COM A BARRIGA CHEIA: THE IMPACT OF THE BOLSA FAMÍLIA PROGRAM ON EDUCATIONAL OUTCOMES IN BRAZIL

By

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This work is dedicated to the incredible women that have taught me to live as free spirit,
to love with an open heart and to learn with an open mind.

May I be able to provide even a fraction of the direction, support and wisdom for my future daughters, granddaughters, nieces, and daughters-in-law.

I am forever grateful.

In memory of my grandfather, William E. Sharp. I did it, Grandpa! 10/27/1920-8/8/2008

And also, in memory of my cousin,
Daniel Lee Johnson,
who began preparing for his next mission
during the finalization of this project.
Saudades de você, o meu querido primo.
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INTRODUCTION

Since the 1990s, a new type of assistance program to alleviate poverty has been used in many circumstances from New York City to Indonesia. The goal of Conditional Cash Transfer Programs (CCTs) is to break the inter-generational transfer of poverty by providing for immediate family needs through cash transfers contingent on school attendance, health-checkups and vaccinations. Families are encouraged to send their children to school and to provide for their health and nutrition needs. The desired outcome of these initiatives is that students will have the education and skills necessary to make a better living for themselves than what they were born into, and as a result, these children from poor families are given the foundation necessary for them to be able to leave the legacy of poverty behind.

Whether school attendance in itself generates the actual learning and skill acquisition that lead to higher incomes is a separate issue. In a World Bank Report, the authors suggest that the connection between time spent in a classroom and future income argument is based on somewhat shaky logic. The authors refer to this thinking as the "black box" theory of education. In their view, policy makers understand what goes into the box (students from impoverished living situations) and what hopefully comes out of the box (educated individuals with higher earning potentials) but what is unknown is "the causal pathway" between the two. Regardless of what happens in that "black box," the authors agree that "it is apparent that educational attainment is a crude proxy for the increases in human capital". The authors argue that although CCTs increase enrollment and attendance of

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¹ Fernando Reimers, Carol DeShano da Silva and Ernesto Trevino, "Where is the "Education' in Conditional Cash Transfers in Education," Working Paper, UNESCO, 2006, 8.

² Ibid.

³ Ibid.

⁴ Ibid., 9.

schoolchildren, due to the poor quality of schools in CCT regions, CCTs are not an effective educational tool, especially when looking at real increases in learning.⁵

This study looks at Conditional Cash Transfer Programs and the effects on the educational experience of schoolchildren in Brazil. The program Bolsa Família (formerly Bolsa Escola), which started in 1995 in the Federal District and the city of Campinas, São Paulo, ⁶ has since expanded to cover all low-income families in Brazil. Currently, there are 12 million registered families, making it the largest cash transfer program in history.⁸

During the past 20 years, for every 10 Brazilians, almost 4 of them lived in poverty. In 1994, the average 6 year old born in the bottom quintile of the income distribution in northeastern Brazil had a mother who had never entered school. The child would be unlikely to complete primary education herself. Today, a 6 year old in the same situation is likely to complete two times the years of education had by their parents, and more importantly, this increase in educational attainment is being seen across the country, regardless of where children are born. 11 This radical change is largely due to education policy reform of the 1990s, including Bolsa Família.

This study is based on literature reviews but is also influenced by nine months of experience in Brazil, principally in the rural northern state of Rondônia and the city of São Paulo, two very different circumstances. The majority of the time was spent studying at the Universidade de São Paulo but also included school visits, formal and

⁵ Ibid., 9-11.

⁶ World Bank, "Brazil-An Assessment of the Bolsa Escola Programs," Human Development Sector Management Unit, Brazil Country Management Unit, Latin American and the Caribbean Regional Office, March 15, 2001, i.

⁷ Brazilian Government, "Bolsa Família," *Ministerio de Desenvolvimento Social e Combate à Fome*, accessed March 26, 2011, http://www.mds.gov.br/bolsafamilia.

⁸ "Happy Families," *The Economist*, 9 February 2008, 54.

¹⁰ The World Bank, "Achieving World Class Education in Brazil: The Next Agenda," Human Development Sector Management Unit, Latin America and the Caribbean Regional Office, December 21, 2010, 13. ¹¹ Ibid.

informal conversations about Bolsa Família and education in Brazil as well as various academic lectures on the topic. Although the experience abroad was not designated as research, it goes without saying that these experiences have helped cultivate this work.

In one experience, a student in a very rural school in Castanheiras, Rondônia was aware of the exact amount of money that his mother received as a result of the program, but was unable to recall what grade he was in. In another instance, a conversation about education in Brazil arose between two older Brazilian gentlemen one evening. One of the men based his passionate argument against Bolsa Família on the following statement. "Before, we studied to get paid, today, the kids get paid to study." Also, during the recent presidential campaigns of José Serra and the eventual victor, Dilma Rousseff, Bolsa Família was a frequent point of debate. As a result of these experiences it became apparent that not only was Bolsa Família an important topic in the academic world of international education and economic development research, but it was also a topic that was on the lips of Brazilians in day-to-day conversation, from a young boy to a town elder, to political campaigns and national news. This study is therefore designed to express the impact of this program in numbers, emotionally charged debates aside.

Since higher future incomes can be linked to academic performance and cognitive skill development acquired through the educational system, the purpose of this study is to evaluate the changes since the 1990s in enrollment, attendance, repetition and also the performance of students in Brazil to evaluate the effectiveness of the Bolsa Família Program. The findings of this study show that Brazil has witnessed historically unprecedented rates of change in these areas of education over the last twenty years, especially within the lowest income quintile, typically the

recipients of the conditional cash transfer. This study argues that although Brazil still ranks among the poorest performers on international standard exams and the difference in performance between income quintiles within Brazil remains large, Brazil deserves recognition for its achievements, especially within such a short period of time. Brazil is making strides in overcoming a history of inequality and a preference for the rich, especially within the educational system.

This study is broken down into five main chapters. Chapter One is an overview of important educational changes at the national level since the colonial period through the recent military dictatorship from 1964-1985 and an exploration of the implications of the political environment in Brazil. Chapter Two is an overview of a similar CCT Program in Mexico, PROGRESA (now Oportunidades) and Chapter Three is a description of the principal education reforms during the 1990s, including the specifics of Bolsa Família. Finally, Chapter Four is an evaluation of the changes in various aspects of education quality indicators. When available, the data is broken down by income quintile, as it can be assumed that incorporating large amounts of previously un-enrolled students from low-income households into the educational system has the potential to distort national averages. Also, when available, regional breakdowns are also provided because of the great regional disparities that have historically plagued Brazilian development initiatives. Chapter Five includes a policy suggestion for Bolsa Família. Finally, there is an appendix of images taken during school visits in Rondônia, Brazil to provide a visual of what the schools look like.

CHAPTER ONE

THE ORIGINS OF FORMAL EDUCATION IN BRAZIL

The Colonial Period Through the 1990s

Throughout the colonial period in Brazil, there was no national public education strategy. One of the biggest differences between the societies of the Iberian Peninsula (Portugal and Spain) and the majority of Europe and the Middle East at this time was the role of the Church in education. In Protestant, Islamic and Jewish religious cultures, education was seen as a responsibility of both the church and the community. Simon Schwartzman writes that in Protestant and Jewish traditions, the school played an important role of establishing and maintaining a cultural identity in the face of [an] alien or hostile environment." Consequently, large-scale literacy was achieved through the studying of religious texts as it was considered a central component of a child's education. ¹³ The lack of an educational system in Brazil during this period can be partly attributed to the dominance of the Catholic Church during the period and the fact that the Protestant Reformation did not make it to Portugal. Compounding the fact that education was not a central pillar of the Catholic tradition during this period is that by the mid eighteenth century the Jesuits, arguably the only educators in Brazil up to this point, were expelled by decree of the Portuguese Crown in 1759.¹⁴

In 1822, Brazil declared independence from Portugal and the Constitution of 1824 declared education a civil right, but there was little real change due to a lack of resources and public interest.¹⁵ With the Additional Act of 1834, "primary and

¹² Simon Schwartzman, "The Challenges of Education in Brazil," in *The Challenges of Education in Brazil*, eds. Colin Brock and Simon Schwartzman (Oxford, United Kingdom: Symposium Books, 2004) 13-14.

