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Any views expressed in this paper are those of the author and do not represent the views of the Government, the Minister for Family and Community Services, the Department of Family and Community Services or any Commonwealth department.

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Department of Family and Community Services
PO Box 7788
Canberra Mail Centre ACT 2610
Telephone:1300 653 227
Internet: www.facs.gov.au
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Executive summary

The ageing of the population has been of increasing concern to government and society in recent years. However, the focus of this concern is shifting from the absolute increase in numbers of older people (numerical ageing) to falling fertility and the resulting decline in numbers of children being born (structural ageing).

Fertility in Australia, as in all other developed countries, has been falling for a considerable time. In Australia, the total fertility rate (see p. 3 for a definition) has fallen from 3.6 in 1961 to 1.75 in 1999, the lowest level seen in the twentieth century and well below the replacement rate of 2.1. Nevertheless, Australia's total fertility rate falls in the middle rank of developed countries.

The population will continue to increase for some decades because there will remain large numbers of women of reproductive age having children. However, later cohorts of women are smaller, and as they are likely to have few children and have these later in life, natural increase is expected to begin to fall some time in the 2030s. Immigration will keep the population growing for another 20 years beyond this.

The shift in Australia's population structure will negatively affect the workforce dependency ratio (that is, the ratio of those in the workforce to those not in the workforce). It will also reduce growth in the proportion and actual population of workforce age, which will ultimately reduce the growth in the working age population (from 180 000 per year to 140 000 over the whole decade commencing around 2020), unless policy or other influences on long-term fertility and participation rates impact soon. There may also be negative impact on economic growth and the availability of social support currently provided by the family.

Immigration is able to ameliorate but not reverse this situation. This is principally because immigrants also age and, at numbers above 100 000, they do little to influence the age structure of the population while having a significant impact on total population. The decline in fertility worldwide among developed countries will also increase competition for skilled migrants and reduce sources.

There is evidence that declining fertility is associated with many young women ultimately having fewer children than they would wish. This outcome arises from a range of causes whose relative importance is not yet known. These include the direct and opportunity costs of children; the cultural and institutional framework in which families are created; the impact of gender on the relative responsibilities that women face in having children; and possibly, difficulties in locating an acceptable partner for some groups of men and women.

The changes in the population structure are occurring over very long timeframes. Over the next few decades, the steady rise in population combined with structural ageing will have implications in most policy areas. However, these changes will be gradual and steady and at current levels our fertility rate does not represent a crisis.
We can choose to continue with current policies and deal with the results as they occur or we can attempt to influence the future through changes to current policy. However, we should note that evidence from other developed countries indicates that is possible for fertility to fall far below current levels to points that would have serious ramifications for society and future policy direction. This paper attempts to identify the range of issues that contribute to falling fertility and to point to the general policy directions that might be considered if maintenance of fertility at its current level is to be supported.
1 Introduction

The publication in 1994 of the World Bank Report *Averting the Old Age Crisis: Policies to Protect the Old and Promote Growth* highlighted concern about the ageing of the population and focused government and community attention around the developed world on this issue.

Most of this concern has been focused on **numerical ageing**—the absolute increase in **number** of older people. Concern both here and overseas focused on the sustainability of the retirement income and health and aged care systems given the increase in dependency ratios.

Recently, there has been a shift in public debate as the importance of decline in the tax base to long-term system sustainability has led to recognition of the implications of **structural ageing**, which is primarily the result of falling fertility. As fertility falls, the proportion of the population to be found at younger ages decreases, and concomitantly, the **proportion** at older ages increases.

This paper provides a general overview of the currently available data. It does not argue the case for a particular population level. It considers whether the decline in fertility rates matters in terms of social policy and reviews relevant academic work relating to possible causes. It broadly considers policy intervention and briefly nominates some possible policy responses. It is beyond the scope of the paper to address Australia’s optimum population level or consider the implications of any particular level for the environment.
2 Context: the demographic story

Fertility in Australia, as in all other developed countries, has been falling for a considerable time. This is discussed in terms of TFR—the total fertility rate (Jackson 2000). (See box below for a definition of TFR). In 1921 the TFR in Australia was 3.1. This declined through the Great Depression to a low point of 2.2 at the beginning of the Second World War, after which it was reversed and reached its highest level during the ‘baby boom’ at 3.6 in 1961. The replacement TFR is around 2.1. This is the number of children each woman would need to have to replace the population, in the long term, given the prevailing mortality levels. Fertility has been below this level since the mid-1970s, fluctuating around 1.8 or 1.9 through the 1970s and 1980s, with a small but steady decline throughout the 1990s. In 1999 Australia’s TFR was 1.75, dropping from 1.76 one year earlier (ABS 2000a, p. 20). This is the lowest level seen in the twentieth century.

The total fertility rate is falling ...

Total Fertility Rate

The total fertility rate (TFR) is the average number of children a woman would expect to have across her lifetime if she were to experience all of the age-specific birth rates occurring in that year. This index, which is calculated for women aged 15–49 years, is also sometimes called a ‘period rate’ because it is based on births occurring during a given period (that is, a year). It contrasts with the Completed Fertility Rate (CFR, sometimes called the Cohort Fertility Rate), which refers to the average number of births actually born to a woman from a given cohort (women born in the same year). Because the CFR requires longitudinal data, it can only be calculated for women who have reached their late forties. As a result there is heavy reliance on the TFR as an indicator of fertility trends. Importantly, neither the TFR nor CFR permit identification of the number or proportion of women who are having no children.

In a context where increasing numbers of women are remaining childless, a TFR or CFR of 2.1 or less indicates that many of those who are still having children are having more than two. According to McDonald (1998), Australia’s 1996 TFR of 1.8 was being held up by the proportion of women still having three or more children, around 25 per cent. However, age-specific data indicate that this proportion is falling sharply. Whether the fall will ultimately be mirrored in the CFR is open to conjecture, but, like the TFR, the CFR is likely to remain below replacement level and therefore to have long-term implications for both structural ageing and population size.
The number of children aged between 0 and 4 years declined by 0.8 per cent or 10 450 in the 12 months to 2000 (ABS 2000b, p. 8). However, the number of babies being born each year is still well above the number of deaths that occur each year. In 1998, there were around 248 500 births and 127 700 deaths. As a result our population is still continuing to grow from natural increase (ABS 1999, p. 24–25).

If birth rates were the same at each age today as in 1973 there would have been 40 per cent or 100 000 more births in 1998 and if death rates were the same today as in 1971–76 there would have been 60 per cent or 78 000 more deaths in 1998 (McDonald & Kippen 1999, p. 47).

**Figure 1:** Total fertility rate, 1921–99

![Total fertility rate, 1921–99](chart1.jpg)

**Source:** ABS 1999a

... but, currently, the number of births still exceeds the number of deaths.

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**Figure 2:** Registered births, 1908–98

![Registered births, 1908–98](chart2.jpg)

**Source:** ABS 1999a
When net overseas migration is included, the rate of population increase was 1.2 per cent in 1998 (ABS 2000, p.75). With net overseas migration of 70 000 per year and a fertility rate of 1.75, ABS population projections (Series 2) indicate the population is likely to peak at around 25 million at about 2050. If net migration was stable at 90 000 (Series 1) this peak would be over 26 million. Projections from Series 3, which assume fertility falls to 1.6 in 2005–06 and remains at this level with net migration of 70 000, indicate a population of between 23 and 24 million between 2024 and 2033, with only very slow growth after this (ABS 1999, p.78).

From around 2030, future growth is expected to depend on immigration. Prior to this, the main reason for continued growth, despite the low TFR, is because of the large cohorts of women currently at reproductive age. Even with low fertility rates, they will add sizeable numbers to the population.

Another important change contributing to declining birth rates is the age at which women are having children. The lowest median age of mothers in the twentieth century occurred in 1971 when it was 25.4 years. Since then the average age of all mothers has been increasing each year to reach the highest level so far at 29.7 years in 1999, the most recent year for which data have been collected (ABS 2000a, p.46). Comparative OECD data indicate that the average age of women at first birth in Australia is now amongst the oldest in the world. In 1993 this stood at 28.3 years, behind only New Zealand and Switzerland (OECD 1998). Since then Australian average age at first birth has continued to rise, reaching 29.1 years in 1998 (ABS 1999a).

Figure 3, which includes all births, clearly shows the shift over time to having children later.

Delayed child-bearing reduces overall fertility by stretching out each generation. For instance, in the simplified example at Table 1, 100 women each have a daughter at either 25 or at 33 years. These daughters also have daughters at the same age. After approximately 100 years, the group of older mothers (those aged 33 years) has had 300 children while those aged 25 years has had 400 children. This happens even though there is no difference between the number of children each individual woman has.

As well, observation of actual behaviour indicates that delaying the commencement of childbearing is associated with lower overall birth rates—that is, women who commence having children at a
younger age are likely to have more children over their whole lives than those who commence later.

