Going Beyond *Bolsa Família* to Solve Underdevelopment Problems in the Brazilian Northeast

Stephanie Gimenez Stahlberg Stanford University, USA

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Abstract

The Northeast of Brazil was the region with fastest growth in Brazil during its colonial period. However, for the last few centuries it has been the region most affected by poverty and underdevelopment in the country. Some of the challenges the Northeast faces include high poverty and illiteracy rates, poor infrastructure, lack of investment and job creation, poor quality of public goods and services, and governance and democracy problems. This paper describes these problems as well as if the largest conditional cash transfers program, *Bolsa Familia*, has the potential to overcome these challenges. *Bolsa Familia* has increased school enrollment rates and the number of clinic visits, but given the poor quality of these services in the Northeast, the region is missing an important opportunity to invest in human capital. The Northeast needs more than *Bolsa Familia*; it needs good policies and good governance for the region to really grow and develop.

I. Introduction

Although it has shown progress in recent years, the Northeast remains the poorest, most unequal, and least developed region in Brazil. The region that was once the center of attention in Brazil after its discovery by the Portuguese in 1500 has faced various challenges for a long time. Unequal distribution of land is an inheritance from colonial times, and it remains a problem in the region. Other challenges include low educational performance, poor health infrastructure, weak rule of law, clientelism and other problems with weak democracy, and a lack of investment and job creation. The *Bolsa Família* program has made great strides into decreasing extreme poverty and inequality, but how does it address these various challenges in practice? Many believe that *Bolsa Família* will bring development to the Northeast. However, the program was not designed to solve all of these developmental problems, but rather to increase school attendance, clinic visits and vaccination rates as an opportunity for human capital increase. The quality of public goods and services is therefore important for taking this opportunity and actually increasing human capital.

II. Poverty and Development in the Brazilian Northeast

The Northeast region is composed of nine states: Alagoas, Bahia, Ceará, Maranhão, Paraíba, Pernambuco, Piauí, Rio Grande do Norte and Sergipe (see Figure 1). The region was the first in Brazil to be colonized by the Portuguese, from which they extracted pau-brasil, a kind of tree whose liquid was used to dye clothes for the European nobility. Sugar production during colonial times made the region the most prosperous in the country until the seventeenth century. Because of its natural resources and crops production, it was the center of attention during the colonization of Brazil in the 18th century, with other colonial powers such as France and the Netherlands attempting many invasions and settlements. As a result of the attention and

importance it received, the region held the country's first capital - Salvador, in Bahia state – until it was moved to Rio de Janeiro in 1763.

French Guiana Roraima Atlantic Amapá Ocean Pará Amazonas Rio Grande Maranhão do Norte Paraíba Pernambuco Alagoas Tocantins Sergipe Rondônia Mato Grosso Federal Distric Goiás Mato Gross spírito Santo do Sul Pacific Ocean North Region Catarina Northeast Region Central-West Region Southeast Region South Region

Figure 1. Map of Brazil

Author: Felipe Menegaz. Source: Wikipedia.

The Northeast region is about the size of Mongolia and has a population size a little smaller than Italy's (over 53 million). In comparison to the other regions in Brazil, it has the third largest territory, the second largest electoral college (Tendler, 1997), and the lowest human development index (HDI). The HDI ranking for Brazilian states has all the nine Northeastern states included among the bottom 10. Maranhão state is at the very bottom with an HDI of 0.636 in 2000, much lower than the HDI for the top states on the list, Distrito Federal, Santa Catarina and São Paulo, all over 0.82 (UNDP, n.d.). The GDP per capita for the region was R\$7,720 in 2007, compared to \$22,060 for the Southeast region (IPEA 1). Figure 2 shows poverty rates for the country, with the Northeast and the Northern (Amazonian) regions having the highest rates. In some Northeastern states, almost half of the population lives in poverty. As measured by the

Braziilian government, the poverty threshold is equivalent to an income twice as large as the price of a food basket with the minimum amount of calories necessary for one person. According to this measure, 20,975,867 people in the Northeast were poor in 2009, which corresponds to almost 40 % of the region's population (IPEA 2).

Legenda
47,70
41,50
37,40
33,20
29,10
25,00
20,80
16,70
12,60
6,36
(%)
Omisso
Brasil -- Pobreza - taxa de pobreza - 2009(Malha estadual)
ipeadata

Figure 2. Poverty rates by state

Source: IPEA.

There is a region in Brazil known as "The Polygon of Droughts," which encompasses large areas of eight Northeastern states, plus small areas in the Northern parts of the Minas Gerais and Espírito Santo (Codesvaf, 2010). The only Northeastern state that is not included in this category is Maranhão, which borders the Amazon. This region is recognized by legislation to be prone to repeated crises of prolonged droughts, and as a consequence it receives special provisions from the public sector. It is a region of very high aridity levels, where the droughts continuously hurt agriculture and create severe social problems. These environmental challenges are especially stronger in regions farther away from the coast, and especially in the *sertão* region, where rain is more scarce (Codesvaf, 2010).

These environmental circumstances help explain the situation in which the Northeast of Brazil finds itself today. The region's geography and environmental challenges have contributed to the emergence and maintenance of some governance problems (e.g. "the drought industry"), which will be explained later on. The following section covers the *Bolsa Família* program.

