relatively few people in the older ages where death rates are high, which results in Australia having a relatively low number of deaths per year. As the population ages, the gap between the number of births and deaths will decrease, and assuming a TFR of 1.6 and net overseas migration of 90,000 persons annually, natural increase is projected to fall below zero around the 2030s.

1.1 ACTUAL AND PROJECTED(a) BIRTHS AND DEATHS(b)



(a) *Projections Source: ABS, Population Projections* (ABS Cat. no. 3222.0) (series K; low fertility and high net overseas migration).

(b) Data prior to 1998 are for calendar years, projection data are for financial years.

BIRTHS AS A COMPONENT OF POPULATION GROWTH *continued*

While net overseas migration makes a significant contribution to population growth, natural increase has been the larger contributor in every year from 1950 except 1987, 1988 and 1989.

1.2 POPULATION CHANGE, Components

Period(b)	Live births(a) '000	Deaths(a) '000	Natural increase '000	Net overseas migration '000	Population at end of period '000	Population Increase 000(c)	Increase %
1978	224.2	108.4	115.8	47.4	14 430.8	149.3	1.0
1979	223.1	106.6	116.6	68.6	14 602.5	171.7	1.2
1980	225.5	108.7	116.8	100.9	14 807.4	204.9	1.4
1981	235.8	109.0	126.8	123.1	15 054.1	246.7	1.7
1982	239.9	114.8	125.1	102.7	15 288.9	234.8	1.6
1983	242.6	110.1	132.5	55.0	15 483.5	194.6	1.3
1984	238.5	111.9	126.6	59.8	15 677.3	193.8	1.3
1985	242.9	116.8	126.1	89.3	15 900.6	223.3	1.4
1986	243.4	115.0	128.4	110.7	16 138.8	238.2	1.5
1987	244.0	117.3	126.6	136.1	16 394.6	255.9	1.6
1988	246.2	119.9	126.3	172.8	16 687.1	292.4	1.8
1989	250.9	124.2	126.6	129.5	16 936.7	249.6	1.5
1990	262.6	120.1	142.6	97.1	17 169.8	233.0	1.4
1991	259.1	119.7	139.4	81.7	17 387.0	217.3	1.3
1992	262.1	122.9	139.2	51.4	17 581.3	194.3	1.1
1993	258.6	120.8	137.8	34.8	17 760.0	178.7	1.0
1994	258.4	127.0	131.4	55.5	17 951.5	191.5	1.1
1995	254.9	125.1	129.8	106.9	18 196.1	244.6	1.4
1996	252.9	128.2	124.7	97.4	18 423.6	227.6	1.3
1997	251.1	128.8	122.3	72.4	18 618.3	194.7	1.1
1998p	250.1	128.8	121.3	111.6	18 851.2	232.9	1.3

(a) Births and deaths are on an occurrence basis.

(b) Calendar years.

(c) Total growth will not necessarily equate with the difference between the population in consecutive periods. This difference is known as intercensal discrepancy. See Glossary for more information.

INTERNATIONAL FERTILITY

The world average TFR currently stands at three babies per woman, declining from the relatively constant five births per woman that existed until the late 1960s and early 1970s. However, TFRs for individual countries vary remarkably. There are many factors that can influence a country's fertility rate, such as differences in social and economic development and contraceptive prevalence. In general, developing countries have higher fertility rates while developed countries usually have lower fertility rates.

According to the United Nations, Australia's average TFR for 1995–2000, of 1.8, is one of the lowest in the world and well below the world average. Compared to other developed counties, Australia's TFR is among the middle ranked nations. The lowest fertility rates in developed countries are European countries such as Italy with an average fertility rate of 1.2 for 1995–2000, Germany (1.3) and Spain (1.1). Hong Kong also has a TFR of 1.3.

INTERNATIONAL FERTILITY *continued*

The Middle Eastern and African countries have the highest fertility rates with Yemen (7.6) and Somalia (7.1) some of the highest.

Of the selected countries, only in the United States of America has fertility rates increased since 1980–85 while New Zealand has maintained its level. Prior to this fertility rates for most developed countries were stable or slowly declining. Like Australia, the TFRs of most of these countries started declining in the 1960s, after the end of the baby boom.

The trend of Australian fertility is fairly similar to that of Canada and New Zealand. Canada's fertility fell more sharply than Australia's, reaching below replacement level some five years earlier. New Zealand was comparable to Australia until 1980–85 with New Zealand marginally increasing then declining and Australia slowly declining.

From the 1950s to the late 1960s, fertility in some Asian countries was much higher than Australia's before declining sharply between the late 1960s and the late 1970s. Since then, fertility has continued to decline with China now similar to Australia, and Hong Kong falling lower.

1.3 TOTAL FERTILITY RATES, Selected Countries

	1950–55	*1955–60*	*1960–65*	*1965–70*	*1970–75*	*1975–80*	*1980–85*	*1985–90*	*1990–95*	*1995–00*
Australia	3.2	3.4	3.3	2.9	2.5	2.1	1.9	1.9	1.9	1.8
Canada	3.7	3.9	3.6	2.5	2.0	1.8	1.7	1.7	1.7	1.5
China	6.2	5.4	5.9	6.0	4.8	2.9	2.5	2.4	1.9	1.8
France	2.7	2.7	2.9	2.6	2.3	1.9	1.9	1.8	1.7	1.7
Greece	2.3	2.3	2.2	2.4	2.3	2.3	2.0	1.5	1.4	1.3
Hong Kong	4.4	4.7	5.3	4.0	2.9	2.3	1.8	1.4	1.3	1.3
India	6.0	5.9	5.8	5.7	5.4	4.8	4.5	4.1	3.4	3.1
Indonesia	5.5	5.7	5.4	5.6	5.1	4.7	4.1	3.5	2.9	2.6
Italy	2.3	2.4	2.6	2.5	2.3	1.9	1.6	1.3	1.2	1.2
Japan	2.8	2.1	2.0	2.0	2.1	1.8	1.8	1.7	1.5	1.4
Korea, Republic of	5.4	6.3	5.6	4.7	4.3	2.9	2.5	1.8	1.7	1.6
Malaysia	6.8	6.9	6.7	5.9	5.2	4.2	4.2	4.0	3.6	3.2
New Zealand	3.5	4.0	3.8	3.2	2.8	2.2	2.0	2.1	2.1	2.0
Papua New Guinea	6.2	6.3	6.3	6.2	6.1	5.9	5.4	5.2	5.1	4.6
Singapore	6.4	6.0	4.9	3.5	2.6	1.9	1.7	1.7	1.8	1.7
Sweden	2.2	2.2	2.3	2.1	1.9	1.7	1.6	1.9	2.0	1.6
United Kingdom	2.2	2.5	2.8	2.5	2.0	1.7	1.8	1.8	1.8	1.7
United States of America	3.5	3.7	3.3	2.6	2.0	1.8	1.8	1.9	2.1	2.0
Viet Nam	6.1	6.1	6.1	5.9	5.9	5.6	4.7	4.2	3.4	2.6
World	**5.0**	**4.9**	**5.0**	**4.9**	**4.5**	**3.9**	**3.6**	**3.4**	**3.0**	**2.7**

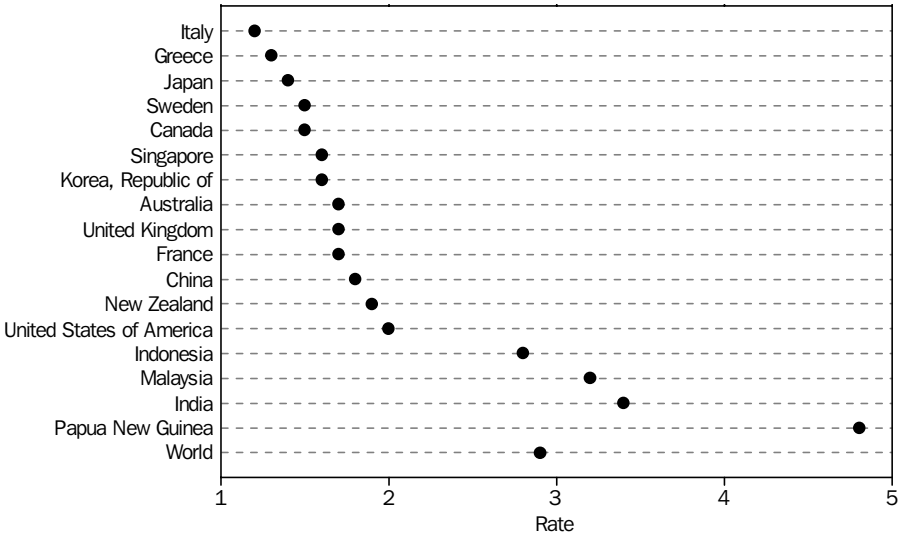
Source: United Nations, *World Population Prospects,* United Nations, 1996 and *World Population 1998* fact sheet.

The Population Reference Bureau has published the latest world fertility rates projected for 1999. Of the main English-speaking countries, Canada (1.5) has the lowest fertility rates in 1999. Australia's TFR (1.7) is around the middle, equal with the United Kingdom, while New Zealand (1.9) and the United States of America (2.0) have the highest. The United States of America has a large Hispanic population and New Zealand has a large Maori population, whose higher fertility rates influence these countries' overall rate.

INTERNATIONAL FERTILITY *continued*

In 1999, it is projected that of the selected Asian countries, Korea (1.6), Singapore (1.6), Japan (1.4) and Hong Kong (1.1) will have fertility rates lower than that of Australia. India's fertility rate will be 3.4, Malaysia's will be 3.2, and Indonesia's will be 2.8.

1.4 TOTAL FERTILITY RATES, Selected Countries—1999 Projected



Source: Population Reference Bureau, *World Population Data Sheet, Book Edition, 1999*.

DIFFERENT BIRTHS DATA

Births as a component of population estimates

The Australian Bureau of Statistics (ABS) produces estimates of the population in each State and Territory every three months. These are produced by taking the population at an initial point and updating it by adding births, subtracting deaths and adding net migration. To meet the conflicting demands for accuracy and timeliness, this is done three times; preliminary estimates are produced six months after the end of the reference period, revised estimates are produced fifteen months after the financial year and final estimates are produced after the following census.

Births registered

Most analysis in this publication is based on the number of births which were registered in a given year, usually 1998. Because there can be a lag from when a baby is born to when the birth is registered, some of the births registered in 1998 occurred in earlier years. In a small number of cases it can be several decades between the occurrence of a birth and its registration. There is some bias in the type of births which are registered late. For example, the registration of births to young mothers, births where paternity is not acknowledged, and births in particular States (e.g. New South Wales) tend to be delayed.

Births (occurrence basis)

Using birth registration statistics, but compiling them on a year-of-occurrence basis gives an estimate of the number of births that occurred in a given year. However, as births that occur in a given year may be registered years later, statistics based on this concept are never finalised and are always subject to revision.

1.5 REVISIONS TO BIRTHS (OCCURRENCE BASIS), Registration Data

Year of occurrence	*1997 estimate*	*1998 estimate*	*% increase*
1992	262 475	262 531	—
1993	259 297	259 415	—
1994	259 087	259 312	0.1
1995	255 851	256 227	0.1
1996	252 201	252 632	0.2
1997	246 963	247 843	0.4
1998	. .	246 963	. .

Midwives' collection

The National Perinatal Statistics Unit of the Australian Institute of Health and Welfare has published *Australia's Mothers and Babies* annually from 1991. This publication contains data from the Perinatal Statistics Collection, and throughout this publication it is referred to as the Midwives' Collection, or Midwives' data.

These data are collected in hospitals, primarily by midwives, for each birth (including fetal death) which takes place in a hospital. Some home births (presumably attended by midwives and/or practitioners) are also included. In 1996, planned homebirths represented 0.3% of all estimated births in Australia. The total number of homebirths that occur is not known. Some home births are not notified to the Midwives' Collection but are still registered by the parents. For the 1996 Midwives' Collection there are no data available for Tasmania, therefore Australian totals were derived by using the 1995 Tasmanian data as an estimate for 1996 (Australian Institute of Health and Welfare).

The latest available Midwives' data are for 1996, therefore comparisons between this series and the Birth Registrations series are for that year.

1.6 DIFFERENT BIRTH ESTIMATES

	1998 estimate	*Date of release*
Births registered	249 616	Nov 1999
Births registered (occurrence basis)	246 963	Nov 1999
Births for population estimates		
Preliminary	249 300	June 1999
Revised	n.y.a.	Sept 2000
Final(a)	n.y.a.	2002
Midwives(b)	n.y.a.	2001

(a) Available following the 2001 Census of Population and Housing.

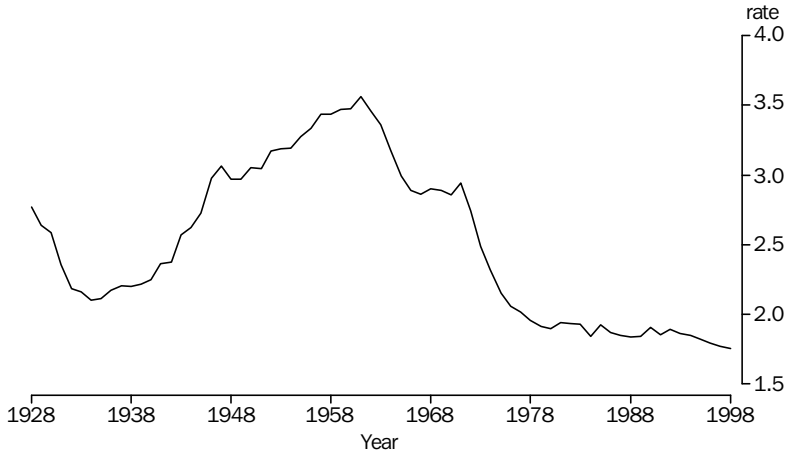
(b) 1996 is the latest year for which data are available.

CHAPTER 2 FERTILITY

HISTORICAL PATTERNS

During 1998, Australia's total fertility rate was 1.76, slightly below the 1997 level of 1.78 babies per woman. From a peak of 3.1 during the early 1920s, the fertility rate troughed during the 1930s to 2.1 before gradually increasing to peak at 3.6 babies per woman in 1961. Another smaller peak occurred in the early 1970s at 2.9. The reinterpretation of abortion law in New South Wales in late 1971, in a ruling by Justice Levine in the case of *R v Wall et al.,* had a significant impact on women's ability to control their fertility, and contributed to a substantial fall in births to young women, a decrease in the total fertility rate and increase in the median age of mothers (Carmichael, 1998). After this fertility continued to fall as more women chose to delay or deny parenthood. Since the late 1970s, the total fertility rate has fluctuated around 1.8 to 1.9 babies per woman, but the 1990s have seen a steady small decline.

2.1 TOTAL FERTILITY RATES



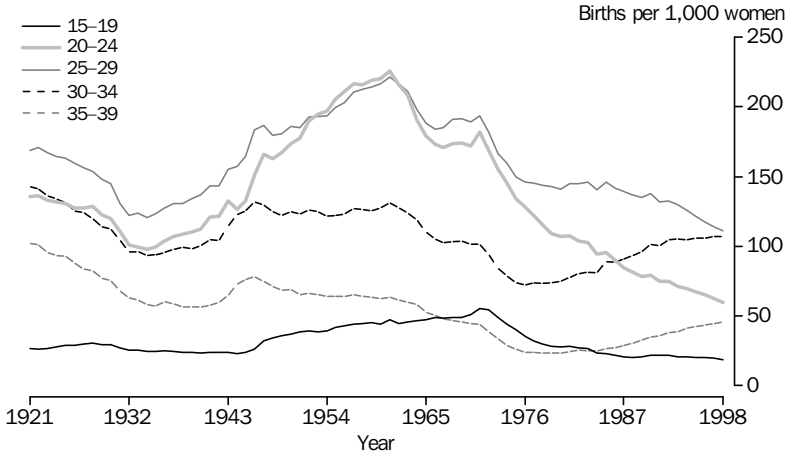
Age-specific fertility rates show the average number of births registered per 1,000 women at each reproductive age or age group. These rates are then summed together to form the total fertility rate. In 1998, women in the 25–29 years age group experienced the highest fertility of 111.2 babies per 1,000 women, followed by 107.2 births for women aged 30–34 years, 60.0 for women aged 20–24 years and 45.7 for women aged 35–39 years.

Between 1921 and 1976, there have been varying levels of fertility at each age group, with every age group peaking and troughing together, although the peaks in some age groups were not as pronounced as in others. During the 1930s all age groups experienced low levels of fertility which gradually increased through to the early 1960s. By 1984 the level of fertility of women aged 35–39 years had increased to become higher than that of 15–19 year olds, as it was previously up until 1967. In 1987, 30–34 year old women had experienced a higher fertility rate than 20–24 year old women.

HISTORICAL PATTERNS *continued*

The main decline in the fertility rate over the period 1978–1998 (by 10%) occurred among younger women. The fertility of women aged 20–24 years declined by 48% between 1978 and 1998, women aged 25–29 years declined by 23% while the fertility of women aged 30–34 years increased by 46% and 35–39 years increased by 94%. The age-specific fertility of women aged 40 years and over also increased during the period showing the trend towards older motherhood.

2.2 AGE-SPECIFIC FERTILITY RATES, Selected Ages



The decline in fertility of younger women can partly be attributed to changing social and economic factors. In the 1990s, more women are deciding not to have children or to have fewer children. These decisions are influenced by advances in medical technology, social acceptance (Preston, 1986: 186), the cost of raising a child (Callan, 1985: 68), and career or educational aspirations (Birrell and Birrell, 1987: 14).

2.3 AGE-SPECIFIC FERTILITY RATES AND TOTAL FERTILITY RATES

	AGE GROUP (YEARS)							
	15–19(a)	*20–24*	*25–29*	*30–34*	*35–39*	*40–44*	*45–49(b)*	*Total fertility rate*
1921	26.6	135.9	169.0	142.5	101.9	43.6	4.3	**3.1**
1922	26.2	136.4	170.8	141.1	100.9	41.9	3.9	**3.1**
1923	26.5	133.1	167.1	136.1	95.7	40.2	4.5	**3.0**
1924	27.9	132.2	164.7	134.2	93.3	38.1	4.0	**3.0**
1925	29.1	130.8	163.4	131.3	92.8	38.4	4.1	**2.9**
1926	29.2	127.4	159.4	125.4	88.2	36.2	3.8	**2.8**
1927	29.9	127.7	156.2	124.1	83.5	34.9	3.6	**2.8**
1928	30.6	128.5	153.9	120.2	82.8	33.6	3.9	**2.8**
1929	29.4	122.7	148.2	114.3	76.9	32.0	3.4	**2.6**
1930	29.3	120.2	144.9	112.2	75.6	30.9	3.1	**2.6**
1931	27.2	110.8	130.7	104.4	67.9	27.7	3.1	**2.4**
1932	25.9	101.0	122.2	96.3	63.2	25.8	2.9	**2.2**
1933	25.6	99.6	123.6	96.0	61.3	24.5	2.6	**2.2**
1934	24.6	97.9	120.7	93.3	58.4	24.1	2.3	**2.1**
1935	24.6	99.6	123.2	94.0	57.3	21.9	2.3	**2.1**

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

2.3 AGE-SPECIFIC FERTILITY RATES AND TOTAL FERTILITY RATES *continued*

	AGE GROUP (YEARS)							
	15–19(a)	*20–24*	*25–29*	*30–34*	*35–39*	*40–44*	*45–49(b)*	*Total fertility rate*
1936	24.9	103.5	127.5	95.5	60.3	21.6	2.2	**2.2**
1937	24.6	107.1	130.7	97.9	58.6	20.7	2.0	**2.2**
1938	23.8	108.4	130.9	99.2	56.3	20.2	2.1	**2.2**
1939	24.3	110.5	133.9	98.3	56.4	19.0	1.9	**2.2**
1940	23.6	112.5	136.8	100.5	56.6	19.4	1.7	**2.2**
1941	24.3	121.0	143.5	104.9	57.8	19.6	1.7	**2.4**
1942	24.0	121.8	143.6	104.2	60.0	19.6	1.7	**2.4**
1943	24.3	132.5	155.4	114.8	64.5	20.6	1.6	**2.6**
1944	22.9	126.7	157.3	122.5	72.9	22.1	1.6	**2.6**
1945	23.8	132.4	164.2	125.2	76.1	23.7	1.8	**2.7**
1946	26.1	151.1	183.2	131.7	78.3	24.6	2.1	**3.0**
1947	32.1	166.2	186.6	130.0	75.0	23.5	1.8	**3.1**
1948	34.2	163.0	179.8	124.6	71.2	22.5	1.7	**3.0**
1949	35.8	167.4	180.9	112.9	68.4	21.2	1.6	**3.0**
1950	37.0	173.5	186.0	124.6	68.8	21.8	1.6	**3.1**
1951	38.6	177.2	185.3	123.1	65.0	21.0	1.6	**3.0**
1952	39.3	189.7	192.7	126.1	66.1	20.5	1.7	**3.2**
1953	38.8	194.7	193.2	124.6	65.3	20.5	1.4	**3.2**
1954	39.2	197.1	194.0	121.8	64.4	20.2	1.5	**3.2**
1955	41.8	205.4	199.6	122.0	64.4	20.4	1.4	**3.3**
1956	43.0	210.9	203.0	123.5	64.2	19.7	1.6	**3.3**
1957	44.0	216.2	210.7	127.2	65.1	19.5	1.4	**3.4**
1958	44.6	215.9	212.9	126.4	64.3	18.5	1.5	**3.4**
1959	45.2	219.0	214.4	125.7	63.6	18.6	1.5	**3.5**
1960	44.3	220.1	216.3	127.5	62.3	18.4	1.3	**3.5**
1961	47.4	225.8	221.2	131.1	63.4	19.2	1.4	**3.6**
1962	44.7	216.0	216.7	127.7	61.4	18.4	1.2	**3.5**
1963	45.9	208.2	211.2	123.9	59.7	18.6	1.1	**3.4**
1964	47.0	190.5	198.1	119.1	58.4	16.5	1.2	**3.2**
1965	47.5	179.3	188.5	110.1	53.0	15.0	1.1	**3.0**
1966	48.9	173.1	183.9	105.1	50.6	14.2	1.1	**2.9**
1967	48.4	170.8	185.0	102.8	47.8	13.5	1.1	**2.9**
1968	48.9	173.6	190.8	103.3	46.7	12.9	1.0	**2.9**
1969	49.0	174.2	191.8	103.5	45.6	12.2	1.0	**2.9**
1970	50.9	172.0	189.6	101.8	44.9	11.7	0.8	**2.9**
1971	55.5	181.9	193.5	101.8	44.2	11.3	0.8	**2.9**
1972	54.5	168.7	181.7	94.0	38.9	10.0	0.8	**2.7**
1973	49.1	155.4	166.9	84.2	33.6	8.4	0.6	**2.5**
1974	44.2	145.4	159.3	78.5	29.1	7.2	0.4	**2.4**
1975	40.1	133.9	149.6	74.1	26.0	6.1	0.4	**2.2**
1976	35.2	128.2	146.2	72.5	24.1	5.5	0.4	**2.1**
1977	32.1	122.0	145.7	74.1	23.9	5.0	0.3	**2.0**
1978	29.9	115.8	144.0	73.4	23.5	4.5	0.2	**2.0**
1979	28.5	109.1	142.5	73.9	23.6	4.6	0.3	**1.9**
1980	27.6	107.0	141.0	75.1	23.7	4.4	0.3	**1.9**
1981	28.2	107.5	145.2	77.6	24.5	4.5	0.3	**1.9**
1982	27.4	103.9	144.9	80.6	25.6	4.5	0.3	**1.9**
1983	26.6	102.7	145.9	81.5	25.0	4.3	0.2	**1.9**
1984	23.2	94.3	140.4	81.2	25.0	4.3	0.3	**1.8**
1985	22.8	95.8	146.0	89.0	26.9	4.5	0.2	**1.9**

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

2.3 AGE-SPECIFIC FERTILITY RATES AND TOTAL FERTILITY RATES *continued*

	AGE GROUP (YEARS)							
	15–19(a)	*20–24*	*25–29*	*30–34*	*35–39*	*40–44*	*45–49(b)*	*Total fertility rate*
1986	21.8	90.0	141.9	88.7	27.2	4.3	0.2	**1.9**
1987	20.6	85.0	139.6	90.6	28.9	4.8	0.3	**1.8**
1988	20.3	81.5	136.9	93.3	30.5	4.6	0.2	**1.8**
1989	20.6	78.4	135.4	96.1	32.6	5.0	0.2	**1.8**
1990	22.1	79.4	137.9	101.7	34.7	5.5	0.2	**1.9**
1991	22.1	75.0	132.0	100.2	36.0	5.5	0.2	**1.9**
1992	22.0	74.9	132.3	104.6	38.3	6.1	0.3	**1.9**
1993	20.9	71.3	129.8	105.4	38.9	6.3	0.2	**1.9**
1994	20.7	69.7	125.8	105.0	41.1	6.7	0.3	**1.8**
1995	20.4	67.1	121.7	106.0	42.3	7.2	0.3	**1.8**
1996	20.1	65.2	117.1	105.7	43.7	7.5	0.3	**1.8**
1997	19.5	62.3	113.8	106.7	44.9	7.5	0.3	**1.8**
1998	18.5	60.0	111.2	107.2	45.7	8.0	0.3	**1.8**

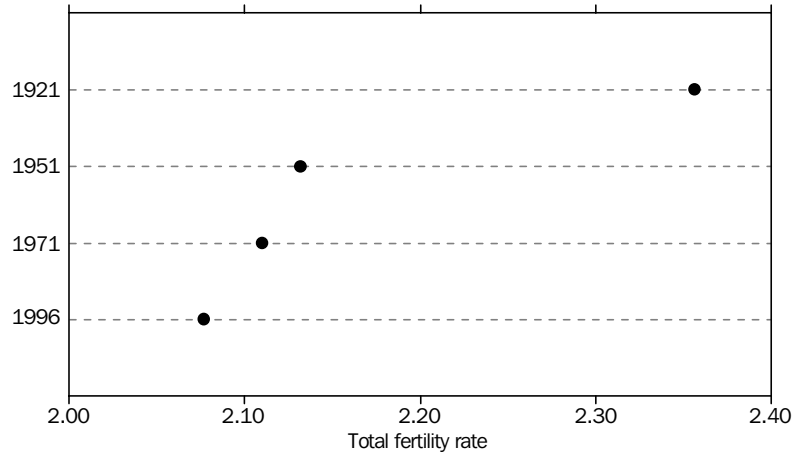
(a) Includes births to mothers aged less than 15. (b) Includes births to mothers aged 50 and over.

Replacement fertility

Since the mid-1970s, Australia has had below replacement level fertility. That is, the average number of babies born to a woman throughout her reproductive life (the total fertility rate) has been insufficient to replace herself and her partner. Although the total fertility rate required for replacement is currently around 2.1 babies per woman, this number is not constant. Because the level of fertility required for replacement is dependent on the number of women who survive to reproductive ages, replacement fertility has declined in parallel with falls in female mortality. In 1921, when mortality rates were high, replacement fertility was 2.4 babies per woman. By 1954, it had fallen to 2.1, and in 1996 replacement fertility was 2.08. Even if female mortality declined to zero, the replacement level would still be 2.05 (1.05 male and 1.0 female babies)–considerably higher than the 1998 total fertility rate of 1.76 babies per woman.

Despite below replacement fertility for more than 20 years in Australia, births still outnumber deaths by around 2.1. This is because of 'population momentum'—the fact that there have been relatively large numbers of women moving into child-bearing ages has ensured a large number of births despite the total fertility rate. This is coupled with relatively fewer people in the older age groups where most deaths occur. However, with population aging and fewer women in child-bearing ages, there is little prospect of an increase in the annual number of births. Meanwhile the number of deaths will increase as more people move into older ages, eventually tipping the balance in favour of deaths. Australian Bureau of Statistics (ABS) population projections indicate that this will happen sometime in the 2030s.

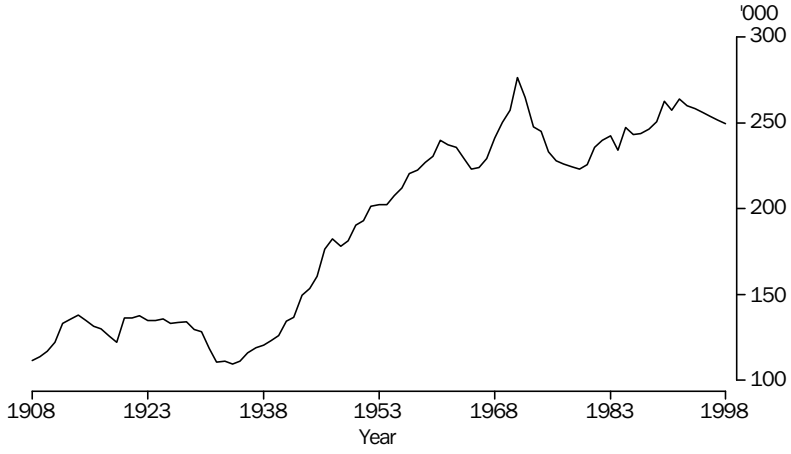
2.4 REPLACEMENT FERTILITY, 1921–1996



REGISTERED BIRTHS

For most of the first half of this century, the number of registered births in Australia remained under 140,000, troughing in the early 1930s during the Great Depression. Since then the number of registered births in Australia has grown to reach a peak in 1971 (276,400), fluctuated for the next two decades before reaching the next peak in 1992 (264,200). Since 1992 births have been declining.

2.5 REGISTERED BIRTHS



There were 249,600 births registered in Australia during 1998. The three most populous States accounted for over three-quarters of births registered — 85,500 (34%) in New South Wales, 60,500 (24%) in Victoria and 47,000 (19%) in Queensland. These proportions reflected the distribution of the female population in the reproductive ages for these States, 33% of women aged 15–49 years lived in New South Wales, 25% in Victoria and 19% in Queensland.

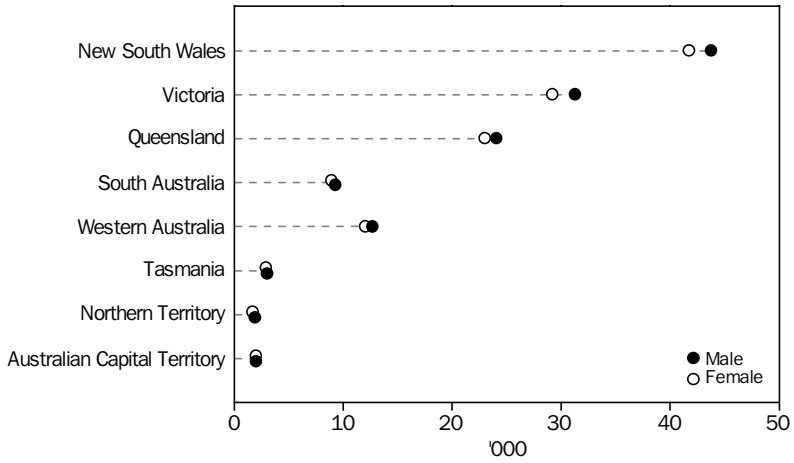
Over the past two decades, Queensland (1.6%), the Northern Territory (1.5%) and Western Australia (0.9%) have experienced the highest average annual increases in the number of babies born in a State or Territory. These increases were a result of the increases in the populations. The population of the Northern Territory increased the most with an average annual rate of 3.0% per year, followed by Queensland (2.4%) and Western Australia (2.0%). Conversely, Tasmania (–0.7%), South Australia (–0.1%) and the

REGISTERED BIRTHS *continued*

Australian Capital Territory (–0.3%) experienced average annual declines in the number of births registered. Tasmania's and South Australia's populations increased marginally, each by 0.7% on average over the past two decades, the Australian Capital Territory increased by 1.8%.

Just over half (51%) of all the births registered during 1998 were male babies. Every State and Territory recorded slightly more male babies than female.

