

## **A Note on Demographic Factors Affecting the Provision of Childcare in Australia**

Submission to the Productivity Commission Inquiry into Childcare and Early Childhood Learning.

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### **Introduction**

The child care sector in Australia has been subject to unprecedented pressure from demographic change in recent years and the challenge presented by demographic change will be of continuing importance in the future. This submission is motivated by my observation that a recent round table discussion on “Childcare and Workforce Participation” for the Productivity Commission inquiry into Childcare and Early Childhood Learning was dominated by discussion of research on individual propensities to use child care or for mothers to participate in the workforce to the virtual exclusion of discussion of the significant changes in the dimensions of Australia’s population which have implications for child care provision, particularly the growth and changing geographical location of the population aged under five. This submission describes some of these demographic changes and discusses some of the potential policy responses.

### **Recent Changes in the Child Care Using Populations**

In 2013 the estimated number of Australians aged under five years was the highest ever recorded (Figure 1; ABS 2013a). Since the children using it are drawn largely in this age group, the growth of this age group has obvious implications for the need for child care. Figure 1 shows the significant growth in the numbers aged under five that has occurred in Australia since 2004. Figure 2 shows the percentage growth rate for Australia’s population aged under five for the 2005-2010 period was the fastest recorded for 37 years, and hence unprecedented during the era since child care use became widespread. Whilst there has subsequently been a small drop in the percentage growth rate for under fives, the rate of growth remains high by recent standards. The recent growth in the population under five is a legacy of increasing numbers of births which in turn reflects the combination of increasing numbers of women in the reproductive age and increasing per woman birth rates (ABS 2013b). The uneven, and unexpected, geographical distribution of the growth in the need for child care may have contributed to reported temporary spatial gaps between the supply of and the demand for child care places. Such mismatches between supply and demand may have contributed to the fairly weak responsiveness of workforce participation to child care subsidies, particularly the Child Care Rebate, found by Guest and Parr (2013).

In addition to demographic growth, significant increases in the percentages of mothers with children aged under five who are employed have placed further pressure on child care (Figure 3; Parr 2012; Guest and Parr 2013). Some of these increases can be attributed to change in the demographic profile of mothers. The percentage of mothers with higher levels

of education and hence higher potential incomes has increased. Since more highly educated women are more likely to participate in the workforce, this trend has contributed to the increased propensities of mothers to be employed (Parr and Guest 2011; Parr 2012; Guest and Parr 2013). The wealthier profile of parents and the fact that the increased need for child care has disproportionately come in relatively wealthy, built up areas, in which sites for new child care centres may be harder to find and the costs of developing higher, may have contributed to the high rates of child care price inflation (ABS 2011).

The sizes of the populations aged 5-9 and 10-14 years have also been growing in recent years. Since 2009 the growth of the population aged 5-9 has become fairly rapid, a legacy of the afore-mentioned trends in births. The growth of these age groups has particular relevance to school enrolment and the related needs for before and after school care and for vacation care. As schools increasingly become full, school space becomes at a premium. This may be to the detriment of the provision of before and after school care which is not one of the responsibilities of the government or Catholic schools educational providers and which some anecdotal evidence suggests is therefore assigned a low priority.

### **Prospective Future Changes**

The growth in the numbers in the child care using ages is likely to continue in the coming years. The medium variant (Series B) ABS population projections show the population aged under five continuing to grow throughout the period 2013-2050 (Figure 5; ABS 2013c). It is projected to be 13.6% larger in 2020 and 45.6% larger in 2050 than in 2013. The numbers in the 5-9 and 10-14 age groups are projected to increase by broadly similar amounts, with the implication of a growing need for before and after school care and vacation care. Such projections are based on assumptions about future levels of fertility, mortality and migration. Since these projections incorporate a debateable assumption that Australia's total fertility rate will fall (to 1.8 births per woman), it is arguable that this series of projections provides overly conservative estimates of the prospective future growth (Parr 2013). Thus even if no future increases in mothers' and parents' workforce participation were to occur, the need for child care is likely to continue to increase. Given the likelihood of further increases in the percentages of mothers in employment considerable future increases in the need for the various forms of child care should be anticipated.

### **What Can Be Done?**

The prospective demographic changes, indicated by population projections and described briefly above, are likely to contribute to an increased future need for child care in aggregate. The pace of growth is likely to vary between different geographical regions.