**Figure 3:** Age-specific proportion of women having babies, by age, 1967 and 1997

Source: ABS 1999

**Table 1:** Impact on total births of delayed births

<table>
<thead>
<tr>
<th>Year</th>
<th>1900</th>
<th>1925</th>
<th>1950</th>
<th>1975</th>
<th>2000</th>
</tr>
</thead>
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<tr>
<td>Women aged 25 at birth of child</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Cumulative number of children born 1900–2000</td>
<td>400</td>
<td>300</td>
<td>200</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>1900</td>
<td>1933</td>
<td>1966</td>
<td>1975</td>
<td>2000</td>
</tr>
<tr>
<td>Women aged 33 at birth of child</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cumulative number of children born 1900–2000</td>
<td>300</td>
<td>200</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Calculated by author

While it has been suggested that these delayed births will be made up by women having children at older ages, current evidence does not support this. Figure 4 shows that the decline in age-specific fertility rates among younger women is offset to some degree by a rise in the fertility rates of older women, but this offset falls short of maintaining the earlier total fertility rate.
One other important contributing factor to the fall in fertility is the increase in the number of women who are having no children and the decrease in the number of women who are having three or more children. In the decade from 1986 to 1996, the proportion of all women aged 45–49 years who had three or more children dropped from 54 per cent to 40 per cent. This is the lowest proportion since the first decade of the twentieth century. This trend is most strongly marked among women with higher education but is also increasing among women with lower or no post-school qualifications.

The main difference between fertility in Australia and fertility in countries in Europe with very low fertility is that very few women in these European countries have more than two children. In Australia, 37 per cent of women aged around 40 years had three or more children. Projections for younger women indicate this rate may decline to 27 per cent for women currently aged 30 years and at this level they will be responsible for 50 per cent of total fertility. If these women were to have only two children, our total fertility rate would fall to 1.4 (McDonald 1998).

Figure 4: Age-specific fertility rates, under age 30 and over age 30, Australia, 1980–1998

Source: Kippen 2000

Another driver of low fertility is the increase in the number of women having no children and the fall in the proportion having 3 or more children.
2.1 Which women are having fewer children?

As shown in Table 2, over time almost all women, whether they are examined by age, marital status, labour force participation, occupation or education, are having fewer children. Table 2 includes the percentage of women by marital status and employment having no children, three or more children and the mean for age groups 25–29 and 35–39 in 1986 and 1996.

Table 2: Fertility by marital status and labour force status for women aged 25–29 and 35–39

<table>
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<tr>
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<td>0</td>
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<td>Mean</td>
<td>0</td>
<td>3+</td>
<td>Mean</td>
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<td></td>
<td>%</td>
<td>%</td>
<td></td>
<td>%</td>
<td>%</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Married</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td>28.6</td>
<td>15.4</td>
<td>1.4</td>
<td>6.5</td>
<td>42.0</td>
<td>2.4</td>
</tr>
<tr>
<td>1996</td>
<td>39.1</td>
<td>10.8</td>
<td>1.1</td>
<td>8.0</td>
<td>37.8</td>
<td>2.3</td>
</tr>
<tr>
<td>Never married</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td>82.1</td>
<td>2.8</td>
<td>0.3</td>
<td>78.2</td>
<td>5.5</td>
<td>0.4</td>
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<tr>
<td>1996</td>
<td>78.0</td>
<td>3.9</td>
<td>0.4</td>
<td>65.6</td>
<td>8.9</td>
<td>0.7</td>
</tr>
<tr>
<td>Widowed, separated or divorced</td>
<td>32.2</td>
<td>16.8</td>
<td>1.4</td>
<td>12.8</td>
<td>34.9</td>
<td>2.2</td>
</tr>
<tr>
<td>De facto</td>
<td></td>
<td></td>
<td></td>
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<td>59.0</td>
<td>10.0</td>
<td>0.8</td>
<td>21.6</td>
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<td>1.1</td>
<td>14.0</td>
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<td>8.7</td>
<td>0.8</td>
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<td>1.9</td>
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<td></td>
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<tr>
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<td>22.2</td>
<td>1.8</td>
<td>6.0</td>
<td>47.2</td>
<td>2.6</td>
</tr>
<tr>
<td>1996</td>
<td>18.9</td>
<td>20.0</td>
<td>1.6</td>
<td>8.3</td>
<td>46.6</td>
<td>2.5</td>
</tr>
</tbody>
</table>

*Source:* McDonald 1999

In general there is an inverse relationship between where women live, educational attainment, socioeconomic position and fertility rates.

Women in rural areas and those who are disadvantaged in terms of income, education or skills have higher fertility rates.

The TFR of women in capital cities is much lower than that of rural regions and the median age of mothers is slightly higher in cities.

The ABS reports that 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, in regions ranked in the bottom three SEIFA deciles, where on average, women have low levels of education and low-skilled occupations, there are fertility rates of between 2.0 and 2.1 babies per woman (compared to the national total fertility rate of 1.74). Conversely, those in the regions in the first and second deciles have lower total fertility rates of 1.3 to 1.6. Similar results are found when TFR is examined by more general socioeconomic indicators (ABS 2000a).

2.2 Impact on the age structure

The very large cohorts of baby boomer women have almost completed having children, and the very large ‘baby boom echo’ cohort of women born in the late 1960s and early 1970s are entering the time when they are most likely to be having children. The cohorts following are smaller. So Australia is confronted with a future where a much smaller group of women will be available to have children at a time when the number of children that each woman is likely to have is also continuing to fall. Figure 5 represents actual numbers of people in each age group as well as the impact of first generation migrants.

Figure 5: Age and sex structure for the Australian-born and overseas-born populations by number, 1997

Source: Jackson 1999
Because of these changes, the shape of the population structure is changing quite radically and quite quickly. The following graphs represent change over a 40-year period.

**Figure 6:** Age and sex structure of the Australian population by percentage: 1976, 1996 and 2016

Most importantly, the balance of people who are of retirement age, of workforce age and who are young is shifting. Currently, people who are aged 65 and over make up 12.3 per cent of the total population and young people aged less than 19 years make up 26.4 per cent.

The proportion of people aged 65 and over is expected to double to between 24 per cent and 26 per cent by 2051, while the younger group will decline by several percentage points to around 20 per cent.²

This represents an important change, as the proportion of people aged 20 to 64 will decline. This group, who form the primary tax base, has remained unchanged for several decades. Until now the decline in youth and increase in the aged have been in balance, even if the costs have not been.

These population figures are derived from ABS population projections that assume that the TFR will fall to either 1.75 per cent or 1.6 per cent by 2005–06, with net migration gain of either 70 000 or 90 000 each year.

*Source:* Jackson 1999

*The proportion of the population aged 65 and over will increase and the proportion aged less than 19 will decline.*

*For the first time in several decades the proportion who make up the primary tax base will decline.*
It is worth noting that the TFR in 1999 in all capital cities was below the higher ABS projection rate (1.75) in every capital city in Australia. Only Sydney was close at 1.73, with all other cities being closer to the lower rate, 1.6 (ABS 1999a).

Should the fertility rate prove to be lower than those currently projected by ABS, the ultimate size of the population is likely to be lower and the proportions of older, working age and young people will shift further, with a stronger emphasis on the older age groups.

2.3 Overseas situation

By the year 2050, there will be more people in the world aged 60 and over than children aged less than 15 years (United Nations 1998). The TFR for the whole world is currently 2.7. While Australia’s TFR is one of the lowest in the world overall, it falls in the middle rank of developed countries. Our TFR is below that of the United States and New Zealand but is higher than most European countries (see table 3). Germany, Italy and more than half the countries of Eastern Europe are experiencing more deaths than births and therefore a natural decline in population. Net migration is a more important contributor to population growth than natural increase in almost all countries of the European Union (Hugo 2000, p. 5). Both the United States and New Zealand have large minority populations whose younger profile and high fertility rate are assisting to maintain their country’s TFR at higher levels.

The degree of variability between many otherwise quite similar countries is noteworthy. France and the Scandinavian countries as well as the English-speaking countries have higher birth rates than other developed countries.