2.6 BIRTHS REGISTERED, State and Territory



2.7 BIRTHS, Number Registered

Selected years	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Other Territories*	*Aust.*
					MALES					
1978	39 814	30 136	17 804	9 472	10 696	3 463	1 413	2 166	—	114 964
1983	42 706	30 695	21 733	10 211	11 910	3 651	1 557	2 095	—	124 558
1988	43 495	31 688	20 820	9 917	12 874	3 433	1 803	2 193	—	126 223
1993	45 906	32 793	24 055	10 232	12 925	3 523	1 884	2 234	20	133 572
1994	45 187	32 904	24 148	9 951	12 867	3 497	1 818	2 232	21	132 625
1995	44 884	32 108	23 863	9 977	12 942	3 390	1 960	2 291	17	131 432
1996	44 448	31 587	24 533	9 710	12 813	3 346	1 861	2 241	33	130 572
1997	44 647	31 248	24 024	9 383	12 810	3 098	1 812	2 132	25	129 179
1998	43 763	31 303	24 042	9 266	12 655	3 053	1 913	2 006	15	128 016
					FEMALES					
1978	38 238	28 551	16 726	9 051	9 966	3 373	1 287	2 025	—	109 217
1983	40 601	29 233	20 352	9 619	11 177	3 411	1 570	2 049	—	118 012
1988	41 152	30 446	19 741	9 238	12 269	3 346	1 636	2 142	—	119 970
1993	43 448	31 256	22 723	9 846	12 156	3 312	1 719	2 180	17	126 657
1994	42 790	31 070	22 430	9 458	12 271	3 347	1 808	2 229	23	125 426
1995	42 965	30 483	22 621	9 359	12 197	3 180	1 806	2 124	23	124 758
1996	42 147	29 556	23 236	9 346	11 980	3 111	1 701	2 155	30	123 262
1997	42 509	29 484	22 941	8 979	11 966	2 909	1 776	2 076	23	122 663
1998	41 736	29 189	23 004	8 960	12 062	2 925	1 728	1 976	20	121 600

2.7 BIRTHS, Number Registered *continued*

Selected years	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Other Territories*	*Aust.*
					PERSONS					
1978	78 052	58 687	34 530	18 523	20 662	6 836	2 700	4 191	—	224 181
1983	83 307	59 928	42 085	19 830	23 087	7 062	3 127	4 144	—	242 570
1988	84 647	62 134	40 561	19 155	25 143	6 779	3 439	4 335	—	246 193
1993	89 354	64 049	46 778	20 078	25 081	6 835	3 603	4 414	37	260 229
1994	87 977	63 974	46 578	19 409	25 138	6 844	3 626	4 461	44	258 051
1995	87 849	62 591	46 484	19 336	25 139	6 570	3 766	4 415	40	256 190
1996	86 595	61 143	47 769	19 056	24 793	6 457	3 562	4 396	63	253 834
1997	87 156	60 732	46 965	18 362	24 776	6 007	3 588	4 208	48	251 842
1998	85 499	60 492	47 046	18 226	24 717	5 978	3 641	3 982	35	249 616

MULTIPLE BIRTHS

During 1998, 1.5% of all confinements resulted in a multiple birth, compared to 1.2% in 1988 and 1.0% in 1978. Married mothers had a slightly higher incidence of multiple births than unmarried mothers. The proportion of multiple births from a nuptial confinement was 1.6% while the proportion from an ex-nuptial confinement was 1.2%. This difference in the proportion of multiple births may be due to the higher use of in-vitro fertilisation techniques by married women. Of the 3,700 multiple births registered in Australia during 1998, 2% resulted in one of the babies being stillborn.

2.8 CONFINEMENTS,Plurality—By Marital Status

	SINGLE			MULTIPLE			TOTAL		
	Nuptial	*Ex-nuptial*	*Total*	*Nuptial*	*Ex-nuptial*	*Total*	*Nuptial*	*Ex-nuptial*	*Total*
Selected years	%	%	%	%	%	%	%	%	no.
1978	88.0	11.0	99.0	0.9	0.1	1.0	88.9	11.1	221 565
1983	84.4	14.6	99.0	0.9	0.1	1.0	85.3	14.7	239 947
1988	79.9	18.8	98.8	1.0	0.2	1.2	81.0	19.0	243 192
1993	73.9	24.7	98.6	1.1	0.3	1.4	75.0	25.0	256 703
1994	73.2	25.4	98.6	1.1	0.3	1.4	74.3	25.7	254 547
1995	72.3	26.4	98.6	1.1	0.3	1.4	73.4	26.6	252 708
1996	71.4	27.2	98.6	1.1	0.3	1.4	72.5	27.5	250 363
1997	70.7	27.9	98.6	1.1	0.3	1.4	71.8	28.2	248 246
1998	70.1	28.4	98.5	1.2	0.3	1.5	71.2	28.8	245 898

During 1998, mothers from South Australia and the Australian Capital Territory had the highest incidence of multiple births, while the Northern Territory had the lowest. The Northern Territory was the only State or Territory to show a decline in the proportion of multiple births over the past few years, declining from 1.40% in 1995 to return to the 1988 level of 0.97%.

2.9 CONFINEMENTS RESULTING IN A MULTIPLE BIRTH, By State and Territory

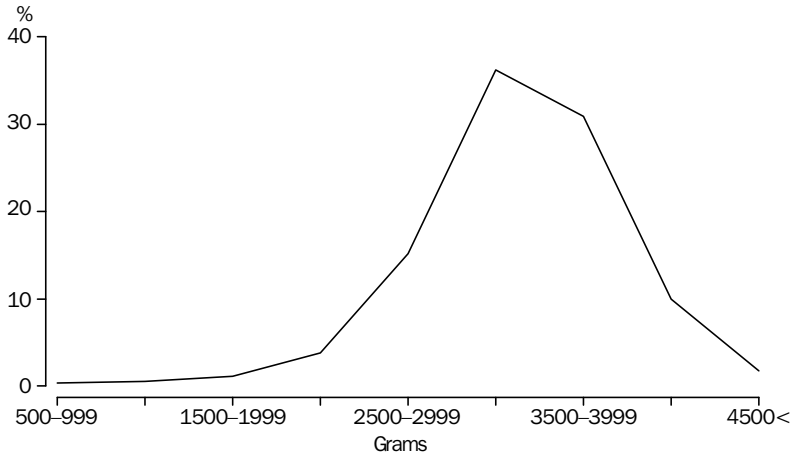
Selected years	NSW %	Vic. %	Qld %	SA %	WA %	Tas. %	NT %	ACT %	All mothers %
1978	0.97	1.07	0.92	1.12	1.07	0.72	0.93	0.87	1.00
1983	1.06	1.07	1.02	0.79	1.04	0.86	0.71	1.35	1.03
1988	1.23	1.19	1.15	1.30	1.38	1.12	0.97	1.12	1.22
1993	1.35	1.38	1.39	1.41	1.41	0.90	1.18	1.56	1.36
1994	1.37	1.42	1.36	1.42	1.38	1.12	1.34	1.02	1.37
1995	1.33	1.46	1.26	1.49	1.39	1.34	1.40	1.38	1.37
1996	1.30	1.40	1.35	1.60	1.44	1.54	1.19	1.55	1.38
1997	1.37	1.53	1.46	1.44	1.50	1.25	0.99	1.15	1.43
1998	1.45	1.59	1.46	1.63	1.52	1.49	0.97	1.63	1.50

BIRTH WEIGHT

The following analysis uses the Midwives' data with the latest data being for 1996.

Birth weight is a useful indicator of the health status of babies. The pattern of birth weight was similar between each State and Territory, with the average birth weight ranging from 3,232 g in the Northern Territory to 3,384 g in the Australian Capital Territory. Overall, the average birth weight was 3,360 g, similar to average for the previous year.

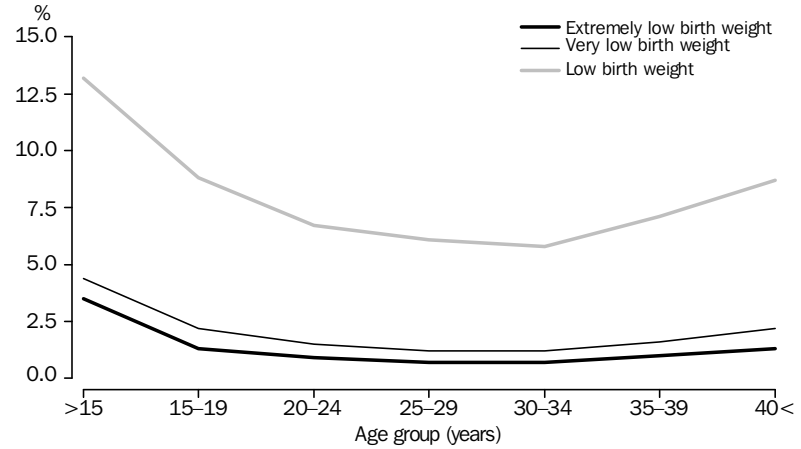
2.10 BIRTH WEIGHT DISTRIBUTION



Source: Australia's mothers and babies, 1996, AIHW National Perinatal Statistics Unit: Perinatal Statistics Series.

About 6% of all live births, with a stated birth weight, were of a low birth weight (less than 2,500 g), 1% were of very low birth weight (less than 1,500 g) and 0.4% were of extremely low birth weight (less than 1,000 g). While 6% of non-Indigenous babies were of low birth weight, 13% of Indigenous babies were, with 2% being of extremely low birth weight.

2.11 LOW BIRTH WEIGHT BABIES(a), Age of Mother



Source: Australia's mothers and babies, 1996, AIHW National Perinatal Statistics Unit: Perinatal Statistics Series.

Teenage mothers are at higher risk of having a low birth weight baby (10% of all teenage births). This is more likely to reflect a socio-economic difference where there is a higher propensity to smoke (ABS, 1999), than a biological difference directly associated with age. Older mothers are also more likely to have low birth weight babies, with 9% of babies born to women aged 40 and over being of low birth weight.

Only 5% of single babies had a low birth weight compared with just under half of all twins, and 95% of triplets.

There is a relationship between the number of previous births a woman has and birth weight. Second and third births are the least likely to be of low birth weight (5%). First births (8%) and higher order births are more likely to be of low birth weight, with 8% of fourth and subsequent births are of low birth weight. This is partly because large families are more common among low socioeconomic groups, such as Indigenous women. But it probably also reflects that having large numbers of children takes its toll on a woman's body making it more difficult to produce a subsequent healthy baby.

AGE OF PARENTS

Median age of mothers this century

Prior to the 1930s the median age of mothers had been declining, it then plateaued during the 1930s, before rising during the Second World War, after which it fell substantially. The lowest median age of mothers was reached in 1971 (25.4 years). The reinterpretation of abortion law in New South Wales in 1971 was associated with a substantial fall in births to young women and an increase in the median age of mothers from 1972. Since then the median age has been increasing each year to reach the highest level so far this century (29.5 years in 1998). The total fertility rate is now at its lowest (1.76 babies per woman). As the age-specific fertility rates indicate, the young women who are deciding not to have children or to delay having children affect the increasing median age of mothers.

2.12 MEDIAN AGE OF MOTHERS

Median age of parents

The median age of parents has been steadily increasing over the past two decades. In 1978 the median age of mothers was 26.3 years while the median age of known fathers was 29.2 years. Paternity-not-acknowledged births tend to occur to young mothers, and presumably, to young fathers. Therefore the median age of all fathers was likely to be slightly below 29.2 years. By 1998 the median age of mothers had increased to 29.5 years and fathers to 32.0 years.

Women who registered a birth outside of marriage in 1998 had a median age around five years younger (25.7 years) than women who registered a nuptial birth (30.5 years). Meanwhile, the median age of mothers registering the first child of the current marriage was 29.1 years. In 1998, of the women whose births were outside of a registered marriage, the median age of those where paternity was not acknowledged (23.9 years) was younger than those where paternity was acknowledged (25.9 years).

Between 1978 and 1998 the median age of all mothers increased by 3.2 years. The median age of all married mothers increased by 3.8 years while that of married mothers having their first child increased by 4.3 years. These increases are not surprising given that women are delaying marriage. In 1998, the median age for women to marry was 27.7 years, up by 5.0 years since 1978. The median age of all unmarried mothers increased by 4.1 years, from 21.6 years in 1978 to 25.7 years in 1998.

The median age of all fathers in 1998 was 32.0 years, there has been a steady increase in the median age of fathers over the past two decades. Between 1978 and 1998, the median age of married fathers increased by 3.6 years from 29.3 years to 32.9 years. The median age of unmarried fathers who acknowledged the birth of their child increased from 26.1 years in 1978 to 28.4 years in 1998.

2.13 MEDIAN AGE OF PARENTS

Selected years	MARRIED MOTHERS..... Married fathers	First child of marriage	All children of current marriage	Unmarried mothers	All mothers
1978	29.3	24.9	26.7	21.6	26.3
1983	30.0	25.7	27.4	22.5	26.9
1988	31.0	27.1	28.6	23.7	27.9
1993	32.0	28.3	29.7	24.5	28.9
1994	32.3	28.5	29.9	24.6	29.0
1995	32.5	28.6	30.1	24.9	29.1
1996	32.7	28.7	30.2	25.1	29.2
1997	32.8	29.0	30.4	25.4	29.4
1998	32.9	29.1	30.5	25.7	29.5

Across the States and Territories, Victoria had the oldest mothers on average, followed by the mothers in the Australian Capital Territory and South Australia. Victoria recorded the highest median age of mothers, 30.2 years compared to the national level of 29.5 years. Similarly, the median age of Victorian women for nuptial (30.8 years) and ex-nuptial (26.6 years) confinements was higher than the national average (30.5 years and 25.7 years respectively). The Northern Territory had the lowest median age of mothers having ex-nuptial births (24.7 years).

Queensland, Tasmania and the Northern Territory all had relatively similar median ages of mothers for both nuptial and ex-nuptial births. The Northern Territory had a higher proportion of ex-nuptial births than any other State or Territory (58.3%), largely associated with its large Indigenous population. The Northern Territory had the youngest mothers on average.

Victoria also had the oldest fathers, on average, in the country (median age of 32.5 years), though only marginally older than most other States and Territories, while the Northern Territory had the youngest fathers, on average (30.6 years).

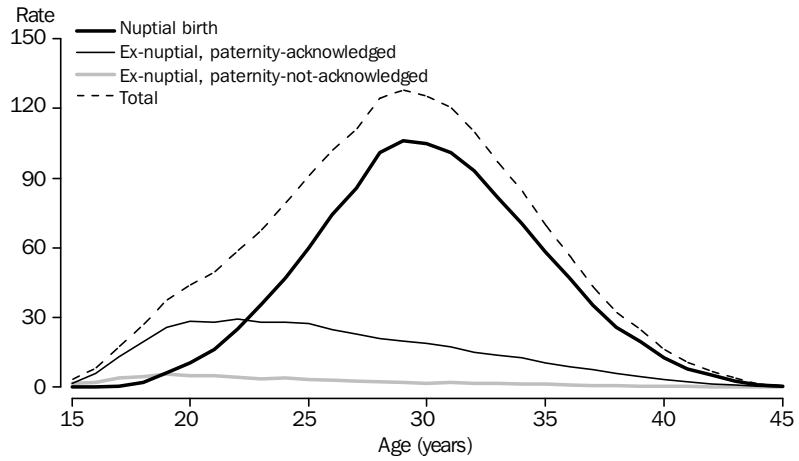
2.14 MEDIAN AGE OF PARENTS, State and Territory

State and Territory	MOTHERS..... Nuptial	Ex-nuptial	Total	FATHERS..... Nuptial	Ex-nuptial paternity-acknowledged	Total
New South Wales	30.3	25.7	29.5	33.0	28.5	32.2
Victoria	30.8	26.6	30.2	33.1	29.0	32.5
Queensland	30.0	25.0	28.8	32.3	27.7	31.2
South Australia	30.8	26.0	29.8	33.1	28.8	32.2
Western Australia	30.4	25.5	29.3	32.9	28.3	31.9
Tasmania	30.0	25.1	28.6	32.4	27.9	31.1
Northern Territory	29.9	24.7	27.4	32.7	27.9	30.6
Australian Capital Territory	30.7	26.7	30.0	32.9	28.8	32.2
Australia	**30.5**	**25.7**	**29.5**	**32.9**	**28.4**	**32.0**

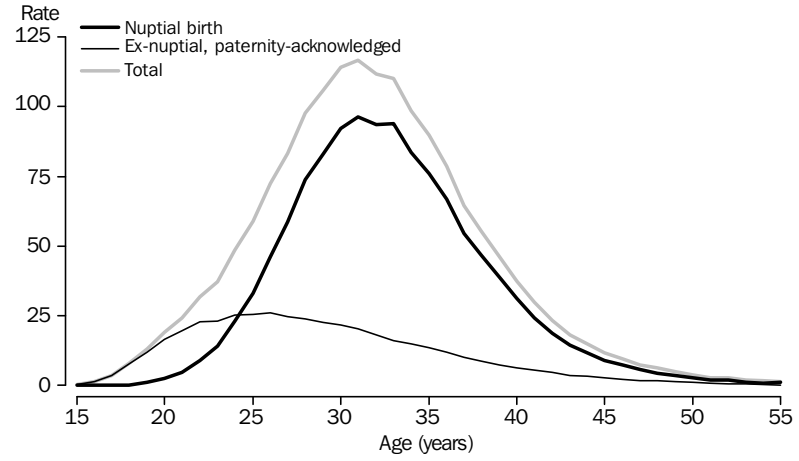
Age of parents

The peak ages for married mothers to have babies was 28–31 years while the peak ages for married fathers was 30–33 years. For unmarried mothers, the peak ages were 20–25 for paternity-acknowledged births, and 18–22 years for births where paternity was not acknowledged. In comparison, the peak ages for unmarried fathers was much younger (23–28 years) than for married fathers (30–34 years).

2.15 AGE-SPECIFIC FERTILITY RATES OF WOMEN



2.16 AGE-SPECIFIC FERTILITY RATES OF MEN



2.17 BIRTHS, Age of Parents

	MOTHERS				FATHERS		
Age of parent (years)	*Married*	*Unmarried—paternity-acknowledged*	*Unmarried—paternity-not-acknowledged*	*Total*	*Married*	*Unmarried—paternity-acknowledged*	*Total*
15 and under	—	206	211	417	—	54	54
16	11	771	260	1 042	—	187	189
17	37	1 698	515	2 250	4	482	486
18	283	2 484	595	3 362	33	1 031	1 064
19	801	3 274	703	4 778	143	1 630	1 773
20	1 357	3 661	651	5 669	341	2 228	2 569
21	2 173	3 710	628	6 511	649	2 661	3 310
22	3 311	3 888	568	7 767	1 238	3 152	4 390
23	4 839	3 851	497	9 187	2 003	3 273	5 276
24	6 476	3 895	547	10 918	3 321	3 633	6 954
25	8 632	3 938	491	13 061	4 889	3 741	8 630
26	11 166	3 707	433	15 306	7 019	3 942	10 961
27	13 142	3 490	417	17 049	8 997	3 798	12 795
28	14 540	3 028	349	17 917	10 649	3 439	14 088
29	15 221	2 854	269	18 344	11 857	3 248	15 105
30	14 624	2 621	256	17 501	12 886	3 051	15 937
31	13 936	2 410	260	16 606	13 199	2 800	15 999
32	13 063	2 107	243	15 413	13 020	2 533	15 553
33	11 663	1 950	226	13 839	13 272	2 291	15 563
34	10 422	1 884	211	12 517	12 325	2 203	14 528
35	8 810	1 564	196	10 570	11 408	2 033	13 441
36	7 057	1 353	146	8 556	10 033	1 806	11 839
37	5 360	1 161	113	6 634	8 337	1 549	9 886
38	3 847	884	112	4 843	6 922	1 300	8 222
39	2 855	686	79	3 620	5 643	1 071	6 714
40	1 868	467	61	2 396	4 481	896	5 377
41	1 113	359	54	1 526	3 425	797	4 222
42	727	205	31	963	2 641	650	3 291
43	391	124	19	534	1 996	498	2 494
44	156	52	5	213	1 607	450	2 057
45	77	30	6	113	1 225	380	1 605
46	38	8	—	48	946	295	1 241
47	19	4	—	25	756	223	979
48	8	—	—	11	593	211	804
49	—	—	—	—	457	180	637
50	—	—	—	5	374	141	515
51	—	—	—	—	289	101	390
52	—	—	—	—	239	81	320
53	—	—	—	—	147	66	213
54	—	—	—	—	110	57	167
55–59	—	—	—	—	369	99	468
60 and over	—	—	—	—	180	39	219
Not stated	8	17	67	92	21	45	66
Paternity-not-acknowledged	—	—	—	—	—	—	—
Total	**178 046**	**62 345**	**9 225**	**249 616**	**178 046**	**62 345**	**240 391**

2.18 AGE-SPECIFIC FERTILITY RATES, Nuptiality

	BIRTHS PER 1,000 WOMEN				BIRTHS PER 1,000 MEN		
Age of parent (years)	*Married*	*Unmarried—paternity-acknowledged*	*Unmarried—paternity-not-acknowledged*	*Total*	*Married*	*Unmarried—paternity-acknowledged*	*Total*
15 and under	—	1.6	1.6	3.2	—	0.4	0.4
16	0.1	6.0	2.0	8.1	—	1.4	1.4
17	0.3	13.2	4.0	17.5	—	3.6	3.6
18	2.2	19.7	4.7	26.6	0.2	7.7	8.0
19	6.3	25.7	5.5	37.5	1.1	12.1	13.2
20	10.5	28.4	5.0	43.9	2.5	16.5	19.0
21	16.5	28.2	4.8	49.4	4.8	19.5	24.3
22	25.0	29.4	4.3	58.6	9.0	22.9	31.9
23	35.5	28.2	3.6	67.4	14.2	23.2	37.3
24	46.9	28.2	4.0	79.0	23.2	25.4	48.7
25	60.1	27.4	3.4	91.0	33.3	25.5	58.8
26	74.3	24.7	2.9	101.8	46.3	26.0	72.4
27	85.6	22.7	2.7	111.1	58.6	24.7	83.3
28	100.9	21.0	2.4	124.3	73.8	23.8	97.7
29	106.2	19.9	1.9	128.0	83.0	22.7	105.8
30	104.8	18.8	1.8	125.4	92.4	21.9	114.3
31	101.0	17.5	1.9	120.4	96.2	20.4	116.6
32	93.3	15.1	1.7	110.1	93.7	18.2	111.9
33	81.9	13.7	1.6	97.2	93.9	16.2	110.1
34	70.3	12.7	1.4	84.5	83.6	14.9	98.5
35	58.5	10.4	1.3	70.2	76.1	13.6	89.7
36	46.8	9.0	1.0	56.7	66.8	12.0	78.8
37	35.1	7.6	0.7	43.4	54.6	10.1	64.7
38	25.7	5.9	0.7	32.3	46.7	8.8	55.4
39	19.6	4.7	0.5	24.9	38.8	7.4	46.2
40	12.9	3.2	0.4	16.5	31.2	6.2	37.4
41	7.9	2.5	0.4	10.8	24.2	5.6	29.9
42	5.2	1.5	0.2	6.9	18.8	4.6	23.5
43	2.8	0.9	0.1	3.9	14.6	3.7	18.3
44	1.1	0.4	—	1.5	11.7	3.3	15.0
45	0.6	0.2	—	0.8	9.0	2.8	11.8
46	0.3	0.1	—	0.4	7.3	2.3	9.5
47	0.1	—	—	0.2	5.7	1.7	7.4
48	0.1	—	—	0.1	4.5	1.6	6.2
49	—	—	—	—	3.6	1.4	5.0
50	—	—	—	—	2.9	1.1	3.9
51	—	—	—	—	2.1	0.8	2.9
52	—	—	—	—	2.1	0.7	2.9
53	—	—	—	—	1.3	0.6	1.9
54	—	—	—	—	1.0	0.5	1.6
55–59	—	—	—	—	3.9	1.0	4.9
60 and over	—	—	—	—	2.3	0.5	2.7
Total fertility/ paternity rates	**1.239**	**0.448**	**0.067**	**1.755**	**1.238**	**0.437**	**1.675**

STATE AND TERRITORY COMPARISONS

Age of mother

The Northern Territory recorded the highest proportion of young mothers aged 19 years and under (13%), much higher than the national proportion of 5%. South Australia (3%) showed the highest proportion of older mothers aged 40 years and over, compared with a national level of 2%.

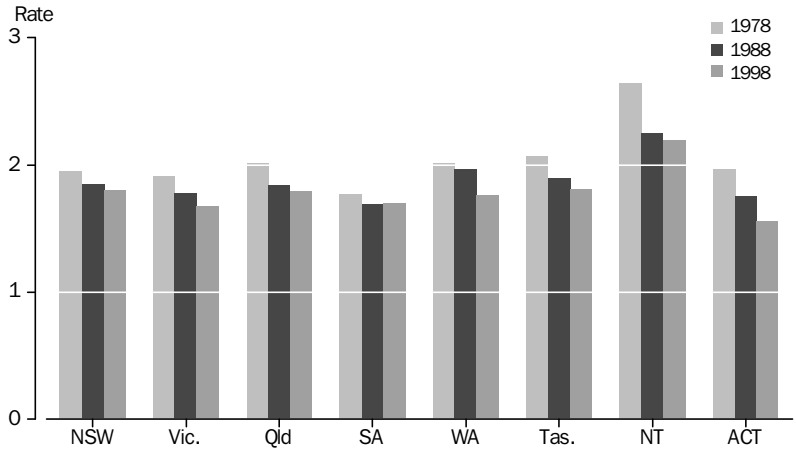
2.19 BIRTHS, Age of Mother

Age group (years)	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Other Territories*	*Aust.*
19 and under	3 929	1 935	2 873	741	1 358	407	468	138	—	11 849
20–24	13 951	7 883	8 875	2 714	4 119	1 142	835	529	4	40 052
25–29	27 995	19 556	15 698	5 868	8 097	1 997	1 133	1 325	8	81 677
30–34	25 628	20 406	13 083	5 755	7 338	1 605	791	1 253	17	75 876
35–39	11 856	9 184	5 620	2 635	3 263	708	356	595	6	34 223
40 and over	2 118	1 511	894	502	541	116	57	108	—	5 847
Not stated	22	17	3	11	—	3	—	34	—	92
Total	85 499	60 492	47 046	18 226	24 717	5 978	3 641	3 982	35	249 616

Fertility

The total fertility rate in 1998 varied substantially across the States and Territories, from 1.6 births per women in the Australian Capital Territory to 2.2 for the Northern Territory.

2.20 STATE AND TERRITORY FERTILITY RATES, Selected Years



Over the past two decades the total fertility rate for each State and Territory has declined with the Australian Capital Territory showing the largest decline of 21%, followed by the Northern Territory (17%) and Western Australia (13%). Over the past decade, the total fertility rate for South Australia was much the same while every other State and Territory continued to decline, the Australian Capital Territory (by 11%) and Western Australia (by 10%) declined the most.

2.21 TOTAL FERTILITY RATES

Selected years	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
1978	1.953	1.907	2.019	1.764	2.015	2.068	2.640	1.967	1.949
1983	1.929	1.818	2.085	1.798	1.986	1.998	2.385	1.868	1.924
1988	1.850	1.780	1.841	1.695	1.961	1.891	2.246	1.754	1.837
1993	1.904	1.771	1.907	1.783	1.874	1.925	2.277	1.686	1.864
1994	1.874	1.782	1.863	1.740	1.872	1.949	2.293	1.692	1.846
1995	1.863	1.747	1.826	1.757	1.855	1.894	2.345	1.652	1.825
1996	1.825	1.703	1.851	1.755	1.812	1.894	2.189	1.652	1.797
1997	1.833	1.688	1.805	1.707	1.792	1.796	2.168	1.614	1.775
1998	1.793	1.676	1.791	1.703	1.763	1.810	2.196	1.555	1.755

Age contributions to fertility

Northern Territorian fertility had a younger age structure than any other State or Territory. Women aged under 25 years contributed 39% to the total fertility rate. The age-specific fertility rate for 15–19 year old women in the Northern Territory (65.9 births per 1,000 women) was nearly six times higher than the lowest rate for any State or Territory (the Australian Capital Territory with 11.8).

2.22 CONTRIBUTION OF AGE GROUPS TO THE TOTAL FERTILITY RATE

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.
Age group (years)	%	%	%	%	%	%	%	%	%
19 and under	5.1	3.7	6.5	4.5	5.9	6.6	15.1	3.8	5.2
20–24	17.7	14.0	19.6	16.2	17.4	21.0	24.1	12.9	17.1
25–29	31.6	31.3	32.1	32.1	32.2	33.5	27.2	32.3	31.7
30–34	30.0	33.7	28.4	31.4	29.9	26.7	21.5	33.1	30.6
35–39	13.0	14.7	11.4	13.1	12.5	10.3	10.3	15.1	13.0
40 and over	2.5	2.6	1.9	2.6	2.2	1.8	1.9	2.8	2.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Net reproduction rate

On current rates, a baby girl born today can expect to have, on average, 0.842 daughters in her life time. This takes into account the current fertility rates, the sex ratio of babies (the number of males per 100 females), and the chance of her dying before finishing her reproductive life. The sex ratio is stable, 105 males to 100 females, and mortality rates are falling, hence the proportion of girls surviving to reproductive ages is increasing, so the decline in the net reproduction rate is entirely due to the fall in fertility over the last two decades.

The net reproduction rate in 1998 was 0.842, a figure which has declined by 9% from its level of 0.930 in 1978 and 4% from its level of 0.877 in 1988.

2.23 FEMALE NET REPRODUCTION RATE(a)

Selected years	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
1978	0.936	0.910	0.955	0.848	0.951	0.997	1.214	0.934	0.930
1983	0.923	0.871	0.990	0.858	0.947	0.949	1.138	0.901	0.920
1988	0.884	0.859	0.880	0.806	0.942	0.917	1.014	0.858	0.877
1993	0.914	0.854	0.913	0.862	0.898	0.921	1.051	0.827	0.893
1994	0.899	0.857	0.885	0.838	0.901	0.941	1.115	0.844	0.884
1995	0.899	0.842	0.874	0.840	0.888	0.909	1.095	0.799	0.875
1996	0.878	0.815	0.887	0.852	0.864	0.901	1.025	0.808	0.861
1997	0.882	0.810	0.870	0.824	0.854	0.858	1.043	0.794	0.854
1998	0.858	0.799	0.865	0.830	0.852	0.880	1.013	0.763	0.842

(a) Net reproduction rates are based on Annual Life Tables calculated by the ABS.

REGIONAL COMPARISONS

The total fertility rate of capital cities is much lower than that of the rural regions. Factors influencing the lower fertility rate of city women include their easier access to medical technology and information and their careers. The median age of mothers is slightly higher in the cities than in the rural regions.

Of all the capital cities, Canberra and Melbourne had the lowest fertility rates while Melbourne and Adelaide had the highest median age of mother. Of the rural regions, the Upper Great Southern region in Western Australia and the South West region in Queensland had the highest fertility rate, the Kimberley region had the highest proportion of ex-nuptial births, including the second highest proportion of paternity-not-acknowledged births, and the third lowest median age of mother. The Northern Territory Balance had the highest proportion of paternity-not-acknowledged births and the lowest median age of mothers.

The highest proportion of ex-nuptial births were in the Northern Territory and the northern regions of Western Australia and Queensland where there is a relatively high Indigenous population.

Of all the capital cities, Darwin had the highest proportion of ex-nuptial births (43%) while Melbourne had the lowest (21%).