In theory population projections could assist with identifying areas in which the population aged under five and hence the need for child care is likely to increase. However given the highly localised need for childcare such projections would need to present information both for relatively fine disaggregations of the population by age (i.e. by five year age groups or one year age groups) and for relatively small geographical areas. Currently the lowest geographical level of aggregation for which ABS population projections are available

for capital city and balance of the state (ABS 2013c). Population projections produced by state governments are available at the Local Government Area (LGA) level but are only publicly available for broad age groups (under 15, 15 to 64 and 65+) (NSW Department of Planning and Infrastructure 2013).

Currently the most detailed projections both in terms of the degree of geographical disaggregation and the fineness of the disaggregation of the age range are those produced by the Australian Government's Department of Health. These projections are readily available online and present future numbers for 2011-2026 of males and females by single years of age and at the Statistical Local Area level (Department of Health 2013). It should be noted that all population projections will be subject to a degree of error as forecasts of future population, and that percentage errors will tend to be larger for smaller types of geographical areas than for larger ones, as well as tending to be increase as the time from the start point of the projection increases (Wilson 2007; Massey and Tranquille 2013). Moreover, forecast errors for the under five age group tends to high relative to those for most other age groups.

The preparation of a report specifically focusing on the trends in the under five population which have been projected by the Department of Health is a low cost measure which may assist the diverse range of organisations who provide child care to identify geographical areas in which the need for child care is likely to grow and to formulate their plans accordingly. Whilst population projections are far from infallible, as discussed above, on average one should expect that by encouraging their use to anticipate of future changes, as opposed to "playing catch-up", the extent of future mismatches between the supply of and the demand for child care would be reduced to some degree. Measures to aid the dissemination of the results of population projections to child care providers (for example the organisation of workshops and conferences) is another low cost policy option to be encouraged. The resourcing of state government demography sections to facilitate the preparation of population projections to similar or even finer levels of details could also be considered.

State government education departments prepare projections of future enrolments for individual schools (in NSW at least). However, as I understand it, these projections are for their internal use only and are not published. In theory such information, particularly if considered in conjunction with localised data on trends in mothers' workforce participation, could assist the providers of before and after school care to identify localities in which there will be future growth in need for their services and to plan accordingly. In NSW the Catholic school sector does not prepare enrolment projections. In theory measures to encourage the preparation of school enrolment projections (eg the resourcing of demography sections within education departments) and the spread of access to such information to before and after school care providers may facilitate forward planning by these providers, and reduce the extent of spatial mismatches between the supply of and demand for such child care.

## **Conclusion**

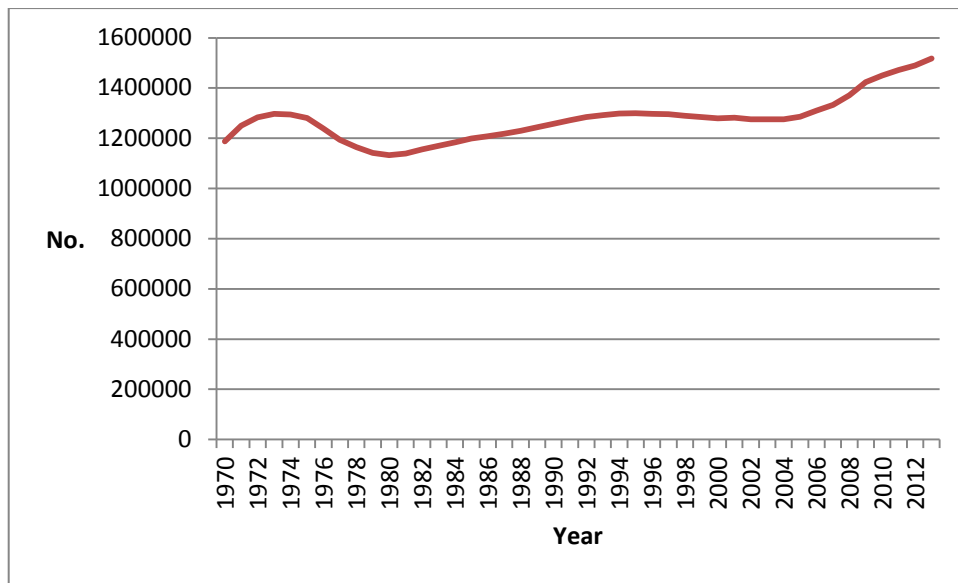
Demographic growth has added significantly to the challenges to the provision of child care in Australia in recent years, and should be expected to continue to do so in the future. There

may be some scope for reducing mismatches between the supply of and demand for child care through enhancing the provision of, access to, and understanding among child care providers of the strengths and limitations projections of the age groups in the population with the greatest need for child care services.