¹³ Ibid., 14.

¹⁴ Fay Haussman and Jery Haar, *Education in Brazil* (Hamden, CT: Shoe String Press, Inc, 1978), 31.

¹⁵ Ibid., 32.

secondary education were decentralized, organizationally and administratively, with responsibility assigned to the provinces."¹⁶ Higher education was left to the federal government. Schwartzman cites that it was during this period that the first institutions of higher education were established. They included "a military academy in Rio de Janeiro, two law schools in São Paulo and Recife, [and] two medical schools in Rio de Janeiro and Bahia." Also, in 1838, the first public secondary school was built in Rio de Janeiro, Colégio Pedro II. During the Imperial period, the illiteracy rate in Brazil never dropped below 85 percent.²⁰

Paulo Ghiraldelli says that during the Imperial government, education was based on exam scores, rather than completed coursework.²¹ Students were permitted to enroll in the courses they desired and their graduation was contingent on final exam scores. Thus, the Imperial government encouraged educational institutions to be "rigorous in their exams."²² Today, importance of exam scores in Brazil is still evident in the competitive college-entrance exam, the *vestibular*.²³

The beginning of the 20th century brought both a new style of government and a new economic boom to Brazil. In 1889, the Imperial government of Brazil ended and the Republic of Brazil was born. With the growth of the coffee industry at the end of the 19th century, Brazil experienced renewed investment and large-scale immigration from European countries. These new immigrant groups began constructing their own independent schools, frequently with support of their home countries, and in 1924 the Associação Brasileira de Educação (or the Brazilian

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¹⁶ Ibid.

¹⁷ Ibid.

¹⁸ Schwartzman, 15.

¹⁹ Ibid.

²⁰ Haussman and Haar, 32.

²¹ Paulo Ghiraldelli Jr., *História da Educação Brasileira*, (São Paulo: Cortez Editora, 2005), 30.

²² Ihid

²³ Ibid.

Association for Education) was established in Rio de Janeiro, helping to bring education to the "center of the national agenda". ²⁴ Schwartzman argues that it is a consequence of these historical events that public education was recognized as a necessity if the country were to become a "modern nation". ²⁵

In the early 1900s, the local government in São Paulo began to encourage the uniting of individual teachers and tutors into "school groups," began developing teacher training schools and developed standards of teaching methods and content. 26 These locally inspired policies eventually spread to other large cities of the time. 27 Schwartzman cites that in 1906 the federal government of Brazil began enacting legislation for primary education policy, but it was not until the Revolution of 1930 with Getúlio Vargas that Brazil began to enact more progressive education reform. 28

Getúlio Vargas was an aggressive political reformer who instituted the *Estado Novo*, or New State, and education was an important component in his wide range of government reforms. It was during the *Estado Novo* that the first Ministry of Education and Culture was established.²⁹ Taking cues from the international scene, Brazil developed a new education strategy built upon "free, universal, mandatory and basic education" as well as teacher training programs at the university level.³⁰ Although schools were still managed at the local level, the Vargas administration attempted to control the content of what was being taught in schools and to cultivate citizens of the new Brazil. Education during the 15 year Vargas era (1930-1945) expanded and was required to serve the objectives of the state.³¹

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²⁴ Schwartzman, 17.

²⁵ Ibid, 15.

²⁶ Ibid.

²⁷ Ibid.

²⁸ Ibid., 15-16.

²⁹ Ibid., 15.

³⁰ Ibid., 18.

³¹ Haussman and Haar, 36.

In the 1960s Brazil was still struggling with providing education to its schoolaged children. Haussman and Haar argue that by the 1960s, the government schools were still unable to provide four years of truly "universal" education due to attrition and repetition.³² However, in 1964 that the new military-run government increased basic education from four years to eight.³³ Within ten years, 1965-1975 enrollments in primary education doubled, however, problems such as grade-age distortions due to repetition and high drop out rates continued to plague the newly expanded system. ³⁴ In 1973, thee million students between twelve and fifteen were enrolled in the lower four grade levels, 35 studying alongside students half their age. In 1978, only one quarter of students that enrolled in school were expected to compete the mandatory education cycle of eight grade levels. 36 Also, the average enrollment rate in urban centers was almost two times that of rural areas (87.98 percent and 46.84 percent respectively).³⁷

During this period social programs were introduced in schools in attempt to remedy these issues. In 1973, only six percent of all students that enrolled in primary education in Salvador, Bahia completed the mandatory eight grades.³⁸ Hunger was diagnosed as the reason for the high dropout rate and after the adoption of a school lunch program³⁹ there was a substantial change in attrition. A 40 percent improvement in dropout rates is documented in Salvador between 1970 and 1975. 40

³² Ibid., 57.

³³ Ibid.

³⁴ Ibid.

³⁵ Ibid., 58.

³⁶ Ibid., 60.

³⁷ Ibid.

³⁸ Ibid., 64.

³⁹ For more information on school lunch in Brazil, see http://www.fnde.gov.br/index.php/programasalimentacao-escolar ⁴⁰ Ibid., 64.

A Look at the Link Between Achievement, Politics and Reform

Education in Brazil has been largely entrenched within a system of pervasive clientelism which in this case is defined as "the transfer of public funding in exchange for political support."⁴¹ The culture of clientelism has historically affected the ability for the government to equitably distribute education resources. Bernd Reiter, in his article, "Inequality and School Reform in Bahia, Brazil," states that "the main obstacle to a fully functional public educational system lies in the private appropriation of public resources by the political and economic elites," ⁴² and this is a result of the clientelistic nature of the education system in Bahia. Furthermore, he argues that due to the strong social class division in Brazil, education is seen as a way to maintain these divisions. Anísio Teixeira in his book Educação no Brasil takes this idea a step further when he writes, "The school, [in Brazil] throughout history, functioned as an instrument of social control" creating and modifying what comprised the "acceptable dominant society" of the time. 43 Teixeira argues that the school in Brazil was not so much designed to educate the population, but to define the national culture of Brazil by training only certain students for specific occupations and how to act "within the spirit and the peculiarities of the society." 44

In order to demonstrate the achievement inequality between eighth grade students of different socioeconomic status in Brazil, Fábio Soares divided equal sized groups of students by their socioeconomic status (SES) and then calculated the educational inequality by comparing performance on the *Prova Brasil* (Brazil Test) mathematics test by socioeconomic status to the performance of the upper decile of

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⁴¹ World Bank, 2010, 52.

⁴² Bernd Reiter, "Inequality and School Reform in Bahia, Brazil," *International Review of Education* 55 (2009): 349-50.

⁴³ Anísio Teixeira, *Educação no Brasil* (Rio de Janeiro: Editora Nacional, 1976), 345.

⁴⁴ Ibid., 346.

students. The exam, also known as the Sistema de Avaliação da Educação Básica, also known as the Saeb, is a nationally administered exam in Brazil to students in the 4th and 8th grades of the basic education cycle (*ensino fundamental*) and also in the third year of high school (*ensino médio*). The Prova Brasil includes both public and private schools, allowing for a snapshot of the current achievement of students of all socioeconomic backgrounds in Brazil. His findings⁴⁵ showed that the educational inequality among students in the first through the third quartile are in fact larger than that of the economic inequality index for Brazil. According to the World Bank, the Gini Coefficent, or measure of economic inequality in Brazil in 2009 was 0.56.⁴⁶ This implies that educational inequality is a graver issue in Brazil than that of economic inequality. The third quartile is featured because, according to Soares, it is this quartile that has roughly the same number of students in public and private and therefore allows for a fair comparison between the two.⁴⁷ The North and Northeast regions have an achievement inequality index of more than .80, nearing perfect inequality.

Table 1

Educational inequality index for 8th grade students in mathematics, by SES quartiles and SAEB cycle

		1997	1999	2001	2003
SES	1° Quartile	0.865	0.871	0.876	0.877
	2° Quartile	0.815	0.805	0.832	0.806
	3° Quartile	0.684	0.716	0.699	0.690
	4° Quartile	0.327	0.409	0.373	0.314
Public sector schools	3° Quartile	0.717	0.745	0.740	0.731
Private sector schools	3° Quartile	0.449	0.502	0.397	0.377

Source: J.F. Soares, "Measuring Cognitive Achievement Gaps and Inequalities: The Case of Brazil," *International Journal of Educational Research*, 45, no. 3 (2006): 183.