2.24 REGIONAL PATTERNS OF FERTILITY

						EX-NUPTIAL BIRTHS....		
Statistical Division(b)	*Births* no.	*Total fertility* rate	*SEIFA–Disadvantage(a)* index	*SEIFA–Education/Occupation(a)* index	*Median age of mother* years	*Nuptial births* %	*Paternity-acknowledged* %	*Paternity-not-acknowledged* %
New South Wales								
Sydney	55 006	1.703	1 027	1 039	30.0	78.3	18.5	3.2
Hunter	7 163	1.842	970	963	28.6	65.5	30.2	4.3
Illawarra	4 913	1.908	979	982	28.8	68.5	27.3	4.3
Richmond-Tweed	2 547	2.058	960	965	28.9	57.2	38.1	4.7
Mid-North Coast	2 946	2.048	947	949	28.2	60.4	34.6	5.0
Northern	2 442	2.148	978	975	27.9	63.0	31.5	5.5
North Western	1 761	2.283	952	954	27.6	56.9	36.5	6.6
Central West	2 377	2.117	982	967	28.1	68.0	27.8	4.2
South Eastern	2 247	2.042	1 004	988	29.1	64.4	30.8	4.8
Murrumbidgee	2 208	2.157	989	967	28.4	68.7	27.8	3.5
Murray	1 468	2.059	994	969	29.1	69.1	28.5	2.3
Far West	322	2.042	919	929	27.7	50.9	41.0	8.1
Total	*85 499*	*1.793*	*1 007*	*1 012*	*29.5*	*73.4*	*22.9*	*3.7*
Victoria								
Melbourne	43 774	1.582	1 025	1 028	30.5	79.1	19.1	1.8
Barwon	3 058	1.868	995	983	29.7	73.1	25.0	2.0
Weston Districts	1 377	2.181	1 001	969	29.8	73.3	24.8	1.9
Central Highlands	1 807	1.949	989	985	29.3	67.5	30.2	2.3
Wimmera	593	1.930	1 006	971	29.8	79.1	19.1	1.9
Mallee	1 250	2.285	983	955	28.6	71.0	27.8	1.2
Loddon-Campaspe	1 999	1.950	998	988	29.4	69.5	28.1	2.4
Goulburn	2 530	2.212	992	963	29.2	71.5	26.7	1.8
Ovens-Murray	1 126	1.953	1 007	986	29.1	70.6	27.3	2.1
East Gippsland	1 004	2.175	985	972	29.0	63.7	33.9	2.4
Gippsland	1 948	1.984	983	969	29.0	66.2	32.0	1.8
Total	*60 492*	*1.676*	*1 016*	*1 013*	*30.2*	*76.7*	*21.4*	*1.9*
Queensland								
Brisbane	20 995	1.664	1 010	1 004	29.2	69.3	26.5	4.2
Moreton	7 824	1.687	979	964	29.1	65.3	30.4	4.3
Wide Bay-Burnett	2 995	2.152	926	908	28.1	61.9	32.6	5.5
Darling Downs	2 878	2.088	982	955	28.2	72.4	23.6	3.9
South West	475	2.553	960	936	28.5	68.4	26.9	4.6
Fitzroy	2 763	2.073	972	944	28.1	63.8	31.3	4.9
Central West	196	2.088	969	935	29.4	63.8	30.6	5.6
Mackay	1 861	1.970	984	935	28.4	67.5	28.8	3.7
Northern	2 705	1.932	981	959	28.3	63.7	31.8	4.5
Far North	3 367	1.922	978	969	28.6	55.8	37.4	6.9
North West	687	2.347	940	929	26.7	50.4	41.3	8.3
Total	*47 046*	*1.791*	*988*	*975*	*28.8*	*66.3*	*29.0*	*4.6*
South Australia								
Adelaide	13 106	1.616	991	999	30.1	71.0	25.8	3.2
Outer Adelaide	1 260	1.841	1 002	967	30.5	72.7	25.2	2.1
Yorke and Lower North	489	2.135	958	926	29.6	69.5	27.8	2.7
Murray Lands	906	2.145	939	904	28.6	64.9	32.6	2.5
South East	834	1.967	977	926	29.1	72.2	25.7	2.2
Eyre	482	2.375	964	945	28.9	66.8	28.0	5.2
Northern	1 129	1.981	926	934	27.9	53.7	41.9	4.4
Total	*18 226*	*1.703*	*984*	*983*	*29.9*	*69.6*	*27.2*	*3.2*

(a) Socio-Economic Indexes for Areas, 1996 Census of Population and Housing.

(b) Latest data on 1996 ASGC boundaries.

2.24 REGIONAL PATTERNS OF FERTILITY *continued*

EX-NUPTIAL BIRTHS....

Statistical Division(b)	Births	Total fertility	SEIFA–Disadvantage(a)	SEIFA–Education/Occupation(a)	Median age of mother	Nuptial births	Paternity-acknowledged	Paternity-not-acknowledged
	no.	rate	index	index	years	%	%	%
Western Australia								
Perth	17 253	1.655	1 020	1 012	29.8	71.7	24.3	4.0
South West	2 326	2.008	965	924	28.5	63.5	31.9	4.6
Lower Great Southern	726	2.245	982	948	28.9	63.1	33.1	3.9
Upper Great Southern	337	2.606	1 005	942	28.9	73.0	24.3	2.7
Midlands	782	2.347	980	932	28.5	68.2	28.6	3.2
South Eastern	1 086	2.225	981	945	28.2	58.1	36.9	5.0
Central	882	2.430	960	940	27.8	58.3	35.3	6.3
Pilbara	754	2.060	995	960	28.3	56.9	36.9	6.2
Kimberley	553	2.329	913	967	27.0	35.8	46.3	17.9
Total	*24 717*	*1.763*	*1 006*	*991*	*29.3*	*68.2*	*27.3*	*4.5*
Tasmania								
Greater Hobart	2 358	1.665	1 001	1 009	29.4	62.2	33.3	4.5
Southern	470	2.265	942	914	28.7	55.5	40.2	4.3
Northern	1 621	1.746	966	954	28.4	62.0	33.3	4.7
Mersey-Lyell	1 515	2.061	945	926	27.8	60.9	35.5	3.6
Total	*5,978*	*1.810*	*974*	*967*	*28.6*	*61.2*	*34.4*	*4.3*
Northern Territory								
Darwin	1 572	2.007	1 027	1 046	28.4	57.3	34.5	8.3
Northern Territory - Bal	2 063	2.339	909	969	26.4	29.9	43.1	27.0
Total	*3 641*	*2.196*	*962*	*1 004*	*27.4*	*41.7*	*39.4*	*18.9*
Australian Capital Territory								
Canberra	3 972	1.539	1 091	1 121	30.0	73.6	22.3	4.1
Total	*3 982*	*1.555*	*1 091*	*1 121*	*30.0*	*73.6*	*22.3*	*4.1*
Australia	**249 616**	**1.755**	**1 000**	**1 000**	**29.5**	**71.3**	**25.0**	**3.7**

(a) Socio-Economic Indexes for Areas, 1996 Census of Population and Housing.

(b) Latest data on 1996 ASGC boundaries.

Socio-economic conditions and fertility

The 1996 Census of Population and Housing provides information on a broad range of social and economic characteristics of the Australian population. This information can be used to provide measures, or indexes, of the socio-economic well-being of the population by region and as a total. Thus the Socio-Economic Indexes For Areas (SEIFA) have been produced (for more information see *Information Paper: Census of Population and Housing—Socio-Economic Indexes for Areas, 1996* (Cat. no. 2039.0)). For the purposes of analysis of fertility, the Index of Relative Socio-economic Disadvantage and the Index of Education and Occupation are used.

The Index of Relative Socio-Economic Disadvantage is derived from attributes such as low income, low educational attainment, high unemployment and jobs in relatively unskilled occupations. The higher a region's index value the less disadvantaged that region is compared with other regions. The Index of Education and Occupation is designed to reflect the educational and occupational structure of regions. The higher a region's education and occupation index value, the higher the concentration of persons

Socio-economic conditions and fertility *continued*

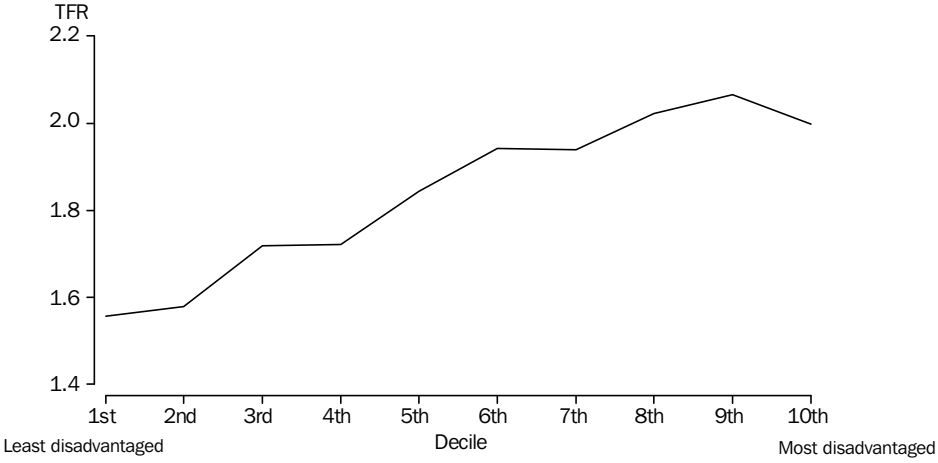
with higher education or undergoing further education and with people being employed in higher skilled occupations, rather than being labourers or unemployed.

Analysis linking individual Statistical Local Areas' (SLAs) indexes with the fertility averaged over two years for that SLA indicates a positive relationship between the Index of Disadvantage and the total fertility rate, and an even stronger relationship between the Index of Education/Occupation and the total fertility rate.

Index of Disadvantage and Fertility

Comparing the total fertility rate for each SLA in Australia to the level of disadvantage for that region, and by grouping the regions into ten equal groups (deciles), indicates that the disadvantaged regions tend to have higher fertility rates than the less disadvantaged regions. The most disadvantaged regions have an average fertility rate of 2.0 babies per woman, much higher than the national total fertility rate of 1.76, compared to 1.56 in the least disadvantaged regions. However, there appears to be a slight decline in fertility for those regions in the seventh decile of disadvantage (or the fourth most disadvantaged group of regions). Likewise there is also a slight decline in fertility for the regions in the most disadvantaged regions. Those in the most disadvantaged regions may just not be able to afford to have many children.

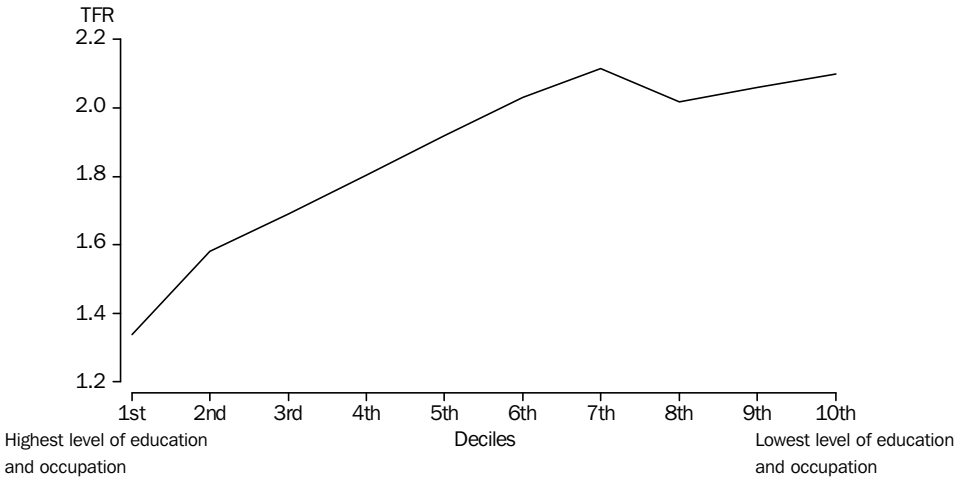
2.25 TOTAL FERTILITY RATE, Deciles of Disadvantage



Index of Education/Occupation and Fertility

Regions with low levels of educational attainment and low levels of skilled occupations or high unemployment have higher fertility rates than those regions with higher levels of educational qualifications and higher skilled occupations. For example, regions ranked in the seventh to tenth deciles have the lowest SEIFA score, therefore women in these regions have, on average, low levels of education and low skilled occupations but have high fertility rates of between 2.0 and 2.1 babies per woman (compared to the national total fertility rate of 1.76). Conversely, those in the regions in the first and second deciles have lower total fertility rates of 1.3 to 1.6.

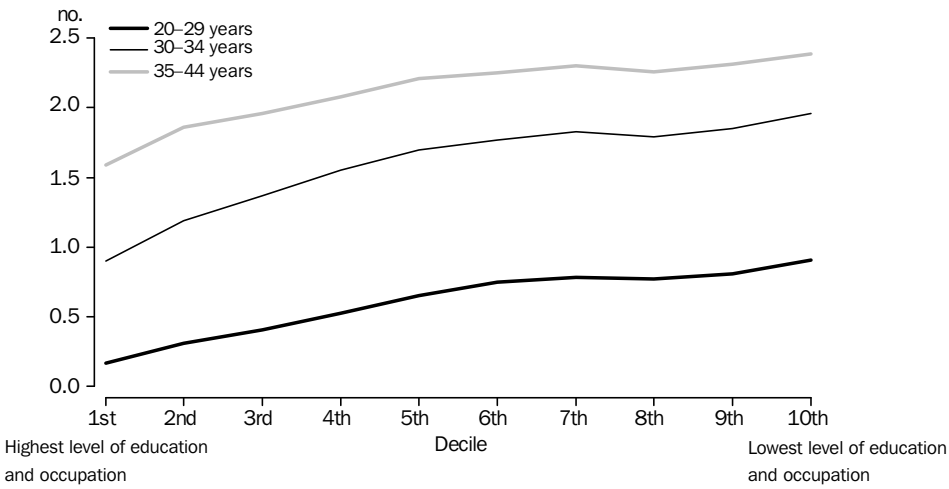
2.26 TOTAL FERTILITY RATE, Deciles of Education and Occupation



The 1996 Census of Population and Housing also provides information on the number of children ever born to women at specific age groups. Relating this to the Index of Education and Occupation indicates a clear relationship between these factors and the timing of births as well as the number of children a woman has had.

Comparing young women aged 20–29 years in regions with low levels of education and low levels of skilled occupations to those in the same age group in regions with higher education and higher skilled occupations, show that those with low levels would already have had an average of 0.9 children each while those with high levels would only have had an average of 0.2 children each. Meanwhile women aged between 30–34 years in regions with high levels of education and occupation would only have reached, on average, 0.9 children each. Women in the same age group (30–34 years) with low levels of education and low skilled occupations would have already had more children (2.0 children) on average than women aged 35–44 years with high levels (1.6 children). Women aged 35–44 years with low levels have, on average, 2.4 children. There is a weaker association at older ages which indicate that the level of education and occupation have a stronger influence on the timing of births rather than overall fertility.

2.27 CHILDREN EVER BORN BY AGE OF MOTHER, Deciles of Education and Occupation



Regional Comparison

According to the SEIFA Index of Disadvantage, the top six least disadvantaged Statistical Divisions (SDs) in Australia were capital cities. Adelaide and Hobart were the only capital cities not in the top ten. Canberra SD was the least disadvantaged SD in Australia, followed by Sydney and Darwin. In comparison, the other SD in the Northern Territory, the Northern Territory Balance SD, was ranked the most disadvantaged. The total fertility rate of the top ten SDs varied: Canberra, Melbourne, Perth and Brisbane SDs experienced fertility rate below the national level (1.76 babies per woman), Sydney SD was similar to the national average, while the remaining top ten SDs were higher.

All of the top ten most disadvantaged SDs were in rural regions of Australia, two were in New South Wales, two in Queensland, two in South Australia, one in Western Australia and the Northern Territory and two in Tasmania. All of these SDs experienced fertility rates above the national level, with North West Queensland SD showing the highest fertility rate of 2.3 babies per woman. The two most disadvantaged SDs in Australia were the Northern Territory Balance and the Kimberley region of Western Australia. Both of these SDs have a high Indigenous population (44% and 51% respectively) and high fertility rates (both with an average of 2.3 babies per woman).

2.28 TOP TEN STATISTICAL DIVISIONS, SEIFA Index of Disadvantage

Statistical Division	*State or Territory*	*SEIFA–Disadvantage* Index(d)	*SEIFA–Education/Occupation* Index(d)	*Total fertility(a)* rate	*Births(a)* no.	*Estimated resident population(b)* no.	*Indigenous population(c)* %
Least disadvantaged							
Canberra	ACT	1 091	1 121	1.539	3 972	308 086	1.0
Sydney	NSW	1 027	1 039	1.703	55 006	3 986 723	1.0
Darwin	NT	1 027	1 046	2.007	1 572	86 576	10.0
Melbourne	Vic.	1 025	1 028	1.582	43 774	3 371 308	0.3
Perth	WA	1 020	1 012	1.655	17 253	1 341 914	1.5
Brisbane	QLD	1 010	1 004	1.664	20 995	1 574 615	1.6
Ovens-Murray	Vic.	1 007	986	1.953	1 126	90 102	0.5
Wimmera	Vic.	1 006	971	1.930	593	51 689	0.7
Upper Great Southern	WA	1 005	942	2.606	337	19 841	4.2
South Eastern	NSW	1 004	988	2.042	2 247	180 594	2.1
Most disadvantaged							
Northern Territory - Bal	NT	909	969	2.339	2 063	103 415	43.8
Kimberley	WA	913	967	2.329	553	27 716	50.6
Far West	NSW	919	929	2.042	322	24 603	6.4
Northern (SA)	SA	926	934	1.981	1 129	82 919	7.7
Wide Bay-Burnett	QLD	926	908	2.152	2 995	230 642	2.7
Murray Lands	SA	939	904	2.145	906	68 450	2.8
North West	QLD	940	929	2.347	687	35 782	24.3
Southern	Tas.	942	914	2.061	1 515	34 619	6.3
Mersey-Lyell	Tas.	945	926	2.265	470	109 063	4.5
Mid-North Coast	NSW	947	949	2.048	2 946	268 697	3.3

(a) Average total fertility rate and average births, 1997 and 1998 births and 1997 estimated resident population on 1996 ASGC boundaries.

(b) Estimated resident population as at 30 June 1998 (preliminary) on 1998 ASGC boundaries.

(c) Proportion of the total population at 30 June 1996.
Source: ABS, Experimental Estimated Aboriginal and Torres Strait Islander Population (unpublished).

(d) An index score of 1,000 is the average standardised score which allows for easy recognition of high and low scores. Therefore, the further above 1,000, the higher the region's placing on the index, and the further below 1,000 the lower the region's placing.

Regional Comparison *continued*

When looking at the SEIFA Index at the SLA level, four of the top ten least disadvantaged SLAs are in Sydney, two are in Canberra, three in Brisbane and one in Perth. These SLAs also have fairly low fertility rates, with only Brookfield (incl. Mt C'tha) in Brisbane and Garran in Canberra (both 1.9) experiencing a total fertility rate higher than the SDs which they are in (Brisbane 1.7 and Canberra 1.5) and higher than the national average of 1.76.

Eight of the ten most disadvantaged regions of Australia were in remote areas of the Northern Territory, one was in Adelaide and the other in Brisbane. The total fertility rate of these regions were also fairly high with only one region, Tanami in the Northern Territory, experiencing a total fertility rate slightly lower than the national average. All of the top five most disadvantaged regions, which are in the Northern Territory, have a large Indigenous population, with over 85% of each region identified as Indigenous.

2.29 TOP TEN STATISTICAL LOCAL AREAS, SEIFA Index of Disadvantage

Statistical Local Area	*State or Territory*	*SEIFA–Disadvantage* Index(d)	*SEIFA–Education/Occupation* Index(d)	*Total fertility(a)* rate	*Births(a)* no.	*Estimated resident population(b)* no.	*Indigenous population(c)* %
Least disadvantaged							
Ku-ring-gai (A)	NSW	1 174	1 207	1.567	874	106 235	0.8
Fadden	ACT	1 172	1 166	1.494	31	3 520	0.1
Brookfield (incl. Mt C'tha)	QLD	1 170	1 194	1.850	33	2 970	0.1
Mosman (A)	NSW	1 165	1 208	1.232	318	27 617	0.1
Chapel Hill	QLD	1 161	1 204	1.297	79	10 333	0.1
Woollahra (A)	NSW	1 148	1 202	1.028	506	53 522	0.3
Westlake	QLD	1 148	1 138	1.299	31	3 618	0.2
Garran	ACT	1 145	1 195	1.935	38	2 830	0.5
Cottesloe (T)	WA	1 144	1 205	1.104	62	7 535	0.6
Lane Cove (A)	NSW	1 143	1 188	1.386	379	31 415	0.2
Most disadvantaged(e)							
East Arnhem - Bal	NT	633	829	2.591	169	6 474	96.0
Tanami	NT	647	844	1.751	114	6 570	91.3
Bathurst-Melville	NT	672	893	2.232	48	2 198	96.1
Gulf	NT	703	838	3.849	96	2 775	87.4
West Arnhem	NT	704	891	2.604	102	4 220	93.4
Inala	QLD	731	811	2.466	249	13 537	8.2
Enfield (C) - Pt B	SA	741	830	1.898	223	15 905	2.1
Victoria	NT	755	866	2.884	62	2 513	81.8
Sandover - Bal	NT	758	899	4.301	91	2 388	86.0
Tennant Creek - Bal	NT	768	897	1.887	31	1 839	79.7

(a) Average total fertility rate and average births, 1997 and 1998 births and 1997 estimated resident population on 1996 ASGC boundaries.

(b) Estimated resident population as at 30 June 1998 (preliminary) on 1998 ASGC boundaries.

(c) Proportion of the total population at 30 June 1996.
Source: ABS, Experimental Estimated Aboriginal and Torres Strait Islander Population (unpublished).

(d) An index score of 1,000 is the average standardised score which allows for easy recognition of high and low scores. Therefore, the further above 1,000, the higher the region's placing on the index, and the further below 1,000 the lower the region's placing.

(e) Excludes regions with less than 30 births during 1998.

COMPLETED FERTILITY

Table 2.23 shows the average number of babies that a cohort of women had over their reproductive lives. This is calculated in a similar way to the total fertility rate, except that instead of adding the age-specific fertility rates prevailing in a given year, the actual age-specific fertility rates experienced by a cohort of women born in a given year are summed.

2.30 COMPLETED FERTILITY(a), Year of Birth of Woman

Year of birth	*Average issue* no.	*Proportion based on projected births(b)* %	*Median age (all births)* years
1905	2.296	—	27.8
1910	2.333	—	28.8
1915	2.430	—	28.9
1920	2.649	—	28.2
1925	2.803	—	27.6
1930	3.034	—	27.0
1935	3.044	—	26.0
1940	2.758	—	25.4
1945	2.304	—	25.4
1950	2.168	—	26.4
1955	2.177	0.4	27.2
1960	2.168	4.9	27.9
1965	2.060	23.9	28.7
1970	1.933	58.8	29.4
1975	1.844	85.6	29.7
1980	1.783	98.3	30.0

(a) Based on age-specific fertility rates derived from birth registrations. Cohorts which have not yet completed their fertility are assumed to experience a fertility rate dropping to 1.75 over 10 years, with an increasing age of motherhood.

(b) Proportion of the estimated average derived from projected fertility.

An alternative way of generating a similar estimate is to use the 1996 Census question 'For each female, how many babies has she ever had?' and use the age question to determine the year of birth.

Cohorts of women born since 1955 have not completed their fertility, and so an assumption has to be made about future fertility patterns of these women. Using analysis of mothers with infants from the Census it is possible to generate assumptions about future age and birth-order specific fertility rates. This gives an indication of what would happen to family size if current patterns were to continue.

Probably the most significant factors in the fall in average issue, from the peak of women born around 1930 to the more recent cohorts, has been the rise in childlessness. The number of women who remain childless throughout their lives has increased from 9% for women born in 1930 to what could become around 27% if current patterns continue. There has also been a significant fall in the proportion of women having large families: 9% of women born in 1930 had six or more children, compared to 2% of women born in 1950.

2.31 NUMBER OF CHILDREN EVER BORN, Year of Birth of Woman

	NUMBER OF CHILDREN EVER BORN									
	0	*1*	*2*	*3*	*4*	*5*	*6*	*Average*	*Women in cohort*	*Proportion of projected births(a)*
Year of birth	%	%	%	%	%	%	%	no.	no.	%
1905	19.5	18.5	24.3	16.6	10.3	4.4	6.3	2.182	6 666	—
1910	16.6	16.7	26.0	17.6	10.6	5.5	7.0	2.331	18 617	—
1915	14.0	14.8	27.1	20.0	11.6	5.8	6.8	2.448	31 684	—
1920	11.9	13.3	26.8	20.9	12.6	6.7	7.8	2.602	47 135	—
1925	10.8	11.1	26.3	22.0	14.3	7.3	8.2	2.725	56 629	—
1930	9.5	9.1	24.9	23.5	15.7	8.2	9.0	2.876	63 560	—
1935	8.7	7.8	25.7	25.8	16.9	7.7	7.4	2.871	62 221	—
1940	8.9	7.7	30.2	27.6	14.9	6.1	4.6	2.683	76 935	—
1945	9.9	9.2	36.8	26.8	11.4	3.6	2.3	2.406	94 706	—
1950	11.0	10.4	39.1	25.3	9.8	2.8	1.6	2.275	121 031	—
1955	13.0	11.5	37.9	24.6	9.1	2.4	1.4	2.183	125 457	0.6
1960	14.9	12.0	37.6	23.2	8.6	2.0	1.6	2.111	140 667	6.6
1965	20.2	13.3	35.2	20.5	7.5	1.6	1.8	1.940	128 169	28.4
1970	25.7	12.2	32.5	19.1	7.2	1.4	1.9	1.817	130 443	64.5
1975	27.8	10.6	32.0	19.0	7.2	1.4	1.9	1.790	120 759	89.1
1980	26.6	11.9	32.0	19.1	7.2	1.4	1.9	1.801	105 789	98.8

(a) Some birth cohorts had not completed their fertility by the 1996 Census. These groups were assumed to have the fertility patterns shown in the 1996 Census. This column shows the proportion of the births which are estimated using this method.

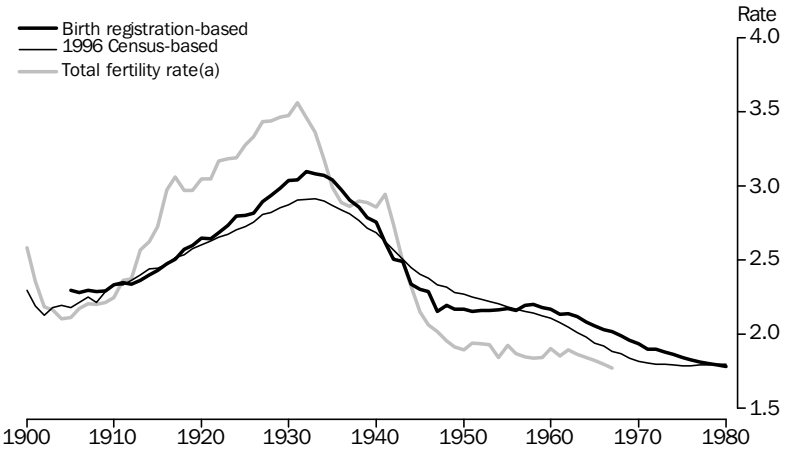
Source: ABS, 1996 Census of Population and Housing.

Completed fertility follows a similar pattern to the total fertility rate. The highest average completed fertility was for women born in 1932 (registration basis) or 1933 (1996 Census basis).

The experience of a cohort of women can be thought of as an average of the prevailing attitudes and patterns that occurred throughout their lives. So while women born in 1930 lived through the peak of the baby boom, they also lived through the build-up to the baby boom, and the aftermath of the baby boom. Because of this, their average completed fertility does not reach the heights of the peak of the baby boom.

The two measures of completed fertility give similar results. The differences are due to a number of factors. The 1996 Census measure includes births which occurred in other countries to women who later migrated to Australia. Women who died, or emigrated from Australia before the 1996 Census are not included in this measure. If these women had a different pattern of fertility to those who survived and stayed in Australia, then this would affect the results.

2.32 AVERAGE COMPLETED FERTILITY AND TOTAL FERTILITY RATE



(a) The total fertility rate has been lagged by 30 years to facilitate comparison of the different series. Hence the completed fertility of women can be compared to the total fertility rate prevailing while they were at or near their peak fertility.

COHORT FERTILITY

The following analysis on cohort fertility compares the fertility patterns of women in selected age groups over a period of time. The 1996 Census of Population and Housing asked the question 'For each female, how many babies has she ever had?' This question provides the information about the level of fertility of these different age groups. The 1981 and 1986 Censuses also asked similar questions.

The decline in fertility reflects both the increase in childlessness and the decrease in the proportion of women having more than three children. Data from the 1996 Census indicates that 12% of women aged 40–44 years, who have effectively completed their fertility, have not had any children, compared to 8% in the 1981 Census and 9% in the 1986 Census. At the same time, the proportion of women aged 40–44 years who have had three or more children has declined, from 52% in 1981 to 36% in 1996.

Increasing delays in childbearing among younger women are evident when comparing the 1996, 1986 and 1981 Censuses. There were 60% of women aged 20–24 years in 1981 that had not had a child, by 1986 this had increased to 67% and in 1996 to 76%. A similar trend is evident for women aged 25–29 years, the peak age for fertility. In 1981, 32% had not had a child, increasing to 40% in 1986 and to 53% in 1996.

The average number of children ever born to a woman, or average issue, is another indicator of the decline in fertility. When comparing the three Censuses, the average issue has declined for each five year age group. For women aged 40–44 years, the average issue declined from 2.6 in 1981 to 2.1 in 1996.

2.33 NUMBER OF CHILDREN EVER BORN AND AVERAGE ISSUE, Specific Age Groups of Women

		NUMBER OF CHILDREN EVER BORN.....						
		0	*1*	*2*	*3*	*4 or more*	*Female population*	*Average issue*
Age of women/birth cohort	*Source*	%	%	%	%	%	no.	no.
20–24 years								
Birth cohort of								
1972–1976	1996 Census	75.8	10.8	4.8	1.2	0.4	666 209	0.27
1962–1966	1986 Census	66.5	12.9	6.8	1.5	0.4	633 133	0.37
1957–1961	1981 Census	60.3	15.0	8.3	1.9	0.4	618 422	0.45
25–29 years								
Birth cohort of								
1967–1971	1996 Census	53.2	18.3	15.3	5.6	2.1	689 929	0.78
1957–1961	1986 Census	39.6	19.3	22.3	8.5	2.8	648 677	1.09
1952–1956	1981 Census	32.3	19.8	26.7	10.4	3.3	592 511	1.27
30–34 years								
Birth cohort of								
1962–1966	1996 Census	27.7	17.9	29.3	14.3	6.1	708 094	1.51
1952–1956	1986 Census	18.7	14.5	33.9	18.7	7.9	618 060	1.82
1947–1951	1981 Census	14.3	12.7	36.5	20.9	9.4	591 563	1.98
35–39 years								
Birth cohort of								
1957–1961	1996 Census	16.0	12.8	35.1	21.3	10.5	720 470	1.97
1947–1951	1986 Census	11.2	9.8	36.4	23.6	12.6	612 070	2.18
1942–1946	1981 Census	9.3	8.5	33.6	25.3	17.0	479 557	2.34
40–44 years								
Birth cohort of								
1952–1956	1996 Census	12.2	10.8	36.5	23.5	12.5	668 407	2.14
1942–1946	1986 Census	9.0	8.1	33.2	25.2	17.6	482 617	2.37
1937–1941	1981 Census	7.9	7.1	27.2	25.7	25.8	401 102	2.58

Source: ABS, 1996 Census of Population and Housing.

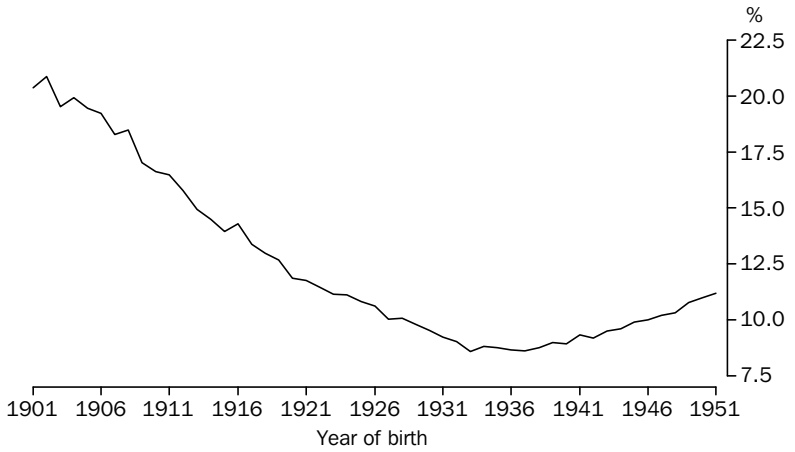
The proportion of Australian women who were childless at the end of their reproductive life has changed over time, from between an estimated 20% to 30% of women born at the beginning of the century, to 11% of women born at the beginning of the 1950s. For women born more recently childlessness appears to be on the rise. Childlessness of women may be influenced by factors such as their cultural background, educational level, and labour force participation.

CHILDLESSNESS IN AUSTRALIA

Based on the 1996 Census enumeration, 20% of women who were born in the year of Federation were childless. This figure is based on women who had survived to the 1996 Census, a select group who were aged 95 years at the time. Data from the 1981 and 1986 Censuses indicates a similar level of childlessness for women born in 1901.