The dramatic drop that appears in the 1997 figure for Sweden is probably a reflection of the recession of the early 1990s. This was the deepest for at least 20 years. It followed decades where unemployment had been stable at about 4 per cent. During the recession this rose to between 8 per cent and 10 per cent and significantly affected employment of women. In response the government embarked on a program of fiscal consolidation and reduced the generosity of social programs. The budget has since been brought into surplus and conditions are being ratcheted back towards pre-recession levels.
Table 3: Total fertility rates, selected countries

<table>
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<td>Malaysia</td>
<td>N/A</td>
<td>5.27</td>
<td>3.98</td>
<td>3.53</td>
<td>3.40</td>
</tr>
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<td>India</td>
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<td>N/A</td>
<td>4.70</td>
<td>3.80</td>
<td>3.31</td>
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<td>3.03</td>
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<td>2.33</td>
<td>1.68</td>
<td>1.71</td>
<td>1.66</td>
</tr>
<tr>
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<td>1.92</td>
<td>1.68</td>
<td>2.13</td>
<td>1.52</td>
</tr>
<tr>
<td>Singapore</td>
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<td>N/A</td>
<td>1.74</td>
<td>1.60</td>
<td>1.46</td>
</tr>
<tr>
<td>Japan</td>
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<td>2.13</td>
<td>1.80</td>
<td>1.54</td>
<td>1.44</td>
</tr>
<tr>
<td>Germany</td>
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<td>2.03</td>
<td>1.56</td>
<td>1.45</td>
<td>1.36</td>
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<tr>
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<td>N/A</td>
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<td>1.26</td>
<td>1.33</td>
</tr>
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<td>Greece</td>
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<td>2.39</td>
<td>2.21</td>
<td>1.39</td>
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<td>1.22</td>
</tr>
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<td>Spain</td>
<td>2.86</td>
<td>2.90</td>
<td>2.20</td>
<td>1.36</td>
<td>1.15</td>
</tr>
</tbody>
</table>

Note: Bolded figures indicate the country is an OECD member country and the data were obtained from OECD Health Data 99. Data for non-OECD (non-bolded) countries were obtained from US Bureau of the Census, International Data Base and represents expected TFR for the period 1995–2000.
3 Policy implications

Dependency ratio

These demographic changes will inevitably lead to a change in the dependency ratio. Currently, the elderly dependency ratio, which is defined as the ratio of people aged 65 and over to those aged 15–64, is approximately 20 per cent. This is expected to rise to about 40 per cent by the middle of this century (Bacon 1999, p. 71). This raises now-familiar concerns with the longer-term sustainability of the Age Pension and health and aged care systems, through increases in the proportion of the population accessing these services and benefits.

Jackson (1999) cites McDonald’s (1998) explanation that ‘if women, on average, have just one child, then the size of the generation will halve in just one generation’ (p.3), and contends that ‘this phenomenon, known as halving time, would cause a dramatic and unprecedented shift in the age structure, and a concomitant incapacity to sustain a social security system of (or even close to) the type Australians currently enjoy (p. 219).

Size of the workforce

An implication of this change in the age structure of the population that will increasingly attract the attention of the business community is the impact on the workforce. According to the Retirement Income Modelling Unit in Treasury (and ABS projections), the working age population currently grows by 180 000 each year. In the decade starting from around 2020 the working age population will only grow by 140 000 over the whole decade. Growth peaked in 1999 and from now on there will be steady decline in the rate of growth (Bacon 2000, p. 9).

ABS labour force projections anticipate a decline in growth of the labour force from 1.6 per cent in 1998–99 to 0.4 per cent in 2015–16 (ABS 2000c, p. 3).

It is important to note the long time frames involved. Almost all the workforce of 2020 has already been born. The numbers cannot be increased except through immigration and births occurring over the next few years. The numbers entering the workforce during the remainder of that decade will be influenced by policy that is occurring now and over the next decade. This includes policies that may influence fertility
and those that affect the participation rate, for instance among women, people with disabilities and those of early retirement age (including those on income support).

This decline in growth, and ultimately the decline in the actual size of the workforce-age population, will affect the tax base and result in pressure on the social security system. Similar problems are already occurring in countries where ageing of the population is occurring more quickly. For instance, the size of the working-age population is declining in Germany, Italy and Japan.

Economic growth

Related to reduced growth in the size of the workforce is a concern about economic growth more widely. A decline in growth in the size of the workforce will reduce the capacity of the economy to maintain rates of output growth without increasing productivity growth, or output per employee, to higher rates than they are currently—and these are already at a historically high level.

Steve Dowrick (1999), at the Conference on Policy Implications of the Ageing of Australia’s Population sponsored by the Productivity Commission and the Melbourne Institute of Applied Economic and Social Research, examined the issue of economic growth. He concluded from an empirical survey that ageing of the population may be associated with an up to 10 per cent reduction in real output by 2020. However, he also noted that the declining birth rate implied a lower than previously expected population and that this could see economic growth per capita not much affected. It is difficult to assess the wider impact on investment and demand in the Australian economy of a decline in world output resulting from a decline in the world labour force via interest rates, exchange rates and international capital flows.

It was noted by Gary Banks (1999) at the opening of the same conference that no consensus has emerged in the economics profession concerning the impact of ageing on economic growth.

Modelling from the Retirement Income Modelling Unit presented at the same conference indicated that annual GDP growth will decline from an average of 3.9 per cent over the period 1983 to 1998 to an average of 1.7 per cent over the period 2044 to 2059. This will occur unless productivity can be lifted to a substantially higher level than the average over the past 15 years (Bacon 2000, p. 1).
On a related note, McDonald (2000b) discusses the importance of looking at impacts beyond Australia’s economy. While the United States will experience slowing growth in labour supply, the size of the labour supply means that this will grow very significantly at a time when other developed countries are experiencing very low or negative growth. Between 1999 and 2054, on current trends, the US labour supply will grow by 40 million while Japan declines by 24 million and Australia increases by 2 million. He notes that there are strong arguments that if capital follows growth as it has done in the past 20 years and if its productivity matches, or exceeds, the rest of the world, the US economy will steam ahead while the rest of the developed world, including Australia, is looking for labour (p. 4).

**Social support mechanisms**

Much social support has always been provided from within the family. The decline in fertility, and resulting growth in the number of people who have no immediate family or very small families, is expected to result in increased demand for formal provision of services either through government provision or purchase from the private sector. This applies to services required by older people. This may be offset to some extent by increased availability of services to younger family members being provided by the more numerous older members. The reduction in family support for the elderly will be felt most widely in around 2025–30, as those born in the 1960s and 1970s who had fewer children reach old age.

### 3.1 Why not use immigration to solve this problem?

There is a limit to the extent that immigration can be used to address the problems caused by low fertility. Some people argue that we can make up both the numbers in total and the decline in numbers of people of workforce age through increased immigration. While immigration policy is potentially important in addressing population policy, it cannot be the sole policy lever for several reasons.

**Political, economic and cultural constraints**

Average net migration has stood at around 80,000 over the past eight years and also the past 50. Perennial concerns about the level of immigration within the Australian community suggest there is little likelihood that immigration levels could be lifted significantly...
in the short to medium term. When the United Nations projected the level of migration that would be required to maintain the elderly dependency ratio at its 1995 level in eight countries, including the United States, it concluded that the number required would be vastly larger in every country than any previous experience. It would furthermore result in having between 59 per cent and 99 per cent of the population in all countries in 2050 being composed of post-1995 migrants and their descendents (United Nations 2000, p. 22).

Such levels of migration must bring into question our economic capacity to absorb such high numbers. For instance, the very large group of immigrants who arrived in 1988–89 experienced very high rates of unemployment. They faced high levels of competition as they arrived in Australia at the same time as our largest cohort, born in the late 1960s and early 1970s, was entering the workforce. They also faced the economic downturn of the early 1990s. As a large group, their skill levels were lower than the levels held by the more recent smaller groups of immigrants. While such a confluence of negative factors is unlikely to affect all large intakes, their experience does point to the difficulties that can arise from sudden large increases in immigrant numbers.

**Availability and suitability of potential migrants**

The decline in international birth rates is also likely to result in increased competition for young skilled people from other countries seeking such immigrants and from source countries seeking to dissuade these people from emigrating. These forces will also influence behaviour of young skilled Australians who may be attracted overseas. The United Nations median variant projection for population in 2050 indicates that at current levels of migration the European Union will have 41 million fewer people than currently. During the same time its working age population is projected to decline by 61 million (United Nations 2000, p. 21). This projected decline is likely to increase competition for skilled migrants that Australia will be seeking, and may also increase the rewards offered to skilled Australians willing to work overseas.

For example, Andrew Cornell (2000) for the *Australian Financial Review* discusses *The Frontier Within Individual Empowerment and better Governance in the New Millennium*, a report to the Japanese Government. The report is a pointer to policy on skilled migration in that country. It seeks to address a declining birth rate, an ageing population and a shrinking workforce. It advocates ‘a low

Likely reduced availability and increasing competition for young skilled migrants.
key start to immigration, proposing measures to make skilled workers want to live in Japan and legislative change to allow foreign students to stay in the country after completing their studies."

In Australia, immigration policy over recent years has been rebalanced in favour of skilled migration. While Australia is an attractive country, increased immigration could only be achieved through acceptance of less skilled or older immigrants, indicating that competition from other attractive countries is a realistic concern. This may put downward pressure on productivity.