## References

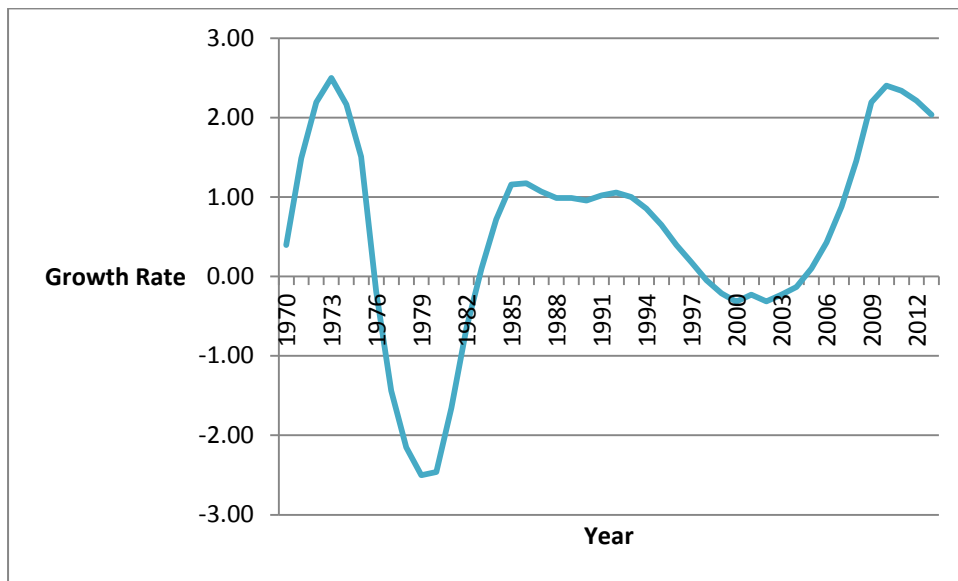
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**Figure 1: Population Aged 0-4: Australia 1970-2013**



Source: ABS Population Data

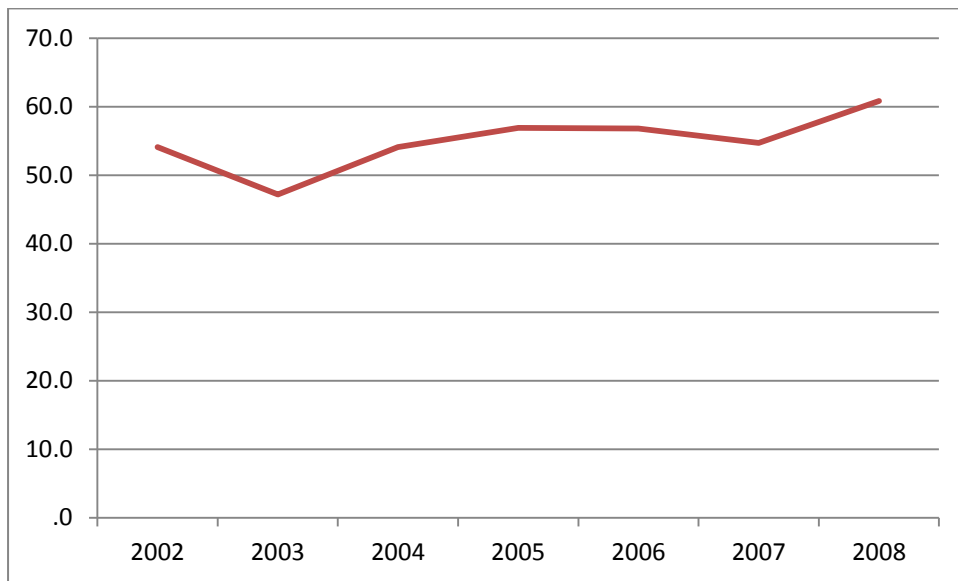
**Figure 2: Average Annual Growth Rate for Number Aged Under Five: Australia Five Year Periods 1965-70 to 2008-2013**