III. Bolsa Família

Since the early 1990s, the Brazilian federal government has been trying to alleviate poverty through social programs such as *Bolsa Escola, Bolsa Alimentação, Cartão Alimentação* and *Auxílio Gás*. In 2003, President Lula created *Bolsa Família* by combining these existing programs, and expanding the number of beneficiary families every year. *Bolsa Família* is designed for poor families with a per capita monthly income of R\$140.00 (approximately US\$80.00) or less. The town governments distribute the federal benefits, and they vary according to the income of the family. The maximum monthly benefit a family can earn is R\$200.00 (MDS 1). This extra income can provide families living in poverty with the ability to buy basic goods such as food and warm clothing.

There are a few requirements for a family to be eligible for the benefits of *Bolsa Família*. Besides the maximum income per capita already mentioned, children have to be enrolled in school and attend class for at least 85% of the time (Soares, 2006). Families with very low incomes often have their children help with household tasks and/or the father's main activity, such as harvesting crops or shining shoes. But the extra income provided by *Bolsa Família* can help families send their children to school instead of work. Another requirement is that children under 6 years of age take all vaccines recommended – and provided for free – by the government. Many poor children die from diseases that could have been prevented if only they

had been vaccinated. The third eligibility requirement is that mothers-to-be and mothers who are still breastfeeding visit a clinic or hospital regularly for check-ups (Soares, 2006).

Bolsa Familia's focus is people living under extreme poverty. The goal is to eliminate poverty in general, but starting with those who need most immediate help. Through the educational and health conditionalities, in essence investments in human capital, the program seeks to break the intergenerational transmission of poverty. With a little more time we will know if Bolsa Familia is really breaking this cycle. A startling accomplishment that can already be seen is its contribution to the reduction of income inequality in Brazil, a country that has long been marked by large gaps in income among its richer and poorer groups (see Figures 1 and 2 in the appendix). A 2007 study found that conditional cash transfers programs have been surpassed only by labor income in decreasing inequality, but their contributions are disproportionally higher when we take into account how much they cost: with a share of 0.5% of total income, the programs were able to account for 21% of the total fall in inequality in Brazil (Soares et. al, 2007). Bolsa Familia is Brazil's largest conditional cash transfer programs, and also the largest program of its kind worldwide (Castiñeira et. al, 2009).

Most of the recipients of *Bolsa Família* are families from the Northeast: 6,481,884 families out of 12,769,155 for the whole of Brazil (MDS 2). That is, 50% of recipients live in one of the four Brazilian regions, where 29% of Brazilians live. Figure 3 shows the number of families enrolled in the program in December 2008, by state. The states with the largest number of participant families are in the Northeast and São Paulo and Minas Gerais in the Southeast, which are the two most populous states in the country.

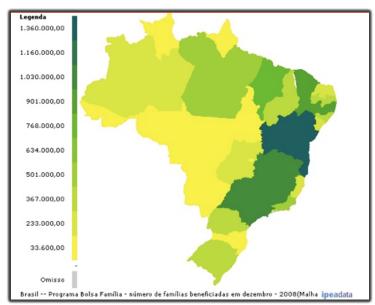


Figure 3. Number of families enrolled in Bolsa Família – 2008

Source: IPEA.

In the next two sections I investigate whether *Bolsa Família* has been able to improve people's educational attainment and health status, and I evaluate the quality level of these services in the Northeast in comparison with the rest of Brazil.

IV. Education

The quality of education in Brazil, as measured by international tests and in comparison to other countries around the world, is disappointing. In international exams in mathematics and reading literacy, Brazilian students repeatedly score below students from other Latin American countries, such as Argentina, Chile, Costa Rica, Mexico and Uruguay (Hanushek and Woessmann, 2009). Eric Hanushek and Ludger Woessmann (2009) measured literacy in cognitive schools by taking a test-score performance of one standard deviation below the OECD mean (400 points on the PISA score) and depicting it as a basic level of functional literacy in mathematics and science. By these measures, less than 5% of students fall below this threshold of basic literacy in countries such as Japan, the Netherlands, Korea, Taiwan and Finland. In

comparison, of those Brazilian students who stayed in school until age 15, 66% do not reach such a level of basic literacy in cognitive skills. In terms of functional literacy, only one in ten Brazilians in their late teens can be termed functionally literate (ibid).

In this gloomy scenario where Brazil is an underperformer when compared to other countries, the Northeast region is an underperformer when compared to other regions in Brazil. The Northeast has the highest percentage of illiterate people in the country (see Figure 4), and in some states one in every 4 people are illiterate. The disparity between the Northeast and the other regions is clear on the colored map. Consider the opportunities that an illiterate person has of a good career and how much he/she can contribute to the region's development. In addition, those 3 out of 4 people who would be considered literate are not necessarily functionally literature – recall what was mentioned before, that most Brazilians do not meet functional literacy and basic cognitive skills standards. Most of the Brazilians who are able to read and write did not receive an education that is good enough for them to be able to do advanced practical and intellectual work. Well-educated Brazilians are even fewer in the Northeast.

Figure 4 – Percentage of illiterate people

Source: IPEA.

| Legenda | 23,20 | 22,00 | 3,41 | 8,72 | 8,26 | 7,80 | 7,34 | 13,40 | 6,88 | 6,42 | 3,10 | 6,42 | 3,10 | 6,95 | 3,73 | 4,81 | 6,95 | 3,73 | 4,81 | 6,88 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6,95 | 6

Figure 5 – Average years of study (25+y.o.)