In contrast, Rowland (1998) estimates the level of childlessness among women born in the period 1900–1904 to be around 30% (using information on childlessness of wives enumerated in the 1954 Census (19%) and making an assumption about childlessness among never married women). His calculations of childlessness, as well as information on all women aged 45 years and over from the 1996 Census, suggest that the lifetime childlessness decreased consistently, to a low of around 9% for women born in the early to late 1930s. These women experienced their reproductive life in the post-World War II baby boom. The rates of childlessness for women born since 1943 have increased consistently, and of women born in 1951, who were aged 45 years at the time of the 1996 Census, 11% were childless.

CHILDLESSNESS OF WOMEN AGED 45 YEARS OR MORE IN 1996, Year of birth



The high level of childlessness among those born in the early twentieth century is believed to be related to childlessness within marriage. This was due to avoidance of childbearing during the Great Depression, and family disruption due to the Second World War. Rates of childlessness were reduced among women who were in their reproductive years during a period of fifteen to twenty years after the Second World War. During this 'baby boom' period the proportion of women having children increased (Rowland 1998:6-7).

ESTIMATED CHILDLESSNESS *continued*

Censuses can only provide information on lifetime childlessness of women who began their reproductive life 30 years ago or more. Lifetime childlessness among women who are younger can only be estimated. Women who are entering and passing through their reproductive years in the 1990s are being influenced by different social values and economic conditions, and thus their completed fertility may be substantially different. Current levels of childlessness can be estimated (based on fertility of all women currently in the childbearing ages) by calculating how many women will have a first birth.

Based on the 1996 Midwives Collection (the most recent year for which this data is available) 72% of all women will have a first birth, therefore implying that 28% of women will not have children. This is a slight increase from the 1991 Midwives collection, when it was calculated that 27% of women would remain childless. As this is a synthetic measure this level of childlessness may not eventuate for the actual birth cohorts of the 1990s.

Studies suggest (McIntosh 1998, McDonald 1998) that the reason for currently declining fertility in low fertility countries is the conflict between a woman's desire to participate in higher education and the labour force, with her desire to have children. This conflict may also be the basis of the increasing levels of childlessness.

These studies suggest that conflict arises when trying to balance the desired family size with the circumstances under which child bearing takes place. Apart from the high financial cost of raising children, there is the time needed for their care, requiring the absence of one parent from the labour force, or the imposition of further financial costs for the use of professional child care.

REASONS FOR CHILDLESSNESS

Childlessness of a woman may be involuntary or voluntary. Involuntary childlessness mainly occurs in two ways. Firstly a woman, or her partner, may be infertile. It is estimated that around five to eight percent of couples in the developed world are unable to have children (cited in Webb and Holman 1992). However this can be overcome through adoption, or increasingly, through modern interventionist methods such as in-vitro fertilisation (Stephen 1999:2). Not being in a marriage may be another reason for involuntary childlessness. In Australia this reason was more important in the past than currently, with 29% of births in 1998 being ex-nuptial.

Voluntary childlessness

Voluntary childlessness can stem from a number of reasons. Baum (1994) identified from her studies four main categories of reasons given by women for their state of voluntary childlessness:

Hedonists—women who choose to remain childless through a desire to preserve their standard of living and who are unwilling to invest either their time or money in raising children.

Emotional—women who do not have emotional feelings for babies or children.

Idealistic—women who do not want to bring a child into a world they feel is unsuitable, or who do not want to contribute to overpopulation.

Voluntary childlessness *continued*

Practical—women who have a practical reason for being childless, such as desire to pursue their career, or a fear of passing on a genetic defect to their child.

Voluntary childlessness of a temporary nature may involuntarily become a permanent state. For example, women who delay their childbearing may find themselves unable, at a later age, to conceive or carry a pregnancy to term. Using data on the 1965 marriage cohort in Germany, Schwarz (cited in Rowland 1998) calculated that 'almost all couples who have remained childless for about 10 years will remain childless for ever'.

CHILDLESSNESS AS MEASURED BY THE 1996 CENSUS

According to the 1996 Census, the rate of childlessness amongst Australian women aged 45 years was 11%, compared to 9% of women of that age in the 1986 Census (based on women who stated their total number of children ever born). Childlessness of women may be influenced by both cultural and social factors, such as country of birth, indigenous origin, religious affiliation and educational attainment.

Country of birth

The proportion of women who are childless varies by their country of birth. At the 1996 Census, 11% of Australian-born women aged 45 years (69% of all women at this age) 11% were childless. However, higher rates of childlessness were found among women aged 45 years who were born in Japan (28%), Thailand (27%), the United States of America (25%), Canada (22%), and Singapore (21%). Conversely, the lowest rates of childlessness where found among women aged 45 years who were born in Portugal (3%), and Turkey, Greece, Taiwan and Croatia (4% each).

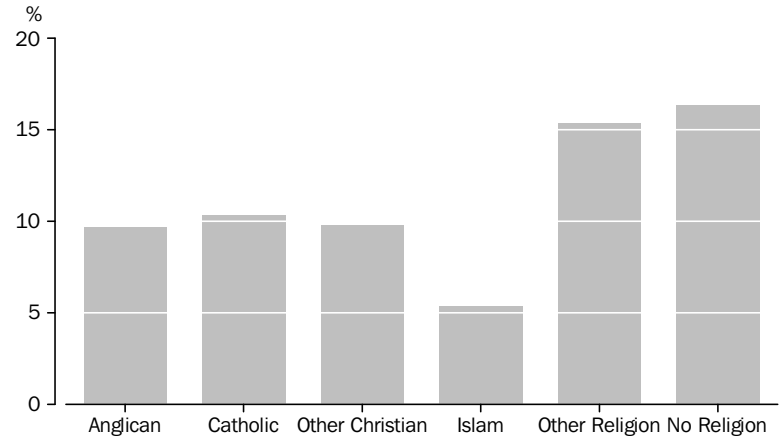
Indigenous origin

Indigenous women had a lower rate of childlessness than non-Indigenous women. Of those women aged 45 years, who were recorded as being of Indigenous origin at the 1996 Census, 8% were childless, three percentage points less than their non-Indigenous counterparts.

Religious affiliation

Religious beliefs may affect a woman's decision to have children. Different belief systems place different values on the importance of family, the role of women in society and the acceptability of controlling fertility. Of those women aged 45 years who answered the 1996 Census question concerning religious affiliation, those who were recorded as having no religion showed the highest level of childlessness (16%). Women of an Islamic faith had the lowest level of childlessness (5%), whilst the proportions of Catholic and Anglican women who were childless were around 10% each.

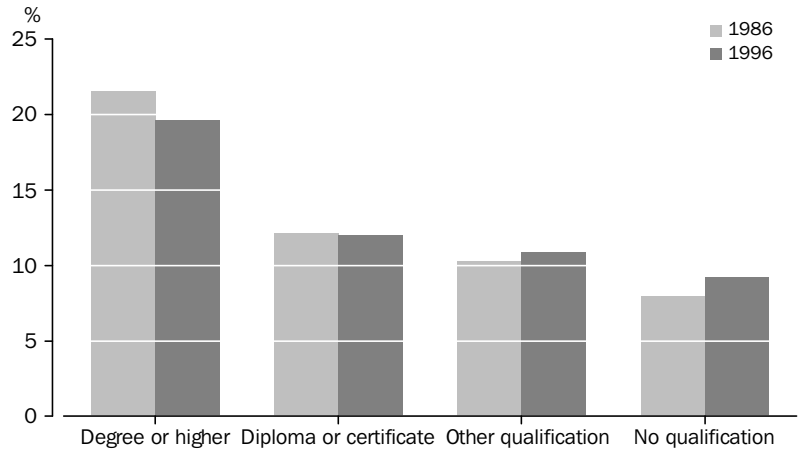
CHILDLESSNESS BY RELIGIOUS AFFILIATION, 1996 Census



Highest educational attainment

Levels of educational attainment also seem to affect rates of childlessness. The 1996 Census data revealed a positive relationship between childlessness and the highest level of educational attainment achieved by a women aged 45 years. Women with an undergraduate degree or higher level qualification were the most likely to be childless (20%). Of those women who had attained a diploma or certificate 12% were childless, compared to 9% of women who had no tertiary qualifications. The proportion of childlessness is higher among more educated women as they delay childbearing to concentrate on their education and career. These women may then choose never to have children, or find themselves unable to have a child at later ages. However since 1986, the gap between levels of childlessness by educational level has narrowed. This may be due to the trend towards childlessness becoming more widespread among women of all backgrounds.

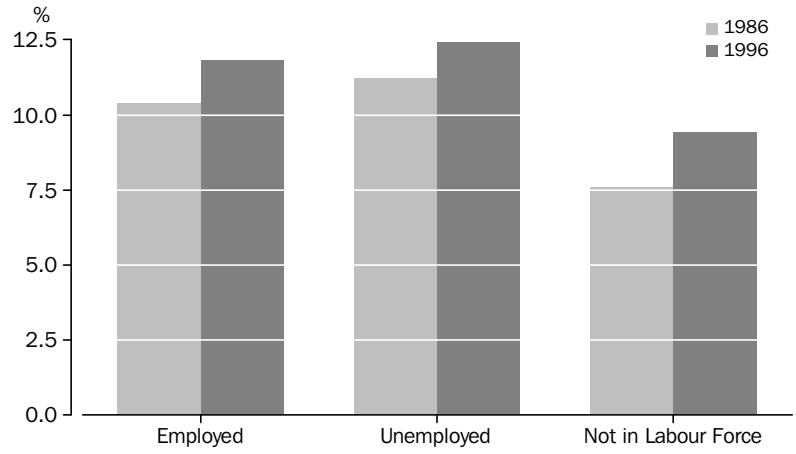
CHILDLESSNESS BY HIGHEST EDUCATIONAL QUALIFICATION ACHIEVED, 1996 Census



Labour force participation

Levels of childlessness also vary with labour force status. For women aged 45 years whose total issue was recorded at the 1996 Census, levels of childlessness were higher for those who were in the labour force (12%) or who were unemployed (12%), compared to those who were not in the labour force (9%). This pattern has held since the 1986 Census, although the level of childlessness has increased. It is important to remember, however, that while a women who is childless at the end of her reproductive life has always been so, a woman's labour force status at this age may bear no relation to her labour force status throughout her reproductive years.

CHILDLESSNESS BY LABOUR FORCE STATUS, 1996 Census



CHAPTER 3 PREVIOUS BIRTHS

DATA SOURCES

There are two births collections analysed in this chapter; Birth Registration data and data from the Midwives' Collection. The Birth Registration analysis relates to previous births of the current relationship while the analysis from the Midwives' Collection (1996 is the latest data published) relates to all previous births. The impact of this difference is for birth registration data to overstate the number of first births, and understate subsequent births. In 1996, 47% of births (Midwives' Collection) were the first birth of that relationship, but only 40% were the first birth of the mother. This indicates that around 7% of all mothers had babies to different fathers.

BIRTH REGISTRATION DATA

The number of previous births a mother has had provides an indication of the size of families being created. Around 41% of married women who registered a birth during 1998 were first-time mothers, a proportion which has only increased by two percentage points in the past 20 years. Similarly, the proportion of married women who have had one previous birth fluctuated between 34% and 36% throughout the past two decades, (36% in 1998). The proportion of women who have had two or more previous births also remained relatively unchanged at 23% in 1998, compared to 26% in 1978.

3.1 NUPTIAL CONFINEMENTS, Previous Births of Mother

PREVIOUS BIRTHS OF THE CURRENT RELATIONSHIP

Selected years	*0*	*1*	*2*	*3*	*4*	*5 and over*	*Not stated*	*Total*
1978	76 999	68 759	34 783	11 248	3 307	2 358	7	197 461
1983	83 466	70 427	34 081	11 343	3 108	1 878	476	204 779
1988	79 841	68 432	33 419	10 650	2 856	1 699	3	196 900
1993	77 718	68 389	31 801	10 145	2 731	1 733	—	192 518
1994	77 166	67 123	31 118	9 598	2 500	1 655	—	189 160
1995	75 606	66 175	30 252	9 200	2 504	1 641	—	185 378
1996	73 873	65 293	29 167	9 037	2 590	1 589	—	181 549
1997	73 356	64 341	28 047	8 621	2 366	1 548	—	178 279
1998	72 276	63 446	27 284	8 335	2 320	1 501	—	175 162

Age of mother

In 1998 there were 236,800 nuptial and ex-nuptial confinements registered where paternity was acknowledged. Nearly half (48%) of these mothers had their first birth in the current relationship, 32% already had a child with their current partner, and 13% already had two children. The majority (53%) of first-time mothers were aged between 24 and 31 years, 11% were 20 years or under and 11% were 35 years or older.

3.2 CONFINEMENTS(a), Age and Previous Births of Mother

Age (years)	PREVIOUS BIRTHS OF THE CURRENT RELATIONSHIP								
	0	*1*	*2*	*3*	*4*	*5 and over*	*Total confinements*	*Total issue*	*Average issue*
15 and under	204	—	—	—	—	—	206	208	1.0
16	757	20	—	—	—	—	778	804	1.0
17	1 627	87	5	—	—	—	1 720	1 835	1.1
18	2 433	294	18	—	—	—	2 747	3 103	1.1
19	3 348	621	71	5	—	—	4 045	4 853	1.2
20	3 765	1 045	159	19	—	—	4 988	6 438	1.3
21	4 060	1 439	283	39	4	—	5 825	8 021	1.4
22	4 635	1 995	422	76	9	—	7 139	10 313	1.4
23	5 283	2 416	728	142	19	5	8 593	13 090	1.5
24	6 102	2 976	908	209	47	6	10 248	16 008	1.6
25	7 131	3 767	1 160	281	80	11	12 430	19 877	1.6
26	8 214	4 529	1 446	425	71	32	14 717	24 023	1.6
27	8 651	5 341	1 776	511	112	39	16 430	27 718	1.7
28	8 559	5 922	2 077	542	144	61	17 305	30 168	1.7
29	8 253	6 299	2 349	650	189	74	17 814	32 178	1.8
30	7 418	6 205	2 439	678	152	85	16 977	31 432	1.9
31	6 511	5 959	2 527	755	193	115	16 060	31 021	1.9
32	5 563	5 618	2 667	732	214	105	14 899	29 756	2.0
33	4 699	4 946	2 583	783	231	108	13 350	27 609	2.1
34	4 171	4 475	2 363	729	206	133	12 077	25 266	2.1
35	3 420	3 587	2 037	728	234	159	10 165	22 069	2.2
36	2 676	2 859	1 735	619	180	149	8 218	18 159	2.2
37	2 150	2 217	1 180	504	170	150	6 371	14 154	2.2
38	1 574	1 570	862	372	139	118	4 635	10 392	2.2
39	1 223	1 112	604	288	113	117	3 457	7 888	2.3
40	834	696	393	195	84	87	2 289	5 263	2.3
41	539	430	219	126	57	75	1 446	3 424	2.4
42	366	279	121	67	44	41	918	2 111	2.3
43	188	152	80	38	24	26	508	1 214	2.4
44	85	48	32	10	11	18	204	541	2.7
45	47	23	13	9	4	9	105	255	2.4
46	20	13	4	—	—	3	44	103	2.3
47	13	—	3	—	—	3	22	58	2.6
48	6	—	—	—	—	—	9	18	2.0
49	—	—	—	—	—	—	—	—	1.0
50 and over	8	3	—	—	—	—	13	26	2.0
Not stated	15	4	4	—	—	—	24	40	1.7
Total	**114 550**	**76 952**	**31 271**	**9 538**	**2 734**	**1 733**	**236 778**	**429 438**	**1.8**

(a) Excludes paternity-not-acknowledged.

About 34% of births to 35–39 year old women were the first birth of their current relationship. Among 40–44 year old women this increased to 38% and among women aged 45 years and over increased to 49%. This may indicate that a high proportion of births to women in this age group are to divorced and repartnered women who have a child with their new partner.

3.3 AGE-SPECIFIC FERTILITY RATES, Previous Births of Current Relationship

	AGE OF MOTHER							
Previous births	*15–19*	*20–24*	*25–29*	*30–34*	*35–39*	*40–44*	*45 and over*	*Total*
Paternity-not-acknowledged	3.6	4.3	2.7	1.7	0.9	0.2	0.0	67.0
0	13.1	35.8	55.7	40.1	14.7	2.9	0.1	812.2
1	1.7	15.2	36.0	39.3	15.5	2.3	0.1	550.6
2	0.2	3.9	12.4	18.4	8.9	1.2	0.0	225.6
3	0.0	0.8	3.5	5.5	3.5	0.6	0.0	69.5
4	0.0	0.2	1.2	2.3	2.1	0.7	0.0	32.4
Total	18.5	60.2	111.4	107.3	45.7	8.0	0.3	1 757.4

MIDWIVES' COLLECTION

Midwives' data from 1996 indicates that 72% of women had a first birth. As this is a measure of first ever births, and not first births in the current relationship, it is valid to interpret this as meaning that on current rates 72% of women will give birth to a child at some time in their lives, and 28% will not. On the rates prevailing in 1996, of those women who have children, 11% will have one child only, 32% will have two children, 18% will have three and 11% will have four or more.

Just as the total fertility rate does not measure the actual experience of cohorts of women, this measure does not either. However analysis of Midwives' data from 1991 to 1996, and of the 1996 Census (see page 39) indicates that there are very few short-term fluctuation in these levels.

For 1996, Midwives' data indicates a total fertility rate of 1.794, compared with 1.796 from Birth Registrations. This discrepancy is discussed on pages in the Appendix on page 89.

3.4 MIDWIVES' COLLECTION, Previous Births and Age of Mother—1996

	AGE OF MOTHER							
Previous births	*15–19*	*20–24*	*25–29*	*30–34*	*35–39*	*40 and over*	*Not stated*	*Total*
None	10 960	24 869	35 084	21 958	6 672	996	28	100 567
One	2 131	14 506	29 152	28 291	10 465	1 403	20	85 968
Two	235	4 771	12 307	15 803	7 504	1 104	11	41 735
Three	21	1 282	4 101	5 897	3 679	627	5	15 612
Four or more	21	413	1 957	3 305	2 798	882	3	9 379
Not stated	5	22	44	49	26	4	—	152
Total	13 373	45 863	82 645	75 303	31 144	5 016	69	253 413

Source: P. Day, E. A. Sullivan & P. Lancaster, *Australia's mothers and babies, 1996,* AIHW National Perinatal Statistics Unit: Perinatal Statistics Series no. 7, Sydney, 1999.

3.5 MIDWIVES' COLLECTION, Age and Birth Order-specific Fertility Rates—1996

	AGE GROUP (YEARS)						
Previous births	*15–19*	*20–24*	*25–29*	*30–34*	*35–39*	*40 and over*	*Total*
None	17.6	36.1	49.6	30.3	9.1	1.5	721.3
One	3.4	21.1	41.2	39.1	14.3	2.1	606.0
Two	0.4	6.9	17.4	21.8	10.3	1.6	292.3
Three	—	1.9	5.8	8.1	5.0	0.9	109.0
Four or more	—	0.6	2.8	4.6	3.8	1.3	65.5
Total	21.4	66.6	116.7	104.0	42.7	7.4	1 794.1

Source: P. Day, E. A. Sullivan & P. Lancaster, *Australia's mothers and babies, 1996,* AIHW National Perinatal Statistics Unit: Perinatal Statistics Series no. 7, Sydney, 1999.

Nationally, 40% of births were first births. This proportion, and the distribution of subsequent births did not vary greatly between most States and Territories. The Northern Territory, with a total fertility rate considerably higher than the Australian level, had higher proportions of higher order births. The Australian Capital Territory, with the lowest total fertility rate, had the highest proportion of first and second births. Tasmania, despite having a total fertility rate similar to the national average, had a distribution of birth orders that varied substantially from the other States, with a lower proportion of first births, and a higher proportion of fourth and fifth births. One possible explanation for this is that a higher proportion of Tasmanian women had no babies, but those that did had more children than women in other States.

3.6 MIDWIVES' COLLECTION, Previous Births — 1996

	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.(a)*	*NT*	*ACT*	*Aust.*
Previous births	%	%	%	%	%	%	%	%	%
None	40.2	39.7	39.4	39.7	40.0	35.0	37.8	40.7	39.7
One	33.6	35.3	32.8	35.6	33.6	31.1	28.4	35.9	33.9
Two	16.4	16.5	16.8	15.8	16.3	17.9	16.2	15.8	16.5
Three	6.2	5.6	6.6	5.7	6.3	8.7	7.7	5.2	6.2
Four or more	3.6	2.9	4.4	3.1	3.7	7.4	9.8	2.3	3.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) 1996 data for Tasmania unavailable, 1995 data used as estimate..

Source: P. Day, E. A. Sullivan & P. Lancaster, *Australia's mothers and babies, 1996,* AIHW National Perinatal Statistics Unit: Perinatal Statistics Series no. 7, Sydney, 1999.

Since the 1960s Australia's fertility has been declining. Components of this decline include an increase in the proportion of women who have one or no children and a decline in the proportion of women who have large families (three or more children), leading to a convergence on the two child family. This article examines some social and economic characteristics that distinguish women who have three or more children from women who only have two children.

Women studied are those who were aged 45–49 years in 1996, had completed or almost completed their child bearing and for whom their total issue (the number of children born (live births) to each female) was recorded at the 1996 Census.

DISTRIBUTION OF CHILDREN EVER BORN

In both 1986 and 1996 the most common completed family size of all women aged 45–49 years was two children, followed by three children. The proportion of women who have two children has increased from 29% in 1986 to 39% in 1996. Over the same period, the proportion of women having three or more children (larger families) has decreased from 54% to 40%. The proportion of women having one or no children has increased. Of women who have larger families, the majority have three children.

NUMBER OF CHILDREN EVER BORN, Women aged 45–49 years

	1986 CENSUS....		1996 CENSUS....	
Number of children ever born	no.	%	no.	%
None	33 295	9.0	64 550	10.7
One	27 863	7.5	61 077	10.1
Two	107 444	29.0	235 105	39.0
Three	100 609	27.2	154 204	25.6
Four	57 866	15.6	60 441	10.0
Five	23 813	6.4	17 322	2.9
Six or more	19 514	5.3	9 883	1.6
Total stated	**370 404**	**100.0**	**602 582**	**100.0**
Total not stated	28 676	7.2	23 156	3.7

BIRTH COHORTS AND LARGER FAMILIES

Completed fertility reveals that women who were born in the years from 1922–41 had a higher proportion of three or more children. This reflected the preference for larger families that existed at the time when these women experienced most of their child bearing (in the years following World War II). The trend towards smaller families emerged for women born in 1942–46 and subsequent years. The completed family size of older women only reflects those who were still alive at the 1996 Census.

COMPLETED FAMILY SIZE AND AGE (BIRTH YEAR) OF COHORTS, 1996 Census

Age at 1996 Census	Year of birth years	No children %	One child %	Two children %	Three or more children %
40–44	1952–56	12.8	11.3	38.2	37.7
45–49	1947–51	10.7	10.1	39.0	40.1
50–54	1942–46	9.7	8.9	35.7	45.7
55–59	1937–41	8.9	7.8	29.2	54.0
60–64	1932–36	8.8	8.0	25.4	57.9
65–69	1927–31	9.7	9.4	25.2	55.7
70–74	1922–26	11.0	11.5	26.3	51.2
75–79	1917–21	12.4	13.4	26.6	47.5
80–84	1912–16	14.6	15.2	26.6	43.6
85+	1911 and earlier	18.0	17.3	25.4	39.3
Total		**11.0**	**10.4**	**32.1**	**46.5**

EDUCATION AND COMPLETED FAMILY SIZE

A number of studies have found an inverse relationship between female's educational attainment and fertility (Rowland 1989:3; Beets et al 1997:19). These studies have shown that women who have larger families often have lower levels of education than women with smaller families or no children. Data from the 1996 Census confirms such a relationship (for more information see socio-economic conditions and fertility on page 33).

Women aged 45–49 years at the 1996 Census with larger families left school at an earlier age than women with two children. A greater proportion of women with three or more children (15%) left primary or secondary school when they were 14 years or younger compared to women with two children (11%). Also a higher proportion of women with two children (30%) left school at age 17 years or older compared to women with three or more children (26%).

COMPLETED FAMILY SIZE AND AGE LEFT SCHOOL, Women aged 45–49 years, 1996 Census

Age left school	2 children %	3 or more children %
Still at school	0.4	0.5
Never attended school	0.4	1.0
14 years or younger	11.0	14.7
15 years	30.8	31.7
16 years	25.0	23.2
17 years	17.5	15.8
18 years	9.4	7.4
19 years and older	3.6	3.0
Not stated	2.1	2.6
Total	**100.0**	**100.0**

EDUCATION AND COMPLETED FAMILY SIZE *continued*

Women aged 45–49 years at the 1996 Census with larger families were more likely to not have any post-school qualifications (67% compared to 63% of women with two children). A lesser proportion of women with three or more children completed every category of post-school qualifications than women with two children.

COMPLETED FAMILY SIZE AND LEVEL OF POST-SCHOOL QUALIFICATION, Women aged 45–49 years, 1996 Census

Highest level of post-school qualification attained	*2 children* %	*3 or more children* %
No post-school qualifications	62.9	67.2
Vocational qualifications	7.9	6.8
Associate diploma	2.7	2.4
Undergraduate diploma	6.4	6.3
Bachelor degree	7.8	6.4
Postgraduate diploma	2.5	2.1
Higher degree	1.5	0.8
Not stated and inadequately described	8.4	8.0
Total	**100.0**	**100.0**

EMPLOYMENT STATUS AND FAMILY SIZE

Participation in the labour force often competes with child bearing, as raising a family requires prolonged absences from the labour force. Like education, labour force participation has been shown to have a negative effect on fertility. It has been found that wage earning women, particularly those in professional careers, have lower fertility than their non-employed counterparts (Birrell and Birrell 1987:14; Daly 1990:30; Ram and Rahim 1993:310). As expected, 1996 Census data shows that a greater proportion of women aged 45-49 years at the 1996 Census with three or more children were not in the labour force (30%) compared to women with two children (23%). Women with two children were more likely to be employed (72% compared to 64% of women with larger families). It should be noted that the employment status reported only reflects employment at the time of the Census.

COMPLETED FAMILY SIZE AND EMPLOYMENT STATUS, Women aged 45–49 years, 1996 Census

Employment status	*2 children* %	*3 or more children* %
Employed	72.4	64.5
Unemployed	3.5	4.2
Not in the labour force	23.4	30.4
Not stated	0.7	0.9
Total	**100.0**	**100.0**

EMPLOYMENT STATUS AND FAMILY SIZE *continued*

The association between female labour force participation and fertility levels is complex and the causal impact of labour force participation on fertility is not clear. It is possible that women with fewer children are freer to participate in the labour market, or alternately those women who choose to work have less time and thus have fewer children. It is also probable that both are affected by other unknown factors (Birrell and Birrell 1987:14).

COUNTRY OF BIRTH AND FAMILY SIZE

It would be expected that women who were born in countries with higher fertility rates and a culture with strong family values would be more likely to have three or more children. The data from the 1996 Census reveals some variation in the proportion of women aged 45–49 years who have two children or three or more children by country/region of birth. Australian-born women are more likely to have three or more children: 69% of women with three or more children were born in Australia compared to 64% of women with two children. Also, a slightly higher proportion of women with two children were born in the United Kingdom (11%) than women with three or more children (9%). Women born in the Middle East and North Africa, a region with high fertility, were slightly more likely to have three or more children (2% compared to 1% of women with two children) (see Chapter 5 for more information on fertility by country of birth). The fact that variation in family size by country/region of birth is minimal confirms the results of several studies which have found that immigrants generally converge to the norms of the society they move to with respect to contraceptive practices and family size (Rowland 1997:23).

COMPLETED FAMILY SIZE BY COUNTRY OF BIRTH, Women aged 45–49 years, 1996 Census

Region/country of birth	*2 children* %	*3 or more children* %
Oceania	66.7	71.1
Australia	64.5	68.5
New Zealand	1.9	2.0
Other Oceania	0.3	0.6
Europe and the former USSR	23.2	19.0
United Kingdom	11.0	8.7
Other Europe and the former USSR	12.2	10.3
The Middle East and North Africa	1.0	1.9
Southeast Asia	2.8	3.0
Northeast Asia	1.8	1.2
Southern Asia	1.1	0.7
Northern America	0.6	0.4
South and Central America and the Caribbean	0.8	0.6
Africa (excluding North Africa)	1.0	0.8
Not stated and inadequately described	1.1	1.2
Total	**100.0**	**100.0**

RELIGION AND FAMILY SIZE

Religion is another variable thought to influence completed family size. Catholicism and Islam are two faiths which discourage their followers from practicing artificial methods of family planning. The data shows that a greater proportion of women aged 45–49 at the 1996 Census with three or more children stated that they were Catholic (31%) compared to women with two children (24%). Also women with three or more children were more likely to say they were Muslim (1.1%) compared to women with two children (0.5%). In contrast, a higher proportion of women with two children were of the Jewish faith (0.8% compared to 0.4% of women with three or more children) and Orthodox Christian (4% compared to 2% of women with larger families). Finally, a higher proportion of women with two children had no religion (13%) compared to women with three or more children (10%).

COMPLETED FAMILY SIZE BY RELIGIOUS AFFILIATION, Women aged 45–49 years, 1996 Census

	2 children	*3 or more children*
Religion	%	%
Total Christian	76.8	80.8
Protestant	38.4	35.2
Catholic	24.2	30.5
Orthodox	3.5	2.5
Other Christian	10.6	12.3
Total other religions	3.0	3.3
Islam	0.5	1.1
Judaism	0.8	0.4
Buddhism	1.0	1.1
Hinduism	0.4	0.2
Other religions	0.4	0.4
No religion	13.1	9.9
Not stated and inadequately described	7.1	6.4
Total	**100.0**	**100.0**

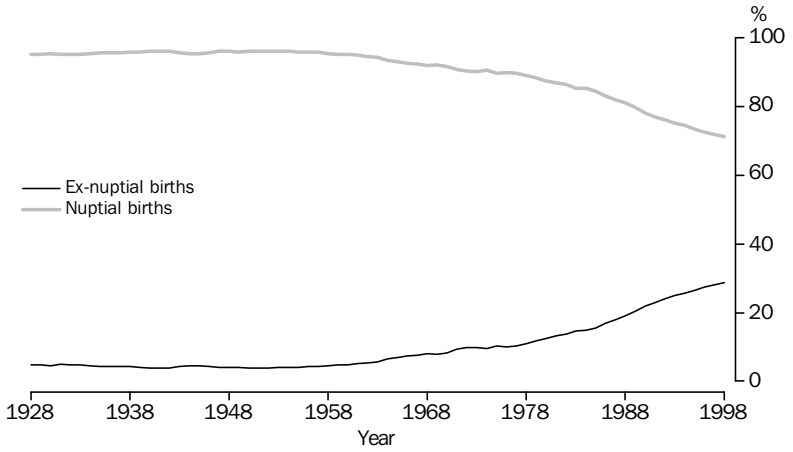
Census data, however, does not contain information on religious adherence or regular church attendance which could further influence decisions about family formation and family size. Many of these women may not be actively practicing the religion reported.

CHAPTER 4 MARRIED AND UNMARRIED MOTHERS

WHETHER MOTHERS ARE MARRIED

In 1998, 249,600 births were registered. Almost three-quarters (71%) of the mothers were in a registered marriage and 29% were not, many of whom would be in a de facto marriage. Marriage in this publication refers to registered marriage unless otherwise indicated. The proportion of unmarried mothers, which has been increasing since the 1950s, has risen sharply over the last two decades.