⁴⁶ The World Bank, "Brazil Country Brief," Accessed on March 25, 2011 from

⁴⁵ See Table 1 and 2 for Soares' results.

http://go.worldbank.org/UW8ODN2SV0>.

⁴⁷ J.F. Soares, "Measuring Cognitive Achievement Gaps and Inequalities: The Case of Brazil," *International Journal of Educational Research*, 45, no. 3 (2006): 184.

Table 2 Educational inequality index for 8th grade students in mathematics, by region and by high SES schools' students

Region	All students 2003	High SES schools' students
North	0.842	0.422
Northeast	0.818	0.087
Southeast	0.671	0.016
South	0.664	0.159
Center-East	0.736	0.117

Source: Soares, 184.

Following the rationale presented in the introduction of Soares' article, this achievement inequality not only will impact the future economic outcomes for lower performing students, has the potential to threaten social cohesion. In the introduction he cites Benadusi in a 2001 article as saying that these inequalities foster perceptions of inferiority "which threaten democracy. In addition, they will convert, in the following generation, into inherited inequalities" (177). This continuous cycle of inequality has led to the development of a "culture" among some teachers that poor children cannot learn."48 This problem of inherited poverty and inequality is what conditional cash transfer programs such as Bolsa Família are attempting to counteract. Soares argues that simply getting lower SES students into school is not going to break the intergenerational transmission of poverty, but that decreasing the achievement *inequality* between high and low income students is the best method to realize this ideal.49

One possible explanation for the persisting inequality, according to a World Bank study is that there is "little effective demand for better education in Brazil." ⁵⁰ For these reasons the director of the Inter-American Dialogue's Partnership for Educational Revitalization in the Americas, Jeffrey Puryear, believes that before any

⁴⁸ World Bank, 2010, 40.

⁴⁹ Soares, 185-6.

⁵⁰ Brazil Institute, "Basic Education in Brazil? What's Wrong and How To Fix It," *Thinking Brazil* 25 (February 2007): 3.

effective educational reform can take place there must be a shift in the quality of the demand for education.⁵¹

Since the beginning of the colonial period through the late 1980s there has been an expansion of educational opportunity in Brazil but this expansion did not provide access to all Brazilians. It was largely urban and catered to the children of the elite. As the country transitioned back to democratic rule in the late 1980s and early 1990s, the educational system became a centerpiece of political discussion due to disparities in the equality of educational opportunity for poor and rural students. This chapter has demonstrated that achievement inequality in Brazil is a consequence of Brazil's history of excluding large sectors of society from the educational system. Chapter Three will look at the recent reforms during the 1990s. It is during this period that Brazil implemented various strategies to address these issues; the most extensive of them would be the Bolsa Família Program.

⁵¹ Ibid.

CHAPTER TWO

PROGRESA: MEXICO'S EXPERIENCE WITH CCTS

The two Latin American giants, Brazil and Mexico, have faced similar problems in the past and consequently, have taken their cues on program development and policy implementation from each other when the opportunity has arisen. In education, Brazil's Bolsa Família Program has largely evolved from the success of Mexico's PROGRESA Program, which later collapsed into a multi-faceted social assistance program that is now known as Oportunidades.

Like Bolsa Escola, PROGRESA, was a targeted social assistance policy with a focus on improving school enrollment, attendance and retention rates for the poorest in Mexican society. The program was implemented in 1997 and was designed to tackle the high rate of dropout in higher levels of education due to the increased opportunity cost of attending school in rural Mexico. The program looked to alleviate this specific problem by increasing the transfer as students progressed through the system and also provided a higher transfer for female students to ameliorate gender enrollment gaps. Additionally, PROGRESA included a small grant to help families provide more effective nutrition to babies and small children who were not yet attending school. In a study of PROGRESA by Parker and Skoufias (2000), the authors cite that the average monthly transfer for PROGRESA recipients was US\$55, which at the time was equivalent to over one-fifth of the average family monthly income. The program used specific targeting mechanisms, similar to that of Bolsa Escola, and although it was a program with a specifically targeted population, its impact was widespread. By the end of 1999, only two years after the program's

⁵² Jere R. Behrman, et. al., "Progressing through PROGRESA: An Impact Assessment of a School Subsidy Experiment in Rural Mexico," *Economic Development and Cultural Change* 54, vol. 1 (2005): 237-8.

⁵³ Ibid., 238.

inception, PROGRESA was impacting the lives of over 2.6 million households, or about 40 percent of all rural families in Mexico. In total, 11 percent of all families in Mexico were receiving the stipend.⁵⁴

Using a Markov schooling transition model, the authors look at different impacts of the PROGRESA program on schooling in rural Mexico. They found "higher enrollment rates, less grade repetition and better grade progressing, lower dropout rates, and higher school reentry rates among dropouts" as a result of the program. ⁵⁵ See the following chart for details.

Table 3

OVERALL AVERAGE EFFECT OF PROGRAM ON PROBABILITY OF REPEATING A GRADE, DROPPING OUT, AND REENTERING SCHOOL

	Probability of Repeating among Those Enrolled in School			Out	bility of D among The olled in Sch	ose En-	among	Probability of Reenterir among Those Droppe Out of School		
Age	Т	С	Diff.	Т	С	Diff.	Т	С	Diff.	
6	39.8	46	-6.2	.8	1.6	8	4.0	100		
7	26.7	34	-7.1	1.0	1.0	.0	100.0	100.0	.0	
8	26.9	32	-5.5	.3	.7	4	100.0	96.0	4.0	
9	23.9	30	-6.5	1.0	1.4	4	97.2	94.7	2.5	
10	24.2	25	8	1.6	2.9	-1.3	94.4	87.5	6.9	
11	19.8	24.8	-5.0	6.3	12.2	-5.9	65.5	45.8	19.7	
12	30.0	33.7	-3.7	10.4	16.8	-6.4	44.5	29.7	14.8	
13	34.6	39.7	-5.1	12.2	22.7	-10.5	34.1	16.9	17.2	
14	49.3	47.4	1.9	23.3	34.9	-11.6	16.9	15.5	1.4	
15	57.8	61.9	-4.1	31.3	37.7	-6.4	14.2	10.8	3.4	

Note. T = treatment, C = control, Diff. = difference.

Source: Behrman, Jere R., et. al., "Progressing through PROGRESA: An Impact Assessment of a School Subsidy Experiment in Rural Mexico," in *Economic Development and Cultural Change* 54, vol. 1 (2005): 256.

Another study by T. Paul Shultz, a professor at Yale University, utilizes a difference-in-difference assessment to evaluate results from the PROGRESA program. In his results, he found higher enrollment rates in all PROGRESA localities and a stronger influence on girls' enrollment rates than boys'. However, due to large-scale out-migration of youth between the ages of 16-18, few children continued

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⁵⁴ Amber Peterman, et. al., "Opening Up Pandora's Box: The Effect of Gender Targeting and Conditionality on Household Spending Behavior in Mexico's *Progresa* Program," *World Development* 37, no. 6 (2009): 1130.

⁵⁵ Behrman, 266.

further than 6.8 years of schooling.⁵⁶ In his findings he discusses that on average, there was a two-thirds of a year increase in educational attainment. Also, due to declines in returns from agriculture during the period, Shultz stated that it was unlikely that these children would work locally, but it is more likely that they will migrate elsewhere, principally to local urban centers.⁵⁷

To calculate the private rate of return for students who benefited from PROGRESA, Shultz used results from a survey of wages in Mexico that was conducted in 1996, (Encuesta Nacional de Empleo Urbano) and discounted these results for selection bias and also accounted for the reduced wages received by rural migrant workers in urban centers. Shultz found that for each year of completed secondary school, these young adults experienced a wage increase of about 8 percent. ⁵⁸

Shultz observes that one of the strongest impacts of the PROGRESA program is on the school enrollment rates between poor and non-poor students. This can have positive implications for the welfare of their future families. He states that the educational gap between two different children, one with parents who are two standard deviations above the sample average and one with parents who were two standard deviations below the sample is 0.7 years, or almost equal to the increase in enrollment seen in the PROGRESA results. ⁵⁹ As a result, PROGRESA helped to narrow the enrollment gap between children with parents of different educational levels.