Reinforcing this difficulty is the demographic situation of countries that have traditionally provided immigrants. All European nations except the former Yugoslavia and Norway have TFR rates that are lower than our own. Large numbers of potential immigrants would probably only be available from countries whose education, ethnic and cultural backgrounds are very different from Australia’s, making their acceptance in large numbers less likely in the short to medium term. Table 3 provides some comparative international TFRs.

**Ageing of immigrants**

The effect of immigration on Australia’s demographic profile varies at different levels. While zero net immigration would ultimately lead to serious population decline, increasing our levels sufficiently to maintain the current level of about 12 per cent of the population being aged over 65 would have required 200,000 immigrants in 1998, rising to 4 million in 2048 and 30 million each year in 2098. The point here is that immigrants also age. A third of the people who are currently over 65 were formerly immigrants (see Figure 5). This is despite the tendency of some immigrants to return ‘home’ in retirement.

Nevertheless, current levels of migration can have significant benefits on the number and proportion of people in the workforce. While immigration at 70,000 per year will add 11.5 per cent to the 65+ population by 2050, they will add 24 per cent to the working age population. Our immigrant population is already relatively young with the highest proportions of 1998 arrivals being in the 0–39 year age groups. Only 8 per cent were aged 50 years or over. To lower average migrant age further, preference would probably need to be given to people who already have children.
McDonald and Kippen (1999) describe the impact of immigration on ageing as follows:

At all points in time the impact of immigration on ageing is subject to diminishing returns. Each additional 50,000 immigrants has roughly half the impact in ageing as the previous 50,000. Thus a net migration level of 100,000 per year has a fairly substantial impact on ageing, but there is very little gain in the reduction of ageing from adding another 100,000. That is, levels of immigration above 100,000 per year add large numbers of people to the population with little impact on the age structure. (p. 50)

Only part of the answer

Lastly, immigration can only form one strand of policy because, like low fertility, it is subject to decisions by individual people, albeit people who are responding to broader circumstances that include the influences of government policy. Government can influence population size through migration policy, but cannot control it. The governments of other countries are also trying to influence population through migration.

Government cannot, for example, control the number of people leaving Australia. It also has limited capacity to influence the number of long-term temporary arrivals and departures. For many highly skilled people (for whom Australia will face increasing competition to attract), the concept of permanent residence will be increasingly irrelevant. For example, in 1998, the permanent migration (that is, permanent arrivals) intake was 81,000 people. As well, there were 187,000 long-term arrivals, 33,000 permanent departures, 146,000 long-term departures and 23,000 category jumpers, leading to an actual net migration gain of 112,000.
4 Causes of falling fertility

Falling fertility is not only an issue for concern from a societal point of view. It is also a real possibility that many women who would like to have had children are ultimately reaching the end of their reproductive lives without having done so. There appears to be a gap between the aspirations of women and actual outcomes.

Among the group of 14 000 18–23 year olds who form the young cohort of women in the Australasian Longitudinal Study on Women’s Health, 92 per cent indicated that they would like to have children by the time they are 35 years old. Sixty-five per cent wanted one or two children and 27 per cent wanted more than two. On the basis of current indications, about 20 per cent of these young women who intend to have children will not do so (Bryson et al. 1999, p. 32).

It is often argued that while young women express desire for children, as they become older they modify their view and that lower fertility represents this modification of preferences over time. This view is not confirmed by recent research, which investigated individuals’ desire for small families as well as their social ideals about family size. This study included comparison data for 22 other nations as well.

The study investigated the views of people of all ages and concluded that Australians overwhelmingly reject childlessness, with nearly three-quarters definitely rejecting it as a personal preference. One-child families were only a little more popular, with only 14 per cent supporting this as the ideal. Two-child and three-child families were the most popular, while four-child families were seen as more desirable than childless or one-child families. When asked about ideal family size, rather than their own preference for themselves, less than 1 per cent of Australians thought it was ideal for a couple to remain childless, with an additional 1–2 per cent thinking one child was ideal. The study found men were just as unlikely as women to support small families. It also found there was no difference in preferences expressed between those people who were married, single or divorced and between those who held feminist attitudes and those who did not. Age was the only socially significant difference. Younger people, those aged 20 years, are more likely than older people, those aged 70 years, to find small families ideal (Evans & Kelly 1999, pp. 13–19).

It is likely that many young women who currently aspire to have children will not do so.

It does not seem to be the case that lower levels of fertility are a reflection of women modifying their preferences over time.
Figure 7: Pressures on family formation

- **Costs**
  - Opportunity costs: Women who have children earn less over their lifetime than similar women who do not.
  - Housing costs: Particularly in capital cities often requiring two incomes to support mortgages.
  - Costs of children: Both direct and indirect.
  - Rising employment entrance costs: A more highly skilled workforce means that a much higher proportion of the workforce needs to acquire education and the cost of this is rising. As well, higher levels of unemployment and less secure employment may mean that the time taken to acquire secure employment may be longer than in the past.

- **Cultural & Norms**
  - Success & identity is associated with workforce achievement. These may be at risk if a woman leaves the workforce to have children.
  - Consumption aspirations.
  - The workforce aspirations of many men and women are now very similar. Women often pursue workforce goals before having a family. Many higher income women conclude that it is not possible to have both or minimise the disruption to their career by having fewer children, later.
  - Gender roles: inequity between men and women’s responsibility for children and housework.
  - Possible educational mismatches in identifying a suitable partner.

- **Stability**
  - Stability and security are often thought to be associated with ‘setting down’, buying a house and starting a family. Lack of stability in relationship, employment and within the wider economy may be important.
  - Relationship breakdown/divorce.
  - Childcare availability, affordability and flexibility.
  - Degree of family friendliness of work place to allow for balance between work and family responsibilities.

- **Work vs Family**
  - Workplace culture and the ‘traditional’ working week reinforce gender roles by making it difficult for women to balance work and family. Shared parenting is more difficult because of pressure on both men and women to conform to workforce norms. Many women perceive that it is more likely that they will have to trade-off their career aspirations than their partners, if they have children.
Discussion of the causes of fertility decline has often focused around the issues summarised in Figure 7 and discussed in the following text. While there is no doubt that many of these issues contribute to the decisions couples and women make in relation to children, the relative importance of each is not known and will not be the same for all people.

4.1 The direct financial costs of children

Direct costs, such as clothes, food and health costs, may have a bearing on fertility decisions. Another important direct cost for women who wish to or need to remain in the workforce is child care.

Household costs

Direct costs of children vary by household income, preferences and method of calculation. Harding and Percival (1999, p. 82–87) have looked at three different measures, which are summarised in Tables 4 and 5. The tables present the costs in dollar values and also indicate how much more expenditure is required than by a comparative couple without children.

- The first measure of calculation, ELES (Extended Linear Expenditure System), attempts to estimate how much parents actually spend by estimating a utility function and demand equations from a sample survey of family expenditure (the 1993–94 Household Expenditure Survey, or HES). Families with the same level of utility are assumed to be equally well off.

- The second measure, Iso-Prop, also estimates spending on a basket of goods based on the 1993–94 HES survey.

- The third measure uses a budget standards approach. This method specifies what is needed in terms of goods and services by a particular household in a particular time and place to achieve a particular standard of living.
Child care

Tables 6 and 7 provide an indication of the child care costs that parents face when children are placed in the most common type of care in Australia: long day care. Although costs are somewhat lower in family day care, long day care provides care to almost four times the numbers of children cared for in family day care.

The tables indicate the amount remaining to be paid from average fees after Child Care Benefit payments are removed, and what percentage this represents of the families’ disposable income. Costs are lower in family day care.

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**Table 4:** Indicative estimates of weekly costs of children at specified expenditure levels, 1993–94

<table>
<thead>
<tr>
<th>Total family expenditure</th>
<th>ELES</th>
<th>Iso-Prop</th>
<th>Budget Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-income family</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 child</td>
<td>$458</td>
<td>$68</td>
<td>$68</td>
</tr>
<tr>
<td>2 children</td>
<td>$552</td>
<td>$110</td>
<td>$176</td>
</tr>
<tr>
<td>3 children</td>
<td>$604</td>
<td>$150</td>
<td>$238</td>
</tr>
<tr>
<td>Modest-income family</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 child</td>
<td>$613</td>
<td>$92</td>
<td>$116</td>
</tr>
<tr>
<td>2 children</td>
<td>$749</td>
<td>$150</td>
<td>$253</td>
</tr>
<tr>
<td>3 children</td>
<td>$895</td>
<td>$227</td>
<td>$378</td>
</tr>
</tbody>
</table>

*Source:* Harding and Percival 1999

**Table 5:** Indicative equivalence scale estimates, 1993–94*

<table>
<thead>
<tr>
<th>Total family expenditure</th>
<th>ELES</th>
<th>Iso-Prop</th>
<th>Budget Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-income families</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>1 child</td>
<td>$458</td>
<td>1.18</td>
<td>1.18</td>
</tr>
<tr>
<td>2 children</td>
<td>$552</td>
<td>1.25</td>
<td>1.47</td>
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<tr>
<td>3 children</td>
<td>$604</td>
<td>1.33</td>
<td>1.65</td>
</tr>
<tr>
<td>Modest-income families</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 child</td>
<td>$613</td>
<td>1.18</td>
<td>1.24</td>
</tr>
<tr>
<td>2 children</td>
<td>$749</td>
<td>1.25</td>
<td>1.51</td>
</tr>
<tr>
<td>3 children</td>
<td>$895</td>
<td>1.34</td>
<td>1.73</td>
</tr>
</tbody>
</table>

* A couple without children has an equivalence scale value of 1.0

*Source:* Harding and Percival 1999

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*Estimates of costs vary according to family income and method of calculation, but one child costs between $68 and $135 a week.*
Child care for one full-time (50-hour) child on average fees costs around 9 per cent of disposable income for a low-income family, rising to 11 per cent in a high-income family. For two full-time children the cost for the low-income family is around 14 per cent of disposable income and 22 per cent for the higher-income family. For three full-time children the cost ranges from around 17 per cent for the low-income family to 30 per cent of disposable income of high-income families. Costs vary based on the type of care used, the number of hours of care used, the fee charged by the service, the number of children in care, and the age of children in care.