4.1 NUPTIAL AND EX-NUPTIAL BIRTHS

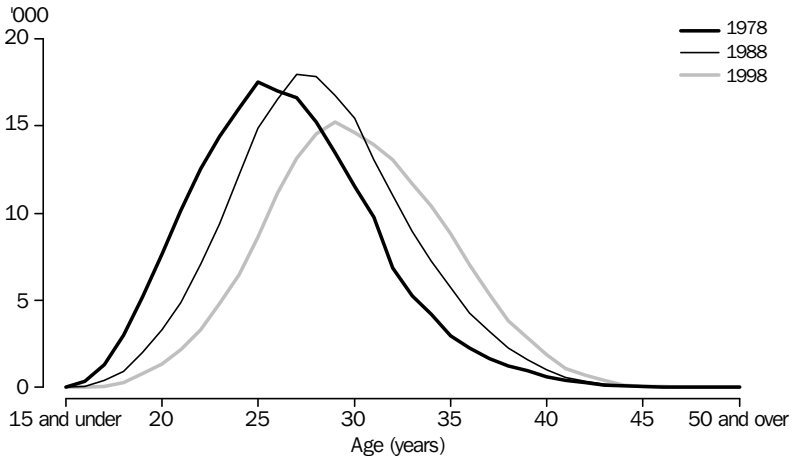


MARRIED MOTHERS

Age of mother

The peak ages of married mothers registering a birth have seen a large increase over the last twenty years. In 1998 the peak age was 29 years. In comparison, in 1978 the peak age for married mothers registering a birth was 25 years, while in 1988 the peak age was 27 years.

4.2 AGE OF MARRIED MOTHERS



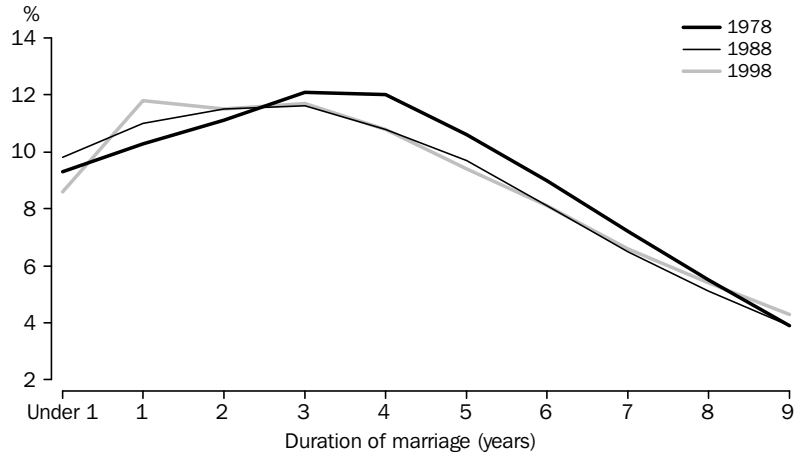
4.3 NUPTIAL CONFINEMENTS, Age of Mother

Age of mother (years)	*1978*	*1983*	*1988*	*1993*	*1997*	*1998*
15 and under	38	16	—	—	—	—
16	382	168	72	20	4	11
17	1 316	695	400	95	49	37
18	3 018	1 732	926	427	326	283
19	5 200	3 497	2 000	1 166	809	794
20	7 631	5 909	3 288	2 289	1 450	1 351
21	10 126	8 559	4 832	3 563	2 264	2 151
22	12 468	11 201	7 014	5 449	3 534	3 282
23	14 342	13 533	9 270	7 171	5 078	4 789
24	15 892	15 671	12 091	9 147	7 106	6 388
25	17 367	17 273	14 722	11 226	9 550	8 530
26	16 871	17 599	16 336	13 222	11 630	11 038
27	16 455	17 217	17 782	14 509	13 116	12 979
28	15 086	16 389	17 598	15 899	14 188	14 318
29	13 315	15 109	16 520	16 697	14 711	14 998
30	11 444	12 952	15 220	16 593	14 609	14 392
31	9 644	10 972	12 876	15 126	13 819	13 691
32	6 810	8 958	10 872	13 761	12 954	12 820
33	5 220	7 468	8 797	11 258	11 776	11 440
34	4 163	5 578	7 157	9 278	10 374	10 224
35	2 963	4 374	5 662	7 258	8 544	8 629
36	2 261	3 446	4 196	5 663	6 897	6 892
37	1 658	2 121	3 253	4 068	5 067	5 233
38	1 229	1 606	2 253	3 143	3 760	3 763
39	964	1 023	1 559	2 097	2 570	2 790
40	618	680	998	1 470	1 698	1 832
41	388	448	590	827	1 088	1 093
42	262	276	356	512	627	720
43	164	151	182	292	369	384
44	83	79	81	134	157	153
45	49	41	43	57	71	75
46	16	15	21	31	29	37
47	6	11	10	14	13	18
48	6	3	5	6	6	8
49	—	3	—	—	—	—
50 and over	3	3	—	—	4	10
Not stated	—	3	23	48	29	7
Total	**197 461**	**204 779**	**196 900**	**192 518**	**178 279**	**175 162**

Timing of births within marriage

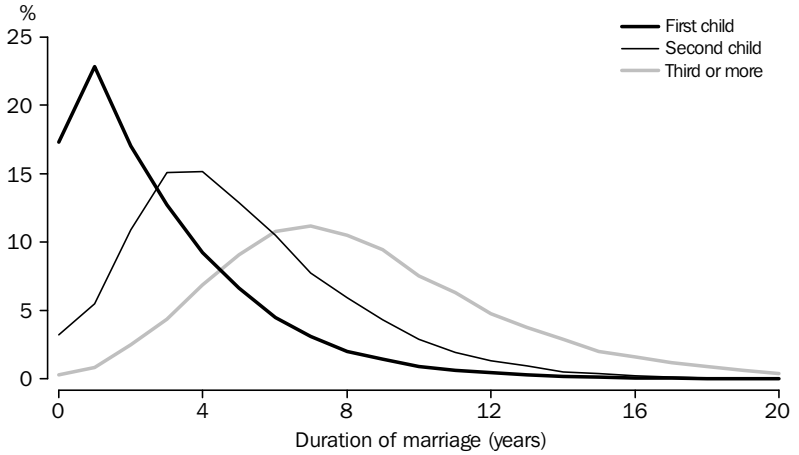
Just under half of all confinements within a marriage occur within the first four years of that marriage. In 1998, 44% of babies were born by the fourth year of marriage. This has changed little in twenty years, with the proportion in 1978 being 43%. However, in 1978 the fourth and fifth years of marriage were the most popular time for couples to have a baby while in 1998 the second year was the most common.

4.4 CONFINEMENTS, Duration of Marriage



The majority of couples (57%) who registered the birth of their first child during 1998 had that child within the first three years of their marriage. The fourth and fifth years of marriage were the most popular time for couples having their second child, while for those having a third child, the seventh to ninth years of marriage were the most popular.

4.5 PREVIOUS CHILDREN OF THE CURRENT MARRIAGE



4.6 NUPTIAL CONFINEMENTS, Duration of Current Marriage and Previous Births of Relationship

Duration of current marriage (years)	PREVIOUS BIRTHS OF THE CURRENT RELATIONSHIP								
	0	*1*	*2*	*3*	*4*	*5 and over*	*Total confinements*	*Total issue(a)*	*Average issue(a)*
Under 1	12 530	2 045	379	85	18	13	15 071	18,451	1.2
1	16 504	3 495	568	120	29	12	20 728	26,171	1.3
2	12 302	6 917	818	126	23	15	20 201	29,587	1.5
3	9 193	9 575	1 491	180	36	9	20 484	34,106	1.7
4	6 687	9 612	2 330	292	46	12	18 979	34,681	1.8
5	4 828	8 167	2 991	479	59	23	16 547	32,801	2.0
6	3 269	6 660	3 396	687	103	30	14 145	30,497	2.2
7	2 272	4 911	3 341	855	145	28	11 552	26,638	2.3
8	1 472	3 777	2 941	938	180	70	9 378	23,138	2.5
9	1 067	2 742	2 437	936	243	90	7 515	19,553	2.6
10–14	1 836	4 880	5 576	2 788	977	568	16 625	48,410	2.9
15 and over	316	665	1 016	848	461	631	3 937	15,017	3.8
Total	**72 276**	**63 446**	**27 284**	**8 335**	**2 320**	**1 501**	**175 162**	**339 050**	**1.9**

(a) Excludes previous births not stated.

First confinements

The median duration of marriage for couples having their first baby has scarcely changed over the last two decades. In 1998 the median duration of marriage for couples having a first baby was two and a half years. This is only slightly longer than the median duration of marriage in 1978 (two years and four months).

4.7 NUPTIAL FIRST CONFINEMENTS(a), Duration of Current Marriage

	DURATION OF CURRENT MARRIAGE (YEARS)									
	Under 1	*1*	*2*	*3*	*4*	*5–9*	*10 and over*	*Not stated*	*Total*	*Median duration*
Selected years	no.	no.	no.	no.	no.	no.	no.	no.	no.	years
1978	17 140	16 476	12 912	10 478	7 703	11 385	746	159	76 999	2.4
1983	17 955	19 504	14 111	9 997	6 969	13 356	1 515	59	83 466	2.3
1988	17 096	17 695	13 178	9 903	7 253	12 678	2 029	9	79 841	2.4
1993	15 234	17 613	12 946	9 897	7 043	12 867	2 090	28	77 718	2.5
1994	13 740	17 794	13 402	9 753	7 127	13 108	2 242	—	77 166	2.5
1995	13 342	17 405	13 113	9 556	6 740	13 301	2 149	—	75 606	2.5
1996	13 138	17 004	12 681	9 242	6 866	12 811	2 131	—	73 873	2.5
1997	12 805	16 919	12 573	9 257	6 646	12 902	2 254	—	73 356	2.6
1998	12 530	16 504	12 302	9 193	6 687	12 908	2 152	—	72 276	2.6

(a) Excludes confinements to relationships with ex-nuptial births.

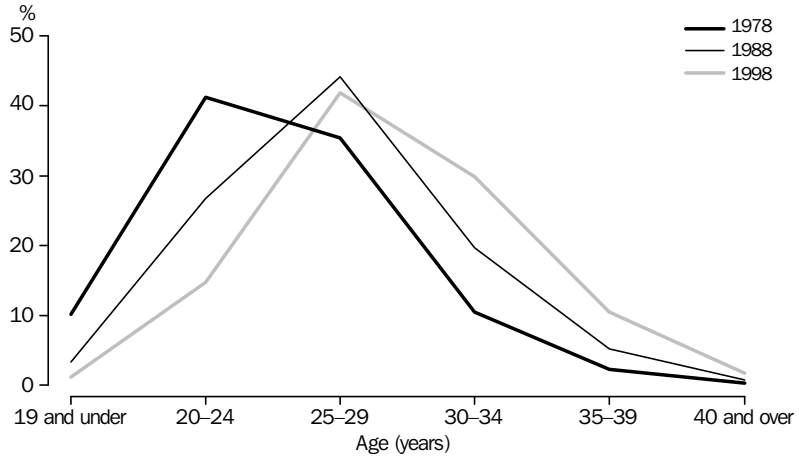
First confinements *continued*

The proportion of teenage married mothers having their first baby has declined markedly over the past two decades. In 1978, one in ten (10%) of all first-time married mothers were teenagers. In 1988, 3% of all first-time married mothers were teenagers. By 1998, teenage married mothers accounted for only 1% of first births to married women.

The trend has been the same for married mothers in their early twenties, with the proportion having their first baby declining from 50% in 1968 and 41% in 1978 to 15% in 1998. The decline in these age groups has been offset by an increase in all of the older age groups.

In 1978, the peak age group for married first-time mothers was 20–24 years, while in 1988 and 1998 it was 25–29 years.

4.8 NUPTIAL FIRST CONFINEMENTS, Age of Mother



4.9 NUPTIAL FIRST CONFINEMENTS(a), Age of Mother

Selected years	*19 and under* no.	*20–24* no.	*25–29* no.	*30–34* no.	*35–39* no.	*40 and over* no.	*Total* no.	*Median age* years
1978	7 838	31 724	27 276	8 116	1 758	286	76 999	24.9
1983	4 792	31 123	32 896	11 585	2 704	364	83 466	25.7
1988	2 747	21 319	35 291	15 751	4 133	593	79 841	27.1
1993	1 343	16 207	32 850	20 574	5 772	956	77 718	28.3
1994	1 133	15 351	32 143	21 266	6 248	1 003	77 166	28.5
1995	1 039	13 934	31 689	21 296	6 539	1 090	75 606	28.6
1996	989	12 815	30 890	21 090	6 896	1 171	73 873	28.8
1997	970	11 483	30 663	21 270	7 296	1 211	73 356	29.0
1998	893	10 645	30 275	21 600	7 577	1 284	72 276	29.2

(a) Excludes confinements to relationships with ex-nuptial births.

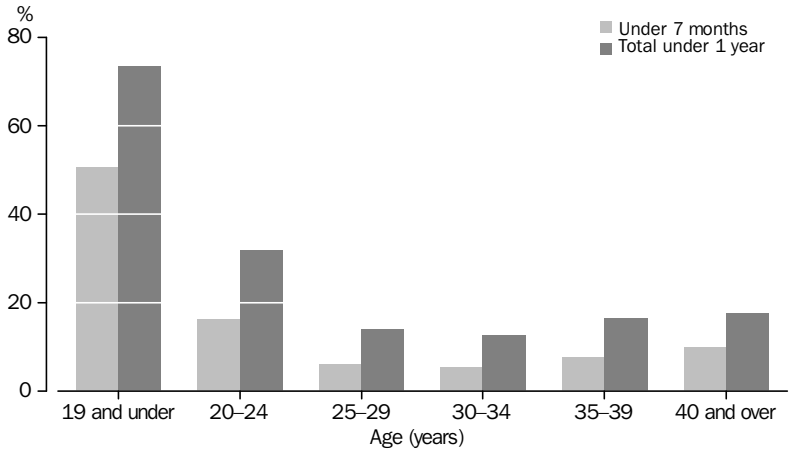
Timing of first baby of marriage

In 1998, 17% of married women having their first birth with their current partner did so within a year of marriage, and 8% within the first seven months. This varies considerably with age of the mother. Of teenage wives having their first baby, 73% had been married less than a year, and 51% had been married less than seven months.

Women aged 30–34 years were the least likely to have a baby within the first year of marriage, with only 13% of first nuptial babies being born in the first year, and 5% in the first seven months.

In older age groups these proportions increased. For example, 18% of women aged 40 years or over having their first nuptial birth had married in the past twelve months. These women may have felt a greater biological urgency to conceive and give birth earlier in their marriage than younger women. Mothers in their mid-twenties to mid-thirties tended to wait a little longer in their marriage before having their first child. It is probable that biological pressure was less of an issue for women in these age groups than older women.

4.10 NUPTIAL FIRST CONFINEMENTS, Duration of Marriage



4.11 NUPTIAL FIRST CONFINEMENTS(a), Age of Mother and Duration of Marriage

Duration of current marriage	AGE OF MOTHER (YEARS) 19 and under	20–24	25–29	30–34	35–39	40 and over	Not stated	Total
Under 7 months	452	1 736	1 834	1 159	587	127	—	5 895
7 months	37	266	345	216	101	22	—	987
8 months	37	214	335	221	91	15	—	913
9 months	39	362	542	402	152	16	—	1,513
10 months	42	409	630	383	168	29	—	1,662
11 months	48	393	583	372	146	18	—	1,560
Total under 1 year	*655*	*3 380*	*4 269*	*2 753*	*1 245*	*227*	—	*12 530*
1 year	211	3 650	6 737	4 056	1 580	270	—	16 504
2 years	23	2 024	5 871	3 233	985	165	—	12 302
3 years	—	1 001	4 819	2 556	695	122	—	9 193
4 years	—	394	3 551	2 124	544	72	—	6 687
5–9 years	—	194	4 951	5 899	1 620	242	—	12 908
10–14 years	—	—	77	947	721	89	—	1 836
15 years and over	—	—	—	32	187	97	—	316
Total	**893**	**10 645**	**30 275**	**21 600**	**7577**	**1 284**	**—**	**72 276**

(a) Excludes confinements to couples who had a baby before they were married.

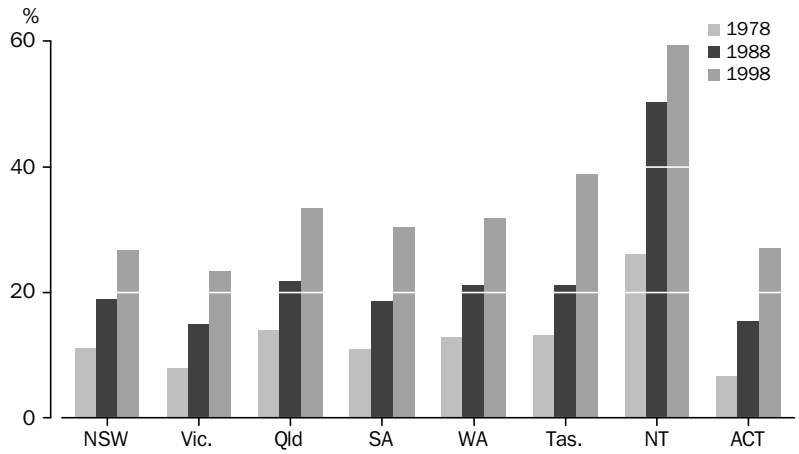
UNMARRIED MOTHERS

Ex-nuptial births

Over the last two decades there has been an increase in the proportion of births to women who are not in a registered marriage. In 1978, 11% of all births (24,700) were ex-nuptial. By 1998 that proportion had increased to 29% (71,600).

The proportion of ex-nuptial births differs across Australian States and Territories. For example, in 1998, more than half (58%) of the births registered in the Northern Territory were ex-nuptial. In comparison, 23% of births in Victoria and 39% of births in Tasmania were ex-nuptial. New South Wales, Victoria and the Australian Capital Territory recorded proportions below the national average while the remaining States recorded proportions above.

4.12 EX-NUPTIAL BIRTHS, State and Territory



4.13 EX-NUPTIAL BIRTHS, Total and Paternity-Acknowledged

Selected years	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Other Territories*	***Aust.***
					EX-NUPTIAL BIRTHS					
1978	8 615	4 706	4 839	2 063	2 671	894	681	275	—	**24 744**
1983	12 466	6 416	7 551	2 837	3 647	1 114	1 216	419	—	**35 646**
1988	16 003	9 213	8 850	3 602	5 314	1 427	1 691	668	—	**46 768**
1993	21 351	12 629	13 644	5 096	6 991	2 155	1 992	1 010	6	**64 874**
1994	21 548	13 114	13 851	5 148	7 220	2 119	2 043	1 042	7	**66 092**
1995	21 910	13 629	14 255	5 295	7 475	2 189	2 153	1 135	9	**68 050**
1996	22 000	13 210	15 578	5 728	7 665	2 215	2 058	1 108	6	**69 568**
1997	23 238	13 541	15 620	5 434	7 642	2 141	2 066	1 051	5	**70 738**
1998	22 748	14 101	15 831	5 537	7 856	2 317	2 124	1 051	5	**71 570**
					PATERNITY-ACKNOWLEDGED EX-NUPTIAL BIRTHS					
1978	5 042	2 515	2 404	1 197	13	378	428	113	—	**12 090**
1983	8 623	3 887	4 651	1 921	2 069	693	858	281	—	**22 983**
1988	12 249	7 049	6 159	2 697	3 898	1 101	1 125	495	—	**34 773**
1993	17 504	10 514	11 036	4 227	5 713	1 854	1 279	886	3	**53 016**
1994	17 777	11 034	11 228	4 328	5 951	1 808	1 347	855	5	**54 333**
1995	18 359	11 527	11 769	4 516	6 304	1 896	1 384	925	8	**56 688**
1996	18 545	11 367	13 032	4 960	6 473	1 941	1 292	934	5	**58 549**
1997	19 958	11 853	13 145	4 787	6 490	1 876	1 423	916	4	**60 452**
1998	19 618	12 972	13 665	4 959	6 745	2 059	1 435	887	5	**62 345**

The proportion of ex-nuptial births for each State and Territory has increased considerably in the last two decades. In 1978 the proportion of ex-nuptial births in the Northern Territory was 25%, while the proportions for the States and the other Territory ranged between 7% for the Australian Capital Territory and 14% for Queensland. These substantial increases in the proportion of ex-nuptial births are associated with the increase, over the same period, in the incidence of de facto marriages.

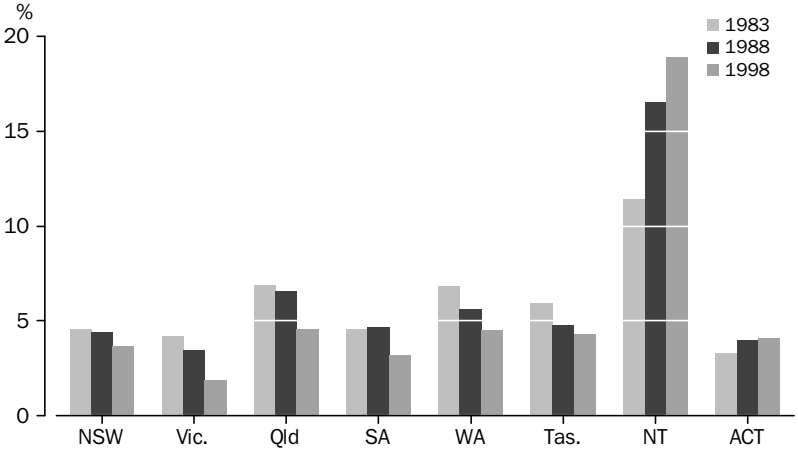
Paternity-acknowledgment

With ex-nuptial births comes the possibility that the father does not acknowledge the birth (that is, whether the father signed the birth certificate). However, the increase in ex-nuptial births has been associated with an increase in paternity-acknowledged births. Paternity-not-acknowledged births have fallen from 6% of all births in 1978 to 4% in 1998.

Northern Territory

This is not the case in the Northern Territory. In 1982 the Northern Territory experienced a similar proportion of paternity-not-acknowledged births (of all births) as the other States and Territories. However, in 1983 the proportion of paternity-not-acknowledged births in the Northern Territory rose to 11%, more than double the national average of 5%. In 1996 this proportion had climbed to 22%, and in 1998, the proportion of paternity-not-acknowledged births was 19% (690). Of these births, 490 (68%) were registered as Indigenous, accounting for 13% of all registered births in the Northern Territory.

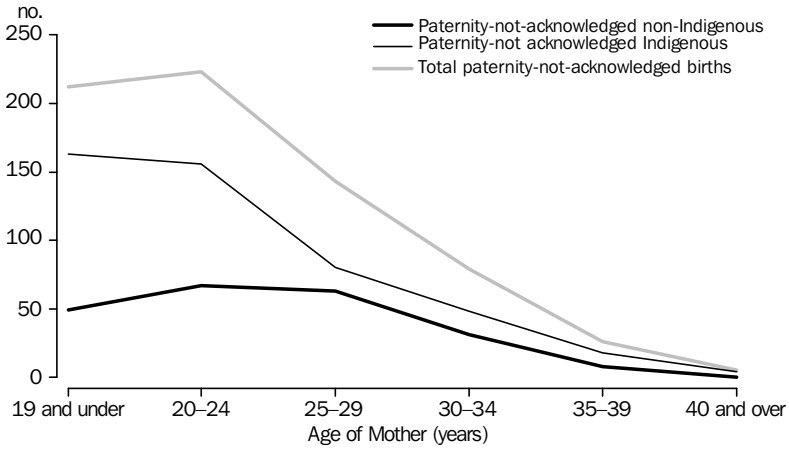
4.14 PATERNITY-NOT-ACKNOWLEDGED BIRTHS OF ALL BIRTHS



Indigenous mothers tend to differ from non-Indigenous mothers in several ways. They are likely to be younger, have more children and not be in a registered marriage. In 1998, 94% of Indigenous births in the Northern Territory were ex-nuptial compared with 58% of all births. In 1998 the median age of mothers of Indigenous registered births in the Northern Territory was 23.7 years. In comparison, the median age for all mothers in the Northern Territory was 27.4 years and the national median age was 29.5 years.

As the following graph indicates, births where paternity was not acknowledged were more likely to occur in younger age groups, particularly for mothers who were under twenty years of age.

4.15 PATERNITY-NOT-ACKNOWLEDGED BIRTHS, Age of Mother—Northern Territory



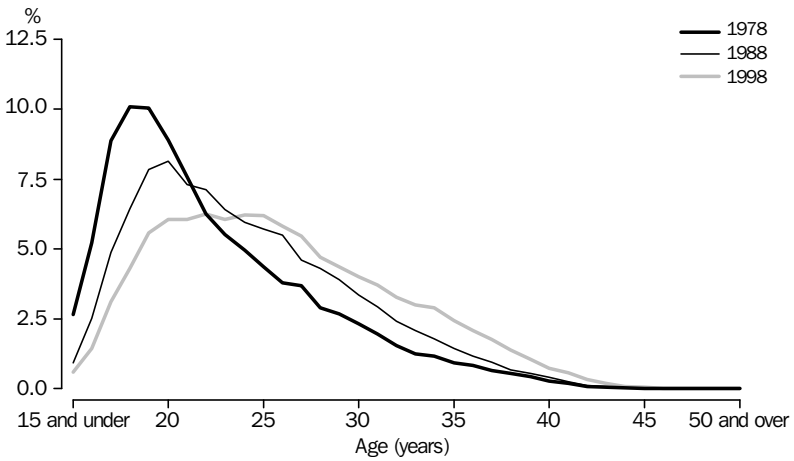
Age of mother

In 1998 the median age of unmarried mothers was 25.7 years, compared to 21.6 years in 1978. This increase has largely been driven by an increase in ex-nuptial births to women in their twenties and thirties, often associated with de facto marriages. The proportion of ex-nuptial births to teenage mothers has fallen, although the actual number has increased from 9,100 to 10,700. This increase is not due to the decrease in fertility of teenagers, but rather a decrease in their propensity to marry when they became pregnant.

4.16 EX-NUPTIAL CONFINEMENTS, Age of Mother

Age of mother (years)	*1978*	*1983*	*1988*	*1993*	*1997*	*1998*
15 and under	654	590	425	420	438	417
16	1 282	1 260	1 170	1 031	1 051	1 025
17	2 179	2 275	2 253	2 277	2 173	2 195
18	2 480	3 013	2 986	3 331	3 186	3 055
19	2 461	3 314	3 638	4 322	4 201	3 950
20	2 187	3 128	3 771	4 894	4 461	4 284
21	1 859	2 849	3 389	4 911	4 462	4 294
22	1 535	2 530	3 295	4 755	4 560	4 419
23	1 359	2 302	2 973	4 193	4 474	4 295
24	1 215	1 946	2 761	3 855	4 267	4 402
25	1 072	1 906	2 646	3 594	4 260	4 387
26	934	1 618	2 548	3 322	4 054	4 108
27	901	1 365	2 125	2 978	3 556	3 861
28	711	1 226	1 997	2 868	3 334	3 328
29	657	1 096	1 803	2 734	3 010	3 082
30	575	973	1 552	2 457	2 677	2 839
31	480	766	1 355	2 234	2 459	2 624
32	380	686	1 118	1 976	2 265	2 320
33	304	561	964	1 707	2 057	2 134
34	285	453	829	1 393	1 902	2 056
35	230	353	672	1 193	1 615	1 727
36	205	332	540	995	1 441	1 470
37	164	228	442	759	1 134	1 249
38	134	179	322	593	951	984
39	105	127	250	483	686	746
40	71	83	185	311	469	515
41	49	75	114	208	312	405
42	25	45	54	151	200	227
43	17	19	35	82	111	143
44	9	10	10	47	69	56
45	3	12	9	13	28	36
46	3	—	—	8	12	9
47	—	—	—	5	3	6
48	—	—	—	—	—	—
49	—	—	—	—	—	—
50 and over	—	—	—	—	—	3
Not stated	10	12	58	81	87	83
Total	**24 538**	**35 335**	**46 293**	**64 185**	**69 967**	**70 736**

4.17 EX-NUPTIAL CONFINEMENTS, Age of Mother

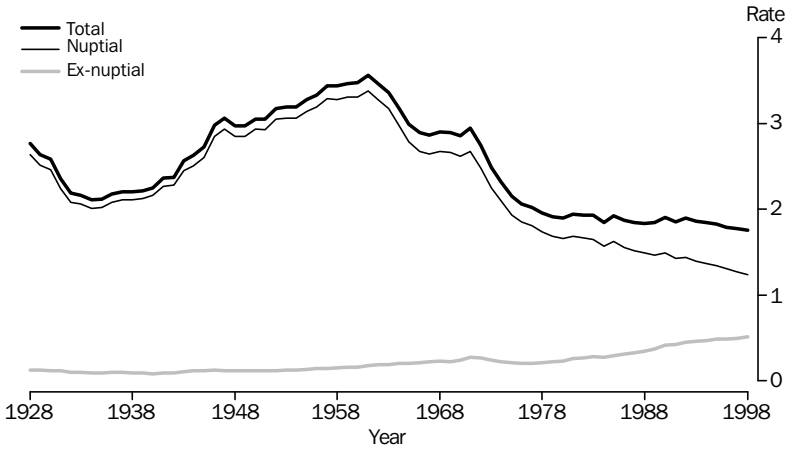


Total fertility rates and nuptial births

The total fertility rate decreased from 3.56 babies per woman in 1961 (the year fertility peaked) to 1.76 babies per woman in 1998.

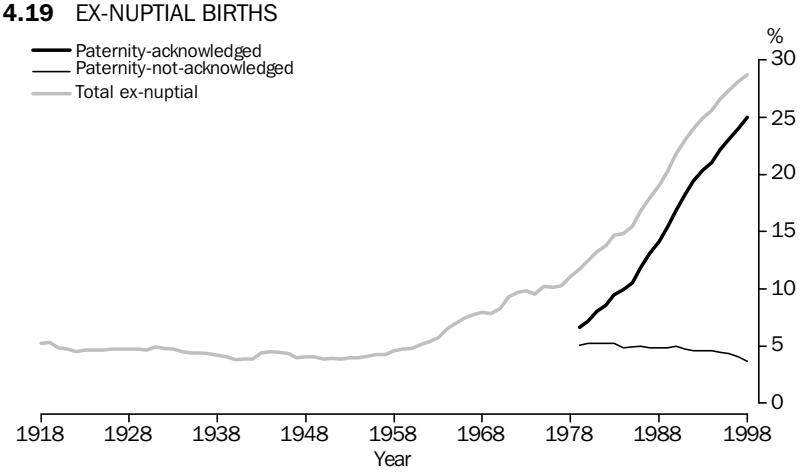
During this time there has been a decreasing rate of nuptial births and an increasing rate of ex-nuptial births. The increase in the ex-nuptial total fertility rate has also been apparent in the last 10 years where it rose from 0.4 babies per woman in 1988 to 0.5 babies per woman in 1998.

4.18 TOTAL FERTILITY RATES, By Nuptiality



Although data on paternal acknowledgment has only been collected for all States and Territories since 1979, it is clear from Graph 4.19 that the rise in the number of ex-nuptial births has largely been of births where paternity was acknowledged.

4.19 EX-NUPTIAL BIRTHS



FERTILITY OF OVERSEAS-BORN WOMEN

In 1998, overseas-born women had a total fertility rate (TFR) of 1.75 babies per woman, much the same as Australian-born women (1.76). However, this masks considerable variation between birthplace groups. For example, Lebanon-born women in Australia had a TFR of 3.70, while Malaysia-born women in Australia had a TFR of only 1.23.

No other major birthplace group in Australia had a TFR as high as the Lebanon-born. However, there were relatively high rates among the Egypt-born (2.6), the Turkey-born (2.5), the Fiji-born (2.2) and the Cambodia-born (2.1).

Like Malaysia, many of the birthplace groups with very low TFRs were from Southeast and Northeast Asia: for example, the Singapore-born (1.4) and Hong Kong-born (1.3). One factor keeping the fertility low for some of these groups was the high proportion of students among their populations. Overseas students on temporary visas could be expected to have very low fertility, and therefore to bring the TFR for the whole birthplace group down considerably. For example, the Malaysia-born had a TFR 30% lower than the total Australian population. While the age-specific fertility rates for Malaysian women aged 30 years and over were relatively similar to that of the total population, rates for 20–24 year olds were only 9% of the national average. Similar patterns were seen among women born in Singapore, Korea and Japan.

Hong Kong-born and Malta-born women both had low TFRs at 1.3, and they also had the highest median age of mother of any birthplace group in Australia at 33.6 years. Australian-born mothers were the fourth youngest with a median age of 29.1 years. Women born in Turkey and Cambodia were the youngest mothers with a median age of 28.3 years followed by Lebanon-born mothers with a median age of 28.6 years and Fiji-born mothers with a median age of 28.8 years.