An interesting difference between PROGRESA and Bolsa Escola is their areas of original implementation. PROGRESA was originally implemented in rural areas

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⁵⁶ T. Paul Shultz, "School Subsidies for the Poor: Evaluating the Mexican Progresa Poverty Program," *Journal of Development Economics* 74 (2004): 220.

⁵⁷ Ibid., 220-1.

⁵⁸ Ibid., 232.

⁵⁹ Ibid.

whereas Bolsa Escola was initially only urban. Also, PROGRESA provided a higher incentive for girls than boys. Both programs provide the transfer contingent on school attendance and increase the transfer amount as the children age regardless if they perform adequately or progress to the next grade level. In conclusion, it is important to note that there are differences between the two programs with regards to original implementation and execution strategies, however, PROGRESA had a positive impact not only on enrollment and completion rates and also helped to eliminate or reduce the enrollment gap between the rich and poor.

CHAPTER THREE

RECENT EVOLUTIONS IN THE BRAZILIAN EDUCATIONAL SYSTEM Bolsa Escola

The 1990s began a process of education reform in Brazil. The biggest program that began during this period was Bolsa Escola. The program was originally launched in Campinas and the Federal District of Brazil at the municipal level in 1995 and then expanded to 60 other municipalities by 1999. According to a World Bank report released in 2001, the program had four goals, (1) increase educational attainment to reduce future poverty, (2) extend grants to families to relieve immediate poverty, (3) reduce child labor and (4) provide a safety net for families so they do not fall further into poverty. 61

The program was then expanded at the national level in 2001 and then became an integral part of the Bolsa Família program in 2004.⁶² This conditional cash transfer policy provided cash grants to the female head of household, with no stipulation on how the money should be spent, as long as the family complied with certain criteria. To receive the Bolsa Escola transfer the families must: (1) have children between 6-15 years old and (2) be enrolled and attend school at least 85 percent of the days per school year.⁶³

The selection of the recipients for participation in the original Bolsa Escola program was in the hands of the local city hall because they managed the local *cadastros* or registers. ⁶⁴ Also, in order to avoid potential abuse of Bolsa Escola, the

⁶⁰ The World Bank, "Brazil-An Assessment of the Bolsa Escola Programs," Human Development Sector Management Unit, Brazil Country Management Unit, Latin America and the Caribbean Regional Office, March 15, 2001, i.
⁶¹ Ihid

⁶² Andrea Rodrigues Ferro and Ana Lúcia Kassouf, "Avalicação do Impacto dos Programas Bolsa-Escola sobre o Trabalho Infantil no Brasil," *Pesquisa e Planejamento Ecônomico* 35, no. 3 (December 2005): 426, 7.

⁶³ Ibid., 426.

⁶⁴ Ibid.

original program required a minimum residency within the pilot cities of two years which posed a problem for recent migrant households, ⁶⁵ usually among the poorest households in Brazil. Although this may have left out a portion of the society that could have been included in the program, without the residency requirement, the program created a large incentive to migrate to the cities where the program was in effect and local governments were concerned that additional migration would have seriously strained already stressed local public services. ⁶⁶ Today, the program is still controlled at the municipal level, but families apply only once to register in the Cadastro Único, the single national database of family welfare to determine individual family need. ⁶⁷

The preliminary results of the Bolsa Escola program were positive. The World Bank's report⁶⁸ includes the following charts that compare dropout rates and promotion rates of recipients and non-recipients of the CCT. From this data we can see that there are significant differences between the two groups as well as noticeable changes in the behavior of students within one year after their families began receiving the stipend. The dropout rate for Bolsa Família schoolchildren was more than 6 percentage points less within the first year of the program being administered. Interestingly, the dropout rate also dropped for non-beneficiary students during the second year of implementation indicating the program could have some peer effects. Promotion rates for beneficiary students are also seen in both studies evaluated by the World Bank.

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⁶⁸ The World Bank, 2001, 35.

⁶⁵ The World Bank, 2001, 11.

⁶⁶ Ihid

⁶⁷ Brazilian Government, Ministério do Desenvolvimento Social e Combate à Fome, "Cadastro Único," accessed March 26, 2011, http://www.mds.gov.br/bolsafamilia/cadastrounico.

Table 3

Dropout Rates among Beneficiaries and Non-Beneficiaries (%)

Year	Beneficiaries	Non-Beneficiaries	Total
1994		-	6.2
1995	0.2	6.5	6.0
1996	0.4	5.6	5.2

Source: School Scholarship Program (1996) and School Census (1995) as cited by Sant'Ana and Moraes (1997)

Promotion Rates Estimates - 1995-1996

			(%
		1995	1996
Beneficiaries	(a)	79.8	87.9
49-37-1	(b)	67.0	80.2
Non-Beneficiaries	(a)	79.5	79.9
	(b)	70.9	72.2
Total	(a)	79.6	80.4
	(b)	70.8	73.5

 ⁽a) Estimates by Sant'Ana and Moraes (1997) including the Literacy Cycle where promotion is automatic.
 (b) Estimates which consider the 3rd. to the 8th. grades only

Source: World Bank, "Brazil-An Assessment of the Bolsa Escola Programs," Human Development Sector Management Unit, Brazil Country Management Unit, Latin American and the Caribbean Regional Office, March 15, 2001, 35.

The World Bank specifically mentions in the executive summary of the review that although the transfer has helped to alleviate serious problems with dropout and grade promotion rates, local governments should not see Bolsa Escola funding as "replacing other education-related interventions." The report states that "poor educational attainment in Brazil [as a whole] is a consequence of both demand failure (poverty) and supply constraints (poor school quality)."⁷⁰ The program was a success in Brasília, according to the World Bank report, mainly because school quality was not a previous issue. The existing facilities were in good shape, just under-utilized.⁷¹ In other words, by providing cash transfers to families upon the condition that their children attend school, the policy was seen as solving only one aspect of the problem, one aspect of the demand failure or underuse of existing government services (education) due to individual family constraints (poverty).

⁷⁰ Ibid., 26.

⁶⁹ Ibid., iii.

⁷¹ Ibid., 14.

During this same time period in which Bolsa Escola was beginning to be implemented in urban centers, the Brazilian government began implementing a new strategy in order to tackle equity and quality problems. Seemingly every resource reviewed for this study dedicated substantial time in reviewing the poor quality of Brazilian schools, teachers and corruption within the education system. ⁷² In 1996, the government created the Fundo de Manutenção e Desenvolvimento do Ensino Fundamental (Fund for the Maintenance and Development of Fundamental Education), or FUNDEF, to fund basic education across the country and to tackle these quality and equity issues.⁷³ The budget for this program was derived from 15 percent of the state participation fund (FPE) and the municipalities' participation fund (FPM) plus 15 percent of the revenues due to the products and services tax (ICMS) and the industrial tax (IPI).⁷⁴ Prior to the creation of the fund, states were obligated to spend 25 percent of their budgets on education and as a result of huge regional disparities in wealth, the regional distribution of education budgets was nowhere near equitable. The fund essentially increased the resources available to these states via an ambitious redistribution of tax dollars—from richer states to poorer states.⁷⁵ Christina Andrews writes that in addition to reallocating and increasing funds for educationrelated expenditures, the government instituted an annual per student minimum expenditure of approximately US\$180 in 1998 dollars and the federal government promised to supply the additional funds if the Educational Fund fell short. ⁷⁶ By equalizing education expenditures among states and providing a safety net for states if

⁷² For an in-depth study of this topic see *Educational Performance of the Poor: Lessons from Rural* Northeastern Brazil by Ralph W. Harbison and Eric A. Hanusheck.

⁷³ Christina W. Andrews, "Anti-Poverty policies in Brazil: reviewing the past ten years," *International* Review of Administrative Sciences, 70, no. 3 (2004): 480.