Source: IPEA.

Northeasterners also have the lowest numbers for average years of study for people who are now 25 years old or older (see figure 5). In some states, the average is less than 5 years.

Again, the disparity between the Northeast and the other regions is clear.

The Northeast's dismal performance in education is very important because of the role that high-quality education has in spurring growth and development, as shown by previous research. William Easterly, for instance, includes inadequate public services as one of the government actions (or inactions) that create poor incentives for growth – the others are high inflation, high black market premiums, high budget deficits, strongly negative real interest rates, restrictions on free trade, and excessive red tape (Easterly, p. 239, 2002). Education can also have a strong effect on poverty rates. Prof. Luiz Honorato da Silva Júnior from the Federal University of Pernambuco found that the single most important determining factor for whether an individual in the Northeast will be poor is level of education. A man with a college degree has a chance of less than 1% to be poor, while a man who has never studied has a 70% chance. The poorest people in the Northeast were found to be female, non-white, from the agricultural sector, over 60 or under 20 years of age, and who have never had any formal education (UFPE, 2006).

Bolsa Família requires children from beneficiary families to attend school, and its effect on education has been measured by some studies. Using school census data from 1998 to 2005, Glewwe and Kassouf (2010) created a panel of public schools for grades 1-8 to examine the impact of Bolsa Família on children's progress in school. The authors compared changes in enrollment, dropout, and grade advancement rates to find the effects of Bolsa Família. They estimate, after accounting for cumulative effects, that Bolsa Família has increased enrollment rates by 5.5 % in grades 1-4 and by 6.5 % in grades 5-8. The authors found that the program has lowered dropout rates by 0.5 % for children in grades 1-4 and 0.4 for grades 5-8 (Glewwe and

Kassouf, 2010). Because only about a third of Brazilian children receive benefits from *Bolsa Familia*, and it is reasonable to assume that the program has affected participants only, the authors argue that actual effects that the program has on education could be three times as high. That is, the long-run effects of the program seems to be an increase in enrollment rates by 18 %, and to reduce dropout rates by 1.5 % (Glewwe and Kassouf, 2010).

A study conducted by the International Food Policy Research Institute (IFPRI) found that *Bolsa Familia* increases school enrollment rates by 4.4%, with the highest rate being for the Northeast region at 11.7%. The program is helping the Northeast catch up with the other regions in terms of educational achievement. *Bolsa Familia* has an especially important effect on students of ages 15 and older, who are 19% more likely to stay in school when their families are enrolled in the program (Hoddinott, 2010).

Given that the main barriers to school enrollment are the direct costs (school fees, books, uniforms, transportation) and the opportunity cost of time in school – i.e. time that could have been spent working paid or unpaid jobs – it is not surprising that an increase in families' income sends more children to school. The interesting question to ask is whether these children are being well educated and schooling will make a significant difference in their adult lives. The Silva study mentioned earlier shows that formal education makes Northeasterners less likely to be poor, probably because they take the best jobs available in the region. Nevertheless, given the quality of education provided by schools, these children are not likely to be well-educated enough to greatly contribute to the region's and the country's development. *Bolsa Familia* is increasing school enrollment and attendance rates, and the opportunity to invest in these children's human capital should not be missed. For the Northeast to really do better and for development to take off, the Brazilian government has to improve the quality of education.

V. Health and Nutrition

Health services in Brazil are also of poor quality, which is confirmed by the recent UNDP calculations of the Índice de Valor Humano (Human Values Index). The index was calculated based on interviews with Brazilians from 24 out of 26 states, and measures people's satisfaction with health services, educational services, and work life. Brazil has a combined HVI of 0.59 but only 0.45 for HVI - health. More than half of those interviewed believe that the waiting time for health services is lengthy, only 27.1% say that it is easy to understand what health professionals tell them, and 30.7% say these professionals have an interest in helping patients (UNDP, 2010). Once again, the Northeastern region performs worse than the national average and most other regions: its HVI is 0.56, compared with 0.59 for all of Brazil.

Besides poor quality of health services, Northeasterners also face problems with coverage and access: the average number of doctors per 1,000 people in the Northeast is as low as 0.31 in some states. The highest for Brazil is 2.24 in Espirito Santo and Distrito Federal (IPEA data). Not surprisingly, people in the Northeast also have the lowest life expectancy in Brazil: 69 years, behind the Brazilian average of 74.9 by almost five years (Minha vida, 2010). Although infant mortality rates have significantly decreased in Brazil in recent times, the underreporting of infant mortality may be as high as 40% in some Northeastern states (Minha vida, 2010).

Bolsa Família is not intended to improve the quality of services, but rather to increase use by imposing the conditionalities. The same IFPRI study that investigated the effects of Bolsa Família on education also measured its effects on health. The results show that Bolsa Família increases doctor visits for pregnant women: in 2005 non-beneficiary expecting mothers visited the doctor more often, but in 2009 program beneficiaries visited doctors 1.5 times more than their counterparts whose families are not enrolled in the program (Hoddinott, 2010). This effect

leads to healthier mothers and healthier babies. Older children were also impacted: the nutritional status of children aged 6 and under whose families are *Bolsa Familia* beneficiaries improved in relation to international standards for height and weight. The author of the study argues that the impact on height can be directly caused by *Bolsa Familia* and its magnitude was of approximately 0.4 standard deviation (Hoddinott, 2010). With some extra income, families are able to buy more food for the children, improving their nutritional status and development.

