

Quality of Institutions on Education Policy Programs

WHAT DOES MAKE DIFFERENCE IN BRAZILIAN EDUCATION POLICIES?

Very Preliminary Version!!!!

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1. INTRODUCTION

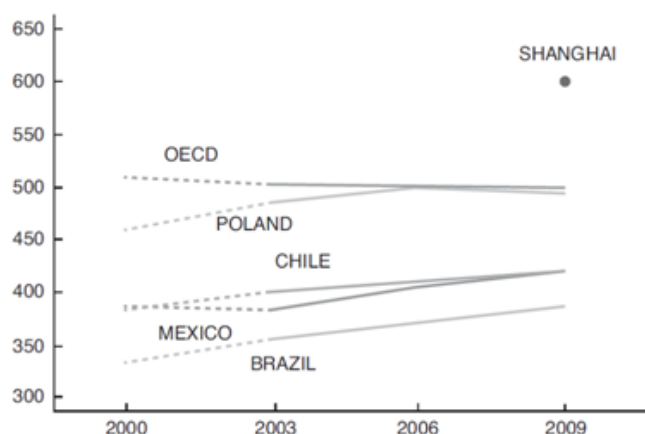
The benefit a country can extract from good education is a general consensus nowadays. The most important examples of countries that achieved economic development in the recent decades – South Korea, Taiwan, Singapore and Hong Kong – are associated to robust investment in primary education. So, improving the quality of education is the key to break the underdevelopment and to reduce inequality and social exclusion.

Bruns, Evans and Luque (2012) identified many positive externalities of education. For these authors, a good system of education may lead to:

(1) developing the labor force skills for sustained economic growth; (2) contributing to poverty and inequality reduction by providing educational opportunity for all; and (3) transforming education spending into educational results, especially student learning. (Bruns; Evans & Luque, 2012)

Analyzing the Brazilian context, Menezes-Filho (2001) demonstrated that education is responsible for 26 percent salary difference between educated and not educated workers, and 40 percent of this gap when we weight by the number of hours worked. These numbers have generated growing concerns when one takes into account the most recent data on education in Brazil released by the Program for International Student Assessment - PISA in 2009. PISA reveals that Brazilian students perform rather poorly in comparative perspective, ranked 54th position among 65 countries. The Figure 1 shows that, although Brazil has improved its score on PISA in the last decade, its outcome is still worse than other developing countries like China or Poland as well as other Latin American countries such as Chile and Mexico.

Figure 1: PISA MATH PERFORMANCE FOR BRAZIL AND SELECT COUNTRIES.



Source: OECD. Elaboration by Bruns, Evans and Luque (2012)

Barros et al (2010) show that half of the recent decline in inequality in Brazil is due to changes in the distribution of labor earnings. The fall in labor income inequality, in turn, was primarily due to the fall in inequality in the distribution of labor income per working adult. On the other hand, they also show that the accelerated expansion of education over the last decade may have played an important role in reducing overall inequality. One factor that may explain this trend could be changes in access to education. The last decade was marked by an accelerated expansion of education in Brazil, more than twice as fast as the one that occurred in the 1980s. Estimates from PNAD show that in the last decade the average schooling of the Brazilian labor force increased by almost two completed grades, while in the previous decade the increase was of 0.7 completed grades. The authors argue that over half of the reduction in extreme poverty in 2001-2007 in Brazil was due to the reduction in income inequality (p. 137). Income inequality, in turn, decreased partly because of increasing access to education (p. 154). In their view increasing access to education decreases income inequality through three mechanisms: a decline in fertility; an increase in female labor force participation; and a reduction in labor income inequality (p. 154).

Thus, if Brazil has the ambition to become a develop country in the near future, it is necessary to improve performance of the Brazilian's public school. The fundamental question is, how do it?

Several scholars and theories have tried to understand how to improve the primary education by many differences factors. Oliveira, Dourado and Santos (2007),

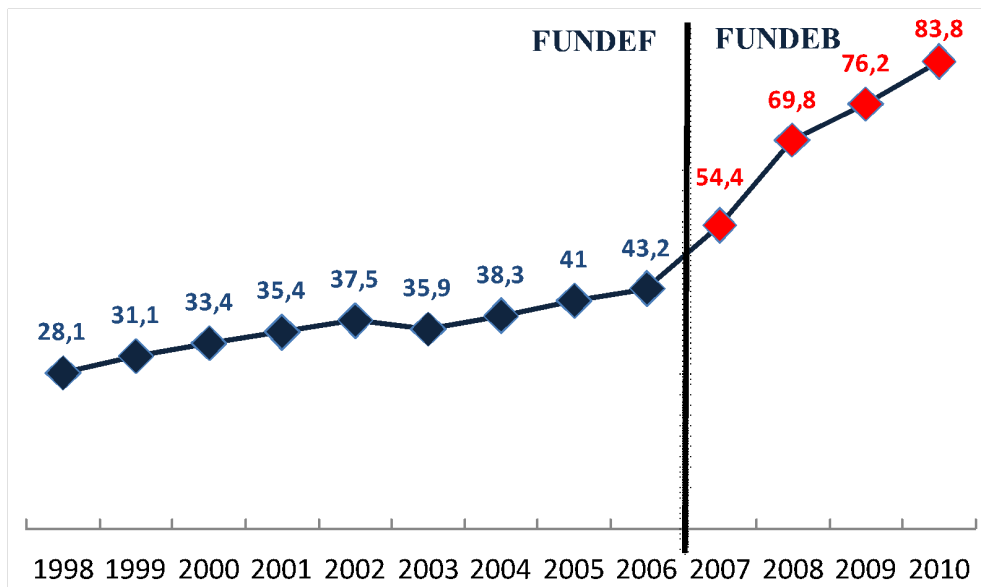
for instance, has demonstrated that the instruments required to improve education performance are associated with two dimensions: (i) extra-school dimension (socioeconomic and cultural and citizen's rights and state obligation) and (ii) intra-school dimension (education infrastructure, school management practice, teacher level and student level).