PATERNITY OF OVERSEAS-BORN MEN

The reproductive age range was wider for men than for women. There were only a very small number of births registered to mothers aged over 55 years in 1998, while there were 17 fathers in their 70s. Because of the ability of men to become fathers at later ages, and the tendency for women to partner men who were slightly older than themselves, the median age of fathers was slightly higher than that of mothers. Australian-born fathers had a median age of 31.4 years, the youngest median age of any country of birth. The oldest fathers, with a median age of 36.9 years, were Malta-born men.

OVERSEAS-BORN PARENTS

Generally, the attributes of mothers born in a specific country closely reflect the attributes of fathers born in that country. For example, New Zealand-born parents had the lowest proportion of births within registered marriage, with only 57% of mothers, and 62% of fathers being married. Conversely, people born in many Southeast and Northeast Asian countries had very high rates of nuptial births.

OVERSEAS-BORN PARENTS *continued*

For many countries of birth, there is a strong correlation between the proportion of mothers and fathers who partner people born in the same country. For example, low proportions of people born in Canada, Papua New Guinea and the Netherlands had partners from the same birthplace, while there were high proportions for parents born in Viet Nam and Korea.

For some birthplaces there was a considerable difference. For example, 83% of babies with Philippines-born fathers also had Philippines-born mothers, while only 41% of babies with Philippines-born mothers also had Philippines-born fathers. This reflects the high level of Filipino brides among migrants. There were similar differences for parents born in Thailand and Japan.

5.1 BIRTHPLACE OF MOTHER, Summary

		FATHER BORN IN(a).....							
	Total confinements	*Australia*	*Same country as mother*	*Other country*	*Married mothers*	*Unmarried mothers—paternity-acknowledged*	*Unmarried mothers—paternity-not-acknowledged*	*Total fertility*	*Median age of mothers*
Birthplace of mother	no.	%	%	%	%	%	%	rate	years
Australia	188 189	82.6	0.0	17.4	68.3	27.8	3.9	1.753	29.1
Other Oceania	9 443	44.5	35.7	19.8	63.2	31.4	5.4	2.021	29.6
Fiji	1 008	20.5	63.7	15.8	85.5	12.0	2.5	2.178	28.8
New Zealand	6 341	52.4	26.6	21.0	57.1	37.0	5.9	1.846	29.7
Papua New Guinea	741	69.4	11.7	18.9	71.9	24.6	3.5	1.847	29.2
Europe and the Former USSR	18 843	56.9	27.6	15.5	80.8	17.6	1.7	1.538	32.1
Cyprus	225	41.3	39.1	19.6	96.0	3.6	0.4	1.673	30.2
Former Yugoslav Republics	1 787	27.0	63.3	9.7	89.1	9.8	1.1	1.621	30.3
France	286	53.8	13.6	32.5	74.5	23.8	1.7	1.586	31.8
Germany	747	58.6	13.5	27.8	78.0	20.6	1.3	1.566	32.0
Greece	473	54.5	31.9	13.5	92.6	6.3	1.1	1.481	31.9
Ireland	612	50.5	26.6	22.9	85.1	14.1	0.8	1.378	33.5
Italy	696	63.2	19.8	17.0	91.5	7.9	0.6	1.464	33.1
Malta	171	55.6	21.6	22.8	87.7	11.7	0.6	1.325	33.6
Netherlands	431	65.2	12.3	22.5	81.4	16.7	1.9	1.735	32.0
Poland	389	29.6	54.2	16.2	86.1	12.1	1.8	1.255	31.1
United Kingdom	11 080	65.3	21.6	13.1	77.5	20.6	1.9	1.558	32.4
Middle East and North Africa	5 470	12.7	76.4	10.9	94.7	4.8	0.5	2.975	29.0
Egypt	379	15.3	73.9	10.8	93.4	6.1	0.5	2.607	31.3
Iran	240	9.2	80.0	10.8	96.3	3.3	0.4	1.489	31.7
Lebanon	2 639	14.8	75.7	9.5	95.0	4.5	0.5	3.696	28.6
Turkey	826	13.6	78.3	8.1	94.8	4.5	0.7	2.526	28.3
Southeast Asia	10 421	21.0	56.1	22.9	80.1	14.5	5.5	1.618	30.5
Cambodia	635	3.9	67.1	29.0	74.3	18.3	7.4	2.129	28.3
Indonesia	1 008	20.7	58.1	21.1	91.7	6.7	1.6	1.813	29.8
Malaysia	1 003	37.3	31.0	31.7	91.8	7.3	0.9	1.230	32.3
Philippines	2 717	38.5	41.1	20.4	82.3	15.0	2.7	1.961	31.6
Singapore	376	43.1	18.1	38.8	88.6	10.1	1.3	1.388	31.2
Thailand	469	47.8	14.3	38.0	74.4	19.4	6.2	1.474	31.1
Viet Nam	3 769	2.5	80.0	17.5	73.9	16.3	9.7	1.700	29.6
Northeast Asia	5 161	10.9	69.2	19.9	90.5	8.4	1.0	1.675	32.7
China	3 113	5.1	77.1	17.8	88.4	10.2	1.4	2.007	33.3
Hong Kong	691	13.3	57.9	28.8	93.5	6.1	0.4	1.332	33.6
Japan	527	42.7	29.8	27.5	93.7	6.3	0.0	1.738	32.2
Republic of Korea	597	8.7	83.1	8.2	94.6	4.9	0.5	1.414	29.5
Southern Asia	3 096	11.0	79.7	9.3	95.5	4.0	0.5	2.029	30.6
India	1 460	15.1	72.4	12.5	95.8	3.6	0.7	1.889	30.4
Sri Lanka	936	10.5	82.3	7.3	95.9	3.7	0.3	1.870	32.2
Northern America	1 506	62.5	16.2	21.2	87.7	10.6	1.7	1.686	32.2
Canada	508	68.9	10.6	20.5	85.8	12.0	2.2	1.500	32.4
United States of America	993	59.3	19.1	21.6	88.7	9.9	1.4	1.802	32.2
Southern America	1 374	32.8	40.2	26.9	79.3	17.8	2.8	1.700	30.4
Chile	420	30.0	40.7	29.3	76.9	21.2	1.9	1.616	29.9
Africa (excluding North Africa)	1 979	35.4	42.6	22.0	84.0	14.1	1.9	1.641	30.9
Mauritius	220	40.0	37.3	22.7	84.5	14.5	0.9	1.499	32.6
South Africa	855	41.6	36.3	22.1	84.9	13.2	1.9	1.443	31.0
Total Overseas born	57 709	36.2	46.0	17.8	80.8	16.2	3.1	1.747	31.1
Total	**245 898**	**71.7**	**10.8**	**17.5**	**71.2**	**25.1**	**3.7**	**1.758**	**29.5**

(a) Paternity-acknowledged births only.

5.2 BIRTHPLACE OF FATHER(a), Summary

		MOTHER BORN IN.....						
	Total confinements	*Australia*	*Same country as father*	*Other country*	*Married fathers*	*Unmarried fathers—paternity-acknowledged*	*Total paternity(b)*	*Median age of fathers*
Birthplace of father	no.	%	%	%	%	%	rate	years
Australia	176 349	88.2	0.0	11.8	71.3	28.7	1.654	31.4
Other Oceania	9 442	50.5	35.7	13.8	66.4	33.6	1.978	32.4
Fiji	970	21.1	66.2	12.7	83.9	16.1	2.468	32.5
New Zealand	6 242	59.6	27.0	13.3	62.4	37.6	1.689	32.5
Papua New Guinea	678	71.4	12.8	15.8	74.6	25.4	2.101	31.7
Europe and the Former USSR	22 926	63.0	22.7	14.3	81.7	18.3	1.520	34.3
Cyprus	290	54.5	30.3	15.2	93.2	6.8	1.736	32.4
Former Yugoslav Republics	2 261	40.5	50.0	9.5	89.4	10.6	1.656	33.1
France	313	57.8	12.5	29.7	75.2	24.8	1.592	33.6
Germany	848	61.8	11.9	26.3	78.2	21.8	1.560	34.2
Greece	902	69.4	16.7	13.9	90.3	9.7	1.588	35.5
Ireland	770	54.0	21.2	24.8	83.6	16.4	1.646	34.1
Italy	1 357	73.4	10.2	16.4	87.9	12.1	1.592	35.9
Malta	321	67.6	11.5	20.9	85.7	14.3	1.608	36.9
Netherlands	522	66.3	10.2	23.6	84.7	15.3	1.570	35.4
Poland	345	27.2	61.2	11.6	88.2	11.8	1.064	36.2
United Kingdom	13 136	69.8	18.2	12.0	78.6	21.4	1.497	34.3
Middle East and North Africa	6 773	26.8	61.7	11.5	92.8	7.2	2.932	33.4
Egypt	533	27.6	52.5	19.9	92.8	7.2	2.320	36.4
Iran	312	14.7	61.5	23.7	93.4	6.6	1.374	36.1
Lebanon	3 265	32.2	61.2	6.7	92.9	7.1	3.790	32.7
Turkey	967	25.2	66.9	7.9	92.8	7.2	2.470	31.6
Southeast Asia	7 917	12.4	73.8	13.8	82.9	17.1	1.509	33.6
Cambodia	553	2.7	77.0	20.3	78.6	21.4	1.929	31.9
Indonesia	862	19.7	68.0	12.3	87.9	12.1	1.794	33.4
Malaysia	865	33.8	36.0	30.3	91.5	8.5	1.278	34.9
Philippines	1 353	12.6	82.6	4.8	82.6	17.4	1.716	32.8
Singapore	306	43.8	22.2	34.0	91.0	9.0	1.514	34.4
Thailand	144	20.8	46.5	32.6	74.7	25.3	1.107	33.6
Viet Nam	3 420	2.9	88.2	8.9	80.5	19.5	1.520	33.7
Northeast Asia	4 463	4.4	80.0	15.6	91.5	8.5	1.646	35.3
China	2 782	1.8	86.3	11.9	89.3	10.7	1.821	35.7
Hong Kong	730	10.0	54.8	35.2	95.2	4.8	1.396	35.7
Japan	239	21.8	65.7	12.6	93.4	6.6	1.078	34.4
Republic of Korea	532	1.9	93.2	4.9	95.5	4.5	1.463	31.9
Southern Asia	3 398	16.1	72.6	11.3	94.5	5.5	1.712	35.1
India	1 526	18.2	69.3	12.6	93.8	6.2	1.504	34.4
Sri Lanka	1 030	16.2	74.8	9.0	96.1	3.9	1.778	36.2
Northern America	1 553	64.5	15.7	19.8	85.2	14.8	1.726	34.1
Canada	517	70.8	10.4	18.8	84.9	15.1	1.677	34.0
United States of America	1 030	61.4	18.4	20.2	85.3	14.7	1.726	34.1
Southern America	1,380	38.3	40.1	21.6	75.8	24.2	*1.633*	32.6
Chile	429	38.2	39.9	21.9	75.0	25.0	1.725	31.7
Africa (excluding North Africa)	2,296	42.9	36.8	20.3	82.8	17.2	1.803	34.2
Mauritius	225	40.4	36.4	23.1	82.1	17.9	1.300	36.2
South Africa	967	47.9	32.1	20.1	85.7	14.3	1.665	33.5
Total overseas born	69 549	47.1	38.2	14.8	82.1	17.9	1.696	34.0
Total	**245 898**	**76.5**	**10.8**	**12.7**	**74.1**	**25.9**	**1.677**	**32.0**

(a) Paternity-acknowledged births and confinements only.

(b) Total paternity rate is calculated in the same way as the total fertility rate, although summed over five-year age groups 15–19 to 85 and over. Because paternity was not acknowledged in 5% of births, the actual paternity rate is, on average, 5% higher than the figures given in this table.

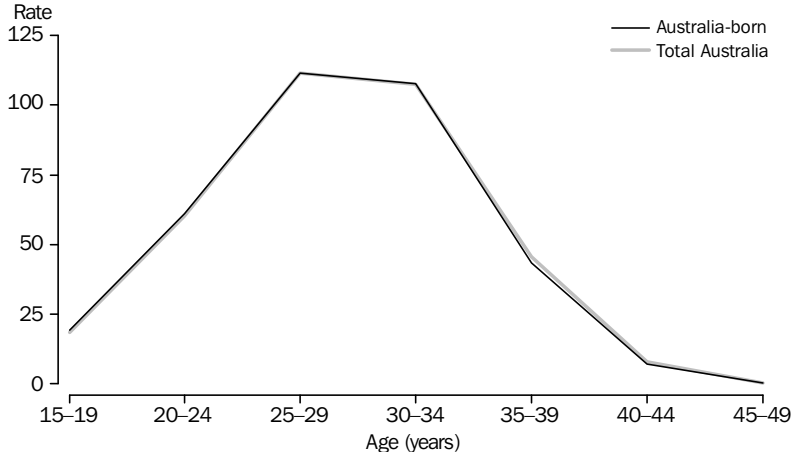
AGE-SPECIFIC FERTILITY RATES BY MOTHER'S REGION OF BIRTH

As well as regional variations in the TFR, there was also variation in the age-specific fertility rates between the different birthplace regions. The following paragraphs discuss the age-specific fertility for each birthplace group, and for selected countries within these groups.

Australia

The pattern of age-specific fertility for Australian-born women mirrors that for the total Australian population. Fertility among women aged over 40 years and between 15–19 years is very low. The highest fertility occurred in the age group 25–29 years with 111.5 (same for all Australian women aged 25–29 years) births per 1,000 women closely followed by the 30–34 years age group with 107.7 (107.4 for all Australian women aged 30–34 years) births per 1,000 women.

5.3 AGE-SPECIFIC FERTILITY RATES 1998, Women Born in Australia



Other Oceania

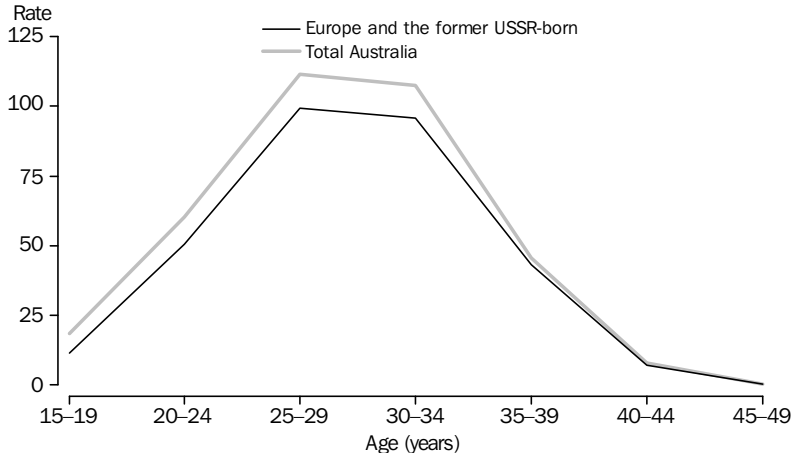
The majority (67%) of births to women born in other countries in the Oceania region were to New Zealand-born women. The age-specific fertility pattern for women born in Other Oceania follows a similar pattern to that for total Australia with the exception of fertility among younger women. Women aged between 15–19 years who were born in New Zealand had a fertility rate of 32.5 births per 1,000 women which compares to 13.3 for Fiji-born women, 11.9 for Papua New Guinea-born women and 18.5 for all Australian women of the same ages.

5.4 AGE-SPECIFIC FERTILITY RATES 1998, Women Born in Other Oceania

Europe and the Former USSR

The age-specific fertility rates for women born in Europe and the Former USSR follow a similar pattern to the total Australian rates, with a peak in fertility among women aged 25–29 years and 30–34 years. However, fertility in all age groups was consistently lower than the total Australian rates. Women born in Poland had particularly low fertility at all ages with a peak of 80.3 births per 1,000 for women aged 25–29 years. This compares to 99.2 per 1,000 women for Europe and the former USSR-born and 111.5 per 1,000 for all Australia women of the same age.

5.5 AGE-SPECIFIC FERTILITY RATES 1998, Women Born in Europe & Former USSR



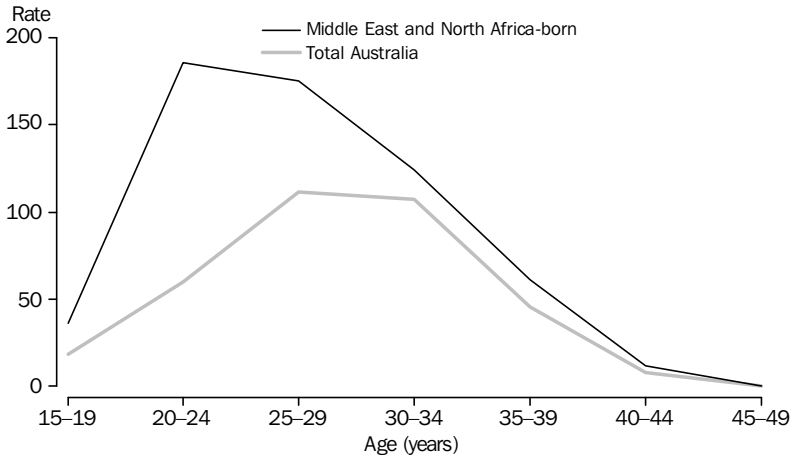
Middle East and North Africa

Women born in the Middle East and North Africa had the highest levels of fertility (TFR of 3.0). This is reflected in higher age-specific fertility rates at all ages compared to the Australian total. Most notable is the considerably greater fertility among women aged 20–24 years and 25–29 years. Half of these births were to Lebanon-born women. Lebanon-born women had the highest TFR of any country of birth at 3.7 births per woman.

Middle East and North Africa *continued*

The high levels of fertility for women born in the Middle East and North Africa may be associated with the persistence of the cohesive extended family, which provides a greater degree of support to mothers from these backgrounds, and therefore encourages higher levels of fertility (Yusuf and Rockett 1981: 413–424).

5.6 AGE-SPECIFIC FERTILITY RATES 1998, Women Born in the Middle East and North Africa



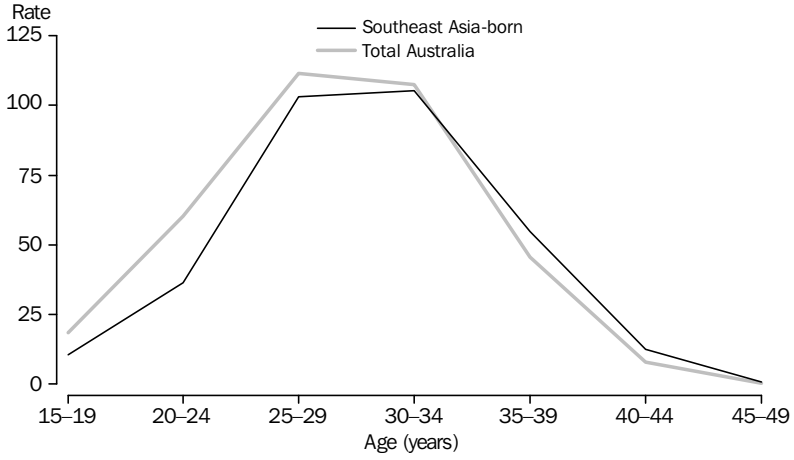
Southeast Asia

Fertility of women from Southeast Asia is lower than the Australian total for women aged under 30 years and greater than the Australian total for women aged over 35 years. As mentioned above, one factor keeping the fertility low for younger women from this region is the high proportion of students among the population from this region.

The peak in age-specific fertility for Southeast Asia-born women was at the ages of 30–34 years with a rate of 105.2 births per 1,000 women. This was only marginally lower than the Australian total of 107.4 births per thousand for women of the same age.

Cambodia-born women had a TFR of 2.1 which is the highest fertility rate of all Southeast Asia-born women. These women also had the highest age-specific fertility rate of all countries of birth for women over the age of 45 years, at 2.0 births per 1,000 women compared to 0.3 births per 1,000 for all women aged over 45 years in Australia.

5.7 AGE-SPECIFIC FERTILITY RATES 1998, Women Born in Southeast Asia

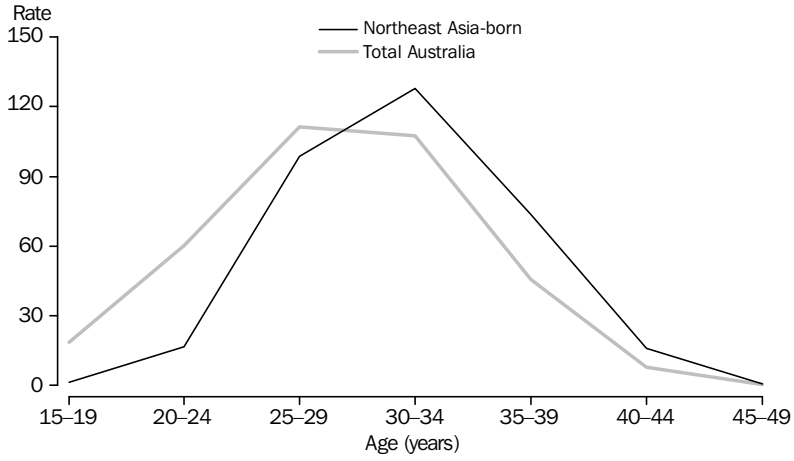


Northeast Asia

The pattern of age-specific fertility for women born in Northeast Asia also shows that fertility among younger women (under 30 years) was lower than the Australian total but at the older ages (over 30 years) fertility was greater than the Australian total. This is even more pronounced than for women born in Southeast Asia.

Women born in Northeast Asia had the lowest fertility rate of any region for women aged 15–19 years (1.4 compared to the Australian total of 18.5 births per 1,000 women) and 20–24 years (16.6 compared to the Australian total of 60.2 births per 1,000 women). In addition, these women also recorded the highest fertility rate of all regions for women aged 35–39 years (73.7 compared to the Australian total of 45.7 births per 1,000 women) and 40–44 years (16.2, double the Australian total of 8.0 births per 1,000 women). Again, the considerably lower fertility observed among younger women from this region is associated with the large student population from this region.

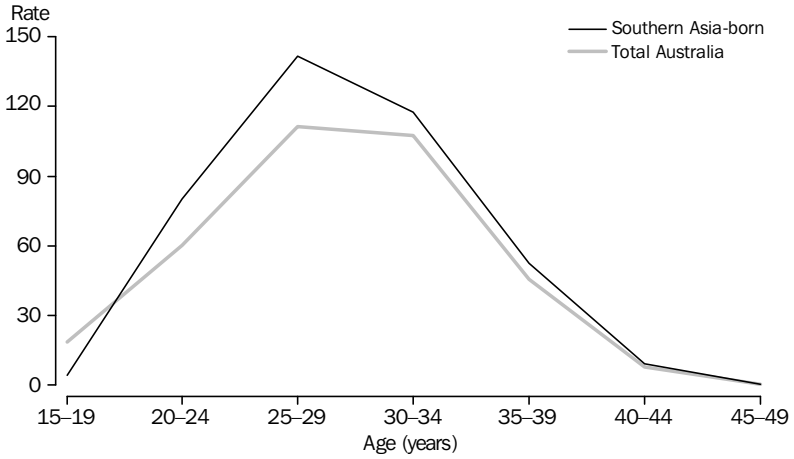
5.8 AGE-SPECIFIC FERTILITY RATES 1998, Women Born in Northeast Asia



Southern Asia

Women from the Southern Asian countries had higher age-specific fertility rates than the Australian total for every age group with the exception of women aged 15–19 years. The difference is most pronounced at the 25–29 year age group. Southern Asia-born women aged 25–29 years had the second highest fertility (after women of this age group born in the Middle East and North Africa) with 141.6 births per 1,000 women compared to 111.5 births per 1,000 for all Australian women of the same age.

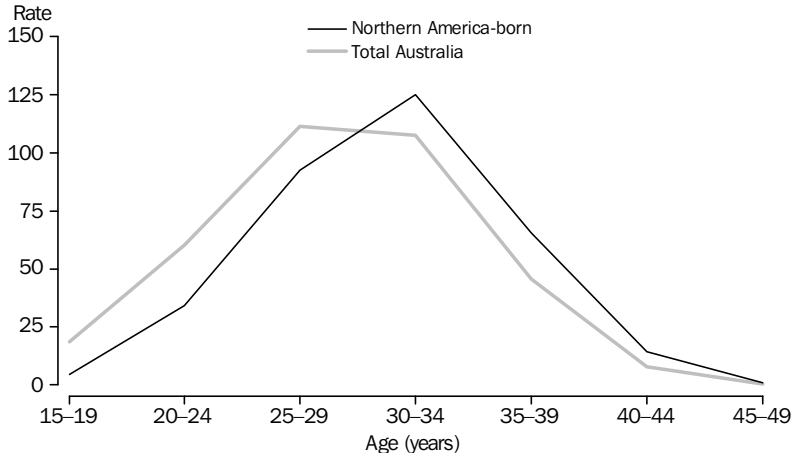
5.9 AGE-SPECIFIC FERTILITY RATES 1998, Women Born in Southern Asia



Northern America

The fertility pattern by age for women born in Northern America also shows lower fertility than the Australian total for women aged under 30 years and higher fertility than the Australian total for women aged over 30 years. The TFR for Northern America-born women was 1.7, lower than the Australian total of 1.8. However, women born in the United States of America had a TFR of 1.8, slightly above the Australian total, while Canada-born women had a TFR of 1.5. United States-born women had consistently higher age-specific fertility rates than their Canadian counterparts at every age with the exception of women aged 15–19 years.

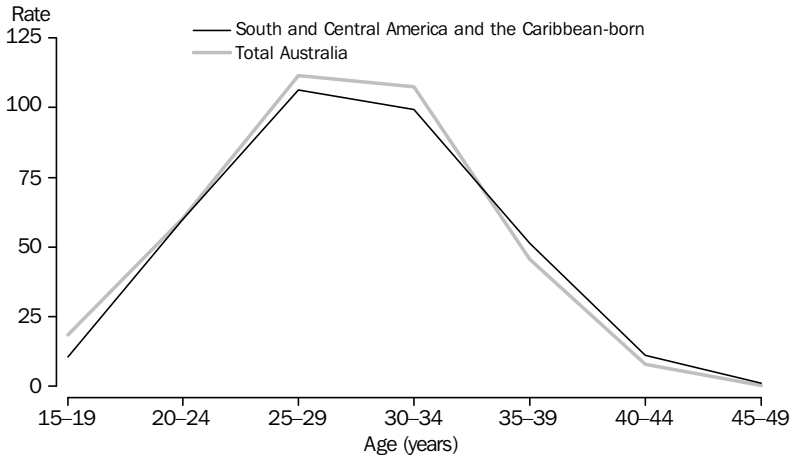
5.10 AGE-SPECIFIC FERTILITY RATES 1998, Women Born in Northern America



South and Central America and the Caribbean

South and Central America and the Caribbean-born women had very similar age-specific fertility rates to all Australian women. Fertility peaked in the 25–29 years age group with 106.3 births per 1,000 women, slightly under the Australian total of 111.5 per 1,000 women. Women aged 35 years and older had slightly higher fertility than the Australian total. The majority (78%) of births to women from this region were to South America-born mothers.

5.11 AGE-SPECIFIC FERTILITY RATES 1998, Women born in South and Central America and the Caribbean

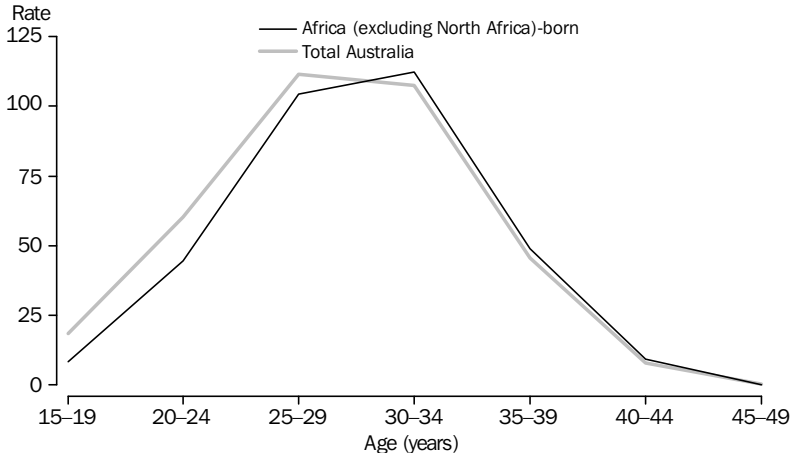


Africa (excluding North Africa)

Similar to Southeast Asia-born and Northeast Asia-born women's age-specific fertility patterns, Africa (excluding North Africa)-born women had lower fertility than the Australian total in the younger age groups (under 30 years) and higher fertility in the older age groups (over 30 years). The TFR for Africa-born women (excluding North Africa) was slightly below the Australian total at 1.6 births per woman.

Children born to South Africa-born mothers were the largest group from this region, comprising 43% of births. South Africa-born women consistently recorded lower age-specific fertility than the Australian total with the exception of women aged 30–34 years.

5.12 AGE-SPECIFIC FERTILITY RATES 1998, Women Born in Africa (Excluding North Africa)



CHAPTER 6 ABORIGINAL AND TORRES STRAIT ISLANDER BIRTHS

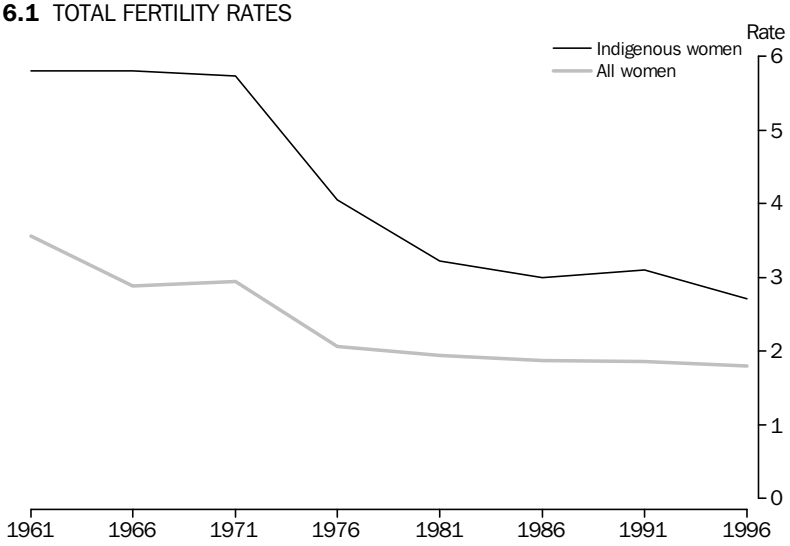
ATTRIBUTES OF INDIGENOUS BIRTHS

In 1998 there were 10,400 births registered in Australia with one or both parents identified as being of Aboriginal or Torres Strait Islander (Indigenous) origin. However, this dies not represent the true number of such births. The total number of Indigenous births registered in 1998 is around 106% the number expected from the 1991 Census-based experimental projections, and 90% of the number of births expected from the 1996 Census-based experimental projections (see table 6.3).

In the 1960s, Indigenous fertility, at about 6.0 babies per woman, was approximately twice the rate for all women in Australia. Over the last 35 years, fertility levels for both Indigenous and non-Indigenous women have declined substantially, with the largest decreases recorded during the 1970s. While the fertility decline for non-Indigenous women commenced in the 1960s, the fertility levels of Indigenous women remained relatively stable during the 1960s, followed by a sharp decline during the 1970s. In the fifteen years to 1996, the rate of decline of fertility for Indigenous women had slowed. It is too early to know whether the fertility for Indigenous women will continue to decline or level out.

Due to the poor quality of historical birth registration data, the most reliable source of information on historical fertility of the Indigenous population is the Census (from the question on total issue and/or derived from the number of children in each enumerated family).

6.1 TOTAL FERTILITY RATES



Source: A. Gray, *The explosion of Aboriginality: components of indigenous population growth 1991–96*, CAEPR Discussion Paper no. 142/1997, Centre for Aboriginal Economic Policy Research, Australian National University, Canberra, 1997; ABS, *Births, Australia, 1996* (ABS Cat. no. 3301.0); ABS, *Australian Demographic Trends, 1997* (ABS Cat. no. 3102.0).

ATTRIBUTES OF INDIGENOUS BIRTHS *continued*

Overall, 4% of births registered in Australia during 1998 were identified as Indigenous. For one-third of these births, both parents were identified as Indigenous, for 17% only the mother was Indigenous (including births where the paternity was not acknowledged), for 15% the mother was Indigenous and the father's origin was unknown and for 17% only the father was Indigenous. Almost eight out of every ten Indigenous births were registered as ex-nuptial (79%). The median age of all Indigenous mothers was 24.6 years compared to 29.5 years for all mothers.