### Table 6: Weekly gap after Child Care Benefit for average fees: costs for one, two and three children in long day care*

<table>
<thead>
<tr>
<th>Income</th>
<th>One child 30 hrs</th>
<th>One child 50 hrs</th>
<th>Two children 30 hrs</th>
<th>Two children 50 hrs</th>
<th>Three children 30 hrs</th>
<th>Three children 50 hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>$25 000</td>
<td>$27.48</td>
<td>$47.00</td>
<td>$47.70</td>
<td>$83.00</td>
<td>$61.32</td>
<td>$109.00</td>
</tr>
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<td>$45 000</td>
<td>$48.80</td>
<td>$79.31</td>
<td>$79.68</td>
<td>$131.45</td>
<td>$93.31</td>
<td>$157.48</td>
</tr>
<tr>
<td>$65 000</td>
<td>$74.19</td>
<td>$117.77</td>
<td>$117.77</td>
<td>$189.16</td>
<td>$131.38</td>
<td>$215.15</td>
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<tr>
<td>$75 000</td>
<td>$86.88</td>
<td>$137.00</td>
<td>$148.22</td>
<td>$235.30</td>
<td>$173.27</td>
<td>$278.63</td>
</tr>
<tr>
<td>$85 000</td>
<td>$94.47</td>
<td>$148.50</td>
<td>$179.94</td>
<td>$283.37</td>
<td>$217.69</td>
<td>$345.93</td>
</tr>
<tr>
<td>$95 000</td>
<td>$94.47</td>
<td>$148.50</td>
<td>$188.94</td>
<td>$297.00</td>
<td>$262.11</td>
<td>$413.23</td>
</tr>
</tbody>
</table>

* Disposable income assumes no rent and a 60 per cent income split.

**Source:** Department of Family and Community Services

### Table 7: Gap after Child Care Benefit as a percentage of disposable income for average fees: for one, two and three children in long day care

<table>
<thead>
<tr>
<th>Income</th>
<th>One child 30 hrs</th>
<th>One child 50 hrs</th>
<th>Two children 30 hrs</th>
<th>Two children 50 hrs</th>
<th>Three children 30 hrs</th>
<th>Three children 50 hrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>$25 000</td>
<td>5%</td>
<td>9%</td>
<td>8%</td>
<td>14%</td>
<td>9%</td>
<td>17%</td>
</tr>
<tr>
<td>$45 000</td>
<td>7%</td>
<td>11%</td>
<td>10%</td>
<td>17%</td>
<td>12%</td>
<td>20%</td>
</tr>
<tr>
<td>$65 000</td>
<td>7%</td>
<td>12%</td>
<td>11%</td>
<td>18%</td>
<td>12%</td>
<td>20%</td>
</tr>
<tr>
<td>$75 000</td>
<td>8%</td>
<td>12%</td>
<td>13%</td>
<td>20%</td>
<td>15%</td>
<td>24%</td>
</tr>
<tr>
<td>$85 000</td>
<td>8%</td>
<td>12%</td>
<td>14%</td>
<td>23%</td>
<td>17%</td>
<td>27%</td>
</tr>
<tr>
<td>$95 000</td>
<td>7%</td>
<td>11%</td>
<td>14%</td>
<td>22%</td>
<td>19%</td>
<td>30%</td>
</tr>
</tbody>
</table>

**Source:** Department of Family and Community Services
4.2 Opportunity costs

Financial opportunity costs

The financial opportunity cost is the loss of income related to time out of the workforce to care for children.

In recent decades, greater workforce participation (in part the result of higher levels of education) has increased the financial opportunity cost of children for many women. Over the 30 years from 1966 to 1996, the female participation rate rose from 37 per cent to over 53 per cent (Ministerial Reference Group for the National Strategy for an Ageing Australia 1999, p. 41). Apparent retention rates to Year 12 rose from 52 per cent in 1986 to 77 per cent in 1996 (ABS 1998a, p. 82). The proportion of women aged 15–69 years with post-school qualifications rose from 26 per cent in 1982 to 37 per cent in 1992. This is continuing to rise. In 1992, 41 per cent of women aged 20–24 had post-school qualifications (ABS 1993, pp. 90–91).

Recent work by the Centre for Economic Policy Research (Chapman et al. 1999) comparing different models that seek to calculate the cost of foregone earnings for women having one, two or three children by the education level of the mother give some indication of this cost.

<table>
<thead>
<tr>
<th>Education level of mother</th>
<th>First child</th>
<th>Second and third children (per child)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree/Diploma</td>
<td>$239 000</td>
<td>$80–85 000</td>
</tr>
<tr>
<td>Completed high school</td>
<td>$201 000</td>
<td>$60 000</td>
</tr>
<tr>
<td>Not completing high school</td>
<td>$167 000</td>
<td>$43 000</td>
</tr>
</tbody>
</table>

Source: Chapman et al. 1999

Psychic opportunity costs

One psychic cost is particularly relevant to fertility—the impact of detachment from the workforce. This includes loss of personal income, loss of autonomy, dependence on partner, loss of social networks, loss of self-esteem and knowledge of skills unused.
4.3 Institutional and cultural norms

It is notable that fertility rates vary in the developed world, ranging from levels somewhat below replacement rate to those that are seriously below this level. All explanations of this decline refer to the importance of increased female participation in the workforce and the educational system. However, these factors on their own are not able to explain the level of diversity in fertility rates. Other societal factors are also likely to be contributing the varying outcomes.

Professor Peter McDonald (2000) suggests family arrangements in the different countries have bearing on this issue. He describes two broad approaches to family responsibilities—the 'male breadwinner' model and the 'gender equity' model—that interact with education and employment opportunities for women to play a significant part in a country's fertility rate.

He argues that in countries with very low levels of fertility, the levels of gender equity in social and economic institutions that deal with people as individuals (education and market employment) are high compared to the levels applying in institutions that deal with people as members of families. These institutions include industrial relations (terms and conditions of employment), services, government transfers and the family itself.

Generally, if women are provided with opportunities that are nearly equivalent to those of men in education and market employment, but these opportunities are severely curtailed by having children, then on average, women will restrict the number of children that they have.

Policies that support male-dominant family structures include greater emphasis on provision of care to dependent family members (such as the young, old, sick, disabled) by the family (more especially its female members). Other such polices include taxation arrangements that are structured so that joint, after-tax income for couples is highest when the income is earned by one person and lowest when each member earns the same income. Countries such as Italy, Greece, Spain, Germany and Japan are examples of countries where these types of policies predominate.

The gender equity model is likely to favour greater emphasis on expenditure on services including child care, services for the aged, education, health and housing services. Flexible working...
conditions, such as part-time work, flex-time and liberal conditions for absences, are also more compatible with the gender equity model and are associated with higher fertility. In general, these policies and higher fertility rates apply in English-speaking and Scandinavian countries.

McDonald concludes that, in general, countries characterised by the male breadwinner model will have a lower fertility rate than those characterised by the gender equity model.

**Implications for opportunity costs**

As education and employment institutions move in the direction of gender equity, more women have incomes that exceed child-related tax transfers that governments make. So opportunity cost comes to dominate over the direct economic costs and affects larger proportions of the population.

Both the psychic costs and the relevance of opportunity costs rise as the level of incoherence between the social and economic institutions that deal with people as individuals and those that deal with people as members of families rise. This leaves women with stark choices between children and employment and leads them to have fewer children than they might have chosen to and lowers fertility. This is particularly the case in countries where it is difficult to participate in the workforce and have children at the same time.