It is now a common wisdom the role-played by these instruments. An important funding program of the education public system particularly designed to backing these instruments is de FUNDEB (*Fundo de Manutenção e Desenvolvimento da Educação Básica e de Valorização dos Profissionais da Educação*). FUNDEB has been the main source of funding for basic public education in Brazil, especially at the municipal level. The fund consists of contributions (% of tax) made by federal government, states and municipalities. These contributions is distributed to states and municipalities based on number of student enrolled in public schools in a municipality. Thus, FUNDEB aims at reducing education inequalities between different regions of the country generated by social and economic differences.

FUNDEB was instituted in 2007 is an evolution of FUNDEF (*Fundo de Desenvolvimento do Ensino Fundamental*). FUNDEF was created in 1998 and it performed an important role substantially increasing the expansion of primary education. After the implementation of this fund, almost all schoolchildren were enrolled. The difference between the FUNDEF and the FUNDEB is that whereas the former provided scale of children's access to public schools the latter fundamentally expanded the contribution and destination of the resources. Another distinction is that the FUNDEF contemplates the primary school only, whereas the FUNDEB also includes the secondary school, pre-primary education and adult and youth education in addition to primary school.

The FUNDEF and FUNDEB have had a considerable impact, especially in the Brazilian poor cities and states. Their main effects can be identified on teachers' salaries given that 60 percent of these funds are spent with schoolteachers. The remainder has been allocated in other education cost. Figure 2 shows that FUNDEB increase significantly the fund's revenue comparatively with FUNDEF.

Figure 2: FUNDEF/FUNDEB EXPENDITURES 1998-2010 (in billions of constant 2010 Reais)



Source: National Treasury

However, FUNDEB's redistribution program does not generate the same outcome among states and municipalities, even those that have similar economic and social conditions. In fact, municipalities and states have different educational performance even with similar amount of resources transferred by the national government. What does account for these differences in educational performance? We also claim that in addition to those above-mentioned environmental and financial aspects, the quality of institutions, especially those responsible to check the political behavior of policymakers and politicians, have a direct impact on quality of public policies, including education (Melo and Pereira 2013). These authors also demonstrate that the degree of political competition matters to explain how governors at the subnational level behave predatorily or variously once in power in Brazil. However, they highlight that the positive effect of political competition of policy outcome is conditioned by the degree of institutionalization of checks and balance institutions.

Therefore, in addition to descriptively show the distinct profiles and different performances Brazilian states present as a result of the FUNDEB program, the objective of this study also tests the impact of the quality of checks and balances institution and political competition on the performance of primary schools at subnational level in Brazil. Our preliminary econometric exercises indicate that quality of checks and balance institutions provides a governance-enhancing effect on the quality of primary school at the state level in Brazil.

2. THEORY

The existing vast literature discusses different aspects that might impact on education performance. In fact, this literature highlights the diversity and the complexity of factors that may influence on education. Thus, it seems impossible to analyze the determinants of the improvement of student apprenticeship looking at to one perspective only. As mentioned before, Oliveira et al. (2007) identified two dimensions that influence the quality of education (extra-school and intra-school) in the Brazilian context.

These authors make use of reports from UNESCO and from the World Bank to produce these dimensions. As the World Bank plays an important role in the diffusion of policy guidelines, it has stimulated countries to adopt the “best practice” in areas like education (Silva, Azzi and Bock, 2008). They named two factors as extra-school dimension: (i) socioeconomic and cultural, and (ii) citizen’s rights and State obligation. The intra-school dimension has others four factors: (i) education infrastructure (ii) school management practice (iii) teacher level, and (iv) student level.

Extra-school dimension

- *Socioeconomic and cultural*

This aspect comprises cultural, social and economic conditions of families and students. The literature has many contributions showing evidence of positive relations between socio-economic status of families and students’ performance (Sirin, 2005; White, 1982). This relation is largely attributable the role of family in the scholar life of students. Davis-Kean and Sexton (2009), for instance, affirm that parents that have a high educational level have the conditions to offer a better home environment to learning process to their children.

