

The impact of Brazil's Bolsa Família Program on School Attendance, Age-Grade Discrepancy, and Child labor, 2010

Ernesto Friedrich de Lima Amaral¹, Guilherme Quaresma Gonçalves² and Christopher Weiss³

Abstract

This paper analyzes the impact of the educational conditions of Brazil's Bolsa Família Program on the school enrollment, age-grade discrepancy, and labor of children benefiting from the program. The main hypotheses of this paper is that a child who lives in a household that receives the benefit has higher chances of being in school, lower chances to have age-grade discrepancy, and lower chances of working. Data used are from the 2010 Brazilian Demographic Census. Logistical models were estimated for each dependent variable (school enrollment, age-grade discrepancy, and child labor) and for three household income thresholds. Independent variables account for characteristics related to the household, mother, child, and whether the household was receiving Bolsa Família. The income thresholds are a maximum household per capita income of 70 Brazilian Reais, 140 Brazilian Reais (the official maximum value for eligibility into the Bolsa Família in 2010), and 280 Brazilian Reais. Models were also estimated separated by the rural and urban areas in the official income threshold. Results follow initial hypotheses of higher chances of school enrollment and lower chances of age-grade discrepancy among children who receive Bolsa Família. However, models also suggest higher chances of child labor among beneficiaries of the program.

Keywords: evaluation of public policies; conditional cash transfer program; Bolsa Família Program; education; child labor; and social inequality

¹ PhD, Universidade Federal de Minas Gerais (UFMG), Department of Political Science (DCP), Av. Antônio Carlos, 6627, FAFICH 4111, Belo Horizonte, MG, 31270-901, Brazil, Phone: 55(31)3409-5028, Email: eflamaral@gmail.com

² BA, Universidade Federal de Minas Gerais (UFMG), Department of Political Science (DCP), Brazil, Email: gui.quaresma89@gmail.com

³ PhD, Langer Research Associates, Email: cweiss@langerresearch.com

1. Introduction

Income inequality and poverty are among the greatest challenges facing developing countries. In Brazil, inequality between the different strata of society began to significantly decrease in the 1990s with the creation of conditional cash transfer (CCT) programs. Although inequality indicators had previously evidenced declines, a continuous and significant decline in these indicators has been observed since the implementation of CCT programs.

In 2003, the Federal Government established the Bolsa Família Program, aiming to unite the existing conditional cash transfer programs and to focus their actions more effectively. This program is considered a CCT program because it contains conditions that aim at increasing the human capital of its beneficiaries. A number of studies have provided evidence that CCT programs significantly reduce income inequality and even poverty (Barros, Carvalho, Franco and Mendonça 2006, 2007; Behrman, Parker and Todd 2005; Castro and Modesto 2010; Hoffman 2006; Janvry, Finan and Sadoulet 2006; Ravallion and Wodon 2000; Rawlings and Rubio 2005; Skoufias 2005; Skoufias and Parker 2001; Soares, Soares, Medeiros and Osório 2006). However, little research has been conducted on the impact of the educational conditions attached to the Bolsa Família Program, which aims at improving human capital indicators.

The purpose of the current paper is to verify whether the conditions to receive the Bolsa Família Program are effective, particularly with regards to education. This examination is significant in order to deepen the knowledge about the impact of the program on school enrollment, age-grade discrepancy, and child labor. Data were obtained from the 2010 Brazilian Demographic Census. Logistical models were utilized to determine whether various household characteristics, including those of the mother, child, and receipt of the Bolsa Família Program, explain the likelihood of whether children are enrolled in school, present age-grade discrepancy, and are working.

2. Background

2.1. Poverty, Inequality, and Conditional Cash Transfer Programs

Brazil has one of the most unequal income distributions in the world. Data show that the total income of the poorest 50 percent is only approximately 12 percent of the country's total income. This value is lower than the income of the richest one percent, who represent 14 percent of the country's total income (Medeiros 2005). Therefore, reducing this inequality is a major objective that will facilitate the improvement of the living conditions of the poor. Declines in poverty rates have been observed at different points in history. However, the pace of decline at those specific points was insufficient and did not serve to remedy the problems of income inequality in the short term. Until the early 2000s, social policies in Brazil were characterized by a lack of focus, a lack of integration between existing programs and a lack of coordination between levels of government. Due to the inefficacy, or indeed the absence, of political focus on the problem in Brazil, income inequality remained virtually untouched until the late twentieth century (Barros and Carvalho 2003).

Inequality began to fall significantly and continuously in Brazil between 2001 and 2004 (Barros, Carvalho, Franco and Mendonça 2006, 2007). The main causes of this new trend appear to be changes in the labor market and the implementation of new social protection mechanisms. The association between income derived from work and income that was not derived from work was also significant in explaining the decrease in inequality before 2005. This recent decline in inequality coincided with the emergence of CCT programs, which seek to address problems of inequality and poverty and demand reciprocal actions from the families involved. By attempting to shift the accessibility of resources from the richest to the poorest population, these programs hope to gradually reduce the gap between rich and poor and alleviate poverty in the country.

According to Janvry and Sadoulet (2005), there are two approaches to the policy objectives of CCT programs: (1) directly reducing poverty; and (2) reducing poverty by increasing the human capital of poor children, which precipitates an intergenerational break in poverty. If the ultimate goal of the CCT programs is poverty reduction, then there is no need for the creation of conditions, as this goal would be achieved simply through cash transfers.

The relevant discussion would then focus on aspects related to the size of the transfer and determining the optimum public targets to achieve the greatest positive impact. However, if the ultimate goal of CCT programs is to develop strategies that break the persistent cycle that involves generations of poor families, then strategies that invest in the human capital of the children of these families should also be considered. The goal would then extend beyond solving the immediate problem of the access to basic needs of citizens in the lower stratum of society.

Support for the conditions of cash transfer programs is still being debated, as these conditions involve accessing education and health services that should be available to the entire population (Szekely 2006; Samsom 2006). Moreover, the operating costs of imposing conditions are also controversial (Brauw and Hoddinott 2008). In the Progress/Opportunities program in Mexico (Progres/Oportunidades), approximately 18 percent of administrative costs and two percent of the total cost are used to verify if the conditions are being followed. Program conditions are further debated in the context of their effect on an individual's freedom of choice on how they use government assistance.

