"Can financial incentives reduce the baby gap? -Evidence from a reform in maternity leave benefits"

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Extended Abstract

Over past decades, many developed countries have been facing decreasing birth rates and below replacement fertility levels. This trend has gone hand in hand with a large increase in female educational attainment and improved labor market opportunities. A striking fact is that across most countries higher educated women have fewer children than lower educated, which is likely to reflect higher opportunity cost of childbearing.

Countries have taken different avenues in the way they support families and subsidize childbearing, incl. cash transfers and tax benefits. Every OECD country except the US offers federally funded parental leave programs, which provides job protection and some replacement of earnings. The design of these benefits however varies considerably across countries: In more traditional countries like Austria and Germany until 2007 payments are usually flat and targeted at lower-income families. The Nordic countries or Canada on the other hand aim to compensate women's opportunity cost of children by paying generous parental leave policies which are closely tied to mothers' pre-birth earnings.

Empirical evidence on the fertility impact of maternity leave benefit programs is scarce. The existing literature has primarily looked at financial incentives targeted at low income groups (welfare programmes, cash subsidies) and results might not hold for higher income groups.

I assess the effects of changes in financial incentives on fertility arising from a reform in parental leave benefits in Germany. Up until 2007 German parental benefits were means-tested transfers and targeted at lower income families. From 2007 onwards parental leave benefits were increasing in mother's pre-birth earnings with a minimum benefit being granted to all mothers. The reform increased the financial incentives to have a child for higher educated and higher-earning women considerably, by up to 21,000 EUR.

My paper is the first paper to empirically test whether earnings dependent parental benefits have a positive impact on fertility, and whether they are successful at narrowing the baby gap between high educated (high earning) and low educated (low earning) women.

First, using administrative birth statistics, I find discontinuous jumps in in overall monthly birth rates of around 4% nine months after the reform was passed and an increasing trend in birth rates after the discontinuity. This (short term) effect on fertility exists for the probability of a first child as well for a second or third. I also find evidence for discrete drops in abortion rates for married women just after the law was passed.

Second, using pension registry data, I exploit the large differential changes in parental leave benefits across education and income groups to estimate the causal effect of parental leave benefits on fertility using a continuous differences-in-differences estimators and IV strategy. I find a positive, statistically significant effect of an increase in expected benefits, which is mainly driven by women in the middle and upper-end of the education and income distribution. The reform appears to have an effect on the fertility of all earnings group beyond median earnings including the top 5^{th} percentile.

My baseline estimate implies that a 5,000 EUR increase in expected parental benefits raises the probability to have a child in a given year within the four years post reform by (at least) 6%. I also find that the reform increased the probability to have a child for older women, aged 35-39 and 40-44, who are nearing the end of their lifetime fertility. An increase in their (short-run) fertility is likely to have a permanent effect and raise the completed fertility of these cohorts.

Finally, I use administrative data from school entry examinations to assess whether differences in fertility rates across socio-economic groups translate into changes in child outcomes (a measure of "child quality") at the age of school entry. Preliminary results suggest that the reform improved child outcomes.

Overall, I find that the reform had substantial pro-natal effects and changed the socio-economic composition of fertility. My findings suggest that earnings dependent parental benefits, which compensate women for their opportunity cost of childbearing accordingly, might be a successful means to reduce the disparity in fertility rates with respect to mothers' education and earnings. Paid leave insurance might help to mitigate the decline in fertility associated with increasing labor market opportunities of women.