The program also increased by 15% the likelihood that a 6-month-old child will receive all necessary vaccines. Nevertheless, the proportion of children who receive all necessary vaccines on time remains low, for all families regardless of enrollment in *Bolsa Familia* (Hoddinott, 2010). This fact underlines the poor coverage problem mentioned previously. In addition, although most *Bolsa Familia* beneficiaries claim they have no difficulty in meeting the conditionalities as a whole (81% for Brazil as a whole and 78% for the Northeast), 12% of people in the Northeast say they face difficulties in meeting the health conditionalities – hospital visits and vaccination (Hoddinott, 2010). The author of the study does not explain the reason for these difficulties, but it is likely that it is because of hospital locations (poor coverage) or understaffing. Only 6% of beneficiaries from the Northeast said they faced difficulties meeting the educational conditionalities.

Studies measuring the impact of the *Bolsa Familia* program on the nutritional status of infants and young children show mixed results. The Ministry of Social Development (MDS) found that the program has significantly reduced chronic malnutrition among children of 6-11 months of age, and malnutrition among children younger than 5 months. However, the MDS study found no significant effect found for children 12-36 months old, a critical age for children's development (Castiñeira et. al, 2009). Other studies have also found that the program

does not seem to significantly improve the nutritional status of children (Castiñeira et. al, 2009). These mixed and disappointing results are a problem because the first 1,000 days of a child's life have been proven to be very important for her mental and physical development. Well-fed children do better in school, are more likely to stay in school, and have higher wages as adults (Baragona, 2010). Therefore, good nutrition in early life is key to reduce poverty by contributing to people's growth and development.

Bolsa Familia so far lacks positive results in terms of health status and modification of unhealthy habits. Among different causes, the existence of barriers on the supply side appears to be the most important limitation for obtaining better results. The positive impact of the program on both education and poverty reduction however, allows for predicting improvements in health status in the long run (Castiñeira et. al, 2009). The program may have a positive impact on the nutritional status of beneficiaries simply because of a raise in the families' income, even if there are no conditionalities related to nutrition and health. For instance, a study done by the Instituto Brasileiro de Análises Sociais e Econômicas (IBASE) reports that 73% of families interviewed say the amount of food they consume has increased due to the *Bolsa Família* program. In Recife, 83% of *Bolsa Familia* beneficiaries interviewed said that they spend most of their benefit money on food (Castiñeira et. al, 2009). However, there is a problem with the types of food that families are consuming: the increases are greater for industrialized and sugary foods, rather than fruits and vegetables (see figure 3 in Appendix). This means an increase in calories but with a lower nutritional value than a diet rich in fruits and vegetables. These food choices could be a result of a lack of good nutritional information or the relatively lower prices of less-nutritional food items.

If the reason for bad food choices is lack of nutritional information, an option is to include nutritional education as part of the program's conditionalities. Thailand was able to

significantly reduce child malnourishment in the 1980s by teaching people about diversity in the diet and good habits while distributing food (Baragona, 2010). Families with young children should be better informed about what foods their children need and in what amounts. Given the scope of *Bolsa Familia*, it will help many families if it passes on this kind of information, and it will make those children less likely to be poor adults.

Reiterating Easterly's point, poor quality for public services such as hospitals, clinics and schools, work as an impediment to growth and people's development. In order for the Northeast to be able to develop, the region needs better health services and wider coverage for its residents. *Bolsa Familia* can increase the number of doctor visits but if there is no investment in improving the quality of service, and expanding the array of services available for free, poor health will keep hindering the potential of people in the Brazilian Northeast. Funds and good policies are necessary to improve the health scenario as well.

VI. Infrastructure, Investment and Jobs

Bolsa Família was not designed to address infrastructure, investment and job issues, but because of its impact on reducing poverty, its effects on these areas can also be analyzed. The quality of infrastructure in the Northeast is low: traveling in the region by car or bus is deemed unsafe and inconvenient by many Brazilians. The Northeast has 394,700 kilometers of highways, which are generally in a very precarious state (Cultura Nordestina, 2006). Poor road quality significantly increases transportation costs and hinders development. For instance, William Easterly found that in Pakistan the poor quality of roads, where there are any, raises transportation costs by 30-40% (Easterly, 2002). The railroad system of the region is in no better shape. In terms of airport infrastructure, some of the largest cities in the region, such as Recife, Salvador and Fortaleza, provide adequate services (Cultura Nordestina, 2006). These are the

cities that receive millions of tourists annually, and have some direct connections for international flights.

The impact of investments in transport and communications has been estimated at 0.6 percentage points of increased growth by every percentage point of GDP made in such investments. The rate of return to infrastructure projects averages 16 to 18% per year. The returns to maintenance spending on existing infrastructure (e.g. road maintenance) can be as high as 70% (Easterly, 2002).

