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IMPACTS OF POLICIES ON FERTILITY RATES

OVERVIEW OF THE REPORT PRODUCED BY THE AUSTRALIAN NATIONAL UNIVERSITY FOR THE CENTRE FOR POPULATION

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Foreword

Like many other advanced economies, Australia has observed a long-running trend of women having children later in life and having fewer children overall. While there are many factors that affect the number of children that women have, government policies can directly and indirectly influence decisions to have a child.

In demography, fertility refers to the number of children born, rather than the ability to have children. The Centre for Population has commissioned a suite of work from the Australian National University (ANU) that seeks to explain trends and drivers of fertility in Australia and better understand the impact of government policies on fertility decisions. This suite of work is comprised of three elements:

- a literature review of trends in Australian fertility, theories of fertility change, and evidence on how policies have impacted fertility rates in Australia and abroad;
- analysis of longitudinal data from the Household, Income and Labour Dynamics in Australia (HILDA) survey to evaluate the effects of Australian government policies on fertility rates; and
- data from two rounds of the ANUPoll survey (undertaken during April and August 2021), which include questions related to fertility intentions in the context of the COVID-19 pandemic.

This document outlines the key findings of this work, which include:

- the important role policy has in providing the stability and support needed for parents to raise children;
- that countries with generous paid parental leave and accessible child care have been the most successful in supporting parents to have children; and
- that personal financial concerns (e.g. cost of raising children, job security, and cost of housing) remain the most important factors when people consider having children.

Further information can be found in the full report, available at population.gov.au.

I would like to thank Professor Edith Gray, Ms Anna Reimondos, Ms Ester Lazzari, Professor Robert Breunig, Dr Ralf Steinhauser, Dr Jacquelyn Zhang, Professor Nicholas Biddle and Professor Matthew Gray from the ANU for their research, analysis, and contributions in preparing the report.

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Fertility trends

Fertility rates in Australia have been in decline since the 1960s

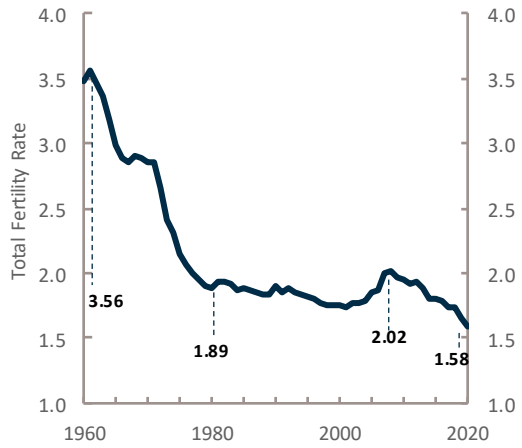
In demography, fertility refers to the number of children born, rather than the ability to have children. The most commonly used indicator of a population's fertility is the total fertility rate (TFR). The TFR provides an estimate of the average number of children a woman would have during her life if age-specific fertility rates remained stable. A population generally requires a TFR of at least 2.1 births per woman to maintain stable population size in the absence of overseas migration. This is referred to as the replacement rate of fertility.

Australia has experienced a long-term decline in its TFR. Following a long baby boom that culminated in a TFR of 3.56 children per woman in 1961, fertility fell below the replacement level of 2.1 children per woman in 1975, and by 2020 the TFR had fallen to 1.58, its lowest recorded level (Figure 1).

One aspect of Australia's declining fertility rates has been the steady increase in the age at which women have their first child since the mid-1970s. In 1975, the median age of women giving birth was 25.8 years old. By 2020, this had risen to 31.6 years old. Despite improvements in assisted reproductive technology, later entry into parenthood is often associated with women having fewer children.

Survey data consistently suggest Australians would like to have more children than they currently have. This can be seen as a 'policy window of opportunity' to provide an environment that is supportive of people wishing to have children.

Figure 1: Total Fertility Rate in Australia, 1960-2020



Source: Australian Bureau of Statistics, Births Australia 2020.

In Australia, there is considerable variation in fertility rates across sub-groups of the population.

Higher education levels are associated with a later start to childbearing because highly-educated women spend a larger part of their early adulthood enrolled in education and building careers. As such, higher levels of education are associated with smaller family sizes and highly-educated women are the most likely cohort to have no children.