⁷⁴ Ibid. 75 Ibid.

they were unable to meet per-student minimums, Brazil attempted to establish equal access to quality schooling across the whole country.

In the same year, the government tackled another issue that severely affected the quality of schools: teacher qualification. For instance, in 1998, 40 percent of teachers in the Northeast, the most impoverished region of Brazil, had not completed high school. In 1996, the Brazilian government enacted the Education Act that required teachers for first to fourth grades to be high school graduates and those that taught fifth to eighth grade to be university graduates. The Education Act therefore, was another step in the right direction for Brazil to provide a better quality education for students by addressing the teacher quality issue.

In conclusion, during the 1990s, through the FUNDEF and the Educational Act, Brazil made steps towards a national education strategy by increasing access and quality across the country. As a result of the expanding of Bolsa Escola to the national level, increasing per pupil expenditures and raising the bar with regards to teacher quality, Brazil made strides towards a more effective and equitable national educational strategy.

Bolsa Família

Bolsa Família is not a single policy, rather, a coordination of a variety of policies and programs that were implemented at various moments in recent history. Consequently, Bolsa Família is a comprehensive social and economic program directed to the lowest income sectors of society. The program began in October 2004⁷⁹ and was assisted by a World Bank "sector-wide loan" of US\$572 million approved in June 2004 and a loan of US\$1 billion, with promise of up to an additional

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⁷⁷ Ibid.

⁷⁸ Ibid

⁷⁹ Kathy Lindbert, et. al., "The Nuts and Bolts of Brazil's Bolsa Família Program: Implementing Conditional Cash Transfers in a Decentralized Context," *The World Bank* (2007): 6.

US\$1 billion If the project made "satisfactory progress," was provided by the Inter-American Development Bank in December of the same year.⁸⁰

Intended recipients of Bolsa Família were of the lowest income quintiles of society, officially defined as living in "extreme poverty" or "poverty". The benefits they receive depend on their level of per capita household income, how many children they have and how old these children are. In August of 2009, the definition of "poverty" and "extreme poverty" were adjusted due to inflation. Families in "extreme poverty" were those that had a per capita income of R\$70 (approximately US\$40) or less and those in "poverty" had a per capita income of R\$140 (approximately US\$80). Accordingly, the benefits received by the families were also adjusted. Current transfer amounts range from R\$68 (approximately US\$40 in March 2011) to R\$200 (approximately \$120 in March 2011) depending on the number of children as well as the ages of those children.

The transfer is a combination of income from a variety of programs that were collapsed into one. The programs included are Bolsa Escola (discussed earlier), Bolsa Alimentação (health and nutrition grants) and Auxilio Gás (a cooking gas transfer). The conditions attached to receiving the transfer are similar to the pervious programs, attendance requirements, health checkups and vaccination schedules. (For a more detailed explanation of these conditionalities, see the following chart.)

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⁸⁰ Anthony Hall, "From Fome Zero to Bolsa Família," *Journal of Latin American Studies* 38 (2006):698.

⁸¹ Brazilian Government, "Benefício do Bolsa Família é reajustado em 10%."

⁸² Ibid.

⁸³ See http://www.mds.gov.br/bolsafamilia/valores-dos-beneficios for a detailed explanation of these transfers.

Table 5

	Menu of Bolsa Família Conditionaliti	es		
- 1011	Health Conditionalities	Education Conditionalities		
Children	For all children ages 0-7 years old: Vaccine schedules Regular health check ups and growth monitoring of children	Enroll all children ages 6-15 in school Guarantee at least 85% minimum daily school attendance each month for all school-aged children		
Women (pregnant or lactating)	Pre-natal checkups Post-natal checkups Participate in educational health and nutrition seminars offered by local health teams	(Parents) If child misses school, inform the school of the reason Inform the local BFP coordinator if the child moves schools		

Source: Kathy Lindert, et. al., "The Nuts and Bolts of Brazil's Bolsa Família Program: Implementing Conditional Cash Transfers in a Decentralized Context," The World Bank (May 2007): 18.

There are a variety of studies by individuals, non-governmental and non-profit organizations as well as multinational organizations such as the World Bank evaluating the targeting mechanisms of the program and all praise Bolsa Família as one of the most successful programs to effectively target the desired population. A Food and Agriculture Organization study cited by Anthony Hall, a professor of economics at the London School of Economics, found that "73 percent of the benefits [reach] the poorest 20 per cent of the population, and 94 per cent [fall] within the lowest two quintiles. More importantly, many of the recipients were excluded from previous social programs. He mentions that street-dwellers, *quilombola* communities (typically isolated communities in the North and Northeast established by runaway slaves) and even indigenous groups" are benefiting from Bolsa Família. ⁸⁴ See Soares et. al (2007), Haddad in *Brazil Under Lula* (2008), and Hall (2008) for more information on the targeting mechanisms of Bolsa Família.

In conclusion, Bolsa Escola has provided the platform for the transformation of the Brazilian educational system and for the consolidation for Brazilian society by incorporating previously marginalized groups into the educational system and providing them direct social assistance. Consequently, the government in Brazil both recognized and acknowledged the importance of these populations to Brazilian

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⁸⁴ Ibid.

society. By no longer excluding portions of society from the economic and educational sectors, the Brazilian government made steps towards empowering the families to take an active role in their own poverty alleviation. The next section of this study looks at the changes in educational outcomes within the lowest income sectors of Brazilian society in order to evaluate the effectiveness of these programs in providing skills (such as in reading and math) that will increase the potential of these future income earners.

CHAPTER FOUR

BOLSA FAMÍLIA'S IMPACT ON EDUCATION

Bolsa Família is designed to affect education, health and food security.

Studies that have looked at the impact of Bolsa Família have seen reported increases in family expenditures on food and clothes, but the effects are not as strong as the results from Mexico, Chile and Colombia. Shadditionally, an International Poverty Centre report states that CEDEPLAR, a research body in Brazil housed in the Universidade de Minas Gerais, found no impact on vaccinations and checkups. The researchers conclude that the results are most likely due to the lack of facilities (supply), rather than lack of demand. The following review, covers the studies and reports that evaluate enrollment and attendance, repetition and academic performance. The review is designed to provide an understanding of the overall changes that Brazil has been experiencing during the Bolsa Família years.

Enrollment and Attendance

In the book, *Brazil Under Lula*, Mary Arends-Kuenning writes about the progress in education during the presidency of Lula. She states that with regard to children aged 7-14, ages in which schooling is compulsory, Brazil has arguably reached universal access to education.⁸⁷ She credits this to educational reforms initiated by former president, Fernando Henrique Cardoso during the 1990s, specifically citing Bolsa Escola as the reason for these changes.⁸⁸ In 2005, she cites that 91.1 percent of the poorest 20 percent and 95.8 percent of the richest 20 percent

⁸⁵ Fábio Veras Soares, et. al., "Evaluating the Impact of Brazil's Bolsa Família: Cash Transfer Programs in Comparative Perspective," *IPC Evaluation Note* 1 (December 2007): 5.

⁸⁷ Mary Arends-Kuenning, "A Report Card for Lula: Progress in Education," in eds. Joseph L. Love and Werner Baer, *Brazil Under Lula* (New York: Palgrave, 2009), 205-212.
⁸⁸ Ibid., 206.

were attending school. Additionally, she states that in the rural areas, huge improvements have been seen (66.4 percent enrolled in 1999 to 92 percent in 2005).⁸⁹

These findings are consistent with studies that have evaluated the impact of Bolsa Família on student enrollment. One of the most recent comprehensive evaluations of enrollment data with respect to the Bolsa Família program (Glewwe and Kassouf 2008), finds that for students whose families received the cash transfer, enrollment increased dramatically by 6.5 percent. 90 Another study (Cardoso and Souza 2004) found an increase in attendance of 3 percent specifically among boys, 91 while an article in *Americas* cites a 3.2 percent increase in overall enrollment. 92

In order for schools to have an impact on a child's learning, it is important for students to not only enroll in school, but to attend class on a regular basis.