With these kinds of expected growth rates that come out of investments in infrastructure, the Northeast has a strong potential to spur growth. Unfortunately, much of the important funds allocated to infrastructure are diverted and are never spent on the necessary projects, as explained later with the discussion of the "drought industry." Good infrastructure, which will create jobs during the construction and after, and attract investment, is necessary for the region's development. *Bolsa Família* can have an effect on this front if it is able to affect governance, and make leaders more likely to invest in public goods. As I explain in later sections, it does not seem likely that the program and/or its beneficiaries will improve their leaders' governance any time soon.

VII. Governance, Rule of Law, and Democracy

Improvements in education, health services, and general infrastructure in the Northeast need good policies and good will from the leaders. *Bolsa Família*, by itself, will not improve the quality of services in these areas. Unfortunately, the Northeast region is not famous for good governance; on the contrary, one of the reasons why the region has lagged behind others has been bad governance: the presence of leaders more interested in acquiring private goods than providing public goods for development.

A good example of the kind of governance problems the Northeast faces is what is referred to as the "drought industry." This term denotes the planning of political and economic groups from the Northeast region to take advantage of the drought phenomenon for their own benefit. These groups are composed by *latifundiários* (owners of large plots of land) and their political allies. These groups receive donations from other states with the purpose of fighting the droughts – parts of these funds come in because of legislation recognizing the "polygon of droughts." Instead of fighting the droughts, these groups use the money for themselves and for improving their private lands. They then commonly argue that the states' debts cannot be paid because of the economic effects of the droughts (Passeiweb, 2007). Many of the resources allocated to help the people hurt by droughts never reach them, and instead benefit local elites. These powerful groups have an incentive not to implement good policies to fight the droughts and spur development, because it benefits them that the region is in this desperate state.

In addition, products that are sent to drought-affected areas are used by local elites as vote-buying goods. The government gives the products to the *latifundiário*, who then passes on these goods to the workers and asks them to vote for the politician who donated them (Passeiweb, 2007) - clearly a form of clientelism.

Clientelism can be defined as of two kinds: prospective, which involves promises of postelection benefits, and retrospective, which involves only pre-election benefits (Nichter, 2009). The prospective kind of clientelism can be found in Northeast Brazil in the form of "declared choice": because of ballot secrecy a voter has to use other means of showing intention to vote in the candidate, which include public support (stickers on the windows, wearing t-shirts) for the candidate before the election. Interviews and studies have shown that those who supported the candidate/party in power in the municipality are much more likely to receive favors than those who did not display public support or supported another candidate (Nichter, 2009). The favors can come in the form of jobs, use of scarce ambulances, ordering medicine, and others. In sum, supporters have easier access to public services, goods and employment (Nichter, 2009).

Publicly supporting a candidate is then a risky strategy, because in case your candidate loses the election the winning party will favor their supporters over you. When you publicly support a losing candidate you will only lose. People refer to "marcação," which means labeling, to explain how the winning candidate labels and disfavors the declared opponents (Nichter, 2009). As the mayor of a 60,000 people municipality put it:

"Many undecided people are afraid of saying who they're going to accompany or vote for, because if you say you're going to vote for someone who loses, the other labels. You become labeled. You're on that side, so here you don't have a chance. Because the person who takes office should really govern for everyone, but doesn't govern for everyone. He governs for everyone in what's possible. But with advantages, he only governs for those who accompanied him. For example, if there's a job, I'll look at who voted for me. I'm going to give another example that is disgraceful, that's even vulgar, that's inhumane, but is true. You voted for me, he voted against me. A car happens to flip and there's one of your relatives and one of his relatives. And the two need to go urgently to Salvador [distant state capital], and the ambulance only transports one. His doesn't go, yours goes first, you understand?" (Nichter p. 19, 2009).

In terms of employment, by law mayors cannot hire or fire permanent public employees, who are chosen by competitive exams. Nevertheless, people report that mayors punish those who did not vote for them in different ways: e.g. by taking teachers from a higher position and putting them in a lower one, or taking them from the center of the municipality and sending them to work in the countryside, far away from their families. In terms of temporary employment, people report that opponents' supporters do not have access to many temporary employment opportunities (Nichter, 2009).

The problem that this clientelism creates for democracy in the Northeast is that voters end up choosing candidates who are going to provide them with the largest personal benefit, to the

detriment of society's development as a whole. Given that the goods and services handed out as favors are very important to the population, and especially to the poor who rely on public goods and services, people use their vote to guarantee benefits to themselves. Whether the candidate is likely to promote growth to end the poverty and clientelism cycles is a different story. Voters are less likely to ask questions and demand policies and progress when they are being favored by the government. Thus, elections in the Northeast are not promoting good governance and development, but rather clientelism and private benefits. This system creates a cycle where leaders want to keep people poor and dependent on them.

The fact that clientelism hurts democracy, by making people select leaders who keep them dependent and disempowered, is also worrying because an improvement in the quality of democracy in the region can enhance economic development. Although the evidence on the relationship between economic development and the kind of government (more or less democratic) is mixed, there are certainly some aspects of democracy that can enhance growth (Diamond, 10/25/2010 lecture). In a democracy, fostering economic growth and development is important for leaders because they may be replaced if they do not do so (the "performance test"), and also because the government survives on tax revenues, which should increase when there is economic growth. The stronger, more predictable and more transparent institutions of a high-quality democracy also enable investment- and innovation-prone environments, which are important engines for growth. In addition, catastrophes such as famines and state collapse are much less likely to occur under a democratic government, and this kind of government is also more likely to correct rent-seeking problems (Diamond, 10/25/2010 lecture). Governance and social problems, such as rent-seeking elites in "the drought industry," plague the Northeast. More

democratic institutions and leaders can help the region take some steps forward in the direction of development.