A woman's Indigenous status and country of birth are also associated with different fertility rates. The TFR of all Australian-born women in 2020 was 1.68, while the TFR of Indigenous Australian women in 2020 was 2.25 (Figure 2). These rates are higher than the TFR for overseas-born women, which was 1.55 in 2020.

Fertility rates also vary across states and territories, and cities and regions. Australia's highest fertility rates are in the Northern Territory and Tasmania, while the lowest are in Victoria and the ACT. Major cities have lower fertility rates than regional areas, which have fertility rates much closer to replacement level (Figure 2).

Figure 2: Total Fertility Rate by state and territory, Indigenous status and remoteness areas, 2020

Location	Total Fertility Rate	
	Total population	Aboriginal and Torres Strait Islander
NSW	1.62	2.31
Vic.	1.43	1.97
QLD	1.64	2.34
SA	1.59	1.84
WA	1.70	2.55
Tas.	1.77	1.92
NT	1.86	2.06
ACT	1.52	N.A
Australia	1.58	2.25
	Remoteness areas	
Major cities	1.57	
Inner regional	1.96	
Outer regional	2.02	
Remote and very remote	2.20	
Australia	1.67	

Source: Australian Bureau of Statistics, Births Australia 2020.
Note: Fertility rates for remoteness areas are averaged using data for the three years ending in 2020.

Understanding what drives fertility rates

Both societal and individual factors play an important role

Fertility rates are influenced by many complex factors, including at both a macro (or societal) level and a micro (or individual) level (Figure 3).

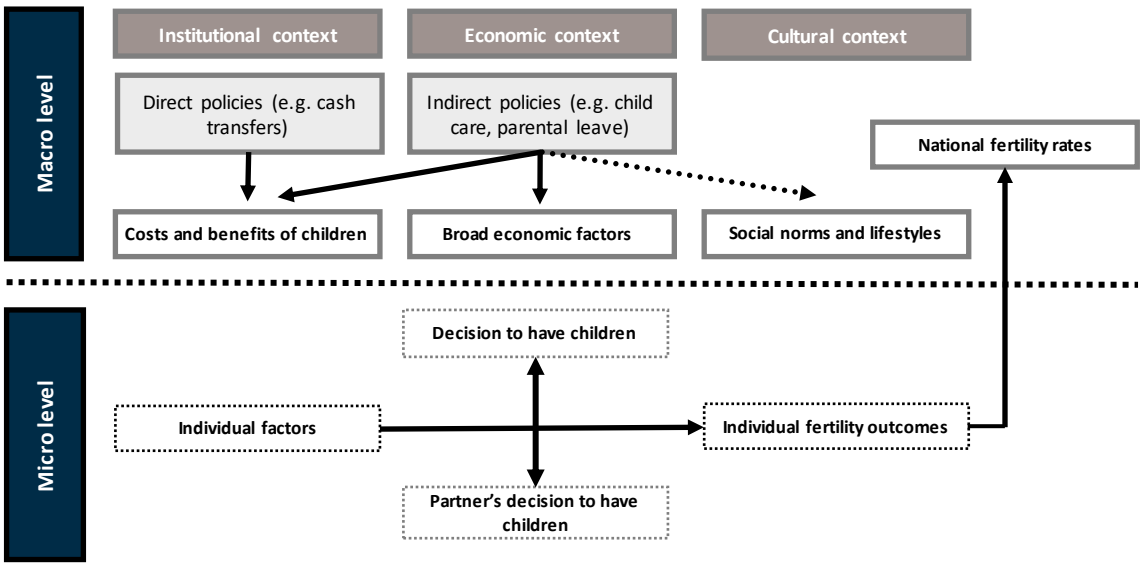
At the macro level, Australia's institutional, economic and cultural context are important factors in peoples' fertility decisions. This context includes the costs and benefits of having children, and social norms around parenthood and lifestyle.

These macro-level factors are affected by policy settings, including child care and parental leave.

At the individual level, factors such as age, relationship status, and level of education interact with macro-level factors to influence peoples' fertility decisions.

These decisions taken all together determine Australia's overall fertility rate.

