

OVERCOMING INERTIA?
A REPORT CARD ON EDUCATION IN BRAZIL

2009



Programa de Promoción de la Reforma Educativa en América Latina y el Caribe
Partnership for Educational Revitalization in the Americas



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MISSION



At the end of the 1990's, the Partnership for Educational Revitalization of the Americas (PREAL) convened two international task forces—one for Latin America and one for Central America—to discuss grave deficiencies in the education being offered to children throughout Latin American and the Caribbean. The commission's reports—*The Future at Stake* and *Tomorrow is Too Late*—outlined the principal challenges and proposed four steps to make schools better:

1. Set standards for education systems and measure progress toward meeting them;
2. Give schools and local communities more control over—and responsibility for—education;
3. Strengthen the teaching profession by raising salaries, reforming training, and making teachers more accountable to the communities they serve;
4. Invest more money per student in preschool, primary and secondary education.

As a follow-up to these recommendations, PREAL decided to publish periodic reports on educational progress — “education report cards” — so that leaders both inside and outside the education sector would have independent, reliable information on how their schools are doing compared to other regions or countries. PREAL's report card program has produced over 25 reports on education progress at the regional, Central American, national, and departmental level (published report cards are available online at www.preal.org).

Inspired by the report cards students receive in school, report cards on education have become important accountability tools. They track changes in student learning (usually through standardized test scores) along with changes in education inputs (e.g. finance, teacher qualifications, enrollments)

in order to understand how system modifications help or hinder better education. They show at a glance how a particular school, district, state, country, or group of countries is performing with regards to similar entities, global/national/state/district/school averages, and against its own previous performance. By grading, or ranking, that performance using a “school-style” grading system, report cards allow parents and other members of civil society to recognize both exemplary performance and areas that need improvement. Armed with this information they can lobby for appropriate change.

PREAL's report cards offer the best information available about key aspects of education—access, quality and equity—that are essential for improving learning. They also promote accountability by documenting current conditions and evaluating the progress of reforms underway. They are based on the belief that regular and sustained monitoring of key education areas is crucial to improving education quality and that parents, students, and employers have a right to know how schools are organized, how much they cost, what they produce, and who is responsible for the outcomes. PREAL's national report cards are designed to feed into its regional reports while at the same time taking into account country contexts and supporting national reform efforts.

This first Report Card on Education in Brazil is the result of collaboration between Lemann Foundation and PREAL. It is designed to provide a non-technical audience with independent, current, and reliable information on education progress in Brazil since 1996. We hope that it contributes to an informed discussion on the most important challenges facing the country in its quest to provide a quality education to all of its young people.

ACKNOWLEDGMENTS



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Despite the valuable help we received, full responsibility for the content of this report rests with the authors.

This report is dedicated to the memory of Klaus Jacobs.

EXECUTIVE SUMMARY: A REPORT CARD ON EDUCATION IN BRAZIL - 2009



Brazil can be proud of several victories in improving the education of its people in recent decades. Enrollments have risen, inequalities in access to schooling have diminished, and the country has built technically solid assessment systems. However, because of its late start with respect to more developed countries, and even some of its neighbors, the present state of education in Brazil is very troubling.

Although students are enrolled in large numbers, their average test scores are poor and do not seem to be improving. Many leave school early. The poorest, although spending more years in school than previously, are the first to leave, often before completing 12 years of study.

This report seeks to draw out key issues that could help Brazil make important advances in quality in

the coming years, provided there is political will. Its title refers to leaving behind a long history of neglecting education. In the knowledge economy, education is the key to economic growth and critical to the ability of each individual—and, therefore, society as a whole—to achieve a better standard of living.

The grades, arrows, and comments presented in the following table offer a summary of education in Brazil with respect to nine topics that are considered crucial if the country is to progress in this field. For each of these topics, the table presents the current status (grade) and prospects for progress (trend arrow). The evaluation, although necessarily subjective, was based on the best data available and serves as a wake-up call for the urgent action required to accelerate needed reforms.

