New model for investing in public education

Solange Monteiro

IN THE LAST TWO DECADES, BRAZILIANS have become more educated. Investments in education grew, and average years of schooling for youths aged 18 and 24 went up 55% in the nine years to 2012. Unfortunately, the quality of education did not improve at the same rate. According to the latest report of the Programme for International Student Assessment (Pisa), among 65 countries Brazil ranked 55th in reading, 58th in math, and 59th in science.

Not using resources efficiently to improve the quality of education is a serious concern at a time when investment in public education is expected to surge. One of the 20 goals of the National Education Plan (PNE) approved in 2014 is to double investments in education to 10% of GDP in the next 10 years. The main source of the necessary funds will be revenues from deep sea oil consisting of 75% of oil royalties and 50% of the Deep Sea Oil Social Fund. "It is evident that improving the management of education in Brazil is important so that those resources are directed to initiatives that have the most potential to improve learning," says IBRE researcher Fernando Veloso. For that reason in early December the Brazilian Institute of Economics (IBRE) of the Getulio Vargas Foundation held a seminar in Rio de Janeiro on "Finance and Management of Education in Brazil."

Public spending per student

Veloso, one of the seminar organizers, reminded the audience that from 2000 to 2011 public spending per student went up two and a half times, according to official data (adjusted for inflation) from the National Institute of Educational Studies Anísio Teixeira (INEP). During this time public spending per student was concentrated on basic education, reducing its investment gap with higher education. "In 2000, investment in higher education was 11 times the amount invested in basic education; today, it is 5 times. Compared to the average of Organization for Economic Co-operation and Development countries, which is less than double what goes into basic education, the investment gap is still high, but we have managed to reduce it significantly," Veloso says.

Veloso also points out that in addition to the resources specified in the PNE, demographic changes will help increase investment per student. Veloso and fellow IBRE researcher Fernando de Holanda Barbosa Filho, estimate that as the group aged 6 to 14 declines as a percentage of the population, investment per student in basic education should double in real terms by 2030 and be 3.5 times higher by 2050. But Veloso warns, "We will have more resources for education in coming decades, but so far there is no guarantee that the quality of education will improve."

Certainly, there is no evidence that oil royalty resources by themselves have improved Brazilian education. Joana Monteiro, also an IBRE researcher, compared the performance of municipal public education of 60 oil-producing municipalities, which received oil royalties, and non-producing oil municipalities from 2000 to 2010. "The oil-producing municipalities spent

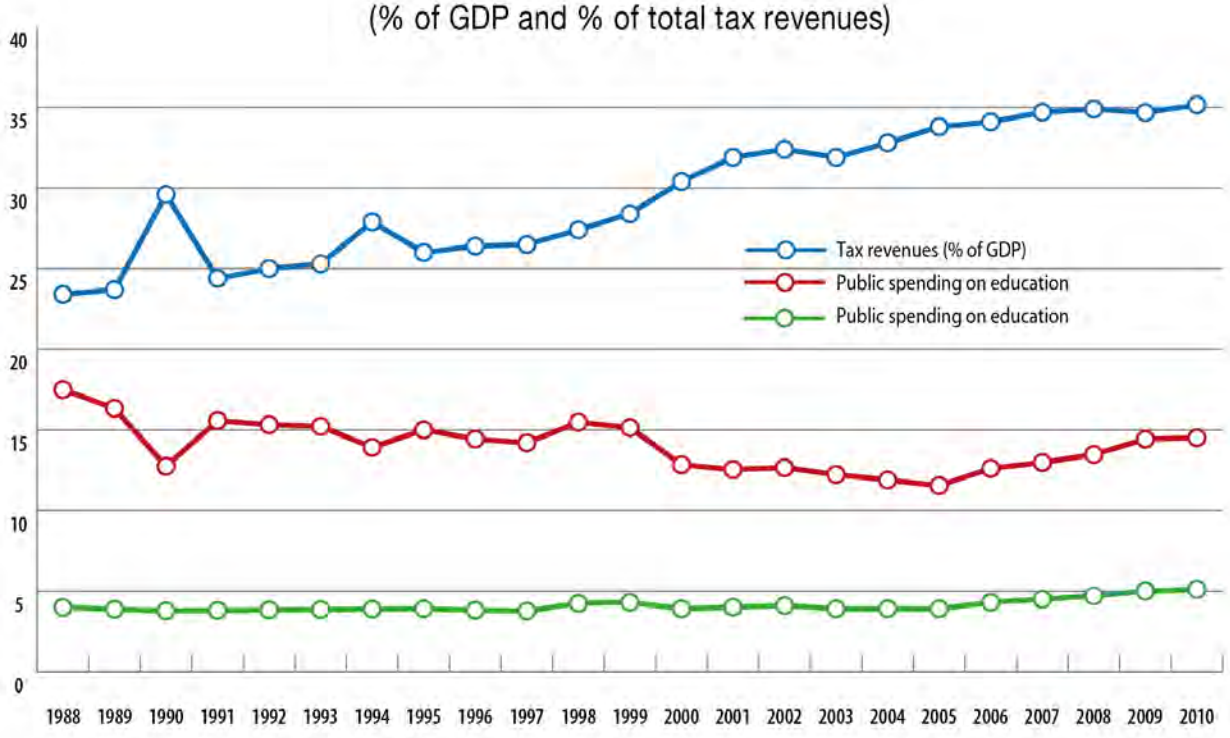
R$72 per capita more on education between 2000 and 2010," she says, which implies an 11% increase in spending on education. Yet there was no significant improvement in education. In 2010, on the Brazil Test (national assessment exam for 5th and 9th graders) the oil-producing municipalities had the same number of students in basic education, a larger percentage of children behind in school, and no significant difference in grades in math and reading than non-producing oil municipalities. Monteiro concludes that "The increased spending did not reach the students." She suggests that among the main reasons were misuse of resources, money wasted on ineffective measures, and spending in goods and activities that do not affect learning.