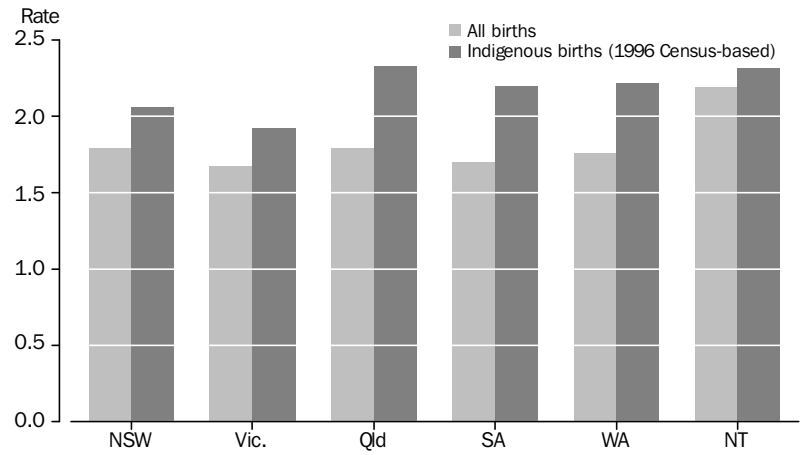
Of all States and Territories, the Northern Territory had the highest proportion of Indigenous births followed by Queensland and Western Australia. The Northern Territory also had the highest proportion of ex-nuptial Indigenous births (94%) and the lowest median age of mother (23.6 years). Western Australia had the second youngest median age of Indigenous mothers (23.8 years).

Victoria had the lowest proportion of Indigenous births, understandably since this State also has the smallest proportion of the Indigenous population.

Birth weight is a useful indicator of the health status of babies. A comparison between the average birth weight of Indigenous babies and that of all babies shows that Indigenous babies are generally smaller. According to the Midwives' Collection, in 1996 the average birth weight of Indigenous babies was 3,140 g, 220 g lower than the average for all babies (3,360 g). The pattern of birth weight varied between States and Territories, ranging from an average of 3,056 g in the Northern Territory to 3,212 g in the Australian Capital Territory. A higher proportion (13%) of Indigenous babies were of low birth weight (less than 2,500 g), compared to all births (6%).

In 1998, on current rates, it is estimated that Indigenous women will have at least 2.2 babies each, compared to 1.8 babies for all women. Indigenous women in Queensland had the highest fertility rate of any State or Territory, at least 2.3 babies per woman on average. For all women in Queensland the total fertility rate was 1.8. The total fertility rate for Indigenous women is derived using the number of births registered to Indigenous mothers in 1998 and the 1998 population from the 1996 Census-based population projections (low series). Indigenous births may be underestimated due to the propensity to identify as Indigenous being lower on birth notification forms than Census forms.

6.2 TOTAL FERTILITY RATE, Indigenous Births and All Births



COVERAGE OF BIRTH REGISTRATION

There are several data collection forms on which people are asked to state whether they are of Indigenous origin. Due to a number of factors the results are not always consistent. For example, there was a net effect of about 51,800 people who identified as Indigenous in the 1996 Census, but who had not identified as such in the 1991 Census. The likelihood that a person will identify, or be identified, as Indigenous on a specific form is known as their propensity to identify as Indigenous. Propensity to identify as Indigenous can be thought of as the proportion of the total, unknown, number of Indigenous people who identify as such on a specific form.

Propensity to identify is determined by a range of factors, including the perception of how the information will be used, education programs about identifying as Indigenous, and emotional reaction to identifying as Indigenous.

There are four estimates of the number of Indigenous births each year. Each is based on a different collection, with a different propensity to identify as Indigenous:

- 1991 Census-based population projections: The number of Indigenous children in the 1991 Census was used to estimate the fertility rate for 1991. Assuming this fertility rate to continue, and making other assumptions about mortality and interstate migration, the number of births in subsequent years was projected.
- 1996 Census-based population projections: There are two series of projections; a low series, which is used in the following analysis, and a high series. The low series uses a very similar method to the 1991 Census-based population projections, the number of births each year is estimated, using the propensity to identify found in the 1996 Census. The high series uses an alternative assumption of an increasing propensity to identify based on the change between 1991 and 1996.
- Birth Registrations: This publication is based on the registration of births with the Registrar of Births, Deaths and Marriages in each State and Territory.
- Midwives' Collection: This data, also known as the Perinatal Statistics Collection, is primarily about babies born in hospitals and their mothers.

Propensity to identify can be seen as a social issue, primarily reflecting the social attitude Indigenous people have towards making what amounts to public statements about their heritage. Alternatively it can be seen as a problem with data quality, indicating an undercount of the 'true' picture of 'reality'. Both these perspectives have some validity. In the following analysis, the focus is on the low propensity to identify in the birth registration statistics as a data quality issue.

This chapter includes the number of births registered in each State and Territory. A breakdown of the characteristics of these births is published when the number registered is regarded as being reasonable.

6.3 INDIGENOUS BIRTHS, Summary

	NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Aust.(a)
BIRTHS REGISTERED AS INDIGENOUS									
1988	30	295	6	508	21	—	1 138	—	2 002
1989	42	419	4	467	25	—	1 277	—	2 238
1990	47	499	7	588	30	3	1 289	35	2 498
1991	50	508	9	593	33	190	1 257	58	2 698
1992	42	503	4	561	1 215	218	1 354	14	3 911
1993	1 278	493	31	519	1 535	264	1 359	43	5 523
1994	2 011	520	25	531	1 578	247	1 338	59	6 310
1995	2 345	542	29	554	1 492	267	1 354	52	6 640
1996	2 444	474	2 534	557	1 538	244	1 343	66	9 204
1997	2 813	457	3 038	591	1 474	310	1 259	53	9 999
1998	3 014	590	3 085	661	1 468	300	1 284	42	10 445
EXPECTED INDIGENOUS BIRTHS (1991 Census-based experimental projections)(b)									
1993	2 376	589	2 389	524	1 553	285	1 362	54	9 139
1994	2 414	601	2 441	535	1 582	293	1 375	55	9 303
1995	2 446	612	2 485	543	1 607	302	1 387	57	9 445
1996	2 473	622	2 520	551	1 629	310	1 401	59	9 571
1997	2 499	631	2 553	559	1 653	319	1 416	61	9 698
1998	2 525	639	2 594	569	1 680	326	1 435	62	9 837
EXPECTED INDIGENOUS BIRTHS (1996 Census-based experimental estimates and projections)									
1993(c)	3 259	634	3 056	595	1 491	398	1 372	82	10 892
1994(c)	3 311	647	3 123	608	1 519	409	1 385	84	11 088
1995(c)	3 355	659	3 179	617	1 543	421	1 397	87	11 258
1996(c)	3 392	669	3 224	626	1 564	432	1 411	90	11 409
1997(d)	3 428	679	3 266	635	1 587	445	1 426	93	11 559
1998(d)	3 448	680	3 312	639	1 597	450	1 436	96	11 662
ESTIMATED COVERAGE OF INDIGENOUS BIRTHS (1991 Census-based expectancies) (%)									
1993	54	84	1	99	99	93	100	80	60
1994	83	87	1	99	100	84	97	107	68
1995	96	89	1	102	93	88	98	91	70
1996	99	76	101	101	94	79	96	112	96
1997	113	72	119	106	89	97	89	87	103
1998	119	92	119	116	87	92	89	68	106
ESTIMATED COVERAGE OF INDIGENOUS BIRTHS (1996 Census-based expectancies) (%)									
1993	39	78	1	87	103	66	99	52	51
1994	61	80	1	87	104	60	97	70	57
1995	70	82	1	90	97	63	97	60	59
1996	72	71	79	89	98	56	95	73	81
1997	82	67	93	93	93	70	88	57	87
1998	87	87	93	103	92	67	89	44	90

(a) Includes 'Other Territories' from 1993.

(b) *Source*: ABS, *Experimental Projections of the Aboriginal and Torres Strait Islander Population, 1991–2001* (ABS Cat. no. 3231.0). Medium series.

(c) Derived using the ratio for 1997 from the 1991 Census-based projected population to the 1996 Census-based projected population. *ABS, Experimental Projections of the Aboriginal and Torres Strait Islander Population* (ABS Cat. no. 3231.0), using low series, 1996–2006 edition and the medium series of the 1991–2001 edition.

(d) *Source*: ABS, *Experimental Projections of the Aboriginal and Torres Strait Islander Population, 1996–2006* (ABS Cat. no. 3231.0). Low series.

DELAY IN REGISTRATION

All data in this chapter are based on period of registration; i.e. those births that were registered in 1998, regardless of when they occurred. One reason for this has been the delay in registration of some births. The allowable time to register a birth varies between States and Territories, usually between 28 and 60 days after the birth. Of all births registered in 1998, 11% had been registered more than two months after birth, and 2% more than 12 months after birth. However, 27% of Indigenous births registered in 1998 were registered more than two months after birth, and 7% more than 12 months after the birth.

6.4 INDIGENOUS REGISTERED BIRTHS—Australia(a)

	All Indigenous births	*Births to Indigenous mothers*	*All births*
Total births (no.)	10 445	7 702	249 616
Nuptial births (%)	21.1	16.6	71.3
Ex-nuptial births (%)	78.9	83.4	28.7
Paternity-acknowledged (%)	63.6	62.7	25.0
Paternity-not-acknowledged (%)	15.3	20.6	3.7
Both parents Indigenous (%)	32.1	. .	. .
Mother only(b) (%)	41.7	. .	. .
Father only (%)	17.1	. .	. .
Age of mother			
19 and under (no.)	2 052	1 584	11 849
20–24 (no.)	3 304	2 459	40 052
25–29 (no.)	2 882	2 104	81 677
30–34 (no.)	1 550	1 107	75 876
35–39 (no.)	563	383	34 223
40–44 (no.)	82	56	5 632
45 and over (no.)	4	—	215
Not stated (no.)	8	7	92
Age-specific fertility rates(c)			
15–19	. .	77.5	18.5
20–24	. .	135.8	60.0
25–29	. .	114.5	111.2
30–34	. .	69.2	107.2
35–39	. .	28.0	45.7
40–44	. .	5.0	8.0
45–49	. .	0.2	0.3
Total fertility rate	. .	2.151	1.755
Total confinements (no.)	10 343	7 629	245 898
Median age of mother (years)	24.8	24.6	29.5
Median age of father (years)	28.9	29.6	32.0

(a) 1998 coverage of Indigenous births in Australia has been estimated at 106% on 1991 Census-based projections and 90% on 1996 Census-based projections. See table 6.1.

(b) Includes paternity-not-acknowledged.

(c) Indigenous rates based on the 1996 Census-based projected population for 1998, low series.

6.5 INDIGENOUS REGISTERED BIRTHS—New South Wales(a)

	All Indigenous births	*Births to Indigenous mothers(a)*	*All births*
Total births (no.)	3 014	2 032	85 499
Nuptial births (%)	23.4	18.6	73.4
Ex-nuptial births (%)	76.6	81.4	26.6
Paternity-acknowledged (%)	65.3	64.9	22.9
Paternity-not-acknowledged (%)	11.2	16.5	3.7
Both parents Indigenous (%)	22.0	. .	. .
Mother only(b) (%)	45.4	. .	. .
Father only (%)	1.5	. .	. .
Age of mother			
19 and under (no.)	583	399	3 929
20–24 (no.)	960	664	13 951
25–29 (no.)	843	564	27 995
30–34 (no.)	450	293	25 628
35–39 (no.)	158	96	11 856
40–44 (no.)	20	16	2 051
45 and over (no.)	—	—	67
Not stated (no.)	—	—	22
Age-specific fertility rates(c)			
15–19	. .	70.4	18.5
20–24	. .	137.2	63.3
25–29	. .	110.2	113.4
30–34	. .	66.1	107.6
35–39	. .	24.4	46.8
40–44	. .	5.1	8.7
45–49	. .	—	0.3
Total fertility rate	. .	2.067	1.793
Total confinements (no.)	2 984	2 012	84 279
Median age of mother (years)	24.8	24.7	29.5
Median age of father (years)	28.4	28.8	32.2

(a) 1998 coverage of Indigenous births in New South Wales has been estimated at 119% on 1991 Census-based projections and 87% on 1996 Census-based projections. See table 6.1.

(b) Includes paternity-not-acknowledged.

(c) Indigenous rates based on the 1996 Census-based projected population for 1998, low series.

6.6 INDIGENOUS REGISTERED BIRTHS—Victoria(a)

	All Indigenous births	*Births to Indigenous mothers(a)*	*All births*
Total births (no.)	590	383	60 492
Nuptial births (%)	29.8	27.9	76.7
Ex-nuptial births (%)	70.2	72.1	23.3
Paternity-acknowledged (%)	67.1	67.4	21.4
Paternity-not-acknowledged (%)	3.1	4.7	1.9
Both parents Indigenous (%)	20.2	. .	. .
Mother only(b) (%)	44.7	. .	. .
Father only (%)	34.7	. .	. .
Age of mother			
19 and under (no.)	81	55	1 935
20–24 (no.)	188	117	7 883
25–29 (no.)	178	109	19 556
30–34 (no.)	101	75	20 406
35–39 (no.)	35	22	9 184
40–44 (no.)	7	5	1 457
45 and over (no.)	—	—	54
Not stated (no.)	—	—	17
Age-specific fertility rates(c)			
15–19	. .	50.3	12.4
20–24	. .	119.5	46.9
25–29	. .	105.4	104.7
30–34	. .	75.5	113.2
35–39	. .	26.9	49.4
40–44	. .	7.3	8.3
45–49	. .	—	0.3
Total fertility rate	. .	1.924	1.676
Total confinements (no.)	583	377	59 531
Median age of mother (years)	25.8	25.9	30.2
Median age of father (years)	27.8	28.1	32.5

(a) 1998 coverage of Indigenous births in Victoria has been estimated at 92% on 1991 Census-based projections and 87% on 1996 Census-based projections. See table 6.1.

(b) Includes paternity-not-acknowledged.

(c) Indigenous rates based on the 1996 Census-based projected population for 1998, low series.

6.7 INDIGENOUS REGISTERED BIRTHS—Queensland(a)

	All Indigenous births	*Births to Indigenous mothers(a)*	*All births*
Total births (no.)	3 085	2 265	47 046
Nuptial births (%)	24.7	20.6	66.3
Ex-nuptial births (%)	75.3	79.4	33.7
Paternity-acknowledged (%)	63.0	62.6	29.0
Paternity-not-acknowledged (%)	12.4	16.8	4.6
Both parents Indigenous (%)	34.9	. .	. .
Mother only(b) (%)	38.5	. .	. .
Father only (%)	26.2	. .	. .
Age of mother			
19 and under (no.)	533	392	2 873
20–24 (no.)	975	722	8 875
25–29 (no.)	864	640	15 698
30–34 (no.)	498	371	13 083
35–39 (no.)	183	120	5 620
40–44 (no.)	31	19	862
45 and over (no.)	—	—	32
Not stated (no.)	—	—	—
Age-specific fertility rates(c)			
15–19	. .	69.5	23.3
20–24	. .	145.0	70.2
25–29	. .	126.1	115.0
30–34	. .	86.2	101.9
35–39	. .	32.6	40.8
40–44	. .	6.5	6.7
45–49	. .	—	0.3
Total fertility rate	. .	2.330	1.791
Total confinements (no.)	3 055	2 244	46 360
Median age of mother (years)	25.2	25.1	28.8
Median age of father (years)	28.7	29.3	31.2

(a) 1998 coverage of Indigenous births in Queensland has been estimated at 119% on 1991 Census-based projections and 93% on 1996 Census-based projections. See table 6.1.

(b) Includes paternity-not-acknowledged.

(c) Indigenous rates based on the 1996 Census-based projected population for 1998, low series.

6.8 INDIGENOUS REGISTERED BIRTHS—South Australia(a)

	All Indigenous births	*Births to Indigenous mothers(a)*	*All births*
Total births (no.)	661	469	18 226
Nuptial births (%)	20.3	13.2	69.6
Ex-nuptial births (%)	79.7	86.8	30.4
Paternity-acknowledged (%)	66.3	67.8	27.2
Paternity-not-acknowledged (%)	13.5	19.0	3.2
Both parents Indigenous (%)	31.9	. .	. .
Mother only(b) (%)	39.0	. .	. .
Father only (%)	28.9	. .	. .
Age of mother			
19 and under (no.)	113	90	741
20–24 (no.)	199	149	2 714
25–29 (no.)	181	124	5 868
30–34 (no.)	115	74	5 755
35–39 (no.)	39	24	2 635
40–44 (no.)	5	—	479
45 and over (no.)	—	—	23
Not stated (no.)	7	6	11
Age-specific fertility rates(c)			
15–19	. .	77.2	15.3
20–24	. .	142.2	55.1
25–29	. .	113.6	109.4
30–34	. .	73.4	107.1
35–39	. .	29.4	44.8
40–44	. .	1.7	8.6
45–49	. .	2.2	0.4
Total fertility rate	. .	2.198	1.703
Total confinements (no.)	652	462	19 733
Median age of mother (years)	25.5	24.9	29.8
Median age of father (years)	29.1	29.2	32.2

(a) 1998 coverage of Indigenous births in South Australia has been estimated at 116% on 1991 Census-based projections and 103% on 1996 Census-based projections. See table 6.1.

(b) Includes paternity-not-acknowledged.

(c) Indigenous rates based on the 1996 Census-based projected population for 1998, low series.

6.9 INDIGENOUS REGISTERED BIRTHS—Western Australia(a)

	All Indigenous births	*Births to Indigenous mothers(a)*	*All births*
Total births (no.)	1 468	1 165	24 717
Nuptial births (%)	14.9	11.4	68.2
Ex-nuptial births (%)	85.1	88.6	31.8
Paternity-acknowledged (%)	66.0	64.5	27.3
Paternity-not-acknowledged (%)	19.1	24.0	4.5
Both parents Indigenous (%)	43.8	. .	. .
Mother only(b) (%)	35.6	. .	. .
Father only (%)	20.6	. .	. .
Age of mother			
19 and under (no.)	339	284	1 358
20–24 (no.)	473	376	4 119
25–29 (no.)	381	307	8 097
30–34 (no.)	190	136	7 338
35–39 (no.)	73	53	3 263
40–44 (no.)	10	8	515
45 and over (no.)	—	—	26
Not stated (no.)	—	—	—
Age-specific fertility rates(c)			
15–19	. .	96.9	15.3
20–24	. .	143.7	55.1
25–29	. .	114.5	109.4
30–34	. .	57.3	107.1
35–39	. .	26.0	44.8
40–44	. .	4.9	8.6
45–49	. .	0.9	0.4
Total fertility rate	. .	2.221	1.763
Total confinements (no.)	1 454	1 155	24 345
Median age of mother (years)	24.1	23.8	29.3
Median age of father (years)	29.2	29.8	31.9

(a) 1998 coverage of Indigenous births in Western Australia has been estimated at 87% on 1991 Census-based projections and 92% on 1996 Census-based projections. See table 6.1.

(b) Includes paternity-not-acknowledged.

(c) Indigenous rates based on the 1996 Census-based projected population for 1998, low series.

6.10 INDIGENOUS REGISTERED BIRTHS—Northern Territory(a)

	All Indigenous births	*Births to Indigenous mothers(a)*	*All births*
Total births (no.)	1 284	1 181	3 641
Nuptial births (%)	6.5	5.0	41.7
Ex-nuptial births (%)	93.5	95.0	58.3
Paternity-acknowledged (%)	56.9	55.3	39.4
Paternity-not-acknowledged (%)	36.5	39.7	18.9
Both parents Indigenous (%)	46.7	. .	. .
Mother only(b) (%)	45.2	. .	. .
Father only (%)	8.0	. .	. .
Age of mother			
19 and under (no.)	340	329	468
20–24 (no.)	418	377	835
25–29 (no.)	315	281	1 133
30–34 (no.)	141	129	791
35–39 (no.)	63	58	356
40–44 (no.)	7	7	53
45 and over (no.)	—	—	4
Not stated (no.)	—	—	—
Age-specific fertility rates(c)			
15–19	. .	117.9	68.7
20–24	. .	136.7	105.0
25–29	. .	110.8	118.7
30–34	. .	58.9	93.6
35–39	. .	34.7	44.9
40–44	. .	4.7	7.6
45–49	. .	—	0.7
Total fertility rate	. .	2.318	2.196
Total confinements (no.)	1 277	1 174	3 607
Median age of mother (years)	23.6	23.6	27.4
Median age of father (years)	33.3	34.5	30.6

(a) 1998 coverage of Indigenous births in the Northern Territory has been estimated at 89% on both the 1991 Census-based projections and the 1996 Census-based projections. See table 6.1.

(b) Includes paternity-not-acknowledged.

(c) Indigenous rates based on the 1996 Census-based projected population for 1998, low series.

APPENDIX DIFFERENCES BETWEEN COLLECTIONS

BIRTH REGISTRATIONS COMPARED TO THE MIDWIVES' COLLECTION

As there are differing methods of collection, both the Birth Registrations and Midwives' Collection provide varying results. For example, according to the Birth Registration data, 252,200 live births occurred during 1996 and were registered up to 1998, while according to the Midwives' Collection 255,300 live births occurred during 1996. One reason for the discrepancy of 3,100 births is late registrations, which can be quite large for the first two years after the birth occurred. Other differences between the two collections could be the under-coverage of some home births in the Midwives' Collection.

The most substantial difference between the two series, and the most difficult to explain, is that Birth Registration occurrence statistics show estimates above that of the Midwives' Collection up until 1992 but below that since then. This change may be attributed to quality improvements made over the years to the perinatal minimum data set, on which the Midwives' Collection is based, and to the delay in birth registrations.

A1 DIFFERENT MEASURES OF BIRTHS, Year of Occurrence

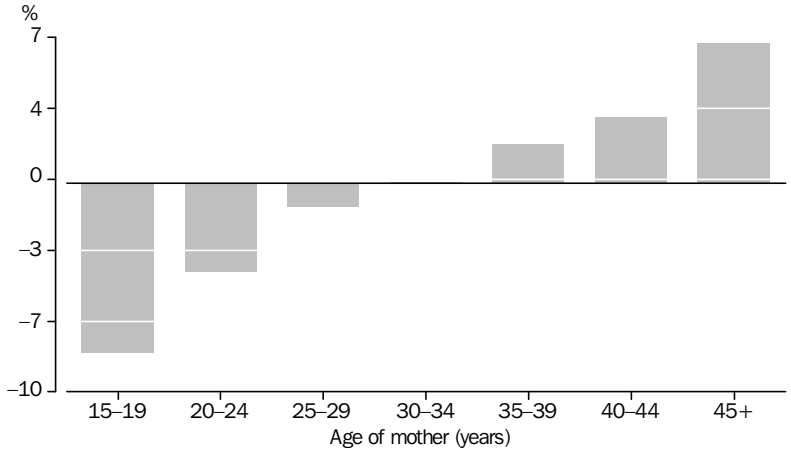
Note: Data from 1997 are not yet available from Midwives' Collection.

Not every birth that occurs in Australia is registered or has a birth notification form filled out. However, the extent of this under-coverage is difficult to measure. In 1991 the number of registered births that occurred in that year was 2,000 more than for the Midwives' Collection, in 1993 it was only 100 less and in 1996 it was 3,100 less than the Midwives' Collection.

Age of mother

The difference between the two collections could be related to the age of mother. Birth Registrations had 8% less confinements to mothers aged 15–19 years, but 3% more to mothers aged 40–44 years and 7% more to mothers aged 45 years and over, than the Midwives' Collection. This could indicate that a high, and growing, proportion of young mothers do not register the birth of their child. A small proportion of older women have home births, and no Midwives' birth notification form is submitted, but the birth is registered.

A2 REGISTRATION CONFINEMENTS RELATIVE TO MIDWIVES'—Year of Birth 1996



A3 REGISTRATION CONFINEMENTS RELATIVE TO MIDWIVES'—Year of Birth 1996

	AGE OF MOTHER							
	15–19	*20–24*	*25–29*	*30–34*	*35–39*	*40–44*	*45 and over*	*Total*
Birth Registrations	12 159	43 596	81 258	74 886	31 485	4 964	159	248 738
Midwives' data(a)	13 236	45 522	82 164	74 846	30 914	4 811	149	251 709
Difference (%)	–8.1	–4.2	–1.1	0.1	1.8	3.2	6.7	–1.2

(a) Excludes 1,818 mothers of fetal deaths.

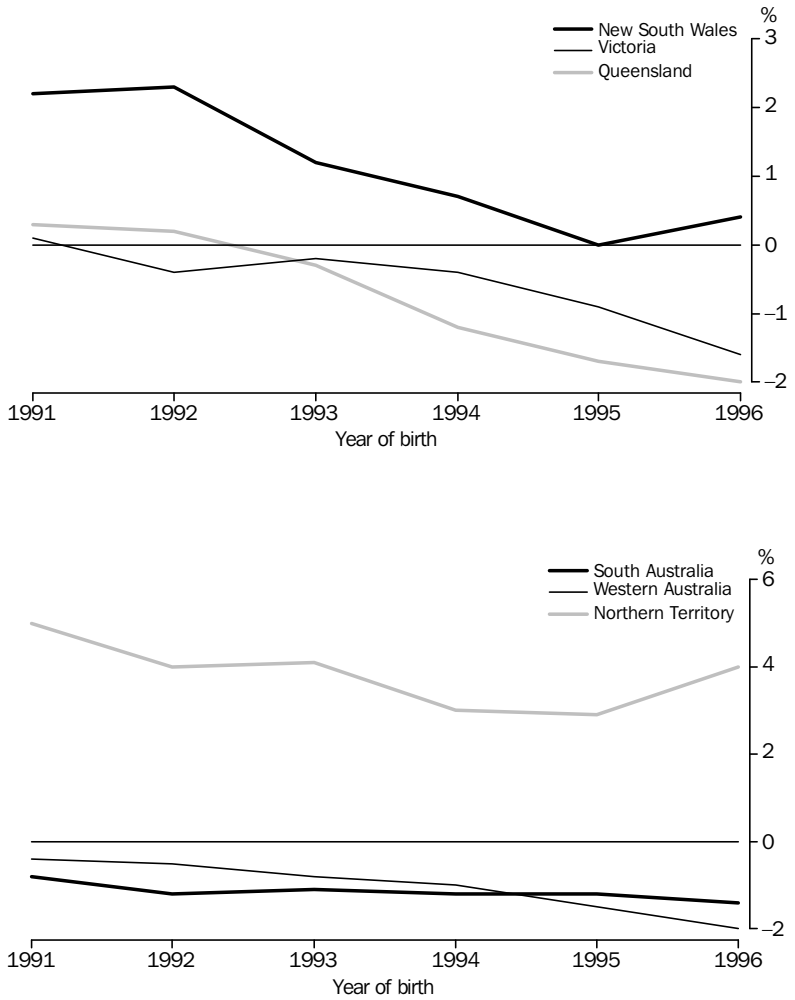
State and Territory comparisons

While the Birth Registration data provides information on State of registration or State of usual residence of mother, the Midwives' Collection only provide data (for analytical purposes) on the State in which the birth took place (State of occurrence). Therefore, the following analysis compares State of usual residence from Birth Registrations to State of occurrence from the Midwives' Collection. As there are a small number of births that occur in a different State or Territory to that of the mother's usual residence, there will be minor differences between the two State and Territory datasets. For example, some women from rural New South Wales, close to the Australian Capital Territory border, have their babies in Canberra. As a consequence, the Australian Capital Territory has been excluded from the following analysis. Data for Tasmania has also been excluded from this analysis due to the unavailability of 1996 Tasmania data from the Midwives' Collection. There will also be differences due to possible delays in births being registered.

State and Territory comparisons *continued*

Despite these differences, the results from the two collections appear quite similar, with the State of usual residence data from Birth Registrations falling slightly below the Midwives' State of occurrence data for all States and Territories except for New South Wales and the Northern Territory. The following analysis and graphs show that each year improvements to the Midwives' Collection have resulted in more births being recorded in each State than registered, showing the delay in births being registered. The exception to this is New South Wales and the Northern Territory, where there are more births registered than in the Midwives' Collection. In the Northern Territory this could be due to a larger number of home births and remote clinic births in this Territory than in the other States.

A4 DIFFERENCE BETWEEN BIRTH REGISTRATIONS AND MIDWIVES—States(a)

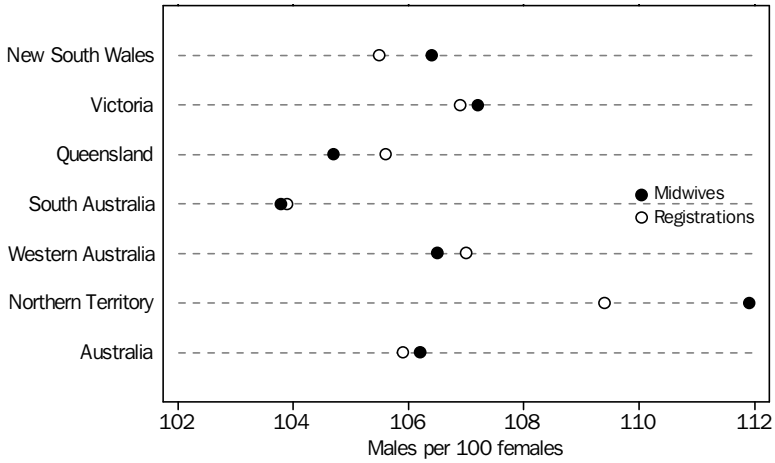


(a) Comparison between State of usual residence from the Births Registration and State of occurrence from the Midwives Collection.

Sex ratio

For Australia as a whole, the 1998 sex ratio was 106 male babies for every 100 female babies born. The sex ratio of babies appears similar in both collections for all States except the Northern Territory. The sex ratio from Birth Registration data in the Northern Territory (109) falls below that of the Midwives' Collection (112). The reason for this difference is that 5% more female babies were recorded in the Birth Registration data than in the Midwives' data.

A5 SEX RATIO REGISTRATION RELATIVE TO MIDWIVES—Year of Birth 1996



Country of birth of mother

Overall, when comparing the Birth Registration data to the Midwives' Collection, the distribution of mothers by country of birth is similar for most States. The proportion of mothers born in Australia is marginally higher in the Midwives' Collection than in Birth Registrations, while for mothers born in the United Kingdom and New Zealand, the Birth Registrations are slightly higher. These patterns have been consistent over the past few years.

When comparing absolute numbers by State and Territory there are more pronounced differences, taking into consideration the marginal differences between Birth Registration State of usual residence data and Midwives' State of occurrence data. Overall, the most significant differences between the two collections are for those mothers born in the United Kingdom, Malaysia, New Zealand and the United States of America. Overall, for mothers born in the United Kingdom, the Birth Registration data was 12% higher than the Midwives' data, with New South Wales and the Northern Territory data showed differences of 22% and 20% respectively. Data for New Zealand-born mothers showed a difference of 6%, with large differences in each State and Territory.

Each State and Territory showed differences for each country of birth, particularly for mothers born in the United Kingdom, China, Hong Kong and New Zealand. The handover of Hong Kong to China in June 1996 may have influenced the recording of country of birth for these two countries, whether it be the midwives' or medical practitioners' or the parents' perception. Other reasons for the differences in the country of birth data between the two datasets could arise from the midwife or medical practitioner filling in the Midwive's form on behalf of the parents and the parents filling in the registration form themselves.