A REPORT CARD ON EDUCATION IN BRAZIL - 2009

SUBJECT	GRADE	TREND	COMMENTS
Enrollment	B	↑	Enrollments have risen significantly, but many children and adolescents remain out of school, especially at the high school level.
Staying in School	C	↑	Although they attend school longer than previous generations, students are not completing 12 years of schooling.
Test Scores	D	↔	Students are not learning what is expected for their grade level and are at a clear disadvantage in international comparisons.
Equity	C	↑	Inequalities of access have diminished, but opportunities to receive a quality education are still not equitably distributed throughout the population.
Standards	D	↔	Clear and detailed standards that ensure a minimum level of quality in every classroom are still lacking.
Assessment Systems	B	↑	Testing systems are quite advanced compared to those in many other countries, but results are not yet used widely to improve school quality.
Authority and Responsibility at the School Level	C	↔	Services have been decentralized, but schools still cannot make key decisions about factors crucial to improving their performance.
The Teaching Profession	D	↔	Teachers have completed more years of schooling than in the past, but the quality of training courses is still often poor. Consequently, teachers are not always prepared for the demands of the classroom.
Investment in Education	C	↔	Public funding available for education is still insufficient and poorly managed.

GRADE
 A - EXCELLENT
 B - GOOD
 C - AVERAGE
 D - UNSATISFACTORY

TREND
 ↑ IMPROVING
 ↔ NO OBSERVABLE CHANGE
 ↓ DECLINING

ENROLLMENT HAS RISEN AT ALL LEVELS, BUT HIGH SCHOOL REMAINS A CHALLENGE B ↑

According to Brazilian law, every child between the ages of 4 and 17 must be enrolled in school

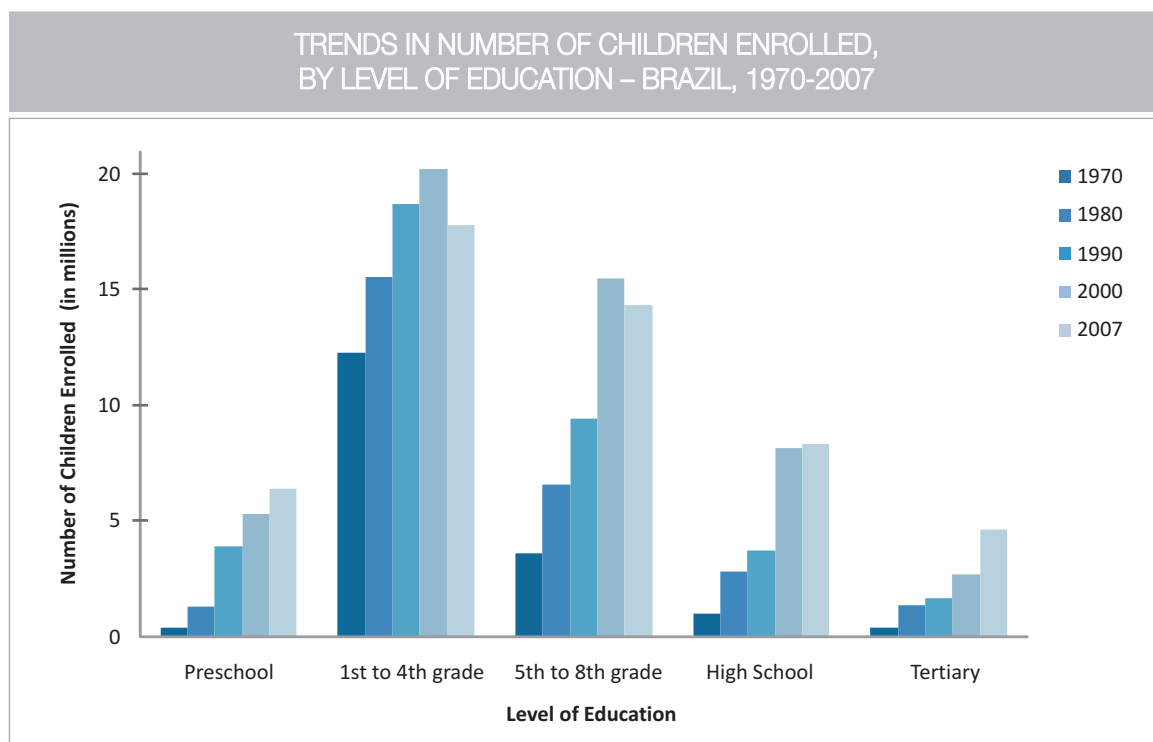
Since eight years of education became mandatory in Brazil in the 1970s, Brazilian authorities have made tremendous efforts to increase the number of students enrolled in public schools. Beginning in the 1990s, funds that redistribute resources to education, conditional cash transfer programs (Box 1), and the opening of higher education to the private market have resulted in soaring enrollments at all levels of education.