In South and Central America, CCT programs have been in place since the late 1990s. In Mexico, Brazil, Honduras, Nicaragua, and Colombia, these programs provide financial subsidies to poor families with children and are conditional on specific health or educational behaviors. Examples of these programs include Solidario in Chile, Progress/Opportunities in Mexico, Bolsa Família in Brazil, the Social Protection Network (Red de Protección Social) in Nicaragua, and the Family Assistance Program in Honduras. There are also similar programs in Jamaica, Bangladesh, South Africa, Ghana, and other African countries (Soares, Soares, Medeiros and Osorio 2006, Ravallion and Wodon 2000; Skoufias and Parker 2001; Rawlings and Rubio 2005). Evidence suggests that these programs have a significant effect on the educational attainment of children. In Mexico, estimates show that enrollment rates increased by approximately eight percent for girls and 4.5 percent for boys (Skoufias 2005). A shift in the dropout rate also occurred, with research participants in the Bolsa Família Program in Brazil and the Opportunities program in Mexico demonstrating dramatic reductions (Behrman, Parker and Todd 2005; Janvry, Finan and Sadoulet 2006).

In Brazil, CCT programs represented less than 0.8 percent of family income and accounted for 16 percent of the overall decrease in inequality between 1999 and 2009 (Castro and Modesto 2010). It is estimated that between 2002 and 2004, CCT programs accounted for 31.4 percent of the reduction in inequality. When considering the Northeast region alone, the impact of CCT programs reached 86.9 percent (Hoffman 2006). In addition to reducing inequality, these programs were instrumental in the decline of poverty (Castro and Modesto 2010). Following the deployment of initial CCT programs, there has been a considerable decrease in the percentage of poor individuals in Brazil. Considering the poverty line of 100 Brazilian Reais in 2004, poverty showed a decrease of 12 percent between 1999 and 2009. The Bolsa Família Program was responsible for 16 percent of this decrease. Regarding extreme poverty, based on an indigence line of 50 Brazilian Reais in 2004, the reduction was just over five percent. The Bolsa Família Program was responsible for nearly one-third of this decline. Although cash transfer was not solely responsible for the decline in poverty, a substantial drop was observed in 2003, which coincided with the first year of the program (Castro and Modesto 2010).

2.2. Bolsa Família Program: Unification and Conditions

The first conditional cash transfer program in Brazil suffered from a poor coordination and exchange of information between its executive agencies. The Bolsa Escola (Schools Fund), Bolsa Alimentação (Food Fund) and Auxílio Gás (Gas Allowance) programs were created at the national level in 2001, followed two years later by the Cartão Alimentação (Food Card Program).

In 2003, the Bolsa Família Program was created with the primary goal of uniting the existing four programs. A major initial advantage of the program was the use of the Cadastro Único (Single Registry), which was created in 2001 and facilitated the integration of information about the families served by existing federal programs. In 2012, families with monthly household per capita earnings of up to 70.00 Brazilian Reais became eligible to receive the benefits of the Bolsa Família Program. Families with monthly household per capita earnings between 70.01 and 140.00 Brazilian Reais were eligible to participate in the program only if they had children of up to 17 years of age living in the residence.

To receive the Bolsa Família benefit, beneficiaries must maintain their children's school enrollment, attend nutritional and prenatal counseling, monitor their health, and keep vaccinations up to date. In short, the program has educational and health offsets.

Although the Bolsa Família Program is a federal program, it is decentralized. Beneficiary selection and the monitoring of reciprocal actions are the responsibility of the municipalities. One of the objectives of decentralization is to save resources by using existing municipal structures (Soares 2011; Soares, Ribas and Soares 2009).

A major challenge for CCT programs is targeting. It is necessary to ensure with some degree of certainty that the resources are distributed to those who will truly benefit from them. By using a quota system, the Bolsa Família Program achieved significant advances with respect to targeting, successfully addressing problems of prior programs. Over 80 percent of program resources are targeted at the poorest 40 percent (Castro and Modesto 2010). Compared to programs that have no criteria for the selection of beneficiaries, Bolsa Família has a 37 percent better ability to target the appropriate recipients. With the implementation of this program, income inequality declined until the late 2000s, and the downward trend in inequality has continued. This is evidence that the program has a reliable system for the selection of families, even in a context in which information regarding income is generally of poor quality (Barros, Carvalho, Franco and Mendonça 2008).

As a conditional cash transfer program, Bolsa Família has the following three dimensions (Rios-Neto 2010): (1) immediate relief of poverty through the direct transfer of income; (2) the breaking of the intergenerational cycle of poverty through conditions that reinforce the social rights of health care and education (the need for family counseling); and (3) complementary programs, that include the coordinated efforts of federal, state, and municipal governments with civil society to implement programs/social policies aimed at the development of the beneficiary families. Thus, the goal of the Bolsa Família Program is to reduce the poverty level of eligible families in the short term by improving the well-being of these families in terms of consumerism, nutrition, education and health. In the long term, the program seeks to leverage the investment in the human capital of eligible families (the chronically poor and susceptible) to reduce intergenerational vulnerability and poverty.

The reciprocal educational and health care guidelines that a family is required to follow includes: ensuring a school attendance rate of at least 85 percent for children between 6 and 15 years; receiving information about immunization, growth and development appointments for children up to 7 years; receiving birth and postpartum counseling, and obtaining nutritional counseling via the Food and Nutrition Surveillance System (“Sistema de Vigilância Alimentar e Nutricional” – SISVAN). Rios-Neto (2010) explored the estimated differential between the beneficiaries of the program (treatment group) and non-beneficiaries (comparison group), which provides a preliminary view of the program’s potential impact. Although beneficiary children, who would not have otherwise attended school were present in class and did not drop out, their attainment did not advance throughout the school years. However, Bolsa Família Program is not strictly an educational public policy to be evaluated through such a limited perspective. The program acts on the demand for education through conditionality, which generates a price effect (reduction in the price of education with the constraint of time at school) and an income effect (increased income). A program of demand for education will only be as effective as the supply conditions (the school system and quality of schools). If the supply does not meet the demand, greater demand will not lead to improved results.

According to Rios-Neto (2010), the Bolsa Família Program has a number of challenges, including: (1) to develop a more detailed program of conditions and services for early childhood, such as kindergartens and programs to encourage verbalization and dispense micronutrient supplements; (2) to link services on the supply side (educational and health policies, for example) with increased demand from beneficiaries; (3) to take into account differences between the beneficiary families regarding the risks inherent in the existing family order and the stage of the family life cycle (youth programs and programs for single parent families, for example); (4) to address the problems related to “graduating” or “placing out” of the program, which highlight the need to separate chronic poverty from transient poverty; (5) to resolve the contradiction between investment in children and young people (intergenerational poverty) and the explicit goals to enable the “empowerment” of women; and (6) to consider the negative impact on female “empowerment,” which has been an unintended consequence of the program, although there is some positive evidence. CCT programs pose a serious threat to female empowerment because they were not designed for this purpose.