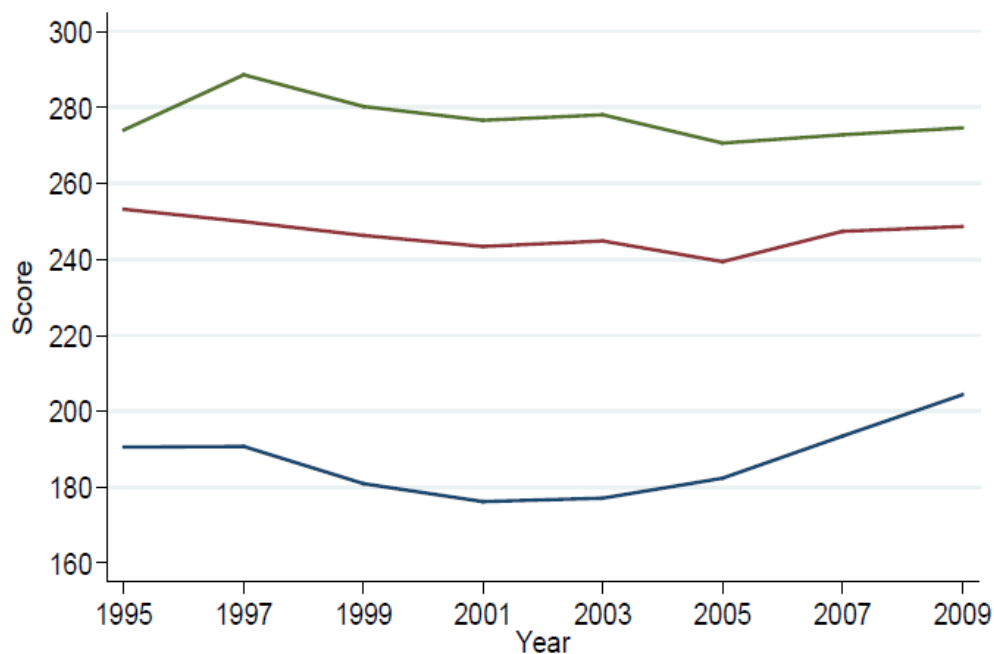
Ribeiro and Menezes Filho (2009) demonstrate that variables related of family structure represent 70 percent of the variation of students’ grades. Among them, the authors emphasize the role played by parent’s scholarship. In a different view, Soares and Marotta (2009) claim that social segregation of schools explains the variation in students’ performance. This debate is relevant because, even considering that the

family's participation has a large impact on student performance, the school and education policies would have greater difficulties to improve the quality of education.

- *Citizen's rights and state obligation*

The most important aspect with regard to the amplification of citizen's rights and state obligation was the expansion of primary education in the last two decades in Brazil. According to Oliveira (2007), increasing access to schools is a strong indicator of improvement in education's quality in recent years. However, the education expansion in Brazil has had a negative impact in school performance in the mid-90s. Figure 2 shows that Brazilian Math Proficiency performance in basic education worsened after 1997, especially as a consequence of the intensification of access to schools, and started to improve after 2001 only.

Figure 3: Brazilian Math Proficiency on SAEB/Prova Brazil, 1995-2009

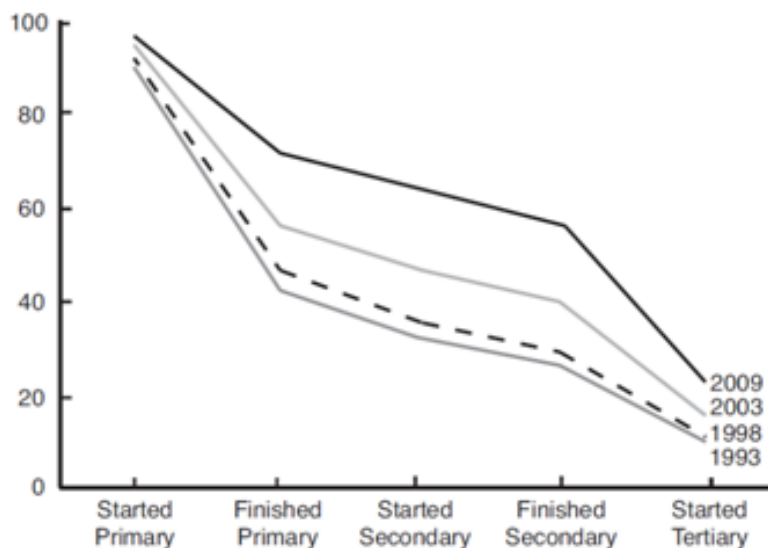


Source: INEP. Elaboration by Bruns, Evans and Luque (2012)

The majority of these enrolled children come from poor areas and they do not have family incentives to improve their performance at school. In this environment the rates of school evasion and failure are not low (FONSECA, 2009). Figure 4 shows that the primary education in Brazil covers about 100 percent of children and more than 60 percent have finished the secondary education in 2009. The performance rate is

remarkably different than 1993, when less than 30 percent had finished the secondary education.

Figure 4: CHANCE IN EDUCATIONAL ATTAINMENT IN BRAZIL, 1993 – 2009 (PERCENTAGE OF THE POPULATION AGE 26 – 30)



Source: PNAD. Elaboration by Bruns, Evans and Luque (2012)

The expansion of the quality of education seems to be the biggest challenge of Brazil nowadays, given that almost schoolchildren have been formally enrolled. Nevertheless, the performance of Brazilian public education system seems worsened when compared with other developing countries. Another issue has to do with the lack of an incentive structure to keep children in school in for them to finish the secondary-level.