During this period, more than 29 million openings were created from nursery school through high school; 16 million of them in basic education alone¹. In addition, capacity at the tertiary level increased by four million students (mostly in private schools), and rose by six million in preschool (Figure 1).

Despite the effort to enhance enrollment, if we look at the percentage of students enrolled in the correct grade for their age, the challenge remains clear, especially at the high school level (Figure 2). It is worrisome that less than half of adolescents between the ages of 15 and 17 are enrolled at this level. Although some of these “missing” 15- to 17-year-olds are still enrolled in basic education, many have also already dropped out of school by the time they reach this age.

In November 2009, the Brazilian Senate passed a constitutional amendment (EC 59) that makes school mandatory from ages 4 through 17, an expansion of the previous range (which was from 7 to 14 years of age). The new legislation makes high school and part of preschool obligatory. States and municipalities will have until 2016 to fully implement this change. This will be challenging, especially since 30% of children ages 4 through 6 are still not attending school (Figure A.1 in the Appendix).

FIGURE 1

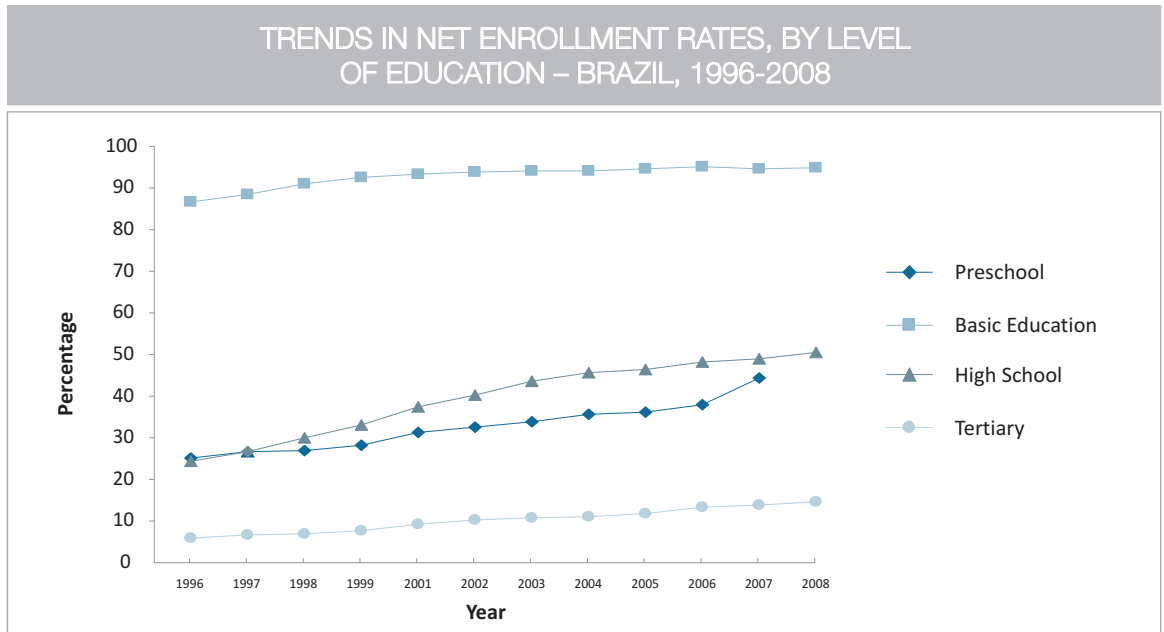


Note: The decline in the number of students enrolled in basic education (grades 1 to 4 and 5 to 8) between 2000 and 2007 is due to policies designed to help children graduate on time. By reducing repetition rates, which keep older students back in the first few grades of school, these policies have resulted in an increase in net enrollment rates at each level (Figure 2), since these rates only measure those students enrolled in the correct grade/level for their age.

Source: Statistical Yearbooks (Anuários Estatísticos), IBGE and INEP/Ministry of Education – MEC.

¹ In Brazil, preschool covers children ages 3 to 5, basic education covers grades 1 through 9 and high school covers three additional years (grades 10 through 12). Since the nine year basic education was only fully implemented in 2010 (before that, grades went from 1 through 8), graphs and explanations in this report will still be based on the eight year division.

FIGURE 2



Note: The net enrollment rate for preschool has not yet been calculated for 2008. **Source:** National Household Surveys (Pesquisa Nacional por Amostra de Domicílios – PNAD), IBGE. Estimates by the Institute for Labor and Society Studies (Instituto de Estudos do Trabalho and Sociedade – IETS) and the Institute for Applied Economic Research (Instituto de Pesquisa Econômica Aplicada – IPEA) (Preschool).