The programs support a traditional model of the sexual division of labor, in which the husband is responsible for the financial support of the household (working in the marketplace) and the woman is responsible for family care. Depending on living arrangements (single parent families, for example) and the stage of the family life cycle, a woman can become overburdened by undertaking both the financial support (working for income) and the increased demand of family care (the domestic needs of the children). The emphasis on “graduating” from the program places pressure on women, who must seek employment and participate in training programs while the demand for family care remains high. From the point of view of public services, the provision of day care and full-time schooling are forms of “defamilization.” These services reduce the demand for family care and facilitate the reconciliation between domestic strains and the demands of the workplace.

2.3. Social Capital and Education

The Bolsa Família Program does not only aim at immediately improving income levels, but it also serves to impact overall family conditions. The goal of this feature is to advance living conditions across generations. Thus, it is important to discuss how indicators of family social capital can improve the educational conditions of children. The way in which social relations are constituted within and outside of the family environment plays an important role in building the human capital of individuals.

The discussion about the definition, construction, and reproduction of social capital is vast and develops along many different paths and across many dimensions. Bourdieu (1980) defines social capital as the aggregate of the actual or potential resources that are associated with a durable social network. Individuals not only possess common properties, but are also united by permanent and useful connections. Neves et al. (2007) suggest that social capital is the ability of a collective effort to maximize the satisfaction of the collective interest and, thus, overcome the difficulties brought about by selfish individual action.

According to Coleman (1988), the association between social capital and education involves two dimensions, the family environment and extra-familial relationships. Social capital in the family provides the child with access to adult human capital.

Human capital, in turn, is produced by individual changes that result in skills or capabilities that enable the person to act in new ways. The human capital of parents only impacts the human capital formation of children if the parents participate in the children's lives. This influence depends directly on the physical presence of parents in the child's domestic environment. Likewise, the incorporation of the family into social networks is positively associated with educational levels. Neves et al. (2007) demonstrated that both family social capital (represented mainly by the amount of time the mother is present in the household) and community social capital (based on extra-familial networks and measured by an indicator of participation in social organizations) have a positive impact on the educational attainment of children.

The framework of our current work, including the control variables and main independent variable of receipt of the benefit, employs independent variables that measure the association between indicators of family social capital and whether children dropped out from school. More precisely, we will test the hypothesis that both family social capital (represented mainly by varying the number of hours a mother works per week and whether the mother resides at home) and community social capital (the mother's participation in social organizations) are negatively associated with dropout. Thus, we will test the hypothesis that a greater presence of the mother in the home environment and an involvement in social organizations, leads to a lower likelihood of children dropping out of school.

3. Data and methods

For the analysis proposed in this paper, we used the 2010 Brazilian Demographic Census, collected by the Brazilian Institute of Geography and Statistics (IBGE). This database contains individual and household information. The age range between 7 and 14 years was selected to ensure that all children were within the target group of the educational conditionality (which applies to children aged 6–15 years).

First, the distribution of independent variables was analyzed by category. The following dependent variables were then examined: (1) school enrollment; (2) age-grade discrepancy; and (3) child labor. The first variable effectively measures enrolment in school, which facilitates an evaluation of the program's educational conditionality.

A means test was utilized to determine whether the proportions of these dependent variables significantly differed between those who received and those who did not receive the Bolsa Família Program benefit. Finally, logistical models were estimated for a multivariate analysis of the dependent variables. Municipality clusters adjusted the standard errors of these regression models. In addition to the variable of the receipt of Bolsa Família Program benefits by the child's household, the logistical models included independent variables relating characteristics about household, mother, and child.

Household variables included regular water supply, electricity, and daily garbage collection service. We hypothesize that the lack of a regular water supply, electricity, and daily garbage collection service in the home will decrease the likelihood of children been in school. In addition, control variables were included for number of household members, household location (urban and rural), and region of residence (North, Northeast, Southeast, South, and Central-West). The characteristics of the mother included information about whether the mother was the head of the household, based on the hypothesis that children from households headed by the mother have lower chances to be enrolled at school, higher chances to present age-grade discrepancy, and higher chances to be working. We also include information of the mothers, concerning their race/color, level of education, and age. It is hypothesized that children are less likely to be enrolled at school if their mothers are non-white, less educated, and older. Information on the mother's time of residence in the municipality was also included in the models, based on the hypothesis that recent migration decreases the likelihood that children will be enrolled at school. The hours the mother worked during the week was included as a family social capital variable. Finally, information on the age and sex of the child was included in the model.

Analyses were performed to compare results between the groups that received the Bolsa Família benefit (treatment group) and those that did not (comparison or control group). The goal was to estimate the change in the outcomes of the people who received the benefit, if they had not received assistance. The effect that the benefit would have had on the control group, if they had received funding, was also tested. Because the research design is non-experimental, meaning the receipt of the benefit was not determined by a random drawing, we cannot properly examine a true counterfactual group.

The 2010 Brazilian Demographic Census questionnaire contained a single question that asked whether the individual received benefits from the Bolsa Família Program, as well as from the program to eradicate child labor (Programa de Erradicação do Trabalho Infantil – PETI). Households with an income per capita of up to 140 Brazilian Reais were eligible for Bolsa Família. Households with an income per capita higher than 140 Brazilian Reais were eligible for PETI if they had working children, as reported by the Federal Government database with information on poor families (Cadastro Único). In the analysis of our results, we will emphasize the Bolsa Família Program, but we should keep in mind the specificities of this Census question. The benefiting and control groups were further defined by maximum per capita household income, as follows: (1) households with up to a 70 Brazilian Reais per capita income. According to Racchumi-Romero (2008), an analysis of this group captures information on the population with the worst socioeconomic conditions; (2) households with up to a 140 Brazilian Reais per capita income, which was the official income limit set for eligibility to participate in the Bolsa Família Program in 2010; and (3) households with up to a 280 Brazilian Reais per capita income, were used to ensure representative sampling across all groups, as well as to deal with households receiving the PETI benefit. These procedures allowed us to use the Census data and to compare groups of individuals who received the Bolsa Família Program benefit with groups that did not receive this benefit but had similar characteristics.