Another study by the School of Economics and Administration, University of São Paulo confirms the current waste of resources in management of public education in Brazil. "One of the most common irregularities is inefficiency in the use of resources, predominantly due to corruption," says Fabiana Rocha, study co-author. The study concluded that smaller municipalities (up to 50,000 inhabitants) are less efficient and could cut their spending by almost 50% and still achieve the same Basic Education Development Index (Ideb)

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Brazil: Public spending on education

(% of GDP and % of total tax revenues)



Sources: Brazilian Institute of Economics (IBRE); Brazilian Institue of Geography and Statistics (IBGE), National Accounts (2012); and Maduro Jr. and Paulo Roberto Rodrigues (2007); and National Institute of Educational Studies Anísio Teixeira (INEP, 2013).

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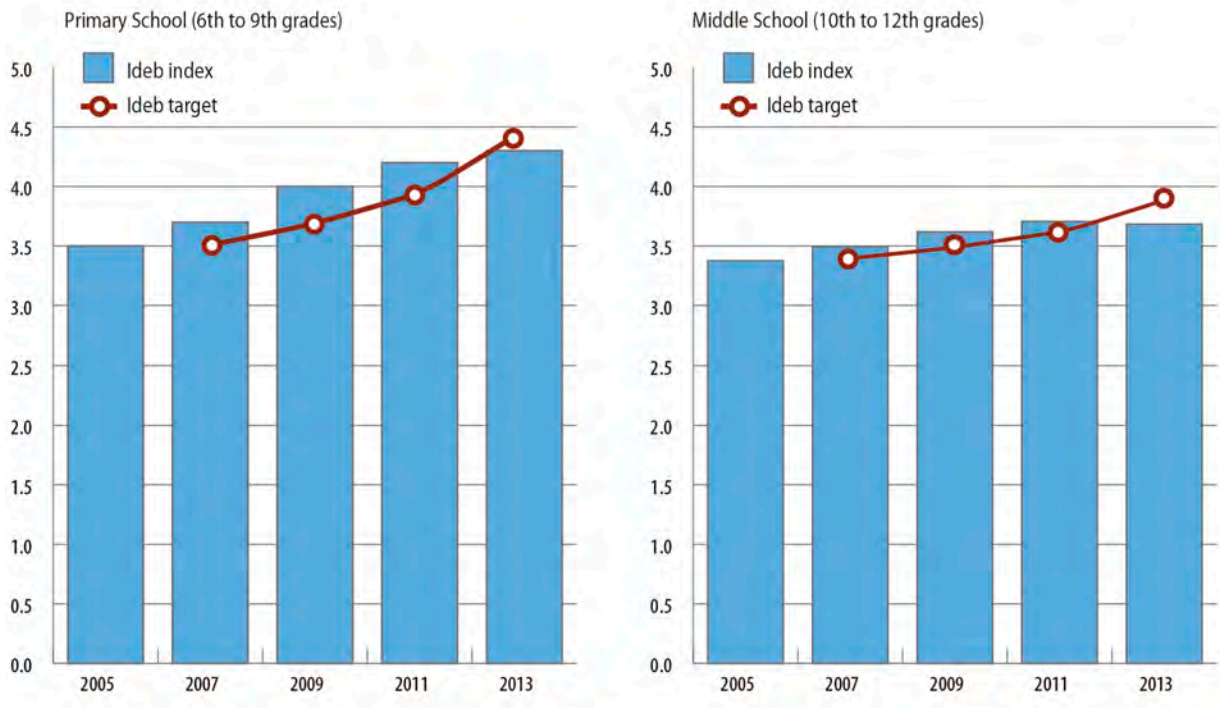
target set by the federal government. Major cities (over 500,000 inhabitants) could cut spending by almost 20%. "Every year smaller municipalities are wasting R$12 billion. Clearly it is necessary to make efficiency in public spending a policy priority," she says. Paulo Moura, who followed up approval of the PNE as a consultant to the Chamber of Deputies concurred in the need for cost efficiency.