**OECD evidence**

A recent publication from the OECD, *A Caring World*, indicates the level of change that has occurred over 30 years and provides support for McDonald’s interpretation. The report notes that the effects of labour market insecurity and the desire for career development have led to family formation being deferred until education and integration into the labour market have been completed. Increasingly, families are formed when both members of a couple are more securely established in their careers.

Figure 8 illustrates major changes in female life patterns. Fertility has declined sharply and labour force participation has increased substantially. In addition, the cross-country relationship between the two has changed. Up until the 1970s, the level of completed fertility was negatively related to women’s labour force participation. Now, completed fertility rates are lowest in countries where women’s labour force participation is lowest.
4.4 Gender issues in relation to fertility

Research based on longitudinal data from the US National Survey of Families and Households in 1987–88 and 1992–94 (Kaufman 2000) gives strong support to the idea that gender role attitudes of women and men have an important impact on family formation and dissolution. The survey included single men younger than 45 years and men whose partners were younger than 40 at the first survey. The women were all younger than 40 at the first survey.
Questions were used to identify whether individuals had traditional or egalitarian attitudes about family roles.

Kaufman found that outcomes differed for each group. Between the first and second survey, traditional men were less likely to marry than egalitarian men and much more likely to divorce. Egalitarian men were more likely to intend to have a child although their experience of actual fertility was the same as traditional men.

For women the results were quite different. Women with egalitarian attitudes are more likely to separate and divorce than women with traditional attitudes. Egalitarian women were less likely to intend to, and actually have, a child. The researcher noted that for each one point increase in egalitarian attitudes women were 26 per cent less likely to intend to have a child while similar men were 24 per cent more likely to intend to have a child. In terms of actual fertility, for each one point increase in egalitarian attitudes women were 16 per cent less likely to have a child while similar men were 7 per cent more likely to have a child.

The researcher suggested that egalitarian men are likely to be able to attract and keep a partner and are accepting of working wives and sharing household tasks. Conversely, egalitarian women may face resistance and conflict in these areas. The researcher notes that egalitarian women might be more likely to want children and more content in their relationships if they received more support from men (pp. 128–44).

4.5 Gender issues in relation to children

The practical significance of cultural norms in Australia can be observed in the following areas.

Child care

Women are likely to be aware of the disproportionate responsibility for child care that is likely to fall to them. Results from the ABS 1997 Time Use Survey indicated that, in general, in families where both parents worked full-time, mothers spent about twice as much time as fathers on child care. For fathers, this time was fairly evenly divided between active and passive child care activities, while mothers spent more time on active child care, particularly on the physical and emotional care of these children (ABS 1999d, p. 47).
This disproportionate responsibility also extends to housework. In couples where both parents worked similar hours (that is, couples in which the difference in hours worked was less than five hours per week), there was less difference in the time spent by each partner on domestic work than among couples in general. However, women still averaged 1 hour and 16 minutes more than their partners (3 hours 46 minutes compared with 2 hours 30 minutes).

In 1997, among couples with similar hours of paid employment, women spent an average of 1 hour 37 minutes per day on food preparation and clean-up, almost 1 hour more than their partners. They also spent 34 minutes more than their partners on laundry tasks (39 minutes compared with five minutes spent by men), and 37 minutes more on general housework (48 minutes compared with 11 minutes). Men, on the other hand, spent more time on grounds and animal care (49 minutes compared with 23 minutes for women), and general home maintenance (29 minutes compared with 5 minutes).

These differences were also reflected in the extent to which partners participated in these duties. On an average day, women were also more likely to actually participate in housework on an average day.

### Table 9: Mothers and fathers: average reported time spent per day on child care activities, and proportion employed full-time

<table>
<thead>
<tr>
<th>Age of youngest child in 1997</th>
<th>Fathers</th>
<th>Mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Child care Hrs/mins</td>
<td>Employed full-time %</td>
</tr>
<tr>
<td>0–4 years</td>
<td>3:06</td>
<td>82.6</td>
</tr>
<tr>
<td>5–9 years</td>
<td>2:13</td>
<td>81.9</td>
</tr>
<tr>
<td>10–14 years</td>
<td>1:06</td>
<td>84.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of children in 1997</th>
<th>Fathers</th>
<th>Mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Child care Hrs/mins</td>
<td>Employed full-time %</td>
</tr>
<tr>
<td>One</td>
<td>1:53</td>
<td>82.5</td>
</tr>
<tr>
<td>Two</td>
<td>2:43</td>
<td>86.7</td>
</tr>
<tr>
<td>Three or more</td>
<td>2:40</td>
<td>76.5</td>
</tr>
<tr>
<td>Total 1997</td>
<td>2:24</td>
<td>82.8</td>
</tr>
<tr>
<td>Total 1992</td>
<td>2:31</td>
<td>83.1</td>
</tr>
</tbody>
</table>


### Housework

In couples where both parents worked similar hours, women averaged 1 hour and 16 minutes more than their partners on housework.

Women were also more likely to actually participate in housework on an average day.
56 per cent of women did laundry-related tasks compared with 12 per cent of men, and 72 per cent of women compared with 27 per cent of men participated in general housework (ABS 1999d, p. 120).

Table 10: Partners in couple families: average daily reported involvement in domestic work, 1997

<table>
<thead>
<tr>
<th>Type of domestic work</th>
<th>Partners who had similar hours of paid work</th>
<th>All couples</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Time spent per day</td>
<td>Participation (a)</td>
</tr>
<tr>
<td></td>
<td>Men: Hrs. mins</td>
<td>Women: Hrs. mins</td>
</tr>
<tr>
<td>Food preparation and clean-up</td>
<td>0:38 1:37</td>
<td>69.0 92.1</td>
</tr>
<tr>
<td>Laundry and clothes care</td>
<td>0:05 0:39</td>
<td>12.0 56.1</td>
</tr>
<tr>
<td>General housework</td>
<td>0:11 0:48</td>
<td>27.2 72.0</td>
</tr>
<tr>
<td>Grounds and animal care</td>
<td>0:49 0:23</td>
<td>51.2 39.7</td>
</tr>
<tr>
<td>Home maintenance</td>
<td>0:29 0:05</td>
<td>26.7 6.5</td>
</tr>
<tr>
<td>Household management</td>
<td>0:10 0:10</td>
<td>29.3 28.8</td>
</tr>
<tr>
<td>Total (b)</td>
<td>2:30 3:46</td>
<td>88.1 96.9</td>
</tr>
</tbody>
</table>

Notes:
(a) Percentage of population who reported taking part in a particular activity per day.
(b) Total includes other miscellaneous domestic work.


Workforce participation

Much of the expansion in women’s participation in the workforce over recent decades has been in part-time work. Some 44 per cent of employed women work part-time. This compares to 13 per cent of men (ABS 1999e). For many women the availability of part-time work provides the flexibility that allows them to combine workforce participation with having children. It is strongly associated with the presence of young children. As their children get older, the likelihood of women undertaking full-time work increases—see Figure 9.
Juggling work and family

Managing work and family responsibilities can often be difficult for parents, especially mothers. In general, mothers were more likely than fathers to report that they always or often felt rushed or pushed for time, while men and women without dependent children were less likely to report this feeling. For example, of couples where both worked full-time, 70 per cent of mothers stated they always or often felt rushed or pushed for time, compared to 56 per cent of fathers and 52 per cent of women with no dependent children. Similarly, of women who worked part-time whose partners worked full-time, 67 per cent of mothers stated they always or often felt rushed or pushed for time, compared to 35 per cent of women with no dependent children (ABS 1999d, p. 47).

Family-friendly workplaces

An analysis of family-friendly policies undertaken in the Department of Employment, Workplace Relations and Small Business (DEWRSB) indicates that increasing number of organisations are providing family-friendly provisions. However, these are offered to varying degrees. The data on federal certified agreements and Australian workplace agreements indicate that a majority of agreements provide at least one family-friendly provision.

Flexible hours are the most common family-friendly provision.

For many women, the availability of part-time work provides the flexibility that allows them to combine workforce participation with having children.

70 per cent of mothers stated they always or often felt rushed or pushed for time.

Figure 9: Labour force status of all women, by the age of their children, June 1998

Source: ABS 2000d
provision, with flexible hours being the most common. Other popular family-friendly provisions are regular part-time work and paid family/carer’s leave. The report notes that the larger the workplace the more likely that family-friendly provisions are provided (DEWRSB 1998).

Research by Lee & Strachan (1998) specifically examined child care issues under enterprise bargaining agreements and found that approximately 2.6 per cent (387) of agreements mentioned child care in 428 clauses. All but 30 of these agreements were in the public sector. Half of the total agreements proposed some future activity, with most stating the issues would be examined. Of those that included clauses covering an actual activity, the main activities related to reimbursement of costs for overtime, weekends, training and travel; considering child care in relation to additional work or shift changes; salary packaging; and consideration of child care in relation to transfer.