4. Results

We begin our analysis with a descriptive examination of the distribution of children by independent variables. These data are presented in Table 1, with data presented on three separate groups, depending on the threshold of per capita household income (70, 140, or 280 Reais). For some of the measures we examine, such as the average number of household members, the differences by income threshold are quite small; however, for others, such as the presence of daily garbage service or regular water supply, the differences are fairly sizeable.

Table 1. Percentage distribution of children by variables of interest, Brazil, 2010

Variables	Categories	Maximum threshold of per capita household income (Brazilian Reais)		
		70.00	140.00	280.00
Number of household members	Mean	5.73	5.78	5.43
Regular water supply	Yes	71.54	77.78	84.89
	No	28.46	22.22	15.11
Electricity	Yes	92.27	94.62	96.65
	No	7.73	5.38	3.35
Daily garbage collection service	Yes	54.08	61.64	71.98
	No	45.92	38.36	28.02
Household location	Rural	44.54	37.68	28.32
	Urban	55.46	62.32	71.68
Region of residence	North	16.89	15.52	13.30
	Northeast	54.35	51.04	42.66
	Southeast	20.10	22.87	29.54
	South	4.91	6.20	8.66
	Central-West	3.76	4.37	5.85
Mother head of the household	Yes	43.60	42.83	43.10
	No	56.40	57.17	56.90
Mother race/color	Black or Brown	74.18	73.41	69.43
	White	25.82	26.59	30.57
Mother years of schooling	Illiterate or incomplete elementary school	80.08	78.74	71.97
	Elementary school or incomplete high school	11.32	12.53	15.16
	High school or incomplete college degree	7.56	8.00	11.93
	College degree	1.03	0.73	0.94
Mother age	Up to 24 years	3.93	3.64	3.41
	25 to 34 years	40.12	40.11	38.49
	35 to 49 years	43.04	41.83	40.91
	50+ years	112.91	14.43	17.19
Years lived by the mother in the municipality	Up to 4	7.47	8.23	8.86
	5 to 9	3.88	3.55	3.17
	10+	87.25	88.23	89.36
Mother weekly work hours	Zero	74.27	68.49	60.07
	1 to 20 hours	10.22	11.16	11.31
	21 to 39 hours	5.14	6.11	7.11
	40+ hours	10.37	14.24	21.51
Child age	Mean	10.49	10.52	10.56
Child sex	Female	48.88	49.10	49.20
	Male	51.12	50.90	50.80
Beneficiary of Bolsa Família Program	Yes	37.37	37.00	32.08
	No	62.63	63.00	67.92
Sample size (n)		447,046	911,272	1,675,797

Source: 2010 Brazilian Demographic Census.

In the second stage of analysis (Table 2), we want to examine whether we see differences in three child-specific outcomes that the Bolsa Família program is designed to address. Specifically, we examine current school enrollment, whether the child is working (child labor), and whether the child is overage for his/her grade. For each of these outcomes, we compare the percentage of families who receive Bolsa Família with the percentage from a group of families of a similar economic level, but who do not participate in the program.

The first section of the Table 2 shows that for all three income thresholds, there is a statistically significant difference in school enrollment between families who receive Bolsa Família and those who do not. In each group, children in families receiving the benefit are significantly more likely to be enrolled in school, as compared to families of a similar income level but who do not participate in the program. The middle panel of the table examines differences in being overage for grade. For the lower income thresholds, the differences are not statistically significant; however, at the 280 Reais threshold, families receiving Bolsa Família have higher levels of age-grade discrepancy, which is an unexpected result. In the final panel of the table, data reveal significant differences by program status in the percentage of families with children who work; however, the differences are not in the expected direction. At each level of income, the percentage of Bolsa Família families with children who work is greater than the comparable group of families who do not participate in the program.

Table 2. Percentage distribution of children who are enrolled in school, who are working, or who present age-grade discrepancy by situation in the Bolsa Família Program, Brazil, 2010

Beneficiary of Bolsa Família Program	Maximum threshold of per capita household income (Brazilian Reais)		
School enrollment	70.00	140.00	280.00
Yes (treatment)	98.45	98.51	98.59
No (control)	95.78	96.44	96.99
Difference	2.67***	2.07***	1.60***
Age-grade discrepancy	70.00	140.00	280.00
Yes (treatment)	52.14	50.27	46.97
No (control)	51.33	49.76	44.42
Difference	0.81	0.51	2.05***
Child labor	70.00	140.00	280.00
Yes (treatment)	8.63	8.44	7.92
No (control)	6.15	6.04	5.44
Difference	2.48***	2.40***	2.48***

Note: *** Significant at $p < 0.01$; ** Significant at $p < 0.05$; * Significant at $p < 0.1$.

Source: 2010 Brazilian Demographic Census.

Extending this analysis further, we next estimated a series of logistic regressions with robust standard errors to examine each of the three outcomes presented in Table 2. For each outcome, we estimate a set of three models – one for each of the income thresholds used previously. We also examine these models separately for rural and urban areas, hypothesizing that the effects of the Bolsa Família program might vary by this context. In all of these models, we include a rich set of controls related to the household, to the mother, and to the child. Municipality clusters adjusted the standard errors of these regression models. The coefficients for the models examining the dichotomous outcome of whether the child is enrolled in school are presented in Table 3.

Table 3. Odds ratios and exponentials of robust standard errors estimated with logistic regression models for the dependent variable “school enrollment,” Brazil, 2010.

