

The Impact of the *Bolsa Família* Programme on Beneficiaries' Fertility

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The *Bolsa Família* programme¹ provides a benefit up to maximum of three benefits² to every pregnant woman and child up to 15 years of age and another benefit to teenagers between 16 and 17 years old, up to a maximum of two benefits, in families with less than R\$140.00 per capita monthly income. This feature of the programme has led some commentators to fear that it could trigger an increase in fertility of the poor. The possible impact on fertility behaviour has drawn very little attention from researchers, despite being one of the most popular criticisms against Conditional Cash Transfers (CCT) programmes. To our knowledge, only two papers investigate this possible relationship in Brazil: Rocha (2010) and Signorini & Queiroz (2011). The empirical evidence from other countries suggests that CCTs have no significant impact on fertility. The evidence holds for other types of programmes, including those that provide only child care, traditional cash transfer programmes, and income tax exemption policies (Stecklov et al., 2007).

So why should cash transfers affect a person's fertility behaviour? Economic theory suggests that individuals are rational and decide their fertility level while maximizing household utility subject to a budget constraint. Becker and Lewis's (1973) model of demand for children considers that families take into account the quantity and quality of children when deciding the number of children. In other words, less children may lead to more investments in each child holding family consumption constant. The conditional cash transfers programs may reduce the costs of investing in a child thus leading to a change in fertility preferences

We used the National Household Sample Survey (PNAD) data from 2004 and 2006, which included questions about *Bolsa Família*, to identify the programme's beneficiaries and to investigate the effects of the programme on fertility. We used a regression model based on the first-differences approach and compared the outcomes from each survey year. In order to define treatment and control groups, we used a propensity score-matching methodology to identify comparable matches of beneficiaries (treatment) and non-beneficiaries (control).

ATT Estimation with Nearest Neighbour Matching Method (random draw version)
Bootstrapped Standard Errors – Probability of Having a Child, Brazil, 2004 and 2006

Year	Treatment	Control	ATT	Std. Error	T
2004	812	673	-0.063	0.026	-2.451
2006	2,261	1,055	-0.056	0.016	-3.457

Source: PNAD, 2004 and 2006.

The table shows estimates of the difference between treatment and control groups, the average effect of treatment on the treated (ATT), and the probability of having a child in 2004 and 2006 (based on whether the woman had had a child in the previous year).

The results indicate that, for both years, the probability of a beneficiary having a child in the previous year was smaller than that of the control group. In 2004, this probability was 6.3 percentage points lower for the beneficiary group, whereas it was 5.6 percentage points lower in 2006. Considering signal and magnitude of ATT outcomes, the results indicate that the programme had a negative impact on fertility for both years. It should be stressed, however, that the impact decreased between 2004 and 2006 and overall it is very small. Results are very similar to what was observed by Rocha (2010) using a different methodology.

References:

- Becker, G.S. & Lewis, G.H. (1973). On the interaction between the quantity and quality of children. *Journal of Political Economy*, 81.
- Rocha, R. (2010) Programas condicionais de transferência de renda e fecundidade: evidências do Bolsa-Família, (mimeo).
- Signorini, B. & Queiroz, B. (2011). The impact of *Bolsa Família* on beneficiaries' fertility. Texto para Discussão no. 439. Belo Horizonte: UFMG/Cedeplar. Available at: <<http://www.cedeplar.ufmg.br/pesquisas/td/TD%20439.pdf>>.
- Stecklov, G., Winters, P., Todd, J. & Regalia, F. (2007). Unintended consequences of poverty programs on childbearing in developing countries: experimental evidence from Latin America, *Population Studies* 61(2): 125-140.

Notes:

1. The Brazilian Conditional Cash Transfer programme with approximately 13 million beneficiary families. See more at: <<http://www.mds.gov.br/bolsafamilia>>.
2. This limit has been recently been extended to 5 benefits.