



Baby bonuses: natural experiments in cash transfers, birth timing and child outcomes

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Key findings

The additional support provided by the \$3,000 Baby Bonus:

- had no detectable effect on childrens' cognitive skills, as reflected in test scores; and
- while inducing hundreds of parents to shift births to qualify, left no clear evidence of lasting harm from such dramatic birth shifting.

What we knew

- Early childhood experiences can have large effects on later outcomes (Currie and Almond (2011)). Yet little is known about the lasting effects of family income in childhood — those who differ in family income typically differ in other important ways as well.
- The Baby Bonus provides a rare 'natural experiment' in the effect of family income at birth. Families of those born on or after 1 July 2004 received a \$3,000 cash payment while otherwise identical families of those born beforehand did not.
- The Baby Bonus resulted in over 1,000 births being delayed Gans and Leigh (2009). This caused some concern — were parents and doctors making decisions that could harm children?

What we do

- We use Year 3 NAPLAN test scores covering 300,000 students born from 2003 to 2005.
- Our use of big data means that we can detect even tiny effects. Our ability to statistically detect the effect of the Baby Bonus is equivalent to the ability to detect the effect of a \$90,000 cash bonus in a survey of 20,000 households.
- We compare differences in scores for those born before and after the Baby Bonus accounting for 'normal' differences across months. Did the Baby Bonus cash lift any test scores?
- Finally, we look for any sharp differences around 1 July 2004 and two other major birth shifting events (the 1996 Maternity Allowance; and the 2006 Baby Bonus expansion). Do those whose births were shifted from the last days of June into the first days of July do any better or worse?

What we know now

- There is no evidence the Baby Bonus cash improved year 3 NAPLAN outcomes. We can confidently rule out even small effects sufficient to lift test scores by the equivalent of moving up one rank in a class of two hundred. While there is some evidence of a modest improvement for children from disadvantaged families, this effect is sensitive to assumptions.
- There is also no clear evidence of harm from the unintended birth shifting. This provides some comfort that modest birth shifting by parents and care providers, as seen around weekends, holidays and conferences (Gans, Leigh and Varganova (2007); Gans and Leigh (2012)), is unlikely to harm child outcomes.



What this means for policy

- Modest boosts to family income, while of value to parents, should not be expected to have appreciable effects for their children's cognitive skills. Improving such outcomes by supplementing family income alone is likely to be very expensive.
- While unintended, the dramatic birth shifting accompanying the Baby Bonus and two other policy changes cannot be clearly linked to any harms. It seems likely birth shifting was managed in a way that did not compromise child health.

Where to now?

- The modest size of the Baby Bonus is the key drawback in this study. An alternative approach for future research may be to follow Dahl and Lochner (2012) and Milligan and Stabile (2011) in exploiting the changes in family payments over time in data with detailed information on family composition, income and structure. This would be possible in linked administrative data.
- While large numbers of births were *delayed* in response to baby bonus *increases*, it remains unclear whether similarly large numbers of births were *brought forward* in response to baby bonus *reductions*.

More information

- Get the full working paper at: https://crawford.anu.edu.au/files/uploads/crawford01_cap_anu_edu_au/2016-11/paper_bb1_nd1.pdf or the published version at: <https://onlinelibrary.wiley.com/doi/abs/10.1111/1475-4932.12382>
- We would welcome the opportunity to present our research to your team and to discuss potential joint research projects on related or similar topics.
- Contact us at nathan.deutscher@anu.edu.au or robert.breunig@anu.edu.au

References

- Currie, J. and Almond, D. (2011). Human capital development before age five, *Handbook of Labor Economics* 4: 1315–1486.
- Dahl, G. B. and Lochner, L. (2012). The impact of family income on child achievement: Evidence from the earned income tax credit, *The American Economic Review* 102(5): 1927–1956.
- Gans, J. S. and Leigh, A. (2009). Born on the first of July: An (un) natural experiment in birth timing, *Journal of Public Economics* 93(1): 246–263.
- Gans, J. S. and Leigh, A. (2012). Bargaining over labour: Do patients have any power?, *Economic Record* 88(281): 182–194.
- Gans, J. S., Leigh, A. and Varganova, E. (2007). Minding the shop: The case of obstetrics conferences, *Social Science & Medicine* 65(7): 1458–1465.
- Milligan, K. and Stabile, M. (2011). Do child tax benefits affect the well-being of children? Evidence from Canadian child benefit expansions, *American Economic Journal: Economic Policy* pp. 175–205.