In terms of how Bolsa Familia relates to these clientelism problems, one way is that the program can make leaders less responsive to people's needs. While the people believe or are led to believe that the opposition would cut their Bolsa Família benefits, they will not wish to change governments. People are also less likely to demand and expect growth and development when they are getting monthly stipends (redistribution). One might think, however, that Bolsa Familia can play a role in reducing clientelism by raising people's incomes. As their incomes increase, people do not have to rely as much on government-provided services and goods. Brazilians who can afford private healthcare and education choose them over public services, and hence they become less dependent on the government for basic services. Bolsa Familia can decrease this dependence but only to a certain extent: the monthly stipends that beneficiaries receive are enough to lift them out of extreme poverty, and help them pay for goods and services, but not enough to actually make them independent from the government. Bolsa Familia beneficiaries usually do not earn enough to afford private education and healthcare, which tend to be expensive in Brazil. Therefore, beneficiaries will still be dependent on the government for basic services. Depending on the level of influence the local government has over jobs in the municipality, if for example the politician has a lot of friends and/or relatives who own businesses, they can keep people dependent on them for jobs as well. In terms of scarce medicine, an extra income might not be enough to guarantee equal and fair access for everyone, including supporters and opponents. Therefore, in the short term, while families still have low incomes, Bolsa Familia cannot help eliminate the clientelism problem.

In addition to democracy, rule of law is also connected to good and effective governance. Rule of law can be minimally defined as having clear rules of the game that are consistently applied to everyone. A definition of rule of law that promotes economic development goes beyond this to also include recognition of private property rights, freedom to contract, securities laws, transactional transparency, good corporate governance, stock markets, antitrust laws, and the like. These laws and institutions are important to set economic forces free. A third, more comprehensive definition, includes the recognition and protection of rights identified as human rights, such as freedom of speech, of association, of religion, the right not be discriminated on the basis of sex, race, nationality, ethnicity, and the right to due process. If one includes the right to participate in governance as a human right, as is acknowledged in the Universal Declaration of Human Rights (Art. 21), then true rule of law requires something like democracy in other to be complete (Casper, 2004).

Politics in the Northeast of Brazil has, most clearly, problems with protecting the freedom of speech and of association – exemplified by the labeling and clientelism problems. The problem is not that people cannot express satisfaction or dissatisfaction with governments and policies, or join/support an opposing party, but that if they do so they will be labeled and disfavored. Opponents' supporters do not receive the same treatment as supporters.

The rule of law in the Northeast also displays weakness in trying to contain violence and robberies. The times of *cangaço*, when armed groups invaded towns for robberies and disappeared fast, may be reoccurring in the Northeast of Brazil. Now the criminals, known as *cangaceiros*, carry heavier guns and target larger sums of money held at banks. Small towns in the countryside are especially vulnerable, where the presence of the police and other law officials is scarcer. Although their presence is the largest in the Northeast of Brazil, these groups are

connected to the criminal factions of organized crime operating around the country. The violence therefore spreads to other regions, because part of the money obtained from robberies – which sometimes exceeds one million reais – is used to finance gangs in the urban areas. The situation has become so serious that some agencies of the largest bank in Brazil, Banco do Brasil, have downsized their operations and are considering shutting down if the government cannot guarantee safety (Alves Filho and Almeida, 2009).

A study called Mapa da Violência, which maps violence and violent crimes across the country shows that four Northeasterner cities are among the top 10 cities in terms of number of homicides: Recife, Salvador, Maceió and Fortaleza (see Figure 8). These cities have much smaller populations than São Paulo and Rio de Janeiro (last column from the right, in thousands), which top the list. Thus when looking at the homicide rate, i.e. number of homicides per 100,000 people, we find that Maceió and Recife top the list (second-to-last column from the right).

Figure 8. Municipalities with the highest number of homicides in 2006.

Tabela 2.6. Os 200 municípios com maior número de homicídios na população total em 2006. Brasil.

Ordem	UF	Município		Número	Taxa	Popul.			
			2002	2003	2004	2005	2006	Homic. 2006	em 2006 (miles)
10	SP	São Paulo	5575	5591	4275	3096	2546	23,7	10761,2
2°	RJ	Rio de Janeiro	3728	3350	3174	2552	2273	37,7	6025,0
30	PE	Recife	1312	1336	1352	1324	1375	90,9	1512,8
49	BA	Salvador	585	730	739	1062	1176	41,8	2812,5
50	MG	Belo Horizonte	979	1329	1506	1293	1168	49,2	2376,0
69	AL	Maceió	511	520	559	620	899	104,0	864,3
79	PR	Curitiba	530	612	693	778	874	49,3	1771,8
8°	CE	Fortaleza	707	666	654	808	847	35,4	2389,7
90	DF	Brasilia	744	856	815	745	769	32,1	2393,1
10*	RJ	Duque de Caxias	655	703	605	710	686	82,6	830,4

Source: Waiselfisz, Julio Jacobo. Mapa da Violência dos Municípios Braileiros, 2008.