It is also necessary to educate 2.9 million young people aged 4 to 17 who are still outside the education system. Barjas Negri, president of the Foundation for the Development of Education of the State of São Paulo, points out that this is a major challenge especially for high schools, noting that "We have 1.5 million young people aged 14 to 17 who are not in school."

How to manage better

To translate resources into better learning is not simple. Fernando Abrúcio, School of Business of São Paulo, studied state departments of education and found out that, although management and governance is a growing concern, there are huge variances across the country. "There are cases of departments that had four directors in a four-year period; it's hard to have good management with such high turnover of managers," he says. He also cites the difficulties regional directors

Brazil: Evolution of the Basic Education Development Index (Ideb)



Source: National Institute of Educational Studies Anísio Teixeira (INEP).

and coordinators have in evaluating school performance, and the difficulties states and municipalities have in coordinating their policies. To mitigate these problems, there has been growing support from private institutions. One is the Unibanco Institute, which since 2008 has promoted the Youth with a Future program. "Our goal is to train supervisors and directors on improving their management skills, discussing their problems and uniting them around the same goal," says Mirela Carvalho, Unibanco Institute manager of knowledge management. "By 2018, our goal is to benefit 2 million students."

The good news is that the public school system is already working to identify best practices. In recent years, school systems in Ceará and Rio de Janeiro states have overcome poverty, structural deficiencies, and cultural resistance in order to significantly improve management of education and student achievement. Mauricio Holanda, Ceará secretary of education, points out that one of the first steps is to design a business model that involves principals and teachers and creates a system for technical cooperation between schools so that the results do not depend on a single person. Ernesto Martins de Faria, project coordinator of the Lemann Foundation, who has analyzed good performance of schools in poor regions of Goiás, Tocantins, Ceará, Paraná, and Rio de Janeiro states, says in terms of good practices, "What we saw in common is close and continuous monitoring of learning, working with data to support pedagogical choices, and making school a nice and constructive learning environment."

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Fernando Veloso

In all these cases, the policies adopted pointed to the same conclusion: poverty does not doom students to hopeless school performance. "In the municipality of Sobral, 25% of the population lives in poverty, 10 percentage points more than the country's average, yet the Ideb index of the municipal school system in the elementary school is 7.8 compared with 5.2 at the national level," Holanda says. Wilson Risolia, former Rio de Janeiro state education secretary, says that the shortcomings of education are well known; what is needed now is faster action. He adds, "We have a country with huge potential, but with education that incompatible with that potential."

Brazil: Evolution of public spending per student

(in Brazilian reais)

	Basic Education (1st to 9th grades)	Primary Schools (1st to 4th grades)	High School (10th to 12th grades)	College
2000	1,633	1,606	1,557	18,050
2004	2,147	1,928	1,333	15,001
2008	3,524	3,248	2,497	17,370
2011	4,916	4,341	4,212	20,690

Source: IBRE.



Photo: Cris Torres.

Mauricio Holanda, education secretary of Ceará state

"A rare experience of bottom to top policy-making"

Reform of public education management in Ceará state started in the early 2000s in the municipality of Sobral, population 190,000. At that time, 60% of Sobral children reached the third grade without knowing how to read and 20% were still not able to read in fifth grade. Today, Sobral, where GDP per capita is just over half the Brazilian average, has a zero dropout rate in elementary education, compared with a 10% average for Brazil as a whole; only 4 percent of students are not in the age-appropriate learning grade, compared with 24 percent for the country; and the Basic Education Development Index (Ideb) is 7.8 for the early years of elementary education, compared with the national average of 5.2.

"We learned to create a system of rules, incentives, and group learning. We did a broad-based intervention, and adopted a simple external evaluation to reward and hold teachers and schools accountable," says Mauricio Holanda, state education secretary. Holanda believes the results of this reform undermined the common argument that many students do not learn because they are poor or have other special difficulties. "We showed that the number of children who would not be able to learn reading without reinforcement, or without an environment with accommodations, is not 30% but 3%," he says.