Source: ABS Population Data

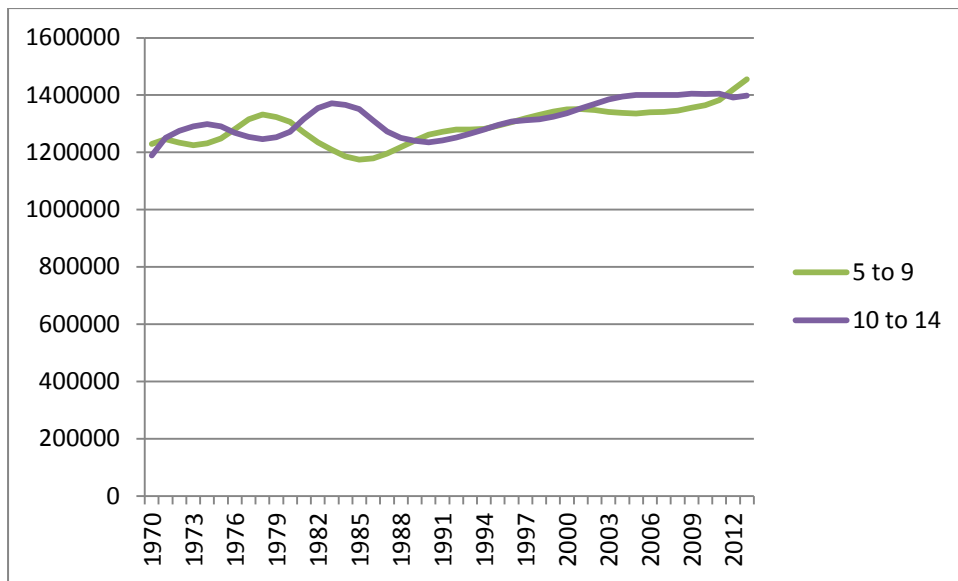
Note: The horizontal axis shows the end points for the five years considered.

**Figure 3: Percentage of Mothers with a Youngest Child Aged Under Five Who Are in Employment: Australia 2002-08**



Source: Parr (2012)

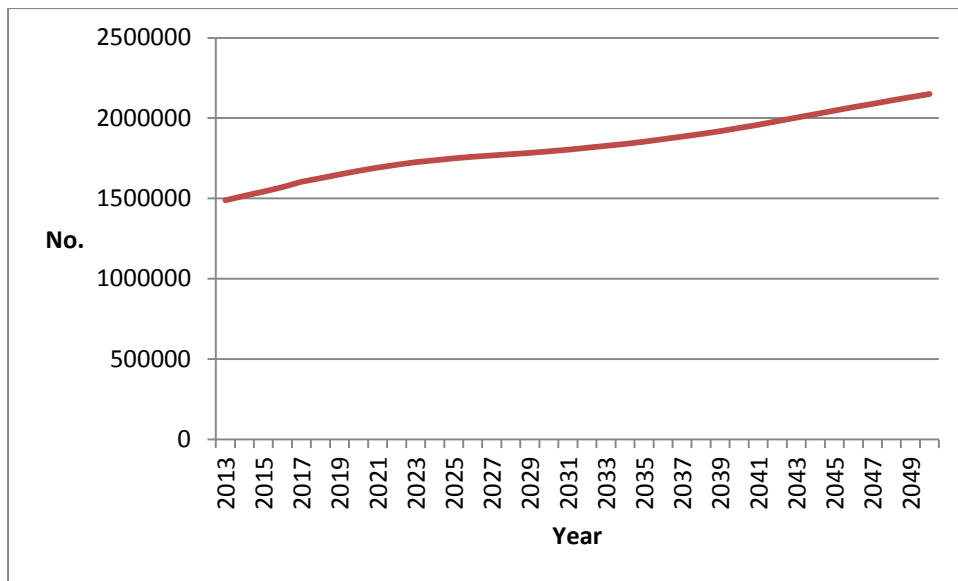
**Figure 4: Population Aged 5-9 and 10-14: Australia 1970-2013**



Source: ABS Population Data



**Figure 5: ABS Series B Projected Numbers Aged 0-4: Australia 2013-2050**



Source: ABS (2013c)