Intra-school dimension

- ***Education infrastructure***

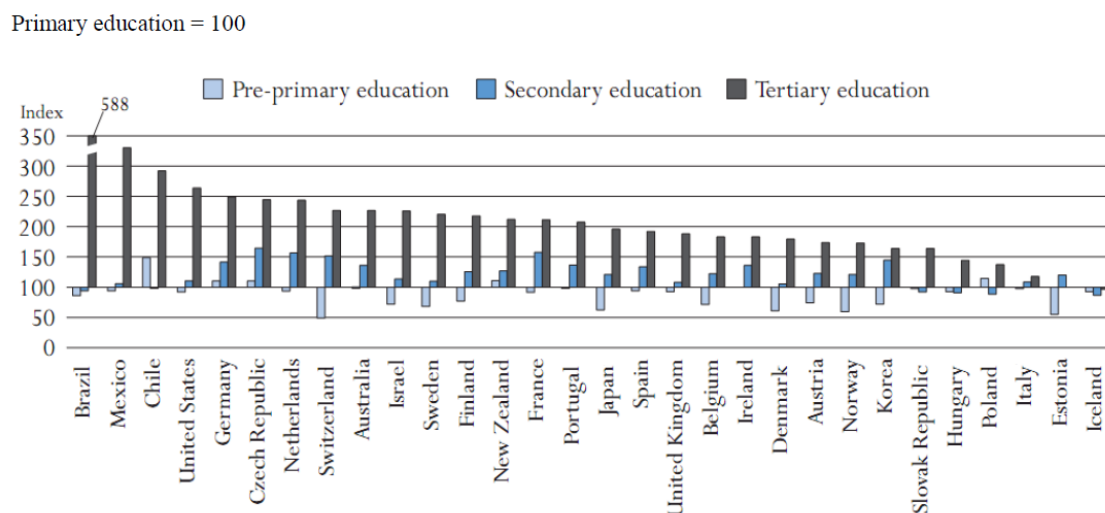
Scholars also affirm that the quality of schools' infrastructure affects the performance of students (OLIVEIRA, DOURADO & SANTOS, 2007). This is an interesting argument given that computers with access to Internet, comfortable classroom and good quality of nutrition contributed to a better environment in the school and, consequently, better performance of student. However, the provision of good quality of education infrastructure has an elevated cost, which most of the time demands high investments.

Brazil's public spending on education, in 2007, was 5.2 percent of GDP, which is greater than OECD average, about 4.8 percent of GDP (Bruns; Evans & Luque,

2012). If resources implies positives returns in the quality of education, and Brazil provides high investment when compared with developed countries in percent of GDP, why then Brazil does not have a good education system? (Bruns, Evans and Luque, 2012; Veloso, 2009).

As the Brazilian GDP per capita is lower than OECD countries, the investments in absolute terms are inferior. Other issue about education investment in Brazil is that the country spends by far more money with students in public universities. In 2010, Brazilians governments (federal government, states and municipalities) spent US\$ 2.653 per student in primary school and US\$ 13.137 with student in university. Figure 3 shows this incoherent allocation of public resources.

Figure 3: SPENDING PER STUDENT AT DIFFERENT EDUCATION LEVELS RELATIVE TO UNIT COSTS IN PRIMARY EDUCATION, OECD AND SELECTED DEVELOPING COUNTRIES, 2007



Source: OECD. Elaboration by Bruns, Evans and Luque (2012)

- ***School management practice***

Menezes Filho (2012) claims that the practice of good management of schools does make difference in the quality of education. The author demonstrates his argument relying on the example of the municipality of Sobral. This city, located in the northeast of Brazil, in the state of Ceará (one of the poorest of Brazil), increased its quality of education, measured by the IDEB (Brazilian Index of Education) in 60 percent between 2005 and 2009. To achieve this outstanding performance, the city closely monitored schools with assessments of students' improvement. Other factors that

helped to improve the quality of education in Sobral's schools were the following: (i) continuing competencies development of teachers, (ii) school managers are chosen by meritocratic system, (iii) an efficient distribution of teaching-learning materials in all schools and (iv) an incentive-structure of extra-payment to teachers based on their performance.

The students' assessments like PISA, PROVA BRASIL, and ENEM are important to measures of the quality of education. They also serve as education target. Therefore, these assessments are relevant information to create new policies in education and improve the existing policies. As we will discuss later, students' performance on those exams (IDEB/PROVA BRASIL) will be used as the dependent variable in our empirical exercises.

- ***Level of School Teachers***

Many studies argue that teachers have a great influence on the performance of students, especially in their exams (Rivkin, Hanushek, & Kain, 2005; Rowan, Correnti, & Miller, 2002). However, teachers do not enjoy a high social status when they are compared for instance with doctors, lawyers or engineers. Thus, the best professionals lack incentives to pursue a professional career as a teacher in Brazil (Bruns; Evans & Luque, 2012). In this context, it is possible to find many programs of pay-for-performance. However, the bonus has a limited motivation effect (Heneman, 1998; Kelley, 1999). In Brazil, the state of Minas Gerais has adopted the pay-for-performance incentive-structure mechanism in the education. Minas Gerais has presented good outcomes; however, it is hard to demonstrate a causal effect this improvement in quality of education as a result of the pay-for-performance mechanism.

Therefore, the key challenge is how to motivate teachers to work better. Higher salaries and better status of career may thus improve teachers' performance. In addition, Setubal (2010) emphasizes other methods to improve the quality of teachers' job. The author shows the importance of professor training and pedagogical support.

- ***Students' level***

Education provides higher and more consistent returns children are young (Carneiro, Cunha & Heckman, 2003). If it is the case, the Brazil's strategy with regard to education investment is mistaken. Resources should be invested in primary and secondary school rather than in the university. A key issue concerning student's level is the evasion from schooling. Neri (2009) discusses few reasons that may justify why children prefer no to go to school: (i) difficult access to school, (ii) children need to work, and (iii) no interest.