Additionally for families to continue receiving the Bolsa Família grant, students must attend 75% of all total school days. An evaluation of attendance rates, based on income quintiles and by region from 1999-2007 documented in the *Anuário Estatístico do Brasil* suggests that there have been considerable increases in Bolsa Família areas – the Northeast and Central-West. The most impoverished region (the Northeast) with the highest number of Bolsa Família recipients, ⁹³ had the largest change in attendance rates between 1999-2007 in the lowest income quintile of over 5 percent. The results are presented in the following chart.

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⁸⁹ Ibid., 211.

⁹⁰ Paul Glewwe and Ana Lucia Kassouf, "The Impact of the *Bolsa Escola/Familia* Conditional Cash Transfer Program on Enrollment, Grade Promotion and Drop Out Rates in Brazil," University of Minnesota (2008), 8.

⁹¹ Eliana Cardoso and André Portela Souza, "The Impact of Cash Transfers on Child Labor and School Attendance in Brazil," Working paper, Vanderbilt University, 2004, 20.

⁹² Davie Daepp, "Access as Development," Americas, 62, 1 (2010), 4.

⁹³ Haddad, 658.

Table 6

		eoue	1999	Highest	9.0	0	1.8	9.0	0.5	0.4
	n*	Difference	2007-1999	Lowest	4.2	2.5	5.1	2.8	3.3	4.1
the	/ Regio		07	Highest	99.5	98.5	99.2	99.8	99.7	99.7
7-14 of	apita by		2007	Lowest	96.7	95.2	96.6	97	96.6	97.3
Aged 7	Per C	ghest Income Quintile Per Cap	35	Highest	99.2	97.8	97.8	99.4	99.1	99.3
tudents	est and Highest Income Quintile Per Capita by Region*		2005	Lowest	95.4	92.9	95.5	96.4	96.4	95.8
es of Si			32	Highest	99.2	98.3	97.4	99.5	99.2	99.2
Attendance Rates of Students Aged 7-14 of the			2002	Lowest	94.8	92.7	94.2	95.9	96.2	95.1
ttendar			1999	Highest	98.9	98.5	97.4	99.2	99.2	99.3
•	Lowest		19	Lowest	92.5	92.7	91.5	94.2	93.3	93.2
	_				Brazil	North	Northeast	Southeast	South	Central-West

*Taxa de frequência escolar das pessoas de 7-14 anos de idade por quintos de rendimento Familiar per Source: Anuário Estatístico do Brasil, multiple years capita segundo as grandes regiões

Consequently, we can see that within the lowest income sectors of Brazilian society, the target of the Bolsa Família Program, not only are students enrolling at an almost universal level, but studies are finding that these students are attending school. Since changes are also strongest in Bolsa Família regions, it can be assumed that these low-income students are also frequenting school at a higher rate as a direct result of Bolsa Família.

Repetition

Brazil is known as having shockingly high repetition rates. Arends-Kuenning display the changes in repetition rates in the Brazilian education system from 1992 to 2005. In 2005 over 36 percent of all 8th graders experienced delay. Although high, this is a large improvement over the 50.5 percent of 1992.

Table 7

Grade	1st	2nd	3rd	4th	5th	6th	7th	8th
Age	up to 8	up to 9	up to 10	up to 11	up to 12	up to 13	up to 14	up to 15
1992	38.5	42.9	44.8	46.2	51.0	50.3	51.3	50.5
1993	37.7	45.0	46.4	48.5	52.3	49.0	48.2	50.3
1994	37.1	43.2	45.8	47.9	51.3	48.6	47.0	49.0
1995	36.5	41.6	45.1	47.2	50.4	48.3	46.0	47.9
1996	36.4	40.0	42.6	46.1	50.6	48.6	46.3	47.7
1997	36.1	39.4	41.6	45.1	49.6	48.0	48.0	48.0
1998	31.0	40.0	39.1	43.1	45.6	47.3	46.3	48.2
1999	26.3	34.5	39.0	40.4	45.6	43.7	43.5	47.0
2000	23.1	30.9	35.3	38.9	43.1	42.0	40.0	44.8
2001	20.9	28.3	32.8	38.3	41.4	40.7	37.8	43.3
2002	18.9	25.9	28.5	34.5	38.7	39.1	36.3	41.4
2003	17.6	22.4	27.1	31.4	36.4	36.5	35.0	39.6
2004	15.9	21.1	22.3	28.6	33.4	33.4	31.5	37.9
2005	15.5	19.9	23.4	28.0	32.7	32.5	30.6	36.1
Percentage char	ige							
1992 to 2005	-59.7	-53.6	-47.8	-39.4	-35.9	-35.4	-40.4	-28.5

Source: Menezes-Filho (2007) from PNAD

From: Arends-Kuenning, "Progress in Education," Brazil Under Lula, 213.

Arends-Kuenning makes an important observation about the impact of Bolsa Família. Although enrollment rates, particularly for primary school, were already

practically universal, perhaps the program's greatest impact is the way it encourages children to attend school. In Brazil, advancing to the next grade level is not based on performance on exams, but rather on attendance requirements, termed "automatic promotion policies". Therefore, the cash transfer functions as an incentive for parents to encourage their children to attend class rather than to drop out in the middle of the year. ⁹⁴ As a result of these two new policies tied to attendance rates (cash transfer and grade promotion), repetition rates have dropped precipitously, but still remain high.

It is important to look at the influence of Bolsa Família on individual student progress, as these are national trends for all Brazilian students. A World Bank study found differences as high as 8 percent in grade promotion among Bolsa Escola recipients in 1996 and a reduction in the dropout rate between beneficiaries and non-beneficiaries of almost 6 percent. Glewwe and Kassouf's more recent study also found a positive influence of participation in the Bolsa Família Program on grade promotion rates of 1.2 percent and reducing the likelihood of a child to dropout by 0.7 percent. Although these changes are positive, a 2010 World Bank study found that regardless of improvements seen on dropout and repetition rates, students from the lowest income quintile continue to spend three additional years than their counterparts from less impoverished situations to complete primary school. Teven today, Brazil's high rates of grade repetition and the age-grade distortion...have no

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⁹⁴ Arends-Kuenning, 212-3.

⁹⁵ World Bank, 2001, 35.

⁹⁶ Glewwe and Kassouf. 8.

⁹⁷ World Bank, 2010, 41.

⁹⁸ Ibid

Performance

Increasing student learning and performance in school is fundamental to providing students with valuable knowledge and skills that will help them to increase their future earning potentials. The World Bank report, *Conditional Cash Tranfers:**Reducing Present and Future Poverty, argues that it is difficult to measure the real learning gained as a result of the transfer but what has been demonstrated in various studies in other countries is that students brought to school because of a CCT learn no more or no less than other children despite the transfer.

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Brazil has been actually experiencing a slight decline in overall academic performance since the 1990s. ¹⁰⁰ This can be explained by the large increase in school attendance in a system that was already stressed with both physical and human capital constraints ¹⁰¹ due to Bolsa Família. Overall academic performance in Brazil is of important concern. Arends-Kuenning states that in 2003, 60 percent of public school students in fourth grade tested as "critical" or "very critical" on the Portuguese language evaluations. ¹⁰²

In Brazil, however, more students every year are at or passing minimum performance goals on standardized tests and this demonstrates slow, but positive progress. The chart below shows test performance on the Prova Brasil¹⁰³ as presented by the public-private cooperative, *Todos Pela Educação* (Everyone for Education). The following chart shows the amount of students in each level meeting minimum goals for each section, Math and Portuguese, by region. The final column expresses the difference between 2009 and 2001 results to see change over time. Each region in

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⁹⁹ Ariel Fiszbein et al, *Conditional Cash Transfers: Reducing Present and Future Poverty*, The World Bank: Washington, D.C., 2009, 142.

¹⁰⁰ Arends-Kuenning, 215.

¹⁰¹ World Bank, 2010, 28.

¹⁰² Arends-Kuenning, Ibid.

¹⁰³ See description of the Prova Brasil on page 11.

Brazil has a different minimum due to the large regional variance in test scores. The final goal, regardless of region, is to have 70 percent of all students passing the exam by 2021. Once again, it is important to note is the significant gains made by Bolsa Família regions, the *Nordeste* (Northeast) and the *Centro-Oeste* (Central-East), in the 4th grade exam Portuguese and Math. Although the changes are not consistently the largest across the board, it is obvious that students' scores are improving.