Figure 3: Conceptual framework of the drivers of fertility



Source: Adapted from Sleebos (2003); Lattimore and Poke (2008); Liefbroer, et al (2015).

Policy impacts on fertility

Financial incentives have a positive impact on fertility rates

Measuring the impact of government policy on fertility rates can be fraught as policy settings are just one (often small) factor in a woman's decision to have a child. This contributes to the difficulty in establishing a causal relationship between policies and fertility outcomes. The assessment of policies' impact on fertility is further complicated by the fact that most studies focus on the short-term effects on fertility, while women's reproductive lives span decades.

The Centre for Population has commissioned a suite of work from the Australian National University (ANU) that seeks to better understand the impact of government policies on fertility decisions. These assessments, while not definitive due to the measurement challenges, help to form a picture of the likely impacts of selected policies on Australian fertility rates. Two approaches were used to achieve this.

First, a literature review covers studies from a range of countries that examine the effects of government policy on fertility outcomes. The findings from these studies demonstrate the importance of policies that provide stability and support for raising children.

Policies that support participation of both parents in employment through parental leave and child care, and those that reduce the financial costs for parents were also found to be important.

Second, data from HILDA surveys were also used to investigate the introduction of, or changes to, various direct and indirect fertility policies within Australia. The policies investigated were financial incentives (the Baby Bonus program and Family Tax Benefit); paid parental leave; and the introduction of paid paternity leave.

The analysis looked at the impact of these policies on several fertility related measures: actual births, desire for having children, expectations of having children, number of intended children and expected timing of next child. Notwithstanding the difficulties in analysing the impact that policy has on fertility, the HILDA analysis indicates that the introduction of a number of these policies had a positive impact on Australian fertility rates.

Financial incentives like the Baby Bonus and Family Tax Benefit

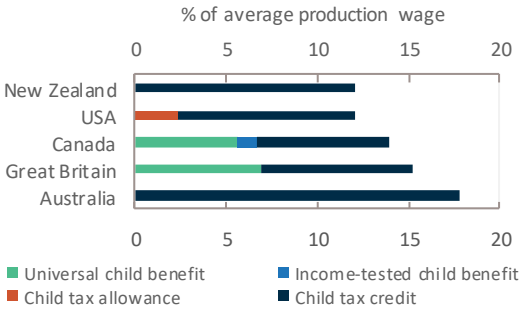
Financial transfers are often provided by government to help reduce the direct costs of children to parents. They can take the form of long-term transfers for the duration of childhood (typically to age 18), or as short-term payments in the form of birth grants. Programs can be universal or means-tested, and they might be available to all children or targeted specifically at first births.

The literature review covers international evidence that suggests financial transfers have an overall positive effect on fertility. However, the effect is usually small because transfers represent a minor fraction of the total direct costs of children.

Australia has generous, means-tested financial transfers in the form of Family Tax Benefit (Figure 4). Family Tax Benefit is generally paid as a fortnightly payment, with the rate of pay depending on the number of eligible children and the combined income of the family. Analysis of HILDA data shows that **reforms increasing the generosity of Family Tax Benefit in 2004 were associated with an increase of 0.13 to the intended number of children.**

Australia's Baby Bonus program was another financial incentive aimed at supporting higher fertility outcomes. The Baby Bonus was a tax-free payment paid following birth or adoption of a child. The HILDA analysis estimates that the introduction of the Baby Bonus increased births by approximately 2 per cent. This increase applied primarily to those having a first birth, where a 3 per cent increase was observed. Based on these findings, the report concludes that **the Baby Bonus mattered more for those starting a family, possibly bringing the decision to have a first child forward.**

Figure 4: Benefit type and level as a percentage of average income in selected countries, 2015



Source: Nelson, et al, 2020 using the Social Policy Indicator (SPIN) database. 2015 is the latest data available.