Independent variables	Area and maximum threshold of per capita household income (Brazilian Reais)				
	Brazil (70.00)	Brazil (140.00)	Brazil (280.00)	Rural (140.00)	Urban (140.00)
Household variables					
Number of household members	0.933*** (0.0041)	0.934*** (0.0032)	0.928*** (0.0025)	0.953*** (0.00482)	0.922*** (0.00403)
Regular water supply	1.172*** (0.0330)	1.245*** (0.0272)	1.249*** (0.0229)	1.304*** (0.0369)	1.204*** (0.0448)
Electricity	1.819*** (0.0620)	1.848*** (0.0521)	1.803*** (0.0450)	1.740*** (0.0555)	1.737*** (0.128)
Daily garbage collection service	0.998 (0.0370)	1.027 (0.0274)	1.146*** (0.0243)	0.908** (0.0350)	1.102*** (0.0372)
Rural	reference	reference	reference	---	---
Urban	0.771*** (0.0279)	0.775*** (0.0203)	0.808*** (0.0167)	---	---
North Region	0.914** (0.0337)	0.874*** (0.0238)	0.850*** (0.0178)	0.665*** (0.0316)	1.009 (0.0362)
Northeast Region	1.371*** (0.0445)	1.238*** (0.0283)	1.132*** (0.0191)	1.157*** (0.0502)	1.211*** (0.0322)
Southeast Region	reference	reference	reference	reference	reference
South Region	1.303*** (0.0718)	1.276*** (0.0488)	1.221*** (0.0313)	1.013 (0.0666)	1.351*** (0.0622)
Central-West Region	1.037 (0.0636)	1.045 (0.0464)	1.032 (0.0316)	0.799*** (0.0606)	1.110* (0.0600)
Mother variables					
Mother head of the household	0.907*** (0.0216)	0.838*** (0.0147)	0.821*** (0.0109)	0.953* (0.0258)	0.789*** (0.0181)
Black or Brown	reference	reference	reference	reference	reference
White	0.979 (0.0266)	1.004 (0.0200)	1.035** (0.0154)	1.036 (0.0318)	0.989 (0.0250)
Illiterate or incomplete elementary school	reference	reference	reference	reference	reference
Elementary school or incomplete high school	1.271*** (0.0520)	1.316*** (0.0395)	1.427*** (0.0313)	1.484*** (0.0804)	1.273*** (0.0446)
High school or incomplete college degree	1.522*** (0.0853)	1.663*** (0.0700)	1.840*** (0.0528)	1.848*** (0.172)	1.611*** (0.0747)
College degree	1.403** (0.207)	1.408*** (0.186)	1.613*** (0.150)	2.393*** (0.771)	1.307* (0.182)
Mother age: up to 24 years	0.191*** (0.0078)	0.197*** (0.0062)	0.187*** (0.0046)	0.152*** (0.00686)	0.225*** (0.00939)
Mother age: 25 to 34 years	reference	reference	reference	reference	reference
Mother age: 35 to 49 years	0.746*** (0.0210)	0.768*** (0.0161)	0.761*** (0.0126)	0.751*** (0.0231)	0.773*** (0.0212)
Mother age: 50+ years	0.503***	0.549***	0.592***	0.503***	0.574***

	(0.0185)	(0.0144)	(0.0117)	(0.0194)	(0.0197)
Years lived by the mother in the municipality: up to 4	0.711*** (0.0262)	0.704*** (0.0186)	0.691*** (0.0136)	0.630*** (0.0259)	0.739*** (0.0246)
Years lived by the mother in the municipality: 5 to 9	1.439*** (0.109)	1.451*** (0.0764)	1.257*** (0.0475)	1.459*** (0.139)	1.452*** (0.0910)
Years lived by the mother in the municipality: 10+	reference	reference	reference	reference	reference
Mother weekly work hours: zero	reference	reference	reference	reference	reference
Mother weekly work hours: 1 to 20 hours	1.452*** (0.0594)	1.399*** (0.0412)	1.377*** (0.0308)	1.439*** (0.0552)	1.373*** (0.0605)
Mother weekly work hours: 21 to 39 hours	1.434*** (0.0786)	1.419*** (0.0545)	1.432*** (0.0402)	1.463*** (0.0711)	1.398*** (0.0820)
Mother weekly work hours: 40+ hours	1.275*** (0.0476)	1.169*** (0.0284)	1.224*** (0.0207)	1.293*** (0.0445)	1.105*** (0.0364)
Child variables					
Child age	0.781*** (0.0046)	0.774*** (0.0034)	0.768*** (0.0027)	0.763*** (0.00494)	0.779*** (0.00454)
Female	reference	reference	reference	reference	reference
Male	0.854*** (0.0193)	0.820*** (0.0137)	0.828*** (0.0106)	0.803*** (0.0196)	0.831*** (0.0183)
Beneficiary of Bolsa Família Program					
	2.120*** (0.0569)	1.961*** (0.0384)	1.880*** (0.0294)	1.939*** (0.0542)	1.971*** (0.0528)
Model statistics					
Pseudo-R ²	0.090	0.083	0.082	0.103	0.074
Number of cases (children)	447,046	911,272	1,675,797	413,710	497,562

Note: Exponentials of robust standard errors in parentheses. Municipality clusters adjusted these standard errors. *** Significant at $p < 0.01$; ** Significant at $p < 0.05$; * Significant at $p < 0.1$.

Source: 2010 Brazilian Demographic Census.

Examining the models of Table 3, we see that the great majority of the household characteristics we control for in these models are significantly related to the likelihood that a child is enrolled in school. The presence of a regular water supply and electricity in the household are both significantly related to the odds of student enrollment, while the number of household members is negatively related. Children whose families live in urban areas are significantly less likely to be enrolled in school, as are children who live in the North Region; however, in contrast, students in the South Region are significantly more likely to be in school.

Turning to the panel of the table that contains predictors related to maternal characteristics, the data of Table 3 show that children who live in mother-headed households are significantly less likely to be enrolled in school, while those whose mothers have completed elementary school or more are more likely to be enrolled in school, net of other factors. Maternal age also has a profound impact on the likelihood of enrollment, with all age groups significantly less likely to have their children enrolled, relative to the group of mothers between the ages of 25 and 34. Maternal employment is also a significant predictor of enrollment, with mothers who work at any level being significantly more likely to be enrolled in school than children whose mothers do not work. Length of residence in the municipality also has a significant, if inconsistent relationship with the odds of enrollment. Finally, both of the child characteristics included in the models are significant, with older children and males having significantly lower odds of enrollment.

The final row of the table shows the relationship between receipt of Bolsa Família and the odds of enrollment in school. For all three income thresholds, receipt of the benefit is associated with substantially higher odds of enrollment. Moreover, the effect is similar in both magnitude and significance for rural and urban inhabitants alike.

In Table 4, we examine the same set of models with age-grade discrepancy as the outcome of interest. As with the previous tables, these sets of models show similar relationships between maternal, household, and child-level variables and the odds of being overage for grade. When we examine the coefficients for participation in Bolsa Família, the findings are somewhat inconsistent. For four of the five model specifications, program participation is associated with lower odds of presenting age-grade discrepancy, as we expected. However, for the model with the highest income threshold, the results show a slightly greater likelihood of age-grade discrepancy among children receiving Bolsa Família.