Percent of Students Meeting Minimum Performance Goals on Saeb (Prova Brasil)

			ova Dra			
	2001	2003	2005	2007	2009	Difference 2009-2001
Fourth/Fifth Portuguese	23.7	25.6	26.6	27.9	34.2	10.5
Norte	15.5	17.1	17.4	18.4	25.4	9.9
Nordeste	13.8	16.5	16.7	18.9	23.8	10
Sudeste	34.7	36.1	37.8	36	45.7	11
Sul	30	32.4	32.7	35.1	41.5	1.5
Centro-Oeste	21.9	27.5	28.8	30.9	40.2	18.3
Fourth/Fifth Math	14.9	15.1	18.7	23.7	32.6	17.7
Norte	6.5	6.7	8	13.1	20.1	13.6
Nordeste	7.4	8	9.9	14.6	20	12.6
Sudeste	23.3	23.8	28	31.6	45.8	22.5
Sul	18.9	18.9	24.3	31.2	41.1	22.2
Centro-Oeste	13.7	15.2	20.1	24.4	36.2	22.5
Eighth/Ninth Portuguese	21.8	20.1	20.5	20.5	26.3	4.5
Norte	16.2	13.5	13.6	13.6	20.3	4.1
Nordeste	13.7	14.3	13.3	13.3	19.3	5.6
Sudeste	26	23.1	24.2	24.2	32.4	6.4
Sul	27	24.8	23.1	23.1	31.4	4.4
Centro-Oeste	20.7	20.2	19.8	19.8	27.8	7.1
Eighth/Ninth Math	13.4	14.7	14.3	14.3	14.8	1.4
Norte	6.1	5.8	7.2	7.2	8.3	2.2
Nordeste	7.7	8.1	8.5	8.5	10.2	2.5
Sudeste	16.8	19.1	17.2	17.2	18.8	2
Sul	16.7	18.5	17.2	17.2	19.1	2.4
Centro-Oeste	12.4	13.7	13.8	13.8	15.6	3.2

Source: Todos Pela Educação

In an interview with a teacher in the state of Rondônia in the northern region of Brazil, she explained that in her experience, these poor students normally have a difficult time in school due to financial constraints and other factors (this idea is expanded upon by Barbosa and da Veiga¹⁰⁴). She said that as a result of the transfer "at least the students arrive to school *com a barriga cheia* (with a full stomach).

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Table 8

¹⁰⁴ Ligia Barbosa and Laura da Veiga, "Brazil: Two Educational Policies," in *Factors Affecting Learning and Cost Effective Schooling in Latin America*, ed. Laura Randall, 57

Before the students that came to school arrived only thinking about hour of *merenda* (school meal)." She felt that Bolsa Famlia provided families with the resources necessary to provide a meal for the children before they went to school. This helped the students to focus on school activities and got them through until the *merenda* provided at the end of both the morning and afternoon school sessions and contributed to improved academic performance.

Amy C. Lora conducted research on Bolsa Família for her dissertation in 2009 involving the impact of Bolsa Família on student performance. She was driven to collect data on student performance because she argues that currently only secondary data sources are available. Lora was able to collect data in three very different regions of Brazil about student achievement by Bolsa Família recipients as well as students who were eligible for the program, but for some reason were not currently receiving the transfer. Her research was conducted in Formosa, Goiás (a city 80 kilometers from the Federal District in Brazil), the municipality of Xapuri, Acre, located in the "remote Amazon region of Brazil," and also in the urban city of Campinas, São Paulo. Lora gathered information on student performance using test questions from the Prova Brasil and tested both recipients and non-recipients in all three locations. Her research showed increases in learning between the two student groups both on her sample tests that she administered as well as their overall grades in the school. See the following chart for her results.

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Amy C. Lora, "Evaluating the Impacts of Bolsa Escola Programs on Student Performance in Brazil," (PhD diss., Florida International University, 2009), 22.
 Lora. 68.

Table 9

	Fourth Grade	Performance	by Gender			
Measurment	Gender	Particij	pation	No Participation		
		Mean	(S.D.)	Mean	(S.D.)	
Portuguese Test						
(14 Items)	Girls	9.77	(1.99)	4.00	(1.66)	
	Boys	6.89	(1.60)	3.00	(1.66)	
	Total	8.48	(2.32)	3.51	(1.55)	
Math Test						
(12 Items)	Girls	6.73	(2.87)	4	(2.36)	
	Boys	5.72	(2.16)	3.64	(1.58)	
	Total	6.28	(2.59)	3.84	(2.00)	
Portuguese Grades						
(100)	Girls	87.23	(6.57)	64.84	(12.52)	
	Boys	81.39	(6.54)	63.62	(11.86)	
	Total	84.60	(7.10)	64.24	(12.08)	
Math Grades						
(100)	Girls	86.77	(7.37)	66.20	(11.89)	
	Boys	81.00	(10.65)	66.88	(10.92)	
	Total	84.18	(9.33)	66.53	(11.39)	
Average Teacher			• • •		, ,	
Rating	Girls	2.66	(.43)	1.45	(.50)	
	Boys	2.29	(.66)	1.30	(.45)	
	Total	2.48	(.56)	1.38	(.47)	

Source: Amy C. Lora, "Evaluating the Impacts of Bolsa Escola Programs on Student Performance in Brazil," (PhD diss., Florida International University, 2009), 74.

Table 10

l	Eighth Grade	Performa	nce by Gen	der		
Measurment	Gender	Partic	ipation	No Participation		
		Mean	(S.D.)	Mean	(S.D.)	
Portuguese Test						
(14 Items)	Girls	8.86	(1.63)	6.48	(2.50)	
	Boys	8.22	(2.25)	5.83	(2.25)	
	Total	8.62	(1.95)	6.15	(2.37)	
Math Test						
(12 Items)	Girls	5.04	(2.84)	3.39	(1.80)	
	Boys	5.35	(2.98)	3.57	(1.96)	
	Total	5.18	(2.87)	3.48	(1.86)	
Portuguese Grades						
(100)	Girls	89.81	(4.65)	78.26	(8.28)	
	Boys	87.04	(5.60)	75.83	(10.45)	
	Total	88.54	(5.24)	77.04	(9.40)	
Math Grades						
(100)	Girls	84.19	(5.73)	74.52	(7.19)	
	Boys	85.43	(6.50)	70.96	(8.50)	
	Total	84.76	(6.60)	72.74	(7.99)	
Average Teacher					, í	
Rating	Girls	2.56	(.51)	1.50	(.54)	
	Boys	2.48	(.53)	1.36	(.45)	
	Total	2.52	(.51)	1.43	(.50)	
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Source: Amy C. Lora, "Evaluating the Impacts of Bolsa Escola Programs on Student Performance in Brazil," (PhD diss., Florida International University, 2009), 77.

In the most recent World Bank Study on the status of education in Brazil, "Achieving World Class Education in Brazil: The Next Agenda," the authors champion the increase in performance across Brazil since the 1990s. The authors show that although they find no real changes in reading scores, with regards to performance on the math portion of the internationally administered PISA exam (Program for International Student Assessment), the percentage of students performing at the lowest levels has dropped from 53 percent to 38 percent on the 2009 exam. 107 They argue that the overall increase by 52 points on the math portion of the test since 2000 proves that the Brazilian educational system has been able to increase the average knowledge of math for its students by one entire grade level. This

¹⁰⁷ World Bank, 2010, 29.

increase is the third largest recorded increase on the exam. 108 These are admirable increases for such a short period.

Despite these increases, on the international stage Brazil continues to perform poorly. In 2003, Brazil ranked last on math and 3rd from the last for language skills on the OECD Programe for International Student Assessment (PISA) exams ¹⁰⁹. Repetition and age-grade distortion put Brazil at a disadvantage on this particular exam. The PISA exam is that the exam is administered based on age, rather than grade, and consequently, many 13-year-olds in Brazil were ill-prepared for the exam. 110 Brazil continues to perform poorly on the exam ranking among the worst performing countries in math and reading.

¹⁰⁸ Ibid., 3.
109 Ibid., 216.
110 Barbosa and da Veiga, 57 55.

