

A Substitute for Substitution: Bolsa Família's Effects on the Combination of Work and School for Children and Adolescents Aged 10–18

by Fernando Gaiger Silveira, Institute for Applied Economic Research (IPEA);

Ross van Horn, Lyndon B. Johnson School of Public Affairs, University of Texas at Austin; and Bernardo Campolina, CEDEPLAR/UFMG

Evidence suggests that insufficient household income can lead to labour supplementation by children and adolescents. The pressure on them to enter the labour market results in less time available for school activities and, ultimately, in school drop-out. Thus most impact evaluations of conditional or unconditional cash transfer programmes tend to pay special attention to programmes' impacts on children's and adolescents' school attendance and participation in the labour market. In a cyclical fashion, the so called 'substitution effect' of work for school reproduces a reality experienced by low-income parents, derived from low schooling levels, for future generations.

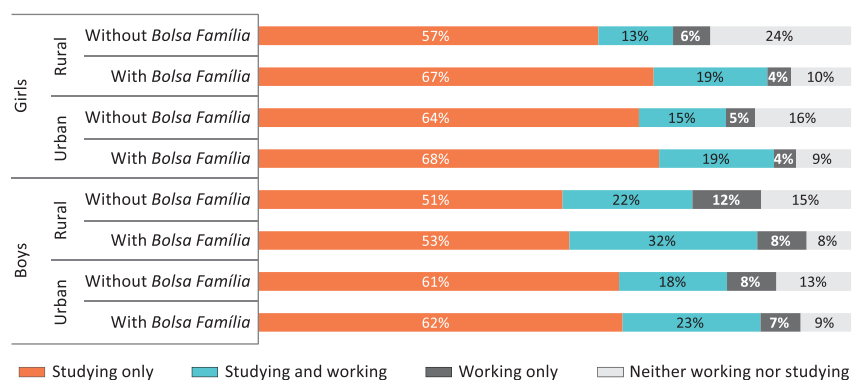
Gaiger, F.S. et al. (2013) examine the extent to which transfers from Brazil's flagship cash transfer programme, Bolsa Família, has affected the allocation of time between work and school for children and adolescents.

We use the 2010 census to estimate programme effects. The 2010 census is particularly suitable because it offers the most recent survey with a strong sample that directly determines the beneficiary population, which minimises the selection bias that arises when the National Household Survey is used.

Estimates were developed with the use of the multinomial logit and bivariate probit models, using inverse propensity weighting and trimming techniques. The effects of Bolsa Família are evaluated for 12 population groups, according to age, gender and area of residence. Here, we focus on the results for adolescents between 15 and 17 years of age, which is the age group most likely to drop out of school and/or start working.

The figure shows the predicted distribution of beneficiary and non-beneficiary children (derived from propensity score estimates) between 15 and 17 years old, according to the combination of school and work, estimated through a multinomial logit and propensity scores with weights between 0.03 and 0.95. It is in this age group that the most significant differences in rates of school attendance and participation in the workforce between beneficiaries and non-beneficiaries become evident. This finding is very marked when looking at differences between urban boys and girls. Among urban girls, Bolsa Família increases the probability of school attendance by 8 percentage points, with similar increases in

Probability of Studying and Working for Adolescents Aged 15–17



studying only and studying in combination with work. Among urban boys, nearly all of the difference in the probability of studying among beneficiaries and non-beneficiaries, about 6 percentage points, is due to the greater proportion of those who combine school attendance and work. Overall, Bolsa Família beneficiaries are about 5 percentage points more likely to attend school than non-beneficiaries. However, it is important to stress the negative impact of Bolsa Família on the probability of only working in rural areas. This result suggests the existence of the substitution effect in rural areas, especially for boys.

Our results call into question the idea that Bolsa Família would lead to a simple substitution effect between child labour and school attendance. As demonstrated in the analysis, the aggregate effect of the transfer actually increases both school attendance and workforce participation. Instead of a substitution effect, whereby the probability of only studying increases while the probability of only working decreases as a result of the programme, the results from the multinomial logit show that the main impact is the increase in the proportion of 15–17-year-olds who combine school and work, especially in urban areas. Gender differences are also very clear: the programme has a positive effect among girls, with relatively pronounced decreases in the proportion of those who do not study or work, and increases in the rate of school attendance.

Reference:

Gaiger, F.S., R. van Horn and B. Campolina (2013). 'A Substitute for Substitution: Bolsa Família's Effects on the Combination of Work and School for Children and Adolescents Aged 10–18', Working Paper, No. 121. Brasília, International Policy Centre for Inclusive Growth. This work was supported by CNPq.