The Northeast faces all these challenges from weak democracy and rule of law, and the small increase in families' incomes that *Bolsa Familia* can provide does not seem likely to

change this scenario. Once again, more than *Bolsa Família* will be needed, and we go back to good governance as the best way to achieve improvements in these areas.

VIII. From Good Governance to Growth and Development

Good governance denotes the use of public resources to advance the public good, such as investing in human and physical capital – roads, schools, bridges and clinics (Diamond, 10/25/2010 lecture). Bad governance and corruption, on the other hand, waste, drain and divert public resources, which are so precious in poor regions. Features of bad governance include generating private goods for the ruler and his kin and cronies, and to have goods distributed through patron-client relationships. The purpose in this case is not to generate public goods for development (Diamond, 10/25/2010 lecture).

There is a growing literature on the linkages between good governance and growth, and Brian Levy and Francis Fukuyama (2010) lay out four possible ways in which these linkages might play out: 1) State-capacity building improves public sector performance and credibility for investors, leading to accelerated growth; in the long run political institutions are strengthened and civil society is formed; 2) The reshaping of political institutions to enhance accountability and reduce the potential for arbitrary discretionary action can also shift expectations in a positive direction and lead to accelerated growth; 3) Setting an initial focus on growth, and addressing specific capacity and institutional constraints as they arise to achieve 'just enough governance'; 4) Bottom-up development by engaging civil society for stronger state capacity, lower corruption, better public services, and improvements in political institutions more broadly to unlock constraints on growth. Although the link between governance and growth is acknowledged by many scholars and practitioners, there is some disagreement about the direction of causality; for instance, Sachs maintains that governance is endogenous to growth,

while Easterly has argued that the causality goes the other way (Levy and Fukuyama, 2010). It seems likely that the causality is bidirectional and self-reinforcing, particularly with better governance leading to higher economic growth.

Francis Fukuyama states that there are four areas in which improvement is necessary in Latin America, and all of them are related to governance: economic policies, institutions, attention to politics, and smart social policy. Replacing bad policies with good policies is an important component of economic development; the challenge is that a change in policies can cause political problems (Fukuyama, 2008). As was shown before, the Northeast of Brazil has elites who have been empowered for a long time and who would not be happy to see policies which would diminish their power and rents. Good factors for economic growth are not only good policies but also the political institutions that lie behind the policies, and which are essential to break through the political cloud and implement policies that might upset elites but are good for growth.

Fukuyama's work compares the different outcomes for the US and Latin America, and he argues that their different colonial experiences are one of the main explanations for diverging outcomes in the two regions. While in the US many of the colonizers were settlers interested in making the US a good nation to live in, in Latin America most of the colonies were for exploitation with limited settlement. The institutions put in place then differed party because the objective of the colonizers differed. The US had a much broader class of property owners in the form of family farmers, while in Brazil and the rest of Latin America there was a large group of marginalized citizens and a small elite interested in perpetuating itself (Fukuyama, 2008). The initial social hierarchy in Latin America during colonization kept the local population

disenfranchised, with no property rights, and with no rights to participate in the political system or make demands (Fukuyama, 2008).

A similar variation of institutions can be seen within Brazil, where the Northeast was the first region to be colonized and was exploited to an extent where much of its land has become arid and unproductive. The South and Southeast, on the other hand, received many more settler immigrants, particularly during more recent centuries – the same time when the two regions began to develop faster than the others. It is possible that part of the divergence among the Brazilian regions can be explained by the fact that the Northeast was less colonized for settlement and more for exploitation than its Southern counterparts. Parts of the Northeast still show characteristics of the social hierarchy of colonial times: a small part of the population owns most of the land and the poor, although now enfranchised, are strongly influenced and pressured when electing leaders and showing support. As explained earlier, clientelism still exists and Bolsa Familia is not likely to cure the region from this disease. Social inequality is also still present and it directly affects economic development by keeping the poor dependent on their governments, and by giving public officials an incentive to keep the people poor and dependent. Social inequality also leads to a shortage of educated workers (Fukuyama, 2008) and keeps competition low among high-skilled workers, which are bad for development. Greater investments in skills and education, and greater accessibility to these resources for all, is very important for the region's growth.

The Northeastern states must also build state capacity to deliver at least basic services to all of the population. The region can learn from Latin America's experience with development-enhancing policies, such as fiscal discipline, strong rule of law, pursuit of foreign investment and conditional cash transfer programs, as well as policies to be implemented by the federal

government, such as realistic exchange rates, openness to trade, and reduced inflation rates (Diamond, 10/25/2010 lecture, citing Francis Fukuyama). Brazil has been doing well with the last three (federal) policies, but the Northeast region has not been doing well with the policies that can be implemented at the more local level. Like many other state governments in chronically underdeveloped regions, the nine Brazilian Northeast states have long practiced clientelistic ways of governing, resulting in poor quality of public administration (Tendler, 1997).