BOX 1 . RECENT ACTIONS TO INCREASE ENROLLMENT IN BASIC EDUCATION

Two government interventions have helped accelerate growth in basic education enrollment during the last decade: the creation of an accounting mechanism for redistributing resources, and programs that transfer income to families, provided that their children attend school (conditional cash transfers).

Starting in 1997, a fund was established to redistribute resources among states and municipalities. Known as the Fund for Maintenance and Development of Basic Education and Appreciation of Teachers [Fundo de Manutenção and Desenvolvimento do Ensino Fundamental e de Valorização do Magistério-FUNDEF], it made an important contribution to increasing basic education enrollment. By establishing a minimum level of investment per pupil enrolled in this stage of schooling, FUNDEF ensured that states and municipalities would get additional resources if per pupil spending did not reach the national minimum.

Nationally, net enrollment in basic education has risen by 6 percentage points (from 89% to 95%) since implementation of FUNDEF. In the poorest regions of Brazil, the rate of increase has been even larger. For example, in Maranhão, enrollment grew by 16 percentage points during the same period. In 2007, FUNDEF was replaced by a new fund, the Fund for Maintenance and Development of Basic Education and Appreciation of Education Professionals [Fundo de Manutenção and Desenvolvimento da Educação Básica e de Valorização dos Profissionais da Educação – FUNDEB], which includes preschool and high school in the distribution of resources.

The conditional cash transfer programs, known as Bolsa Escola and Bolsa Família also helped enhance access to education in Brazil. A study by the Centro Internacional da Pobreza shows that children who participated in Bolsa Família were less likely to miss school than non-beneficiaries (Soares and Ribas, 2007). However, another study points out that Bolsa Família benefits children in an age group that is already attending school and that the program should therefore focus on older children (Schwartzman, 2005).

Source: SOARES, F.V., RIBAS, R.P., OSÓRIO, R.G. Avaliando o Impacto do Programa Bolsa Família: uma Comparação com Programas de Transferência de Renda de Outros Países. Brasília: Centro Internacional da Pobreza, 2007, No.1 and SCHWARTZMAN, S. Education-Oriented Social Programs in Brazil: The Impact of Bolsa Escola. IETS, 2005. Available at www.schwartzman.org.br/simon/pdf/bolsa_escola_eng.pdf.