CHAPTER FIVE

SUGGESTIONS FOR FUTURE POLICY IN BRAZIL

In reviewing CCTs and programs that encourage student performance in the United States and other countries, increases appear to be contingent on two factors, igniting motivation and individual attention on the students and their families. In an article in *Education Week*, Jackie Cushman, the chairman of the Atlanta, Georgia based organization, Learning Makes a Difference board of directors states, "You would love for students to be self-motivated, but ... if [they] don't realize that's achievable, [they] don't necessarily strive to do that." In the same article, Daniel T. Willingham, a professor of cognitive psychology at the University of Virginia, in Charlottesville says that programs that result in higher student grades tend to be those that "pay a lot of attention to who the students are. Bolsa Família is a macromanaged program that desires micro-level results. Although this study has found positive impacts on all aspects of educational outcomes, motivation and individual attention are two essential features of Bolsa Família that are lacking.

One way to encourage more learning, or create individual motivation for achievement, is to provide bonuses for performance or include academic performance as part of the conditions. In the Opportunity NYC program in New York City, families received a bonus transfer for meeting certain goals aside from attendance requirements. There were many ways for these bonuses to be earned and included items such as applying for a library card (\$50), taking the PSAT (Preliminary SAT/National Merit Scholarship Qualifying Test) (\$50) or improving standardized test scores (\$300 for elementary and middle school, \$350 for high school). The program

¹¹¹ Katie Ash, "Promises of Money to Heighten Student Motivation," *Education Week*, February 8, 2008, accessed March 20, 2011,

http://www.uboost.com/images/Promises_of_Money_Meant_to_Heighten_Student_Motivation.pdf, 3. 112 Ibid., 4.

also provided substantial bonuses for students to take a determined number of credits during the school year for on-time graduation (\$600) and for graduating with a defined amount of credits (\$400). The program also took into account the potential opportunity costs for parents and provided bonus transfers for attending parent teacher conferences or for reviewing their child's test scores (\$25 each). 113

Unfortunately, studies of the program only found significant changes with regards to academic outcomes among ninth graders who had previously met or surpassed minimum standards in eighth grade. 114 These students had a lower repetition rate, were less likely to repeat the ninth grade and to complete the minimum number of credits for on-time graduation and were more likely to pass "at least two Regents exams."115 Although the research on why the sophisticated bonus scheme was not more successful has yet to be produced, it can be argued that the system is overly complicated for low-income families and simply overwhelmed them.

In Brazil, the key would to keep the bonus structure simple so as to not overwhelm families who already find themselves in complicated situations due to their low socio-economic status. By including one or two clearly defined goals for additional bonuses, this would provide an incentive for students to work harder for better grades. For example, if the bonus was linked to a 5% increase on final grades. Parents may hold their children accountable for their schoolwork for fear of losing the bonus transfer. Also, a potential spillover effect is that parents would be compelled to participate in the education of their children and to demand more effective schooling to enable them to receive the bonus transfer.

¹¹³ Michelle Graciela Morais da Sá e Silva, "Conditional Cash Transfer Programs and Education: United in Theory, Divorced in Policy," (PhD diss., Columbia University, 2010), 58-59). 114 Ibid., 62. 115 Ibid.

A way to provide individualized attention to parents would be by encouraging or requiring conferences between recipient parents and their student's teachers. This is an effective way of opening the communication between parent and teacher.

Additionally by providing tutoring sessions after or before school sessions for students could provide the extra boost that low socio-economic status children may need given the probability that their parent's lack the skills necessary to effectively help their children with schoolwork due to their low academic attainment, as has already been stated in this study.

CONCLUSION

The educational system in Brazil has undergone significant changes in the last twenty years. Enrollments and attendance rates have increased, repetition and attrition rates have declined, and when broken down by income quintile or by region, there have been increases in academic performance both on national and international exams. The Bolsa Familia Program has had an essential role in increasing of equity of educational opportunity for all Brazilian students; urban and rural, rich and poor.

This study has shown that although Bolsa Família came to the forefront when universal enrollment had practically been achieved on a national level, since the program was expanded nationally, there have been measurable increases in attendance in the lowest income quintile, the group that Bolsa Família is designed to target. Bolsa Família is therefore a well-targeted program for the poor that provides families with an incentive to encourage their children to attend school.

Although changes are evident with regards to the learning achievement of the lowest income quintiles in Brazil, there is still significant variance in achievement inequality between different regions and income quintiles in Brazil. When compared to the international community using PISA scores, it is evident that overall national achievement is also lagging. Brazil has attempted to tackle issues of quality and equity through FUNDEF and the Education Act of 1996 but more effective reform is necessary. The government must continue to assess achievement and develop policies geared to increase student performance and educational opportunity for students of all socioeconomic backgrounds. In order to address these academic performance issues, this study suggests an amendment to the current Bolsa Família Program.

Incorporating a simple, clearly defined academic achievement component has the potential to increase student and parent concern for academic performance.

When looking at the Brazilian educational system the function of school has changed from the early colonial times. Recently, society has begun to reevaluate the importance of schooling and a number of non-profit organizations have grown up around tutoring and academic assistance to fill the gap currently left by the public school system. The following quote effectively sums up the hope for the future of education in Brazil. A teacher in Bahia said,

Parents identify school as strategic for their children. It's strategic, they can't afford to *not* attend school, and this is so obvious because of the high rates children enter and leave school. If you have a kid that repeats the first grade eight times, it's because it is very important to him or her. No one repeats anything eight times without thinking that it is very important. 117

What this teacher says demonstrates that there is desire for an education by the students and their families because they are aware of the future economic benefits. The findings of this study show that Bolsa Família not only helps to give these families the incentive enroll their children and then have them attend school, but that these children are promoted to the next grade level at higher rates and perform higher on standardized tests than children in similar circumstances without the grant. It is possible that the grant encourages parents to take a more active role in their child's education as a part of their real income is tied to their child at least attending school.

Additionally, and perhaps more importantly, Bolsa Família has generated debate not just between politicians and but also in bars and at bus stops about the issues of equity and quality that education faces in Brazil. This debate could prove to be a powerful voice in local and national level education reform. With help from external organizations and non-profits, the poorest in Brazil will hopefully realize their political potential and exercise their rights to the quality education that still eludes them. It is evident that all levels of government in Brazil must recognize and

¹¹⁷ Reiter, 364.

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¹¹⁶ The most notable example is that of the Ayrton Senna Institute, *Acelera Brasil*. See their homepage at http://senna.globo.com/institutoayrtonsenna/ for more information.

implement policies with the good of the general populace in mind, rather than sustaining elite-focused policies of the past. These policies must allow for Brazil to leave the history of inequality and social divisions behind and continue improving on the provision and more equitable distribution of quality education for its schoolchildren.

In conclusion, Bolsa Família has been an effective and important instrument for generating popular interest in education. The direct cash transfer to poor families encourages them to send their children to school and the data shows a real increase in the learning had by these students. These new skill sets have the potential to improve the future economic returns for these young Brazilians. These opportunities, which previously were unseen in the lowest income quintiles in Brazil, could prove to be the key to breaking the history of poverty and inequality that has plagued Brazil since the colonial era by providing for immediate needs of families, and thus providing the opportunity for children to come to school, *com a barriga cheia*, ready to learn.

APPENDIX A

PICTUES FROM RONDÔNIA, BRAZIL

Figure 1



A professor and her class. Presidente Médici, Rondônia.

Figure 2



Students holding the national and school flag before an activity.

Presidente Médici, Rondônia.

Figure 3



Students stretching before a walk around the city raising awareness of the importance of exercise for individual well-being.

Presidente Médici, Rondônia

Figure 4



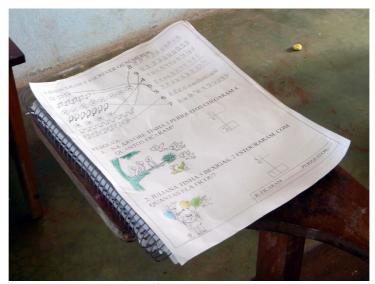
Students during *Merenda*. Castanheiras, Rondônia

Figure 5



A classroom. Castanheiras, Rondônia

Figure 6



An example of math classwork. Castanheiras, Rondônia

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