However, the region has also had experiences with good governance. After a consistent history of mediocre performance, a reformist governor, Tasso Jereissati, and his successor, Ciro Gomes, in the Northeastern state of Ceará showed that good reforms are possible. Jereissati initiated a successful preventive health program called Programa de Agentes de Saúde (PAS) in 1987, and prior to this date Ceará's indicators of health and access to health services were among the worst in Latin America. The rate of infant deaths was double that of Brazil's, vaccination coverage for measles and polio was 25%, only 30% of municipalities had a nurse, and mayors gave out ambulance rides and medicines to relatives, friends, and constituents in exchange for political loyalty (Tendler, 1997). PAS was implemented at the beginning of Jeressaiti's administration, and it was formulated as an employment-creation program at a time of emergency drought. As a result of its success, the state government continued to fund it after the emergency period ended. A large force of low-paid and low-skilled health workers visit all homes in their communities once a month. Although the health workers' job role only included preventative health counseling, it was found that many workers also voluntarily assisted with curative care (Tendler, 1997).

Some of the good-governance measures the governor put in place, which ensured the success of the program, included keeping control of important aspects, such as the hiring of the majority of workers. Local governments would only hire two to four nurse supervisors, while all other workers, sometimes as many as forty in one community, were hired by the state government through a merit-based selective process. The merit-based hiring process for this desirable job had a major impact on the way workers and users viewed the program, and it contributed to workers' commitment to the job. To make good use of funds, the governor required municipal governments to use the funds sent from the federal government to hire the nurses and pay for some of the other costs. State funds for the program were kept away from municipalities and even from the Department of Health itself – they were all held in an account in the office of the governor (Tendler, 1997).

Ceará mayors had an incentive to participate in PAS because they could take credit for a successful health program and gain politically. Locals were hearing about this program being conducted next door and pressured their mayors to join in. The state government essentially started a dynamic in which the old-patronage system was replaced with a more services-oriented one (Tendler, 1997).

Governor Jeressaiti faced political opposition from those who did not want reforms, but the program was successful among the public and had great results: infant deaths had declined by 36 %, vaccination coverage for measles and polio tripled to 90 % of the population, and virtually all municipalities had a nurse and a public health program. For its health accomplishments, in 1993 Ceará became the first Latin American government to win the UNICEF's Maurice Pate prize for child support programs (Tendler, 1997). The state has continued to lead in health achievements, and also serves as a model in emergency employment programs, agricultural

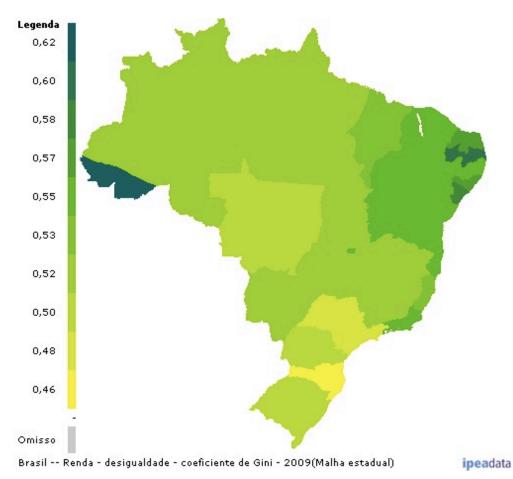
extension and productivity, and assistance to small enterprises. The kind of good governance shown in Ceará is necessary to accompany *Bolsa Família* in all Northeastern states, so that the opportunities that the cash program opens up are fully enjoyed by the people.

IX. Conclusion

Bolsa Família is helping more children go to school and increasing the number of clinic visits, but if the quality of education and health services in the Northeast is not improved, the region will miss an important opportunity to invest in human capital. Governments in the Northeast have historically displayed a low interest in the region's development, but some recent examples show the difference that a good leader with good policies can make. Good governance with a focus on providing public goods for development is key to address the region's various challenges and set it on a path to really grow and develop.

Appendix

Figure 1. Distribution of income in Brazil – Gini Coefficient.



Source: IPEA. www.ipeadata.gov.br

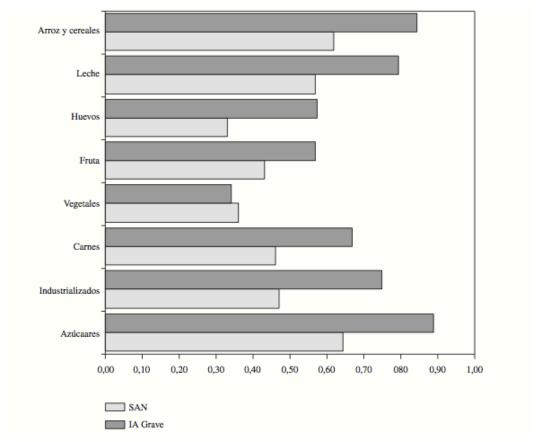
Figure 2. Gini Coefficient over time.

Country											
Name	1984	1986	1992	1996	1998	2000	2002	2004	2005	2006	2007
Brazil	58.43	58.13	57.37	59.19	59.23		58.23	56.99	56.39	55.8	55.02
Argentina		44.51	45.35	48.58	49.84		52.52	51.28	50.03	48.81	
Mexico	46.26		51.06	48.54	48.99	51.87	49.68	46.05		48.11	
United											
States						40.81					

Source: Data from World Bank - World Development Indicators.

Figure 3. Increase in the level of consumption of select products, according to level of food security.

Aumento en el consumo de grupos de alimentos seleccionados, según nivel de inseguridad alimentaria (SAN: seguridad alimentaria y nutricional) 22



Source: (Castiñeira et. al, 2009).

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