Among organisations that reported to the Affirmative Action Agency, few provided work-based child care for their employees. In 1997, around 4 per cent of organisations reported providing child care. A slightly larger proportion of organisations offered their employees assistance in finding suitable child care facilities—9 per cent in 1997 (DEWRSB 1998).

4.6 Establishment and breakdown of relationships

At 5.9 marriages per 1000 people, the marriage rate at the end of the twentieth century was at its second-lowest rate in that century. This is only slightly higher than the lowest point of 5.8, which occurred in both 1996 and 1997. This decline has been evident since 1970 and is also evident overseas.

Marriage is important in this instance, as it is more strongly associated with the birth of children than de facto relationships. Table 2 indicates that about 8 per cent of married women have no children compared to 27 per cent of women in de facto relationships. Fertility is highest in every socioeconomic group for women who are wives in registered marriages (McDonald 1998, p. 11). Of all children in couple families in 1997, only 7 per cent were living with families with parents who were in a de facto relationship. As 62 per cent of people aged over 35 in de facto relationships were previously in registered marriages, many of the
Causes of falling fertility

As the median age of marriage rises so does the median age at divorce. There is little time available for women who wish to have children in a second relationship.

People may be having trouble meeting an acceptable partner.

The proportion of women who will not have children has risen significantly since the 1950s.

There may be two different ‘marriage markets’ although these operate on a continuum—the ‘breadwinner’ and the ‘collaborative’ market.

7 per cent of children referred to above would have been born within a registered marriage that subsequently broke down (ABS 1998b).

A study of all marriages from 1977 to 1994 found that almost 20 per cent end in divorce within 10 years (ABS 2000, p. 100). The rise of median age of marriage means that the median age at divorce is now also rising. In 1998 this had risen to 40.5 years for men and 37.8 years for women. For divorced women who wish to have children, there remains little time to re-partner and have children (ABS 1998).

4.7. Problems in partnering

Among women born during the early 1950s, only 11 per cent remained childless at the end of their reproductive life. However, this proportion is increasing. It was estimated by ABS in 1999 that among women entering and passing through their reproductive lives in the 1990s, 28 per cent will not have children (ABS 1999a, p. 43). Problems with finding an initial partner or a new one subsequent to relationship breakdown may play a part in this increase in low fertility. Educational mismatches and unemployment may be playing a part here. It has been mentioned earlier that there is a positive relationship between childlessness and education. Among women born in the early 1950s who hold degrees or higher-level qualifications, 20 per cent did not have children. However, the 1996 Census indicated that rates of childlessness among women with lower levels of education is also increasing. It is not known what level of this childlessness is voluntary.

One factor that may play a part in involuntarily childlessness may be not meeting an acceptable partner. The reasons for failing to meet such a partner may vary according to education level and the type of relationship a person is seeking. Recent research that may be relevant to the issue describes two different ‘marriage markets’: the ‘breadwinner’ and the ‘collaborative’ market. These operate on a continuum and relate to partnering in either de facto or formally married relationships (Birrell & Rapson 1998).

Women with their own significant resources, gained through paid work, are more likely to be in the collaborative end. They are also likely to derive from upper or middle-class backgrounds and hold post-school qualifications.
Women on the fringe or not in the labour market are more likely to be on the breadwinner end. The majority derive from lower middle-class and working-class backgrounds and most do not have post-secondary qualifications. Work is likely to be routine and often part-time and casual.

The ‘collaborative’ marriage market is based on both parties contributing economically to the household. The breadwinner model depends on a pact in which the woman provides the domestic services and the man delivers the resources to maintain the household.

Economic changes between 1986 and 1996 saw fewer men in full-time work. The increasing access of women to the labour market meant that even women in the breadwinner market were under less pressure to accept a male who could not provide a secure income. Birrell & Rapson (1998) note that 30 per cent of men in their late 20s and early 30s are not in full-time employment and most of them are in the group of males in the field available to women in the breadwinner market. So for women and men with a breadwinner concept of marriage, many males are not able to fulfil this role. For example, among unemployed men aged 30–34, 51 per cent are not partnered.

These employment problems are likely to have affected fewer men in the collaborative field, as they are likely to be well educated. However, in the collaborative market, education mismatches may be occurring. Among unpartnered people, women absolutely outnumbered men in three out of four post-school educational categories (except skilled vocational) in all age groups in the 25 to 39 range in 1996. There are more men in the skilled vocational categories at all ages.

For degree-qualified women looking for a collaborative relationship, a gap may have opened up that makes it difficult to find an acceptable partner if they are reluctant to form relationships with less qualified men.
Table 11: Males and females aged 25–49 years by partner (de facto and married) status, age and qualification level, 1996

<table>
<thead>
<tr>
<th>Age</th>
<th>Qualification level</th>
<th>Not partnered males</th>
<th>Not partnered females</th>
<th>Surplus/deficit of non-partnered men over non-partnered women</th>
</tr>
</thead>
<tbody>
<tr>
<td>25–29</td>
<td>Bachelor or above</td>
<td>51 648</td>
<td>52 860</td>
<td>-1 212</td>
</tr>
<tr>
<td></td>
<td>Diploma</td>
<td>18 501</td>
<td>22 176</td>
<td>-3 675</td>
</tr>
<tr>
<td></td>
<td>Skilled vocational</td>
<td>59 611</td>
<td>10 013</td>
<td>49 598</td>
</tr>
<tr>
<td></td>
<td>Basic vocational</td>
<td>6 825</td>
<td>12 311</td>
<td>-5 486</td>
</tr>
<tr>
<td></td>
<td>No qualifications</td>
<td>174 918</td>
<td>150 107</td>
<td>24 811</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>311 503</td>
<td>247 467</td>
<td>64 036</td>
</tr>
<tr>
<td>30–34</td>
<td>Bachelor or above</td>
<td>28 639</td>
<td>28 767</td>
<td>-128</td>
</tr>
<tr>
<td></td>
<td>Diploma</td>
<td>11 306</td>
<td>14 4438</td>
<td>-3 132</td>
</tr>
<tr>
<td></td>
<td>Skilled vocational</td>
<td>39 843</td>
<td>6 301</td>
<td>33 542</td>
</tr>
<tr>
<td></td>
<td>Basic vocational</td>
<td>4 568</td>
<td>9 094</td>
<td>-4 526</td>
</tr>
<tr>
<td></td>
<td>No qualifications</td>
<td>118 224</td>
<td>116 699</td>
<td>1 525</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>202 580</td>
<td>175 299</td>
<td>27 281</td>
</tr>
<tr>
<td>35–39</td>
<td>Bachelor or above</td>
<td>205 49</td>
<td>25 265</td>
<td>-4 716</td>
</tr>
<tr>
<td></td>
<td>Diploma</td>
<td>8 600</td>
<td>13 794</td>
<td>-5 194</td>
</tr>
<tr>
<td></td>
<td>Skilled vocational</td>
<td>31 563</td>
<td>4 755</td>
<td>26 808</td>
</tr>
<tr>
<td></td>
<td>Basic vocational</td>
<td>3 686</td>
<td>8 533</td>
<td>-4 847</td>
</tr>
<tr>
<td></td>
<td>No qualifications</td>
<td>94 616</td>
<td>108 066</td>
<td>-13 450</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>159 104</td>
<td>160 413</td>
<td>-1 309</td>
</tr>
<tr>
<td>40–44</td>
<td>Bachelor or above</td>
<td>16 508</td>
<td>23 603</td>
<td>-7 095</td>
</tr>
<tr>
<td></td>
<td>Diploma</td>
<td>7 692</td>
<td>14 047</td>
<td>-6 355</td>
</tr>
<tr>
<td></td>
<td>Skilled vocational</td>
<td>24 975</td>
<td>3 798</td>
<td>21 177</td>
</tr>
<tr>
<td></td>
<td>Basic vocational</td>
<td>3 158</td>
<td>7 114</td>
<td>-3 956</td>
</tr>
<tr>
<td></td>
<td>No qualifications</td>
<td>79 091</td>
<td>98 742</td>
<td>-19 651</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>131 424</td>
<td>147 304</td>
<td>-15 880</td>
</tr>
<tr>
<td>45–49</td>
<td>Bachelor or above</td>
<td>13 647</td>
<td>19 921</td>
<td>-6 274</td>
</tr>
<tr>
<td></td>
<td>Diploma</td>
<td>6 618</td>
<td>12 253</td>
<td>-5 635</td>
</tr>
<tr>
<td></td>
<td>Skilled vocational</td>
<td>21 855</td>
<td>3 761</td>
<td>18 094</td>
</tr>
<tr>
<td></td>
<td>Basic vocational</td>
<td>2 558</td>
<td>5 892</td>
<td>-3 334</td>
</tr>
<tr>
<td></td>
<td>No qualifications</td>
<td>72 295</td>
<td>95 191</td>
<td>-22 896</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>116 973</td>
<td>137 018</td>
<td>-20 045</td>
</tr>
</tbody>
</table>

Source: Birrell & Rapson 1998, p. 37
5 Public policy

Although fertility decisions are personal decisions of women and couples, they are affected by more than personal fertility aspirations. Findings from the Australasian Longitudinal Study on Women’s Health indicate that young women today are likely to have fewer children than they express a desire for. This is consistent with findings in Japan and Europe.