- ***Quality of institutions and political competition***

As mentioned before, Pereira and Mello (2013) argue that the quality of checks and balances institutions has a strong impact on the choices of governors make to allocate public resources and the provision of public goods. If checks and balance institutions play a relevant role decreasing, for instance, politicians' wealth variation or decreasing state's primary deficit, it is reasonable to infer a similar positive effect of the quality of institutions on education policies at the subnational level. So, the first hypothesis is the following:

H1: the quality of checks and balance leads to better education's policies outcome.

Melo and Pereira (2013) have also demonstrate that political competition leads to governance-enhancing politicians' behavior. However, it's positive effect is conditioned by the quality of checks and balance institutions. So, here we have the following second hypothesis:

H2: Strong political competition when combined with better-institutionalized checks and balances institutions lead to a better supply of education policies.

We will test these hypotheses in the Brazilian's states. Those econometric exercises are possible because there is a great institutional similarity in the Brazilian's states constitutional level, which allow conditions a comparative assessment. On the

other hand, Brazilian states present distinct features with regard to the quality of checks and balance institutions, social economics development, political competition and, above all, education policy outcomes.

3. DESCRIPTIVE STATISTICS ABOUT BRAZILIAN STATES

In Brazil, social inequalities are huge. These inequalities are present both at the local and at the regional level. At the municipal level, neighborhoods with large infrastructure coexist with areas of extreme poverty, where people live in very precarious urban situations. At the regional level, there is a large discrepancy of income and quality of life between the Brazilians south and central regions when compared with North and Northeast of the country. These inequalities, between Brazilians regions and states, can be observed in table 1, which shows the per capita household income (2010) and GINI coefficient 2009.

TABLE 1: DESCRIPTIVE STATISTICS: POPULATION, PER CAPITA HOUSEHOLD INCOME, INVESTMENT IN EDUCATION AND GINI 2009

| State | Population | Per capita household income (2010) | Investment in education (Primary and Secondary school – Brazilian Reais) | GINI 2009 |
|--------------------|------------|------------------------------------|--|-------------|
| Acre | 733.559 | 471.00 | 3,269.33 | 0.610861013 |
| Alagoas | 3.120.494 | 378.00 | 2,070.23 | 0.571957908 |
| Amapá | 669.526 | 525.00 | 3,729.39 | 0.509543386 |
| Amazonas | 3.483.985 | 457.00 | 1,868.07 | 0.519111355 |
| Bahia | 14.016.906 | 423.00 | 1,766.94 | 0.556492009 |
| Ceará | 8.452.381 | 395.00 | 2,759.14 | 0.544290579 |
| Distrito Federal | 2.570.160 | 1.404.00 | 4,834.43 | 0.62391278 |
| Espírito Santo | 3.514.952 | 691.00 | 3,687.37 | 0.531619146 |
| Goiás | 6.003.788 | 685.00 | 2,691.80 | 0.510106104 |
| Maranhão | 6.574.789 | 319.00 | 2,033.48 | 0.538340414 |
| Mato Grosso | 3.035.122 | 652.00 | 2,510.95 | 0.512881115 |
| Mato Grosso do Sul | 2.449.024 | 676.00 | 3,481.96 | 0.521173246 |
| Minas Gerais | 19.597.330 | 641.00 | 2,445.80 | 0.504399901 |
| Pará | 7.581.051 | 383.00 | 2,006.35 | 0.510502601 |
| Paraíba | 3.766.528 | 412.00 | 1,802.39 | 0.591369278 |
| Paraná | 10.444.526 | 747.00 | 2,301.10 | 0.554151058 |

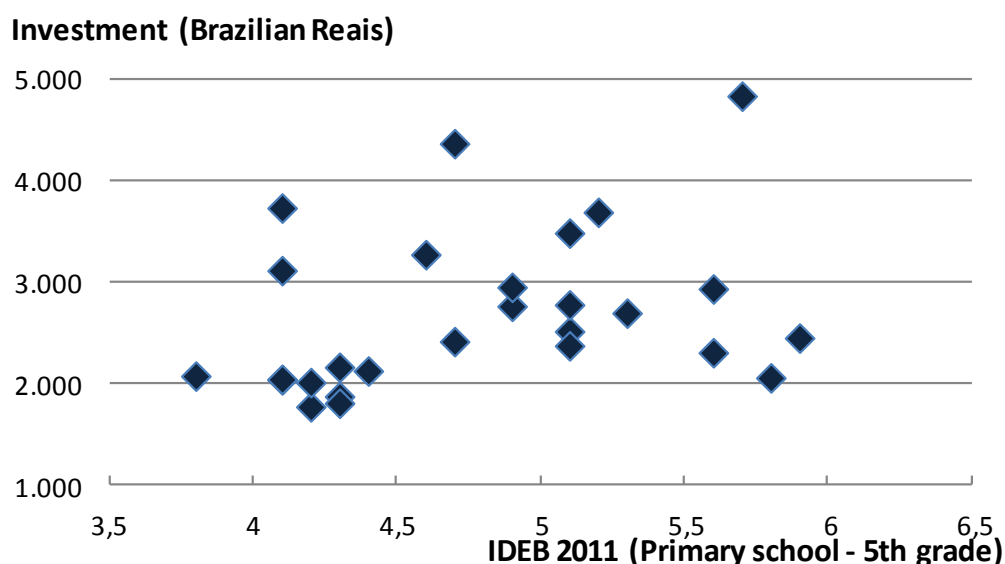
| | | | | |
|----------------------------|------------|--------|----------|-------------|
| Pernambuco | 8.796.448 | 442.00 | 2,157.11 | 0.55485264 |
| Piauí | 3.118.360 | 367.00 | 2,120.53 | 0.497377554 |
| Rio de Janeiro | 15.989.929 | 861.00 | 2,773.33 | 0.542411402 |
| Rio Grande do Norte | 3.168.027 | 475.00 | 2,038.18 | 0.559130832 |
| Rio Grande do Sul | 10.693.929 | 810.00 | 2,369.02 | 0.509390809 |
| Rondônia | 1.562.409 | 566.00 | 2,410.95 | 0.519735163 |
| Roraima | 450.479 | 556.00 | 4,365.37 | 0.499892169 |
| Santa Catarina | 6.248.436 | 843.00 | 2,052.57 | 0.459688803 |
| São Paulo | 41.262.199 | 887.00 | 2,930.56 | 0.576355395 |
| Sergipe | 2.068.017 | 453.00 | 3,111.59 | 0.489408007 |
| Tocantins | 1.383.445 | 512.00 | 2,946.82 | 0.523317786 |