Table 4. Odds ratios and exponentials of robust standard errors estimated with logistic regression models for the dependent variable “age-grade discrepancy,” Brazil, 2010

Independent variables	Area and maximum threshold of per capita household income (Brazilian Reais)				
	Brazil (70.00)	Brazil (140.00)	Brazil (280.00)	Rural (140.00)	Urban (140.00)
Household variables					
Number of household members	1.090*** (0.00201)	1.086*** (0.00146)	1.084*** (0.00111)	1.092*** (0.00211)	1.081*** (0.00198)
Regular water supply	0.814*** (0.00765)	0.799*** (0.00567)	0.778*** (0.00463)	0.816*** (0.00702)	0.784*** (0.0104)
Electricity	0.675*** (0.00998)	0.671*** (0.00807)	0.663*** (0.00710)	0.681*** (0.00900)	0.684*** (0.0233)
Daily garbage collection service	0.894*** (0.0104)	0.883*** (0.00706)	0.851*** (0.00529)	0.944*** (0.0109)	0.840*** (0.00941)
Rural	reference	reference	reference	---	---
Urban	1.101*** (0.0127)	1.062*** (0.00834)	1.028*** (0.00618)	---	---
North Region	1.420*** (0.0209)	1.351*** (0.0132)	1.318*** (0.00920)	1.557*** (0.0245)	1.247*** (0.0156)
Northeast Region	1.191*** (0.0139)	1.166*** (0.00868)	1.177*** (0.00603)	1.217*** (0.0156)	1.158*** (0.0104)
Southeast Region	reference	reference	reference	reference	reference
South Region	0.923*** (0.0180)	0.946*** (0.0112)	0.939*** (0.00695)	0.826*** (0.0159)	1.009 (0.0146)
Central-West Region	1.025 (0.0247)	1.034** (0.0157)	1.040*** (0.00995)	1.037 (0.0270)	1.038** (0.0188)
Mother variables					
Mother head of the household	1.155*** (0.00945)	1.151*** (0.00653)	1.170*** (0.00486)	1.118*** (0.00978)	1.163*** (0.00849)
Black or Brown	reference	reference	reference	reference	reference
White	0.887*** (0.00816)	0.876*** (0.00548)	0.865*** (0.00386)	0.901*** (0.00834)	0.865*** (0.00709)
Illiterate or incomplete elementary school	reference	reference	reference	reference	reference
Elementary school or incomplete high school	0.625*** (0.00817)	0.654*** (0.00567)	0.685*** (0.00407)	0.579*** (0.00838)	0.681*** (0.00716)
High school or incomplete college degree	0.459*** (0.00809)	0.480*** (0.00551)	0.503*** (0.00357)	0.441*** (0.0100)	0.492*** (0.00641)
College degree	0.305*** (0.0171)	0.335*** (0.0143)	0.365*** (0.00898)	0.391*** (0.0307)	0.331*** (0.0160)
Mother age: up to 24 years	1.204*** (0.0262)	1.233*** (0.0191)	1.261*** (0.0147)	1.344*** (0.0315)	1.181*** (0.0237)
Mother age: 25 to 34 years	reference	reference	reference	reference	reference
Mother age: 35 to 49 years	0.867*** (0.00732)	0.874*** (0.00519)	0.865*** (0.00386)	0.889*** (0.00759)	0.864*** (0.00689)
Mother age: 50+ years	0.877***	0.882***	0.877***	0.961***	0.846***

	(0.0123)	(0.00805)	(0.00550)	(0.0132)	(0.0101)
Years lived by the mother in the municipality: up to 4	1.093*** (0.0154)	1.125*** (0.0105)	1.115*** (0.00738)	1.179*** (0.0181)	1.101*** (0.0127)
Years lived by the mother in the municipality: 5 to 9	0.993 (0.0210)	0.971** (0.0135)	0.982* (0.00972)	1.015 (0.0235)	0.952*** (0.0163)
Years lived by the mother in the municipality: 10+	reference	reference	reference	reference	reference
Mother weekly work hours: zero	reference	reference	reference	reference	reference
Mother weekly work hours: 1 to 20 hours	0.969*** (0.0115)	0.968*** (0.00801)	0.955*** (0.00591)	0.953*** (0.0104)	0.979* (0.0122)
Mother weekly work hours: 21 to 39 hours	0.981 (0.0157)	0.968*** (0.0103)	0.941*** (0.00714)	0.961*** (0.0136)	0.970* (0.0155)
Mother weekly work hours: 40+ hours	0.981 (0.0116)	0.980*** (0.00747)	0.956*** (0.00482)	0.953*** (0.0101)	1.003 (0.0108)
Child variables					
Child age	1.188*** (0.00214)	1.185*** (0.00148)	1.151*** (0.00105)	1.220*** (0.00221)	1.166*** (0.00194)
Female	reference	reference	reference	reference	reference
Male	1.539*** (0.0118)	1.533*** (0.00819)	1.502*** (0.00591)	1.635*** (0.0126)	1.476*** (0.0106)
Beneficiary of Bolsa Familia Program					
	0.976*** (0.00772)	0.983*** (0.00543)	1.013*** (0.00424)	0.983** (0.00781)	0.987* (0.00742)
Model statistics					
Pseudo-R ²	0.068	0.061	0.056	0.072	0.051
Number of cases (children)	434,657	888,980	1,638,115	403,842	485,138

Note: Exponentials of robust standard errors in parentheses. Municipality clusters adjusted these standard errors. *** Significant at $p < 0.01$; ** Significant at $p < 0.05$; * Significant at $p < 0.1$.

Source: 2010 Brazilian Demographic Census.

In the final set of analyses (Table 5), we estimate an identical set of models, examining child labor as the outcome. As in the previous tables, we estimate three separate sets of regression models based upon a maximum income threshold. We then run models separately for rural and urban populations. The relationships between the control variables and the odds of whether the household has a child engaged in labor are quite similar, though usually in the opposite direction, since enrollment in school is a positive outcome for children, while labor is negative. Of the coefficients of the table, perhaps the most striking are those for the predictor for urban residence in the models. For all three models, the odds that an urban family will have a child engaged in the labor force are substantially lower than similar families in rural areas.