From the example of Sobral other municipalities in Ceará sought cooperation in reforming school management. In 2007 the state education department extended Sobral's experience by setting up the Literacy Program at the Appropriate Age (PAIC). This in turn inspired the National Literacy Program at the Appropriate Age. "This is one of the rare experiences of policy-making from bottom to top," says Holanda, a committed advocate for municipal education. One important measure was to increase financing for education by changing the law that defines the transfer of the value-added tax on goods and services (ICMS) to municipalities. "We have instituted more meritocratic criteria and focused on education. Of the 25% of the state VAT tax that can be distributed at the discretion of state law, 18% is conditional on meeting performance targets in elementary education, health, and the environment," he says. After changing how resources are allocated, some smaller municipalities recorded revenue growth exceeding 60%, and Ideb index differences between municipalities declined.

Holanda also highlights another aspect of the program: schools whose performance is good provide technical cooperation to schools where performance is poor. "This is part of a set of measures that makes possible good performance independent of individuals. Even in Sobral, though there was a four-year period in which the city had three directors of education, the education plan did not change. We must invest in training competent teams, so they do not become dependent on only one person," he says.

He does have concerns about the national program inspired by the PAIC, however. "The Federal Government's policy is one size for all, which causes difficulties," he says. "For example, the percentage of 8-year-old children who cannot read and write in Santa Catarina state is 5% and in Alagoas state it is 34%. If you offer the same benefits and incentives for teachers, in Santa Catarina it will not be very effective, but in Alagoas it will be very important … The federal government is very controlling in terms of policy and loose in terms of monitoring results; it should be the other way around, " he says. That reality will now be in the hands of the new federal Minister of Education, Cid Gomes, who was mayor of Sobral and governor of Ceará during the state's education transformation.



Photo: Cris Torres.

Wilson Risolia, former education secretary of Rio de Janeiro state

"If we continue just discussing, we will lose another generation"

In the release of the Basic Education Development Index (Ideb) for 2013, Rio de Janeiro state confirmed the recovery of its public schools. In 2009, the state had ranked 26th, then 15th in 2011, and reached 4th place in 2013. Its school drop-out rate also fell, from 16.5% of students in 2009 to 7.3%. "Of the 1,457 state schools, 73% were classified between regular and bad in 2013. We were not able to fix all schools, but we have advanced a lot," says Wilson Risolia, who after a long career in capital markets was state education secretary for four years, ending in 2014.

To improve school infrastructure and management, Risolia had to face down resistance from a variety of vested interests. "There is a strong ideological bias against external evaluation of teaching and the minimum curriculum; it is argued that evaluation takes away teachers' pedagogical freedom. However, the fact was that the children were unable to read," he says. "In the four years I was education secretary, I was never called on to discuss why children could not read, but I was summoned several times in public hearings to justify why I changed school principals, whose appointment is dominated by political feuds. In the public sector, 'meritocracy' was also a dirty word, but it was a non-negotiable value for us."

According to Risolia, one aspect of the education strategy was to improve the quality of public spending. "Putting more money in inefficient areas is wasting money. In three years, we cut waste by R$100 million, and were then able to raise teachers' salaries, improve school infrastructure, and create benefits and awards for students," he says. To support creation of a new policy for the sector, the Education Department carried out a survey which showed, for example, that only 20% of schools with the worst education scores were in poor areas, and 73% of the parents of students had not completed basic education, which could mean they were not able to encourage studying. The important finding for reforming high schools was that students said they liked school, but they dropped out because they considered that school added little to their lives. He says that "As we discuss the problem endlessly, we are losing young people, and the demographic window is closing. If we continue just discussing it, we will lose another generation."

To circumvent this impasse, the state Department of Education decided to boost the Dual School program, which adds vocational education to the core curriculum. The initiative was born in 2008 in partnership with the Oi Futuro Institute. Training areas include bakery, hospitality, information technology, and agriculture. The vocational training is provided by partnerships between schools and such companies as Pão de Açúcar, ThyssenKrupp, Embratel, Institute Ayrton Senna, and the Federation of Industries of Rio de Janeiro. "Our average cost per public school student is R$4,061. A Double School is just over R$5,000, and companies finance the technical training," says Risolia. "This is a worthwhile marginal cost, especially considering that 60% of students were two years behind in their schooling and when a student repeats one school year it means we waste R$8,000, if schools reduce repetition and we train students for the labor market, we will make a profit. What is costly for society is to leave things as they are."