Conditionalities, School Performance and Progression of
Bolsa Família Programme Recipients

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Cireno et al. (2013) compare the school performance and progression of recipients and non-recipients of the Programa Bolsa Família (PBF) using administrative data obtained from the Ministry of Education (MEC), specifically the *Sistema Presença*, which monitors the school attendance of PBF recipients, and the *Prova Brasil* (results of individual pupils from the 5th to 9th years). This information is cross-referenced to administrative data from the Single Registry of the Ministry of Social Development and Fight against Hunger (MDS). Based on this data set, we analysed data on PBF recipients and non-recipients and assessed how it relates to performance in the *Prova Brasil*, failure rates, school drop-out rates and age-grade distortion rates.

Initially, the differences in the variable means were calculated for the 5th and 9th years separately, and subsequently tests were conducted to evaluate if there was a statistically significant difference (test *t*) (see Table 1). We found that, without attempting to control for school and pupils' characteristics, pupils who participate in the PBF perform worse than non-recipients. This evidence matches the literature on the topic (see, for example, World Bank, 2011).

Nevertheless, there is a considerable drop in this disparity level between the 5th and 9th years, suggesting that participation in the

programme, especially compliance with the conditionalities, may contribute to reducing the performance gap between recipients and non-recipients over time.

Given that the socio-economic characteristics of the recipients and the schools they attend are significantly worse than those of non-recipients, to better compare the results concerning these two groups, we conducted regression analyses using as control variables school attributes (school socio-economic level, quality of school facilities, urban or rural location, administrative dependency on municipal, state or federal government, and school shift), and pupil and family characteristics (gender, race, whether or not the pupil works, and parents' schooling level). For the continuous variables (Average Proficiency in *Prova Brasil*), the Ordinary Least Squares (OLS) method was used, and for the discrete variables (drop-out rate, failure rate and age-grade distortion rate) the probit model was adopted.

The pupils who participate in the programme present lower drop-out and age-grade distortion rates in the 5th and 9th years (see Table 2), implying that the programme plays an important role in keeping low-income pupils in school. The results also suggest that programme recipients on average perform worse in the *Prova Brasil* than non-recipients, although part of this discrepancy can be explained by their socio-economic conditions and the characteristics of the school they attend. It is important to highlight that, when we compare the 5th and 9th years, this drawback is either reversed (performance and failure), or in the 5th year the recipients gain an advantage. Bearing in mind the programme's level of coverage, evidence suggests that conditionalities, at least in the education area, have a positive impact on these pupils' school progress. Thus, the PBF leads to a reduction in educational inequality when these pupils are compared to other public school students, helping to curb the intergenerational poverty cycle and minimise the negative impacts it has on these children's school progress.

Table 1: Difference between Differences for Variables Concerning Proficiency and Educational Progress among Pupils Submitted to *Prova Brasil* (2011)

| | 5th Year | | | | 9th Year | | | | |
| | Recipient | | | | Recipient | | | | |
	Yes	No	Difference	Sig.	Yes	No	Difference	Sig.	DIF-DIF
Average proficiency	3.29	3.92	-0.63	0.00	4.86	5.30	-0.44	0.00	0.18
Failure rate in 2011	9.07%	5.49%	3.58%	0.00	8.63%	8.22%	0.42%	0.00	-3.16%
Drop-out rate in 2011	0.32%	0.27%	0.06%	0.00	0.49%	0.53%	-0.04%	0.00	-0.10%
Age-grade distortion rate	27.79%	17.30%	10.49%	0.00	21.78%	21.18%	0.60%	0.00	-9.89%
N	941,860	1,251,333			643,703	1,274,934			

Source: Calculated by the authors using the School Census/Bolsa Família database (INEP/MDS).

Table 2: Association between Participation and Exposure to the Programa Bolsa Família and School Performance and Progress Using Varied Models

| | 5th Year | 9th Year | 5th Year | 9th Year | 5th Year | 9th Year | 5th Year | 9th Year |
	Performance measured in *Prova Brasil*		Failure rate		Drop-out rate		Distortion rate	
Participates in the programme	-0.106	0.0819	0.00234	-0.00678	-0.000529	-0.00245	-0.00862	-0.135
	(-29.65)	(20.37)	(3.629)	(-8.096)	(-4.809)	(-15.49)	(-7.582)	(-111.2)
Exposure to programme	-0.0124	-0.0160	0.000736	0.00100	-3.63e-06	7.07e-05	0.00308	0.00671
	(-55.77)	(-64.82)	(18.86)	(19.62)	(-0.550)	(6.994)	(44.42)	(86.19)

Source: Calculated by the authors using the School Census/Bolsa Família database (INEP/MDS).

References:

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