Source: IBGE

Table 1 also shows the public investment in education by states. In this Table, we can also observe that there is no homogeneity with regard to investments in education among Brazilian states. Scholars of education theories argue that there is not direct causality between investments and better performance. Figure 4 confirms this expectation by showing that state investment in education is not correlated with education performance measured by IDEB (*Índice de Desenvolvimento da Educação Básica* – Index of schools and students performance).

The IDEB was created in 2005 aiming at measuring the quality of education in Brazil. This is an indicator of educational quality that combines information on performance in standardized tests (*Prova Brasil* or SAEB) and information about school absenteeism. The Brazil National Test (*Prova Brasil*) and Evaluation System of Basic Education (Saeb) are standardized exams and socioeconomic questionnaires produced by the ministry of education.

FIGURE 4: INVESTMENT IN EDUCATION AND IDEB (PRIMARY SCHOOL – 5TH GRADE)



Source: INEP-MEC.

The *Prova Brasil* is applied in fifth and ninth grades of primary school and in the last grade of high school. Students answer questions about Portuguese language (focus on reading) and mathematics (focus on solving problems). In the socioeconomic questionnaire, students provide information about their context in school and at their homes. Teachers and schools principals also answer the questionnaires to collect information about demographic, professional profile, and working conditions of schools. Table 2 shows the IDEB score in states schools, in which it is possible to see that there are considerable differences in schools grades between states. The literature on education performance shows that GDP per capita has a positive influence in the quality of education. This seems to be a factual for the Brazilian states.

TABLE 2: Descriptive statistics (Ideb and checks and balances index)

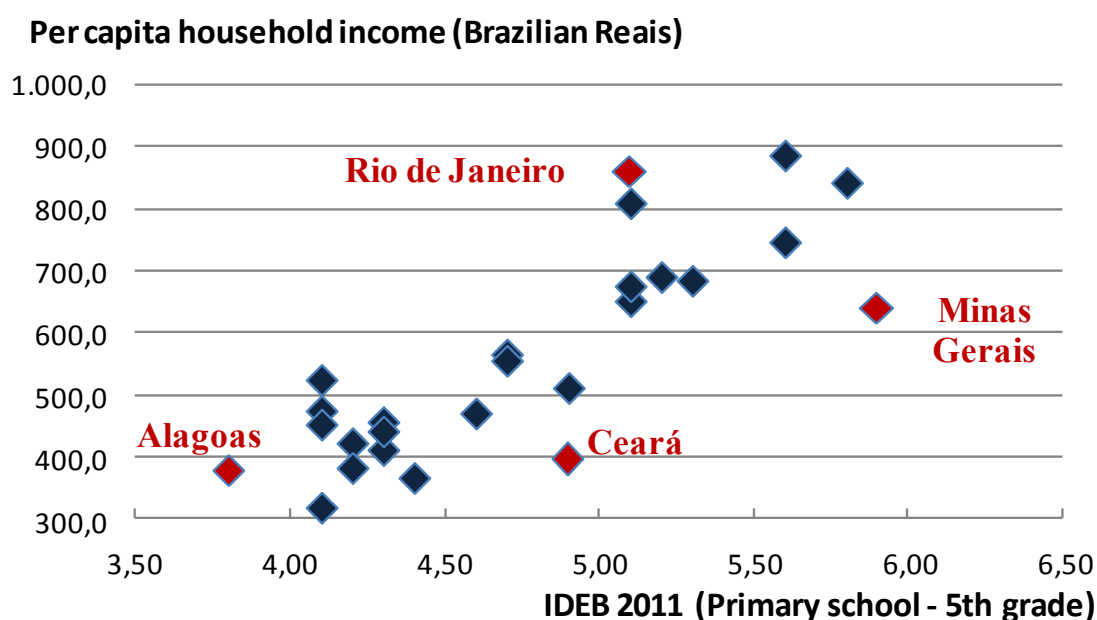
| State | IDEB (2011) Primary school (5th grade) | IDEB (2011) Primary school (9th grade) | IDEB (2011) Secondary school (3th grade) | C&B Index 2003- 2006 |
|------------------|---|---|---|-------------------------------|
| Acre | 4.6 | 4.2 | 3.4 | 0.146 |
| Alagoas | 3.8 | 2.9 | 2.9 | 0.183 |
| Amapá | 4.1 | 3.7 | 3.1 | 0.247 |
| Amazonas | 4.3 | 3.8 | 3.5 | 0.315 |
| Bahia | 4.2 | 3.3 | 3.2 | 0.454 |
| Ceará | 4.9 | 4.2 | 3.7 | 0.258 |
| Distrito Federal | 5.7 | 4.4 | 3.8 | 0.671 |