Parental leave and child care policies also have a positive impact on fertility rates

Parental leave

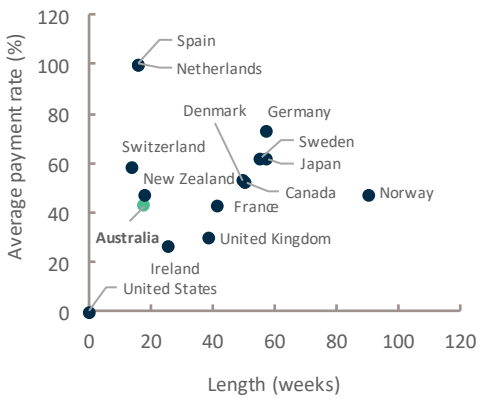
Paid parental leave policies reduce the opportunity cost of childbearing for parents by supporting career continuity and compensating for lost income due to time away from the workforce. Across OECD countries, there is substantial diversity in the design of maternity and paternity leave policy, in terms of duration, replacement rate and eligibility (Figure 5). While maternity leave provided by employers existed previously, Australia introduced government funded paid parental leave for mothers in 2011 and Dad and Partner Pay in 2013.

The literature review found evidence from other countries suggesting that well-paid maternity leave has a positive effect on fertility. Evidence for the effect of paternity leave on fertility is inconclusive at this stage and appears largely dependent on the social context in which it is introduced and the existing gender roles.

In Australia, the HILDA analysis of the paid parental leave policy showed positive and statistically significant effects on actual births. **The analysis suggests that the introduction of this policy led to an increase in the average number of births by approximately 5 per cent.** The number of children already born did not have a significant influence on the result, suggesting that it is a policy which equally applies to those starting or building their families.

The impact of the **introduction of Dad and Partner Pay on births is inconclusive**.

Figure 5: Public paid leave available to mothers in selected OECD countries, 2018



Source: OECD Labour force statistics, 2020, Table PF2.1A.

Child care

Policies that support accessible and affordable child care can have a positive effect on childbearing by increasing work-family compatibility. Like other policies, OECD countries vary widely in child care policies, including whether child care is publicly provided or market-based.

The Australian Government assists families with the cost of child care fees through the Child Care Subsidy (CCS). The CCS was introduced in 2018 and replaced two previous payments (Child Care Benefit and Child Care Rebate). In the 2021-22 Budget changes were made to increase the rate of CCS paid to some families, and the annual cap on the amount of CCS that can be paid was removed.

The literature review finds evidence that increased provision of child care has a positive effect on fertility, particularly for first births. However, the impacts of Australia's Child Care Subsidy could not be tested through HILDA analysis due to the inability to specifically isolate changes in child care policy from other changes in the transfer system.

Assisted reproductive technology

With the average age of women giving birth in Australia increasing, the proportion of women experiencing difficulty in achieving a pregnancy has increased. Assisted reproductive technology (ART) treatments are becoming increasingly used to support women to achieve a pregnancy.

In comparison to other countries, Australia has a supportive public environment for ART and has one of the highest proportions of children born as a result of ART (5 per cent), although its contribution to the TFR so far has been modest.

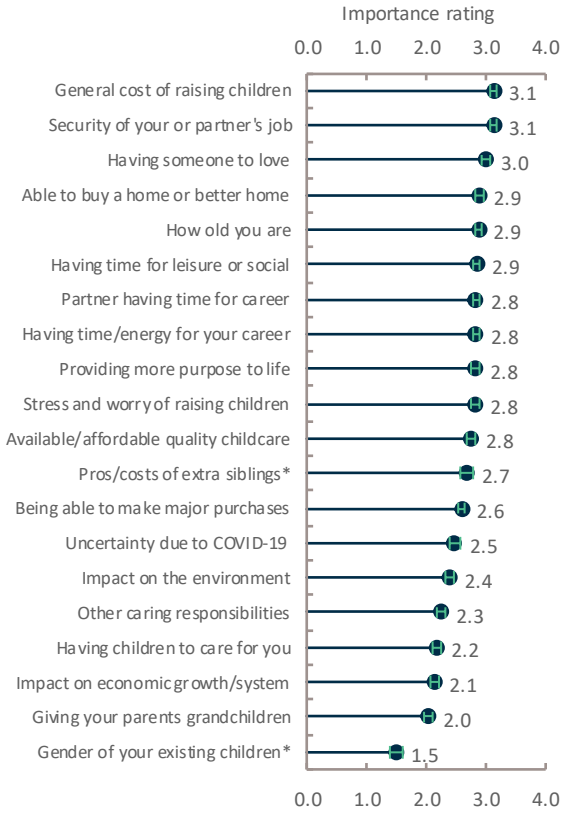
Attitudes around fertility decisions

Economic considerations factor strongly in personal fertility decisions

To assess some of the personal factors influencing fertility decisions in Australia, fertility intention questions were included in the ANUPoll survey in April and August 2021. The survey covered a range of questions regarding respondents' fertility intentions, as well as what considerations were important when considering whether or not to have a child. The combined sample size for both surveys was over 6,000.