The United Nations Population Fund (1999) has noted that no country in human history has ever succeeded in raising birth rates over a long period once they have started to decline. As a result, one apparent choice, higher birth rates and larger families, is not open to low fertility countries.

While the precipitous decline in fertility that has occurred in Japan, Korea and many countries in Europe demonstrates that it is possible for fertility rates to decline to well below replacement rates, this is not currently a problem in Australia. However, the rapid decline that occurred in Sweden, apparently in response to an economic downturn that particularly affected women’s employment, leaves little room for complacency. Given the impact on society of any serious decline in birth rates, it is in the interests of both society and individual women that policy be directed towards enabling women to have the number of children they would like to have, which in Australia, as in the rest of the developed world, is most commonly two (Evans & Kelly, pp. 14–15).

5.1 Link between attitudes, policy and outcomes

A wide range of policies and issues affect fertility decisions. This is the implication of McDonald’s work and is supported by the work of other academics. For instance, in her examination of the impact of pro-natalist policies on fertility in several European countries, Höhn (1987) notes that very often other policies (for example, health, childcare, social welfare, housing, education, workplace conditions) are more important than policies specifically directed towards influencing population outcomes (pp. 459–81).

It is important to emphasise that there is unlikely to be any particular set of policies that provide answers for all countries, all groups within countries and all individuals within these groups. Nor do we know empirically how sensitive TFRs will be to
particular policy options, for example the specific impact of additional funding for child care or family allowances. Similarly, policies are rarely introduced without any other change taking place, which may have a complementary or conflicting impact on the specific intent of the policy.

As well, specific policy is not necessarily transferable from one country to another, as each has different social welfare systems, economies and histories. For example, it is highly likely that Germany and Italy (whose fertility rates stood at 1.36 and 1.22 in 1997) will begin to implement policy responses to tackle this situation. However, both these countries have social welfare systems and approaches to family policy that are constructed around a male breadwinner and collective, rather than individual, construction of responsibilities in the family.

In Germany, the nuclear family’s responsibility of maintenance includes adult children and elderly parents who do not have sufficient economic support from elsewhere. While this formal economic responsibility is rarely enforced, this structure reinforces policy, behavior and responsibility in other areas. For instance, relatives substantially provide elder care, and only limited child care with short opening hours is available. Married couples are taxed together and family-related tax deductions and benefits are income-tested and act to strongly reduce the importance of a second income. Germany has various labour force disincentives for women, particularly mothers, built into the legal support of the traditional family.

In Italy, while taxation policy favors dual-income families, there are legal disincentives to part-time work, and although the male breadwinner model of family policy is not so institutionalised as in Germany, the lack of public support for child and elder care make workforce participation difficult for women. As a result, many women work on a non-official basis, making national statistics unreliable and giving them little or no social protection (Sundström 1999).

The impact of any policy change in these countries is likely to be different from the impact of the introduction of the same policy in Australia. Some of the key differences include Australia’s reasonably high female participation rate, high level of institutionalised child and elder care, individualised tax system, and non-contributory, family income means-tested social security system. These factors need to be considered when examining overseas policy initiatives.
Graeme Hugo (2000) recently examined European direct and indirect policy interventions that aimed to increase fertility. Direct interventions refer to attempts to influence fertility by offering incentives to those who have children and disincentives to those who do not. Indirect interventions seek to change the environment in which decisions are made and are often referred to as ‘family-friendly’ policies.

In general, Hugo found that the main impact of cash incentives in Eastern Europe tended to alter the timing of births rather than increase their numbers. Conversely, anti-natalist policies implemented in Singapore over 25 years saw fertility decline from 6.56 in 1957 to 1.42 in 1983. Some reversal of this policy, particularly for educated women, seems to have stabilised the fertility rate at about 1.6 during the 1990s. Unfortunately, an examination of particular policies undertaken and reviewed for their impact on fertility rates overseas is of little assistance at this time in identifying particular policies that might be implemented in Australia.

In general, results of overseas studies are contradictory with regard to specific policy initiatives. For instance, in relation to family allowances, one study of 22 industrialised countries found there was a positive and significant effect on fertility except in Anglo-Saxon countries, while a study in Canada found that it is theoretically possible to lift transfers to a point that would lift birth rates back to replacement level.

The results of studies of child care indicate that, of itself, child care may not increase fertility substantially once it has passed a level of availability which is not precisely known. The studies provide conflicting results in relation the impact of child care on later order births. They do not report their results by income, which means they are unlikely to be sensitive enough to yield opportunity cost information that would provide useful policy guidance.

However, when examining more general suites of policies, Hugo is able to provide more useful information. He notes that perhaps no country has moved further away than Sweden from the breadwinner model of the family and that it has adopted family-friendly policies to a greater extent than any other country. Considerable attention focused on these policies when the TFR in Sweden ceased to decline in the late 1970s and started rising in the mid 1980s, reaching 2.02 in 1989. He notes that not all
academics concluded that this was the result of the strong public policy support for women that enabled them to combine participation in the workforce with child-rearing responsibilities. However, he does note that the reduction in fertility that occurred in the late 1990s coincided with the reduction in the proportion of working mothers as a consequence of the economic crisis that occurred at that time.

Other work by Olah (2000) examined the Swedish experience in terms of the influence of individual characteristics, human capital and family policy on the extent to which people had a second birth. This work concluded that public policies that aim to reduce the conflict between employment and parenthood do alleviate the conflict, especially for women. These policies have a clear positive impact on fertility if combined with changes towards more gender-equal parenting practices. The same research found that similar public policies that make parenthood and employment compatible also had a positive influence on fertility in Hungary.

Finally, there does not currently seem to be research available based on longitudinal data that would enable a sophisticated identification of the mix of policies, and degree of their influence, that would positively influence fertility rates.

There is a need for local longitudinal research data.
6 Conclusion

In general, while it is not possible to identify one or two specific policies that would individually enable Australia to arrest the current decline in fertility, it is possible to make some general statements about the types of policies that may have a positive impact.

Clearly, a range of factors are likely to be taken into account by women deciding to have a child. Based on the theoretical data presented in this paper, it is likely to be the case that, in general, any policy that reduces the cost of having and raising children will have a positive effect on fertility. However, none of the studies discussed in this paper considered the responses of women and families by income levels. In light of the earlier discussion around gender equity and male breadwinner models, as well as the distinction between direct costs and opportunity costs, it is likely that different policies would differently affect different income groups.

That said, it is likely that policies that affect direct costs are more likely to influence women with low incomes, while those that reduce opportunity costs will have more impact on women with higher incomes.

While the balance of these factors will not be exactly the same for any particular individuals, the following broad strategies could be considered:

- support for family-friendly policies in the workplace;
- access to and broad availability of maternity and parental leave;
- access to part-time work for women, and publicity about, and employer acceptance of, part-time work for men and parents in professional and management positions;
- fostering the establishment and supporting the maintenance of relationships;
- support for early entry into secure housing, both public and private;
- financial incentives for earlier births;
- universal payments for dependent children;
- access to affordable, flexible child care; and
- access to affordable higher education.
These broad policy responses extend beyond the policy responsibility of the Department of Family and Community Services (FaCS). However, low fertility will continue to be important for the department’s social policy responsibility. As well as the possible impact on revenue, the decline in family size is of direct long-term relevance to this portfolio since it has a bearing on the capacity of individuals and families to be self-reliant (or at least not as heavily reliant on government assistance). The FaCS Strategic Plan describes a goal of supporting the capacity and resilience of families particularly during times of transition or crisis. However, it does not address the actual formation of families. The arguments described above strongly suggest that the portfolio and government as a whole have a progressively bigger stake in some of these issues.

In this context, identification of levers available to the portfolio and to government as a whole that might influence fertility is an important priority. The development of a sound relevant body of research, particularly research that focuses on identifying the strategies most likely to arrest the continuing decline in fertility, will be important in informing policy development.
Endnotes

1 Socio-Economic Indexes for Areas (SEIFA). The higher a region’s education and occupation index value, the higher the concentration of persons with higher education or undergoing further education and with people being employed in higher skilled occupations, rather than being labourers or unemployed.


3 In 1998, 71 per cent of children were born to mothers in registered marriages. In 94 per cent of instances where the woman was not in a registered marriage the father acknowledged paternity by signing the birth certificate. As most of these women do not become sole parent families, a high proportion of these children are members of either de facto or subsequently registered marriages.
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