| | | | | |
|----------------------------|-----|-----|-----|-------|
| Espírito Santo | 5.2 | 4.2 | 3.6 | 0.506 |
| Goiás | 5.3 | 4.2 | 3.8 | 0.4 |
| Maranhão | 4.1 | 3.6 | 3.1 | 0.043 |
| Mato Grosso | 5.1 | 4.5 | 3.3 | 0.377 |
| Mato Grosso do Sul | 5.1 | 4 | 3.8 | 0.585 |
| Minas Gerais | 5.9 | 4.6 | 3.9 | 0.519 |
| Pará | 4.2 | 3.7 | 2.8 | 0.242 |
| Paraíba | 4.3 | 3.4 | 3.3 | 0.161 |
| Paraná | 5.6 | 4.3 | 4 | 0.402 |
| Pernambuco | 4.3 | 3.5 | 3.4 | 0.483 |
| Piauí | 4.4 | 4 | 3.2 | 0.059 |
| Rio de Janeiro | 5.1 | 4.2 | 3.7 | 0.728 |
| Rio Grande do Norte | 4.1 | 3.4 | 3.1 | 0.029 |
| Rio Grande do Sul | 5.1 | 4.1 | 3.7 | 1 |
| Rondônia | 4.7 | 3.7 | 3.7 | 0.318 |
| Roraima | 4.7 | 3.7 | 3.6 | 0.049 |
| Santa Catarina | 5.8 | 4.9 | 4.3 | 0.545 |
| São Paulo | 5.6 | 4.7 | 4.1 | 0.684 |
| Sergipe | 4.1 | 3.3 | 3.2 | 0.345 |
| Tocantins | 4.9 | 4.1 | 3.6 | 0.159 |

Source: INEP-MEC

However, how can one explain the difference between states with similar per capita household income? Alagoas and Ceará, for instance, have very similar income (378 and 395 Brazilian Reals, respectively). In Ceará, the IDEB is 4.9, whereas the Alagoas' IDEB is 3,8 in primary school. In Brazilian southeast, the more developed region of Brazil, it is also possible to find analogous differences between income and education performance. Even the state of Rio de Janeiro, which has a per capita income higher than Minas Gerais, its IDEB is considerably lower than Minas Gerais' (5.1 and 5.9, respectively). Figure 5 demonstrates the difference in educational performance in states that present similar GDP per capita.

FIGURE 5: Per capita household income and IDEB 2011 (primary schools)



Source: INEP-MEC and IBGE.

We believe that one of the reasons that might explain part of this variation in the outcome of schools in Brazilian states is related to quality of institutions at state level. We claim that the development of checks and balances mechanisms has a direct influence on the quality and supply of public policies, including education ones. Table 2 also shows an index of checks and balance that will be used to test our theory. This checks and balance index use seven sub-indexes (Melo and Pereira 2013).

TABLE 3: Variables of checks and balance index

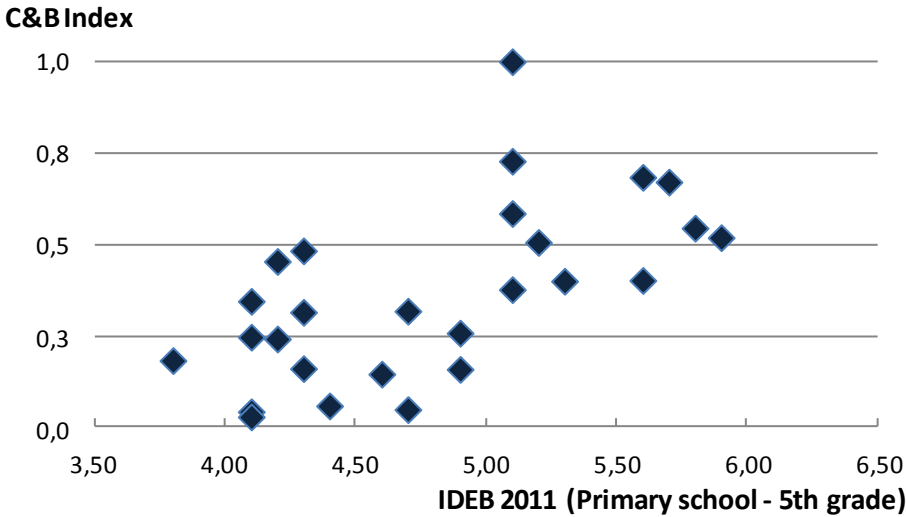
| Variable | Description |
|---------------------------------------|--|
| Regulatory Agencies | Measures governance of state regulatory agencies |
| Judiciary | Measures by an efficiency index, ratio of number of cases tried over cases opened and number of new cases opened (per inhabitants) |
| Public Prosecutors | Expenditures on public prosecutors, Number of prosecutors and per staff (per resident) |
| Audit Office | level of activity in each state's Audit Office |
| National Justice Council (CNJ) | procedures initiated in each state by the CNJ divided by state GDP |
| Media | Percent of all media concessions in each state not in the hands of politicians |

| | |
|------------------------------|---|
| Civic Community index | component analysis using (i) voter turnout (1990-2006), (ii) <i>voto de legenda</i> (1990-2006), and (iii) nonprofit sectors workers per capita |
|------------------------------|---|

Source: Pereira and Mello (2013)

Preliminary tests that estimate potential correlation between the quality of check and balance institutions and education performance (IDEB 2011) suggest that it is the case ($p\text{-value} = 0.006$). This preliminary evidence corroborates our assertion that a good system of checks and balances leads to better provision of public policies, such as basic education.