To assess the factors that people consider in having a child, respondents were asked to rate the importance of 20 factors, with 1 being 'not important' and 4 being 'very important'. The average rating for each factor is shown in Figure 6. While 3 out of the top 4 factors are economic, respondents considered almost all the factors to be of some importance. This suggests that while economic conditions are being considered, fertility decisions are the result of a complex balance of personal and family factors.

Figure 6: Factors associated with fertility decisions in Australia, August 2021



*Source: ANUPoll, August 2021. Note: The green 'whiskers' around the estimate represent the 95 per cent confidence intervals. * refers to those questions only asked of those with existing children.*

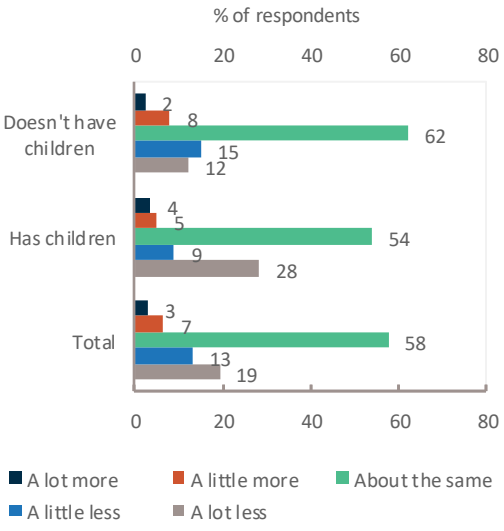
Different factors were of greater importance to different groups of people. For example, those without a university education, as well as childless respondents, were more likely to place a greater importance on being able to buy a home or a better home.

COVID-19 impacts on fertility decisions

When asked if the COVID-19 pandemic had impacted the likelihood of having children, 58 per cent of respondents reported that COVID-19 had little or no impact on their intentions to have another child (Figure 7).

37 per cent of people who already had a child, and 27 per cent of childless respondents, indicated that the pandemic decreased their likelihood of having an additional child. Only a small minority of childless respondents (10 per cent) and parents (9 per cent) felt that the likelihood of them having additional children had increased as a result of the pandemic.

Figure 7: Self-reported impact of COVID-19 on likelihood of having children, August 2021



Source: ANUPoll, August 2021.

More information on fertility

The Centre for Population

Population change affects every aspect of Australians' lives. It is important to understand how Australia's population is changing and the implications of these changes. The Centre for Population strives to understand and communicate the nuances of population change.

The latest data, research and analysis on fertility trends can be found at www.population.gov.au.

Relevant Centre for Population resources

- Impact of policies on fertility rates – A report from the ANU, commissioned by the Centre for Population. It includes a literature review of trends in fertility in Australia and internationally, analysis of HILDA data, and results from ANUPoll survey.
- 2021 Population Statement – Discussion of population projections produced by the Centre for Population for the 2021-22 MYEFO. It includes projections of births and discussion of the Centre for Population's fertility assumptions.
- A projection of Australia's future fertility rates – Analysis by Professor Peter McDonald, commissioned by the Centre for Population. The report discusses Australia's past fertility trends and develops projections of Australia's future fertility rates under a number of scenarios (which have since been superseded). Published in September 2020.
- Natural Increase – A summary page explaining the concept of natural increase (births less deaths), and its relevance to population growth.

Impacts of policies on fertility rates

Population Statement 2021

A projection of Australia's future fertility rates

Australian Bureau of Statistics

The Australian Bureau of Statistics is the primary source of fertility statistics in Australia.

- Births, Australia – Statistics about births and fertility rates for Australia, states and territories, and sub-state regions. Provides calendar year estimates of TFR, published annually.
- National, state and territory population – Statistics about the population and components of change (births, deaths, migration) for Australia and its states and territories. Provides financial year estimates of TFR, published quarterly.

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