Table 5. Odds ratios and exponentials of robust standard errors estimated with logistic regression models for the dependent variable “child labor,” Brazil, 2010

Independent variables	Area and maximum threshold of per capita household income (Brazilian Reais)				
	Brazil (70.00)	Brazil (140.00)	Brazil (280.00)	Rural (140.00)	Urban (140.00)
Household variables					
Number of household members	1.052*** (0.00397)	1.060*** (0.00288)	1.063*** (0.00226)	1.058*** (0.00341)	1.069*** (0.00555)
Regular water supply	0.928*** (0.0191)	0.900*** (0.0135)	0.886*** (0.0108)	0.882*** (0.0146)	0.876*** (0.0353)
Electricity	0.871*** (0.0239)	0.858*** (0.0184)	0.829*** (0.0152)	0.870*** (0.0197)	0.643*** (0.0570)
Daily garbage collection service	0.628*** (0.0197)	0.582*** (0.0118)	0.554*** (0.00820)	0.562*** (0.0152)	0.634*** (0.0204)
Rural	reference	reference	reference	---	---
Urban	0.467*** (0.0146)	0.461*** (0.00932)	0.445*** (0.00650)	---	---
North Region	1.417*** (0.0579)	1.428*** (0.0372)	1.561*** (0.0283)	1.286*** (0.0401)	1.616*** (0.0746)
Northeast Region	1.534*** (0.0546)	1.480*** (0.0324)	1.531*** (0.0226)	1.309*** (0.0342)	1.746*** (0.0642)
Southeast Region	reference	reference	reference	reference	reference
South Region	1.568*** (0.0766)	1.564*** (0.0456)	1.543*** (0.0284)	1.651*** (0.0573)	1.239*** (0.0710)
Central-West Region	1.719*** (0.116)	1.458*** (0.0613)	1.454*** (0.0383)	1.449*** (0.0767)	1.509*** (0.102)
Mother variables					
Mother head of the household	0.733*** (0.0148)	0.736*** (0.0104)	0.791*** (0.00828)	0.761*** (0.0129)	0.749*** (0.0190)
Black or Brown	reference	reference	reference	reference	reference
White	1.150*** (0.0252)	1.108*** (0.0167)	1.069*** (0.0118)	1.141*** (0.0202)	1.031 (0.0301)
Illiterate or incomplete elementary school	reference	reference	reference	reference	reference
Elementary school or incomplete high school	0.890*** (0.0332)	0.817*** (0.0196)	0.764*** (0.0126)	0.839*** (0.0250)	0.801*** (0.0316)
High school or incomplete college degree	0.705*** (0.0424)	0.592*** (0.0210)	0.564*** (0.0121)	0.558*** (0.0272)	0.623*** (0.0314)
College degree	0.619** (0.147)	0.426*** (0.0580)	0.438*** (0.0278)	0.371*** (0.0653)	0.478*** (0.0974)
Mother age: up to 24 years	2.300*** (0.143)	2.564*** (0.114)	2.930*** (0.0939)	2.196*** (0.120)	2.872*** (0.197)
Mother age: 25 to 34 years	reference	reference	reference	reference	reference
Mother age: 35 to 49 years	1.220*** (0.0246)	1.200*** (0.0171)	1.204*** (0.0133)	1.224*** (0.0203)	1.143*** (0.0321)
Mother age: 50+ years	1.276*** (0.0404)	1.336*** (0.0285)	1.432*** (0.0219)	1.408*** (0.0354)	1.154*** (0.0482)
Years lived by the mother in the municipality: up to 4	1.182***	1.118***	1.128***	1.027	1.238***

Years lived by the mother in the municipality: 5 to 9	(0.0446) 1.135**	(0.0277) 1.145***	(0.0198) 1.118***	(0.0327) 1.116**	(0.0482) 1.177***
Years lived by the mother in the municipality: 10+	(0.0621) reference	(0.0413) reference	(0.0286) reference	(0.0516) reference	(0.0682) reference
Mother weekly work hours: zero	reference	reference	reference	reference	reference
Mother weekly work hours: 1 to 20 hours	17.04*** (0.451)	13.29*** (0.246)	10.20*** (0.145)	16.77*** (0.379)	9.487*** (0.315)
Mother weekly work hours: 21 to 39 hours	17.42*** (0.530)	12.39*** (0.264)	9.017*** (0.146)	16.37*** (0.419)	7.672*** (0.316)
Mother weekly work hours: 40+ hours	19.24*** (0.495)	12.58*** (0.225)	8.422*** (0.114)	17.64*** (0.390)	6.860*** (0.222)
Child variables					
Child age	1.257*** (0.00801)	1.270*** (0.00570)	1.308*** (0.00451)	1.233*** (0.00643)	1.369*** (0.0125)
Female	reference	reference	reference	reference	reference
Male	1.707*** (0.0311)	1.658*** (0.0212)	1.586*** (0.0154)	1.809*** (0.0269)	1.406*** (0.0349)
Beneficiary of Bolsa Família Program					
	1.075*** (0.0199)	1.127*** (0.0146)	1.169*** (0.0117)	1.094*** (0.0167)	1.166*** (0.0296)
Model statistics					
Pseudo-R ²	0.307	0.265	0.225	0.237	0.151
Number of cases (children)	286,827	586,366	1,087,640	268,298	318,068

Note: Exponentials of robust standard errors in parentheses. Municipality clusters adjusted these standard errors. *** Significant at $p < 0.01$; ** Significant at $p < 0.05$; * Significant at $p < 0.1$.

Source: 2010 Brazilian Demographic Census.

Examining the effect of participation in Bolsa Família on child labor, we discover a very peculiar relationship, one in which families who receive the benefit are significantly more likely to have a child who works, as compared with families who do not participate in the program. This finding holds across all three income thresholds and in both rural and urban models. For each, contrary to the design of the program, families who receive the benefit are more likely to have a child engaged in labor.

5. Final Considerations

The Bolsa Família Program represents a very popular Brazilian social program designed to both reduce poverty and to break the intergenerational pattern of low socioeconomic status.

In this analysis, we examined a set of three outcomes that are proximate indicators of the larger effort to reduce intergenerational poverty through improving children's and adolescents' educational outcomes. Overall, our results suggest success in positively influencing these measures of education.

The analysis developed in this paper allowed us to verify that children who live in households that receive benefits through the Bolsa Família Program have a reduced chance of dropping out of school for all per capita household income thresholds – and lower odds of being overage for grade for all income levels save one. These results suggest that the educational conditions of the program are working as planned and the program indicates a significant reduction in the dropout rate of children living in households that receive the Bolsa Família stipend.

In relation to the variables about familial human capital, the absence of the mother from the household results in a reduced school dropout rate. The children of women who work at all outside of the home – regardless of the number of hours they work – have a lower probability of leaving school than their peers whose mothers do not work. Maternal education level is also an important predictor of children's risk of dropping out. These results confirm the hypothesis that the influence of familial human capital has a significant impact on the education of children. Taken together, these findings offer support to the conceptual idea and the execution of Bolsa Família.

The one disquieting inconsistency is in the relationship between participation in Bolsa Família and child labor. For each model of our analysis, the results show that participation in the program is associated with a higher likelihood of having a child who labors. These data can only offer a partial understanding of this relationship. We can identify its presence but offer little insight into the factors that might contribute to it. This unanticipated relationship seems a ripe area for further study.