A6 REGISTRATION CONFINEMENTS RELATIVE TO MIDWIVES'—Year of Birth 1996

	STATE OR TERRITORY								TOTAL	
	NSW	*Vic.*	*Qld*	*SA*	*WA*	*Tas.(a)*	*NT*	*ACT(b)*		
Selected country of birth of mother	%	%	%	%	%	%	%	%	no.	%
Australia	–0.8	–2.4	-0.8	–1.0	1.8	—	0.7	—	–2 398	–1.2
New Zealand	5.8	0.0	6.6	8.3	10.5	—	4.9	—	381	6.4
UK	22.1	2.4	11.0	12.4	12.4	—	20.0	—	1 381	12.4
Italy	2.1	0.8	4.3	9.6	10.2	—	0.0	—	27	3.2
China(c)	1.6	–1.9	–11.6	2.6	–5.1	—	–20.0	—	–10	–0.3
Hong Kong(d)	2.7	0.9	–39.4	75.0	4.0	—	–25.0	—	–9	–0.8
Lebanon	0.3	–2.5	5.3	5.1	17.2	—	—	—	1	0.0
Malaysia	14.7	1.7	11.2	–6.9	10.4	—	–20.8	—	91	8.1
Philippines	2.4	–1.2	2.5	–3.0	3.3	—	26.2	—	49	1.8
Vietnam	–0.2	–2.1	0.3	1.7	7.6	—	—	—	–9	–0.2
North America	3.8	3.1	8.4	6.0	13.5	—	—	—	74	5.3
Total	0.8	–2.1	0.3	0.5	–2.3	—	3.7	—	–1 346	–0.5

(a) 1996 data for Tasmania is not available from the Midwives' Collection.

(b) The Australian Capital Territory has been excluded from this analysis. (See page 90).

(c) Excludes special administrative regions and Taiwan Province.

(d) Special administrative region of China.

Indigenous Confinements

There are major differences between the Birth Registration Indigenous data and the Midwives' Indigenous data for every State and Territory. From the 1996 Census-based projections, the coverage of Indigenous births from the 1996 Birth Registration dataset appears to be above 80% for South Australia, Western Australia and the Northern Territory and between 70% and 80% for the other States and Territory. Despite the high coverage in Western Australia and the Northern Territory (98% and 95% respectively), there are still clear differences between Birth Registration and Midwives' data. For Western Australia the number of Indigenous births registered was 16% lower than the Midwives' data, while for the Northern Territory the number of Indigenous births registered was 7% higher. The differences between the two datasets for those States with lower coverage is more understandable, New South Wales was 2% lower, Victoria was 22% lower and Queensland 17% lower (the New South Wales' 1996 Census-based estimated coverage of all Indigenous births was 72%, Victoria 71% and Queensland 79%).

One explanation for the differences in the Indigenous data between the two datasets could arise from the midwife or medical practitioner filling in the Midwives' form on behalf of the parents and the parents filling in the registration form themselves: the midwife or medical practitioner may perceive the mother as non-Indigenous when the mother identifies herself as Indigenous.

A7 COMPARING REGISTRATIONS TO MIDWIVES CONFINEMENTS—Year of Birth 1996

	STATE OR TERRITORY								
Confinements of Indigenous Mothers	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.(a)*	*NT*	*ACT*	*Total*
Coverage (%)(b)	72	71	79	89	98	56	95	73	81
Birth Registrations — State of usual residence	1 664	345	2 136	377	1 165	134	1 280	41	7 145
Midwives Data — State of occurrence	1 692	443	2 571	344	1 390	n.a.	1 196	78	7 719
Difference (%)	–1.7	–22.1	–16.9	9.6	–16.2	n.a.	7.0	–47.4	–7.4

(a) As 1996 data for Tasmania is not available from the Midwives' Collection and only 1995 data is, it is not possible to compare this 1995 data with 1996 Birth Registration data due to coverage differences between these two years.

(b) Estimated percentage of Indigenous births registered as 'Indigenous' based on the 1996 Census. This coverage accounts for All Indigenous not just Indigenous Mothers. The Midwives' data only relates to Confinements of Indigenous mothers.

ESTIMATING THE NUMBER OF BIRTHS

As described in Chapter 6, there are four different ways of estimating Indigenous births: from population projections based on the 1991 and 1996 Censuses, the Birth Registrations and the Midwives' Collection.

The Midwives' data contains attributes of the mother but not the father, so births to Indigenous fathers and non-Indigenous mothers cannot be identified as Indigenous births. To enable comparison of the four series, confinements of Indigenous women have been chosen, rather than all Indigenous births. To estimate the number of confinements of Indigenous women for the two projection series the ratio of confinements of Indigenous women to Indigenous births, based on registrations in that State or Territory, was used.

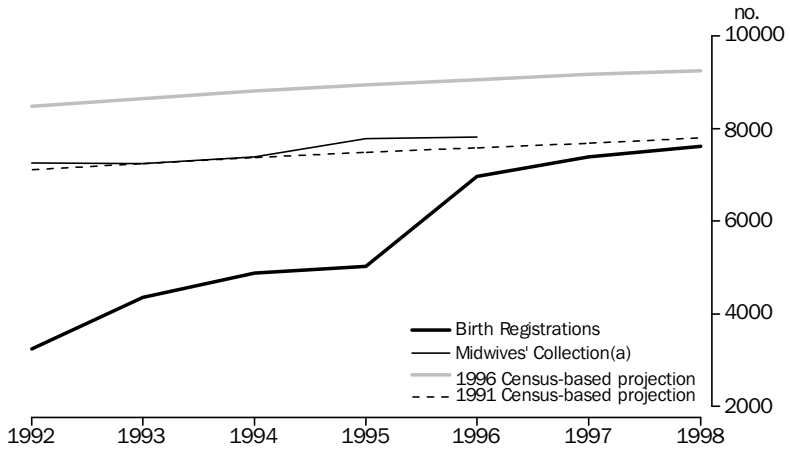
Australia

The number of confinements registered as Indigenous in Australia in 1998 was around 90% of the number that were projected, based on the results of the 1996 Census. During the 1990s, there has been a significant increase in the number registered. This increase has been much greater in some States than others; most noticeably in Queensland, where registered confinements of Indigenous women increased from virtually none in 1995 to 3,100 in 1998.

Australia *continued*

The number of confinements of Indigenous women measured by the Midwives' Collection has been much higher than the number registered, and up until 1996 (the latest data available) was broadly consistent with the 1991 Census-based projections.

A8 CONFINEMENTS OF INDIGENOUS WOMEN: Australia

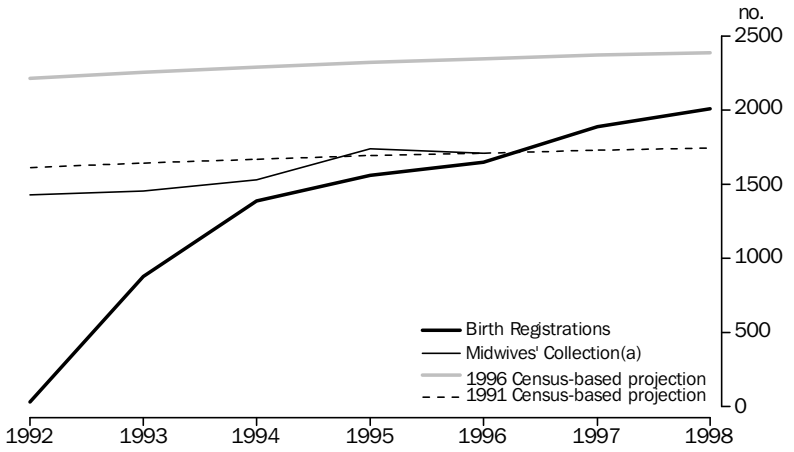


(a) Data from Midwives' Collection are not yet available for 1997 or 1998.

New South Wales

In New South Wales, the number of confinements measured by the Midwives' data in the early to mid-1990s, and by Birth Registrations in the mid-1990s has been relatively consistent with the 1991 Census-based projections. Registration numbers improved from 1993 when the New South Wales Registrar of Births, Deaths and Marriages revised the question about Indigenous origin.

A9 CONFINEMENTS OF INDIGENOUS WOMEN: New South Wales

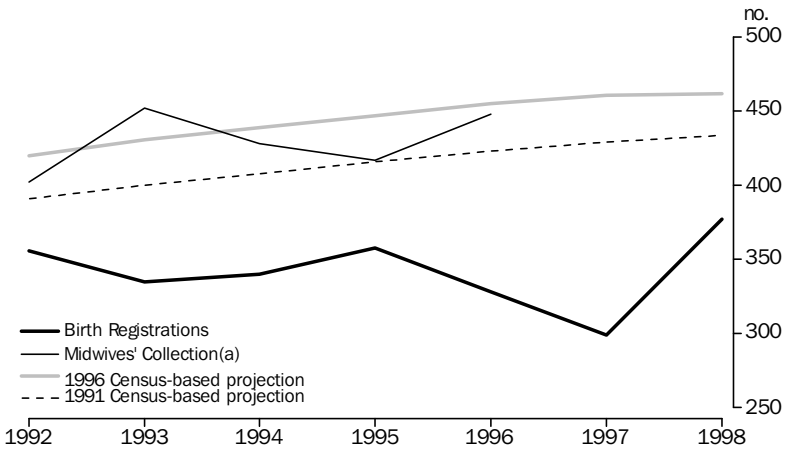


(a) Data from Midwives' Collection are not yet available for 1997 or 1998.

Victoria

In Victoria, registrations of confinements of Indigenous women are significantly lower than any of the other three measures. In 1998 the coverage of Indigenous confinements in the Birth Registration series improved substantially to 87%. However, the number of confinements registered remains below the number projected on the basis of both Censuses and in the Midwives' data.

A10 CONFINEMENTS OF INDIGENOUS WOMEN: Victoria

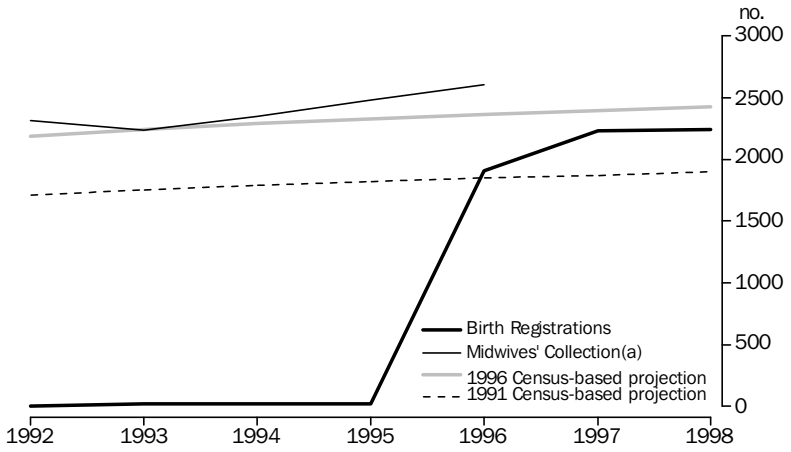


(a) Data from Midwives' Collection are not yet available for 1997 or 1998.

Queensland

In 1996 the Queensland Registrar introduced a new birth registration form which included a question on Indigenous status. Some of the old forms were still used in early 1996, explaining the slightly lower level in 1996 than in 1997. By 1997 the number of births registered was 93% of the number projected based on the 1996 Census and has remained at this level for 1998 registrations. The Midwives' data were also reasonably comparable to the 1996 level.

A11 CONFINEMENTS OF INDIGENOUS WOMEN: Queensland

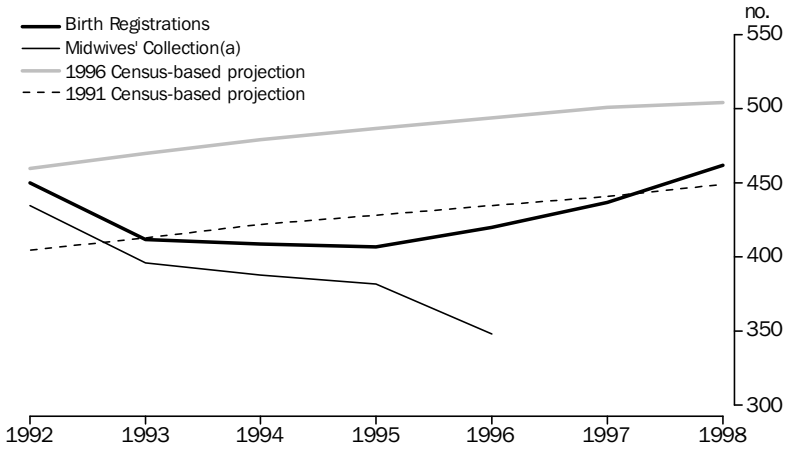


(a) Data from Midwives' Collection are not yet available for 1997 or 1998.

South Australia

In South Australia, the number of confinements of Indigenous women registered and the number reported by the Midwives' data followed quite similar patterns up until 1996, with Birth Registrations at a slightly higher level. In 1996 the number of confinements measured in the Midwives' Collection dropped while the number collected in the Birth Registrations increased to above that projected in the 1991 Census-based projections.

A12 CONFINEMENTS OF INDIGENOUS WOMEN: South Australia

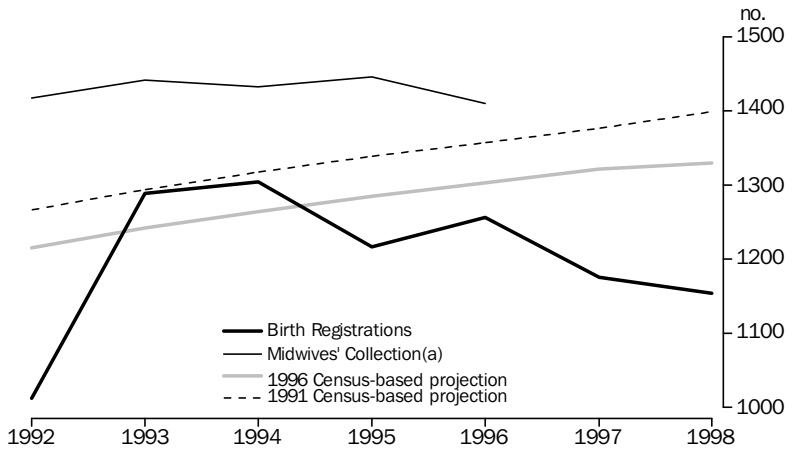


(a) Data from Midwives' Collection are not yet available for 1997 or 1998.

Western Australia

In Western Australia, the number of confinements counted in the Midwives' Collection was considerably above the number registered or projected using either Census. Western Australia and Queensland appear to be the only States where propensity to identify in hospital collections was greater than the propensity to identify in either the Census or Birth Registrations.

A13 CONFINEMENTS OF INDIGENOUS WOMEN: Western Australia

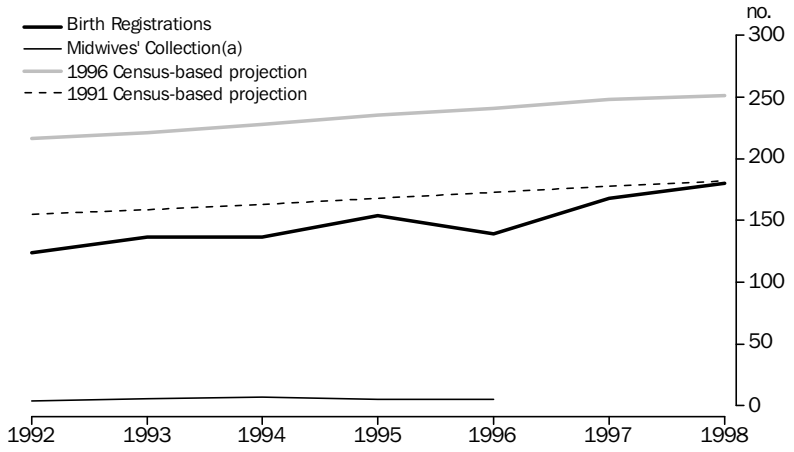


(a) Data from Midwives' Collection are not yet available for 1997 or 1998.

Tasmania

In Tasmania there were virtually no Indigenous confinements recorded by Midwives. The number registered was very close to the number projected based on the 1991 Census. Between the 1991 and 1996 Censuses, Tasmania had a very large increase in propensity to identify. There was no similar increase for Birth Registrations, which increased at about the rate expected, given a purely biological increase in the population (the assumption behind both projection series).

A14 CONFINEMENTS OF INDIGENOUS WOMEN: Tasmania

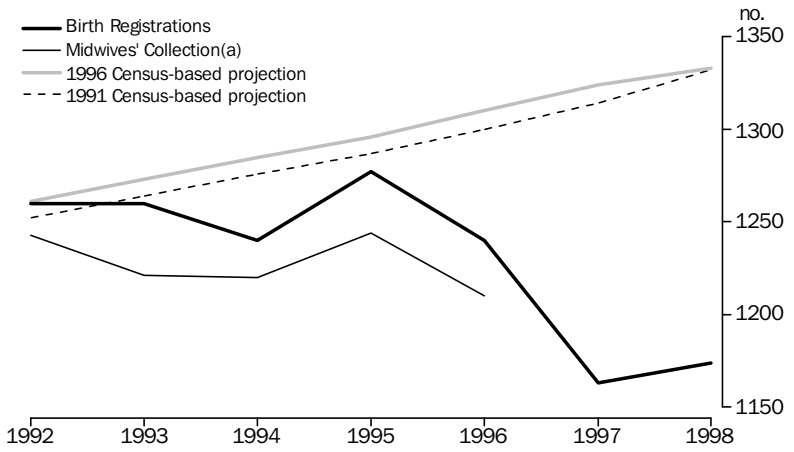


(a) Data from Midwives' Collection are not yet available for 1997 or 1998.

Northern Territory

In the 1991 and 1996 Censuses, persons in the Northern Territory displayed similar levels of propensity to identify as being of Indigenous origin. Until 1995, Birth Registrations were very similar to the projected level, with Midwives' data at a slightly lower level. In 1996 and 1997 the number of Indigenous confinements in the Northern Territory fell. However this has increased again in 1998 with a 89% estimated coverage.

A15 CONFINEMENTS OF INDIGENOUS WOMEN: Northern Territory

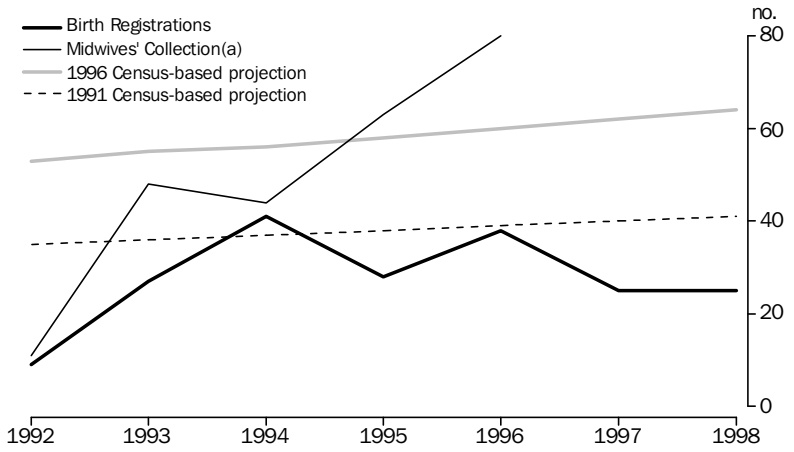


(a) Data from Midwives' Collection are not yet available for 1997 or 1998.

Australian Capital Territory

In the Australian Capital Territory, the relatively small number of Indigenous confinements each year has led to a considerable volatility from year to year. As the Midwives' data are based on confinements which occurred in the Australian Capital Territory, but not necessarily to residents of the Territory, the fact that they were higher than the registration statistics could simply reflect that some Indigenous women in surrounding regions go to the larger hospitals in the Australian Capital Territory, rather than have their babies in the smaller regional hospitals.

A16 CONFINEMENTS OF INDIGENOUS WOMEN: Australian Capital Territory



(a) Data from Midwives' Collection are not yet available for 1997 or 1998.

EXPLANATORY NOTES

INTRODUCTION

1 Registration of births is the responsibility of individual State and Territory Registrars and is based on the data provided on an information form completed, generally by one of the parents. This information form is the basis of the data provided to the Australian Bureau of Statistics (ABS), by individual Registrars, for compilation into the aggregate statistics in this publication. Most data items are collected in all States and Territories and therefore statistics at the national level are available for most characteristics. Some States, however, collect additional information, and some of this is produced in this publication.

2 In the main, statistics in this publication refer to births registered by the State and Territory Registrars during the calendar year shown. There is usually an interval between the occurrence and registration of a birth and, as a result of delay in registration, some births occurring in one year are not registered until the following year or even later. This delay can be caused by either a delay by the parents in registering the birth, or a delay by the Registrar in registering the birth.

YEAR OF OCCURRENCE OF BIRTHS REGISTERED IN 1998

	YEAR IN WHICH BIRTH OCCURRED						
	1992 and earlier	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*
State or Territory of usual residence	%	%	%	%	%	%	%
New South Wales	0.9	0.4	0.4	0.4	0.7	11.2	85.9
Victoria	0.3	0.1	0.1	0.1	0.2	9.9	89.4
Queensland	0.3	0.2	0.2	0.3	0.7	10.7	87.6
South Australia	0.7	0.1	0.1	0.1	0.1	7.5	91.5
Western Australia	0.4	0.1	0.2	0.2	0.6	8.2	90.3
Tasmania	0.3	0.2	0.1	0.1	0.4	8.0	90.8
Northern Territory	0.3	0.1	0.0	0.1	0.1	10.1	89.4
Australian Capital Territory	0.1	0.1	0.1	0.1	0.1	7.6	91.9
Australia	**0.5**	**0.2**	**0.2**	**0.3**	**0.5**	**10.1**	**88.2**

3 For births data, cell values less than three have been suppressed to assist in the preservation of confidentiality of information.

STATES AND TERRITORIES

4 In the main, statistics for States and Territories have been compiled and presented in respect of the State or Territory of usual residence of the mother. However, in the following table data have been presented on a State or Territory of registration basis. Births which took place outside Australia are excluded from the statistics.

BIRTHS, State or Territory of Usual Residence of Mother and State or Territory of Registration

	STATE OR TERRITORY OF REGISTRATION								
State or Territory of usual residence	*NSW*	*Vic.*	*Qld*	*SA*	*WA*	*Tas.*	*NT*	*ACT*	*Aust.*
New South Wales	83 624	873	357	37	19	4	5	580	85 499
Victoria	148	60 221	34	66	6	7	3	7	60 492
Queensland	641	64	46 299	11	14	5	8	4	47 046
South Australia	27	29	7	18 112	3	1	47	—	18 226
Western Australia	28	25	19	13	24 594	4	30	4	24 717
Tasmania	11	33	5	2	1	5 926	—	—	5 978
Northern Territory	24	12	27	25	18	3	3 531	1	3 641
Australian Capital Territory	87	4	2	2	—	—	—	3 887	3 982
Other Territories	17	—	—	1	17	—	—	—	35
Australia	84 607	61 261	46 750	18 269	24 672	5 950	3 624	4 483	249 616

5 In 1998 there were 184 births to women who usually lived overseas. These have been included in this publication and classified according to the State or Territory in which the birth was registered.

BIRTHS, Babies Born to Overseas Mothers

State or Territory of registration	*1993*	*1994*	*1995*	*1996*	*1997*	*1998*
New South Wales	28	33	26	34	50	54
Victoria	13	17	16	22	23	13
Queensland	43	35	43	59	114	89
South Australia	13	13	9	10	19	11
Western Australia	10	4	5	9	12	8
Tasmania	—	—	—	12	—	4
Northern Territory	3	6	—	4	—	—
Australian Capital Territory	5	—	11	7	4	4
Other Territories	—	—	—	—	—	—
Australia	**115**	**109**	**112**	**157**	**223**	**184**

6 As a result of an amendment made in 1992 to section 17(a) of the *Acts Interpretation Act 1901–1973* (Cwlth) the Indian Ocean Territories of Christmas Island and Cocos (Keeling) Islands have been included as part of geographic Australia, hence another category of the State and Territory classification has been created. This category is known as 'Other Territories' and includes Christmas Island, the Cocos (Keeling) Islands and Jervis Bay Territory.

STATES AND TERRITORIES *continued*

7 Prior to 1993 usual residence data for Christmas Island and Cocos (Keeling) Islands were included with offshore areas and migratory in Western Australia while usual residence data for Jervis Bay Territory were included with the Australian Capital Territory. In 1998 there were 35 births to mothers usually resident in Jervis Bay Territory, Christmas Island or the Cocos (Keeling) Islands.

INDIGENOUS BIRTHS

8 This publication includes a section on the number of Indigenous births for New South Wales, Victoria, Queensland, South Australia, Western Australia, and the Northern Territory. The data are regarded as being of sufficient quality to publish. This is measured by comparing it to a benchmark (the number of Indigenous births projected from *Experimental Projections of the Aboriginal and Torres Strait Islander Population, 30 June 1996 to 30 June 2006* (Cat. no. 3231.0)).

9 The population used to calculate Indigenous fertility rates for 1998 is based on *Experimental Projections of the Aboriginal and Torres Strait Islander Population, 30 June 1991 to 30 June 2001* (Cat. no. 3231.0) and the *Experimental Projections of the Aboriginal and Torres Strait Islander Population, 30 June 1996 to 30 June 2006* (Cat. no. 3231.0). These projections are, in turn, based on the 1991 and 1996 Censuses of Population and Housing.

RELATED PUBLICATIONS

10 Other ABS publications which may be of interest to users include:
Australian Demographic Statistics (Cat. no. 3101.0) — issued quarterly
Australian Demographic Trends (Cat. no. 3102.0) — issued irregularly
Causes of Death, Australia (Cat. no. 3303.0) — issued annually
Deaths, Australia (Cat. no. 3302.0) — issued annually
Experimental Projections of the Aboriginal and Torres Strait Islander Population (Cat no. 3231.0) — issued irregularly

11 A compendium of all demographic data for each State and Territory has been released in State or Territory specific publications, *Demography* (Cat. nos 3311.1–8). These publications are released each year for each State or Territory and contain a variety of demographic data.

12 Current publications produced by the ABS are listed in the *Catalogue of Publications and Products* (Cat. no. 1101.0). The ABS also issues, on Tuesdays and Fridays, a *Release Advice* (Cat. no. 1105.0) which lists publications to be released in the next few days. Both are available from any ABS office.

13 As well as the statistics included in this and related publications, additional information is available from the ABS Website at http://www.abs.gov.au and accessing Themes/Demography.

GLOSSARY

Age-specific fertility rate Age-specific fertility rates are the number of live births (occurred or registered) during the calendar year, according to the age of the mother, per 1,000 of the female resident population of the same age at 30 June. For calculating these rates, births to mothers under 15 are included in the 15–19 age group, and births to mothers aged 50 and over are included in the 45–49 age group. Pro rata adjustment is made for births for which the age of the mother is not given.

Birth The delivery of a child, irrespective of the duration of pregnancy, who, after being born, breathes or shows any evidence of life such as heartbeat.

Birth order Birth order refers to the numerical ordering of the total number of children born alive to a woman, including the present child. The first birth order refers to the first birth, the second birth order to the second birth, the third birth order to the third birth and so on.

Completed fertility The completed fertility rate represents the average number of births a cohort of women have borne. It is obtained by summing the age-specific birth rates experienced by that cohort of women over their reproductive lives.

Confinements A pregnancy which results in at least one live birth.

Country of birth The classification of countries is the Australian Standard Classification of Countries for Social Statistics (ASCCSS). For more detailed information refer to *Australian Standard Classification of Countries for Social Statistics* (ASCCSS) (Cat. no. 1269.0).

Recent political developments in Europe and the former USSR have resulted in a number of changes to the ASCCSS. These changes have affected some categories and are detailed in Revisions 1.02 and 1.03 of the ASCCSS.

Crude birth rate The crude birth rate is the number of live births registered during the calendar year per 1,000 estimated resident population at 30 June of that year. For years prior to 1992, the crude birth rate was based on the mean estimated resident population for the calendar year.

Estimated resident population Estimated resident population (ERP) are estimates of the Australian population obtained by adding to the estimated population at the beginning of each period the components of natural increase (on a usual residence basis) and net overseas migration. For the States and Territories, account is also taken of estimated interstate movements involving a change of usual residence.

Estimates of the resident population are based on adjusted (for underenumeration) census counts by place of usual residence, to which are added the number of Australian residents estimated to have been temporarily overseas at the time of the Census. Overseas visitors in Australia are excluded from this calculation.

After each census, estimates for the preceding intercensal period are revised by incorporating an additional adjustment (intercensal discrepancy) to ensure that the total intercensal increase agrees with the difference between the ERPs at the two respective census dates.

Estimated resident population *continued*

The concept of ERP links people to a place of usual residence within Australia. Usual residence is that place where each person has lived or intends to live for six months or more from the reference date for data collection.

Indigenous

Persons who identify as being of Aboriginal or Torres Strait Islander origin.

Indigenous birth

The birth of a live-born child where either the mother or the father was identified as being of Aboriginal or Torres Strait Islander origin on the birth registration form. Indigenous births in Indigenous population estimates/projections are those which result by applying assumed age-specific fertility rates to Aboriginal and Torres Strait Islander mothers in reproductive ages.

Intercensal discrepancy

Intercensal discrepancy is the difference between two estimates of a census year population, the first based on the latest census and the second arrived at by updating the previous census date estimate with intercensal components of population change which take account of information available from the latest census. It is caused by errors in the start and/or finish population estimates and/or in estimates of births, deaths or migration in the intervening period which cannot be attributed to a particular source.

Marital status

Two separate concepts are measured by the Australian Bureau of Statistics. These are registered marital status and social marital status. They have different personal characteristics and are independent variables with separate classifications. Marital status relates to registered marital status which refers to formally registered marriages or divorces for which the partners hold a certificate. Four categories of marital status are identified: never married, married, widowed and divorced.

Median value

For any distribution the median value (age, duration, interval) is that value which divides the relevant population into two equal parts, half falling below the value, and half exceeding it. Where the value for a particular record has not been stated, that record is excluded from the calculation.

Multiple birth

A multiple birth is a confinement which results in two or more issue, at least one of which is live-born.

Net reproduction rate

The net reproduction rate represents the average number of daughters that would be born to a group of women if they are subject to the fertility and mortality rates of a given year during their future life. It indicates the extent to which the population would reproduce itself. The net reproduction rate is obtained by multiplying the age-specific birth rates (for female births only) by the proportion of survivors at corresponding ages in a life table and adding the products.

Nuptial first confinement

A nuptial first confinement is the first confinement in the current marriage and therefore does not necessarily represent the woman's first ever confinement resulting in a live birth.

Nuptiality

Nuptiality relates to the marital status of persons and the events such as marriages, divorces and widowhood. Confinements and births are identified as being nuptial where the father registered was married to the mother at the time of birth, or where the husband died during pregnancy. Confinements and children of Indigenous mothers considered to be tribally married are classified as nuptial. Other confinements, and the children resulting from them, are classified as ex-nuptial whether or not both parents were living together at the time of birth.

Paternity-acknowledged birth

A paternity-acknowledged birth refers to an ex-nuptial birth where paternity was acknowledged.

Previous births

Previous births refer to children born alive (who may or may not be living) to a mother prior to the registration of the current birth in the processing period. In some States, legitimised and legally adopted children may also be included.

Due to variation in data collection and processing methods across States and Territories, different definitions of the concept of previous births have been applied.

All previous births of the mother includes all births prior to the current confinement, regardless of nuptiality and paternity.

Previous births of the current relationship where paternity was acknowledged includes all births prior to the current confinement where the current confinement relates to a nuptial birth, or an ex-nuptial birth where paternity was acknowledged.

Registered marital status

Registered marital status refers to formally registered marriages for which the partners hold a marriage certificate. In this publication the distinction is between married parents (nuptial births) and unmarried parents (ex-nuptial births).

Replacement fertility

Replacement level fertility is the number of babies a woman would need to have over her reproductive life span to replace herself and her partner. Given the current mortality of women up to age 49, replacement fertility is estimated at 2.1 babies per woman.

Social marital status

Social marital status is the consensual union status of a person with reference to another person in the household. In this publication data are only available from midwives' collection. The categories are married/de facto; single; and separated/divorced/widowed.

State or Territory of registration

State or Territory of registration refers to the State or Territory in which the birth was registered.

State or Territory and Statistical Local Area (SLA) of usual residence

State or Territory of Statistical Local Area (SLA) of usual residence refers to the State or Territory and SLA of usual residence of:

- the population (estimated resident population)
- the mother (birth collection); or
- the deceased (death collection).

In the case of overseas movements, State or Territory of usual residence refers to the State or Territory regarded by the traveller as the one in which he/she lives or has lived. State or Territory of intended residence is derived from the intended address given by settlers, and by Australian residents returning after a journey abroad. Particularly in the case of the former, this information does not necessarily relate to the State or Territory in which the traveller will eventually establish a permanent residence.

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

Year of occurrence Data presented on year of occurrence basis relate to the date the event occurred.

Year of registration Data presented on year of registration basis relate to the date the event was registered.

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