FIGURE 6: CHECKS AND BALANCES AND IDEB (PRIMARY SCHOOL – 5TH GRADE)



Source: INEP-MEC and Pereira e Mello (2013).

4. DATA AND METHOD

This very preliminary descriptive findings calls for a more sophisticated analysis. That is exactly what we plan develop in the next version of this report. We will use econometric exercises to examine de influence of the quality of checks and balance institutions and political competition on education performance. We also carry out a case study with a benchmark program in education.

Variables of econometrics test:

- **Dependent variable:** IDEB (state school)
- **Independent variable:** GDP, Investments, GINI, Checks and Balances, and Political Competition

5. CASE-STUDY

Given that we found preliminary positive estimates between the quality of checks and balance institutions on the performance of education at the subnational level in Brazil, we are also planning to do carry out a case study of a successful experience on education policies in poor areas of the Brazilian northeast.

The case of the city of Sobral, located in the state of Ceará, Brazilian northeast, is particularly interesting to be closely investigated. Sobral, which has the half of the GDP per capita of Brazil and 200,000 inhabitants, has surprisingly performed extremely well achieving the IDEB greater or equal to 6, which is an extremely high score and considered a standard for developed nations according to the Ministry of Education. Out of 82 public schools especially dedicated to unprivileged children in the entire country, 27 are located in Sobral. This is a remarkable achievement for a municipality, whose GDP per capita (2012) is about 5.5 thousand current Dollar.

What does explain this unexpected outcome?

According to the Secretary of Education of Sobral, Julio Cesar Alexandre, it is not the amount of resources that explain this outstanding performance of this mid-size city, given that it receives about 26 percent of revenues, which is the minimum necessary required in the Brazilian Constitution. In addition to abolish political appointees as Directors of public schools in the municipality, Mr. Alexandre highlights that managerial techniques, professional qualifications and an incentive-structure aim at rewarding the performance of the schools.

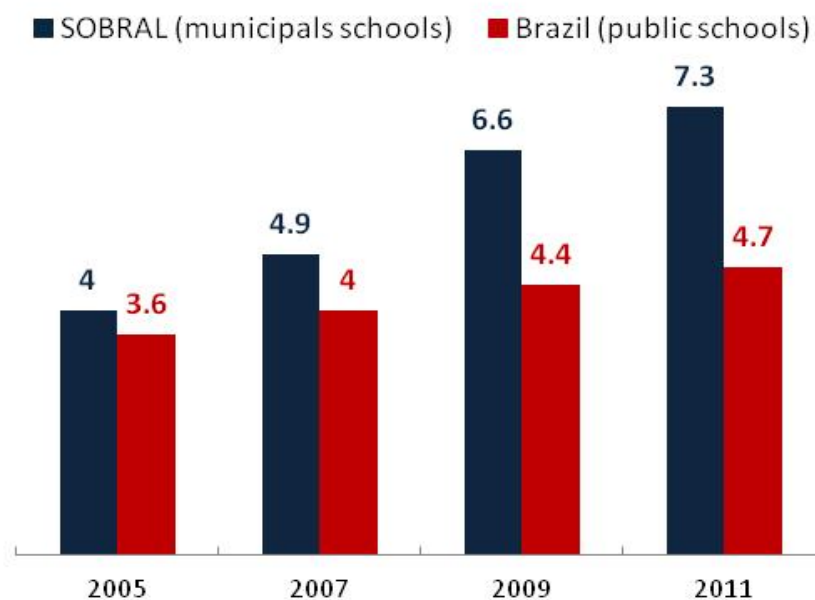
The Sobral revolution on education started when it was created a simple target: all students must know how to read. As it is well known, many Brazilian students who attend public schools are in fact unable to read or write. The city of Sobral took this challenge very seriously in order to change this reality. The education program works in

four different levels: (i) students' level, (ii) teachers' level, (iii) schools' level and (iv) at the level of the local bureaucracy that works on education.

- **Students' level:** Production of standardized books and reducing truancy. In Sobral, the students are responsibility of their teacher, their family and their school. So, if one student didn't go to his classes, one school worker goes to his house to know that happed with this child.
- **Teachers' level:** The teachers received training and bonus by performance of student's assessment. If one school has a good performance in the assessments, all teachers in this school also received bonus.
- **Schools' level:** Meritocratic selection of school principals (previously, the school principals were appointed by the mayor) and autonomy. The school principals have financial autonomy (schools can choose where and how they will spend part of your budget) and administrative autonomy (the school principals may choose their teachers and Coordinators).
- **The municipal bureaucracy of education's level:** to capacity of the bureaucracy to work with student's assessment (performance culture).

Using these practices, Sobral had a great performance in the IDEB. Figure 8 shows Sobral's performance compared to other Brazilian public schools.

Figure 08: Sobral municipals schools' IDEB and Brazilian public schools' IDEB (early years)



Source: INEP-MEC and Pereira e Mello (2013).

In order to have a more compressive picture of what is going on in Sobral, especially with regard to the quality of institutions and managing strategies, we plan to develop local field research where we would have the opportunity to collect data and information as well as interview decision-makers and local citizens.

6. DISCUSSION

To be written

7. CONCLUSION

To be written

8. REFERENCES

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