The results presented in this analysis highlight the importance of controlling the school attendance of program beneficiaries in order to reduce dropout rates and increase the educational attainment of participating children.

However, an effective increase in human capital and the desired break in the intergenerational cycle of poverty will not be achieved by simply ensuring a larger number of children remain in school. It is vital that these existing policies are accompanied by an investment in quality public education, especially at the basic level.

Acknowledgments

This research received support from the Foundation to Support Research from the State of Minas Gerais (“Fundação de Amparo à Pesquisa do Estado de Minas Gerais” – FAPEMIG), through Universal Funding (“Edital Universal” – 01/2011), as well as from the National Counsel of Technological and Scientific Development (“Conselho Nacional de Desenvolvimento Científico e Tecnológico” – CNPq), through Universal Funding (“Edital Universal” – 14/2011). We would like to thank Adriane Reams for editing this paper.

6. References

- Barros, R.P., & Carvalho, M. (2003). Desafios para a política social brasileira. *Working Paper Series, Brazilian Institute of Applied Economic Research (IPEA)*, 985.
- Barros, R.P., Carvalho, M., Franco, S., & Mendonça, R. (2006). Uma análise das principais causas da queda recente na desigualdade de renda brasileira. *Econômica*, 8(1), 117–147.
- Barros, R.P., Carvalho, M., Franco, S., & Mendonça, R. (2007). Determinantes imediatos da queda da desigualdade de renda brasileira. *Working Paper Series, Brazilian Institute of Applied Economic Research (IPEA)*, 1253.
- Barros, R.P., Carvalho, M., Franco, S., & Mendonça, R. (2008). A importância das cotas para a focalização do Programa Bolsa Família. *Working Paper Series, Economics College, Universidade Federal Fluminense (UFF)*, 238.
- Behrman, J.R., Parker, S.W., & Todd P. (2005). Long-term impacts of the Oportunidades conditional cash transfer program on rural youth in Mexico. *Discussion Paper, Ibero-American Institute for Economic Research*, 122.
- Bourdieu, P. (1980). Le capital social: notes provisoires. *Actes de la Recherche en Sciences Sociales*, 3(2–3).
- Brau, A., & Hoddinott, J. (2008). Must conditional cash transfer programs be conditioned to be effective? The impact of conditioning transfers on school enrollment in Mexico. *International Food Policy Research Institute (IFPRI) Discussion Paper*, 00757.
- Castro, J.A., & Modesto, L., eds. (2010). *Bolsa Família 2003-2010: avanços e desafios*. Volume 2. Brasília, Brazil: Brazilian Institute of Applied Economic Research (IPEA).
- Cedeplar. (2007). *Projeto de avaliação de impacto do Programa Bolsa Família: descrição da pesquisa AIBF, o processo amostral*. Belo Horizonte, Brazil: Center of Development and Regional Planning (Cedeplar), Universidade Federal de Minas Gerais (UFMG).
- Coleman, J. (1988). Social capital in the creation of human capital. *American Journal of Sociology Supplement*, 94 (S95–S120).
- Hoffmann, R. (2006). Transferências de renda e a redução da desigualdade no Brasil e cinco regiões entre 1997 e 2004. *Econômica*, 8(1): 55–81.
- Janvry, A., & Sadoulet, E. (2005). Conditional cash transfer programs for child human capital development: lessons derived from experience in Mexico and Brazil. *GRADE 25th Anniversary Conference: Investigación, Políticas y Desarrollo*. Lima, Peru.
- Janvry, A., Finan, F., & Sadoulet, E. (2006). Evaluating Brazil's Bolsa Escola Program: impact on schooling and municipal roles. *Manuscript*.
- Medeiros, M. (2005). *O que faz os ricos ricos: o outro lado da desigualdade brasileira*. São Paulo, Brazil: Editora Hucitec, ANPOCS.
- Neves, J.A.B., Fernandes, D.C., Xavier, F.P., & Tomás, M.C. (2007). Políticas de transferência direta de renda, capital social e alcance educacional no Brasil. In: Fahel, M. and Neves, J.A.B., eds. *Gestão e Avaliação de Políticas Sociais no Brasil*. Belo Horizonte, Brazil: PUC–Minas. pp. 275–290.
- Rachumi-Romero, J.A. (2008). Utilizando o relacionamento de bases de dados para avaliação de políticas públicas: uma aplicação para o Programa Bolsa Família. *Doctoral Dissertation*, Center of Development and Regional Planning (Cedeplar), Universidade Federal de Minas Gerais (UFMG), Brazil.

- Ravallion, M., & Wodon, Q. (2000). Does child labour displace schooling? Evidence on behavioural responses to an enrollment subsidy. *Economic Journal*, 110(462), C158–C175.
- Rawlings, L., & Rubio, G. (2005). Evaluating the impact of conditional cash transfer programs. *The World Bank Research Observer*, 20(1), 29–55.
- Rios-Neto, E.L.G. (2010). O impacto do Programa Bolsa Família na desigualdade de renda. *First International Seminar on Public Management and Policies*. Belo Horizonte, Brazil: Political Science Department (DCP), College of Philosophy and Human Sciences (FAFICH), Universidade Federal de Minas Gerais (UFMG).
- Samson, M. (2006). Are conditionalities necessary for human development? *Third International Conference on Conditional Cash Transfers*. Istanbul, Turquia.
- Skoufias, E., & Parker, S.W. (2001). Conditional cash transfers and their impact on child work and schooling: evidence from the Progresá Program in Mexico. *Economía*, 2(1), 45–96.
- Skoufias, E. (2005). Progresá and its impacts on the welfare of rural households in Mexico. *Research Report of the International Food Policy Research Institute (IFPRI)*, 139.
- Soares, F.V., Soares, S., Medeiros, M., & Osório, R.G. (2006). Programas de transferência de renda no Brasil: impactos sobre a desigualdade. *Working Paper Series, Brazilian Institute of Applied Economic Research (IPEA)*, 1228.
- Soares, S. (2011). O Programa Bolsa Família: desenho institucional e possibilidades futuras. *Cadernos INESP*, 2, 145–184.
- Soares, S., Ribas, R.P., & Soares, F.V. (2009). “Focalização e cobertura do Programa Bolsa-Família: qual o significado dos 11 milhões de famílias?” *Working Paper Series, Brazilian Institute of Applied Economic Research (IPEA)*, 1396.
- Szekely, M. (2006). “To condition... or not to condition.” *Third International Conference on Conditional Cash Transfers*. Istanbul, Turquia.