Average years of schooling for Brazilians is increasing, but remains low in comparison to other countries

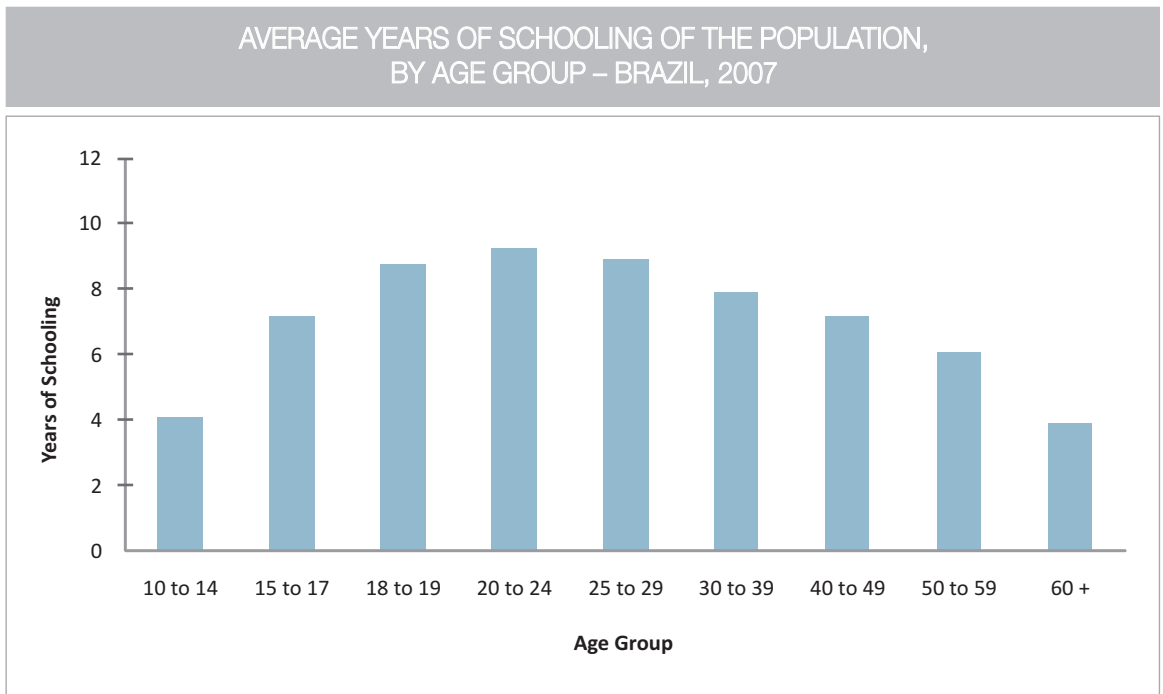
The average Brazilian had completed seven years of schooling in 2007, well below the 12 years of schooling established by the Economic Commission for Latin America and the Caribbean (ECLAC) in 1997 as the minimum required for people to access occupations that could keep them above the poverty line.

Even younger generations, which have benefited from greater access to educational opportunities, have not yet managed to reach this standard. Twenty to twenty-four year olds, the age group with the most years of schooling in Brazil, have completed, on average, just nine years of study (Figure 3).

The extent of the problem becomes even clearer when we consider that high repetition rates mean that a Brazilian student takes on average 11 years to complete the eight years of basic education. Furthermore, the fact that someone has reached a certain grade does not guarantee that he or she has actually learned the minimum expected. Today approximately 13 million people over the age of 25 (12.5% of the population in that age group) are still illiterate, although they probably attended school. The problem persists; 2% of young people between the ages of 15 and 24 (750,000 people, born in the 1980s and 1990s) are still illiterate.

Figure 4 shows the disadvantage Brazilians face relative to various other countries² in terms of the percentage of the population that has completed high school. The figure also shows the evolution of

FIGURE 3



Source: National Household Surveys (Pesquisa Nacional por Amostra de Domicílio, PNAD), IBGE.

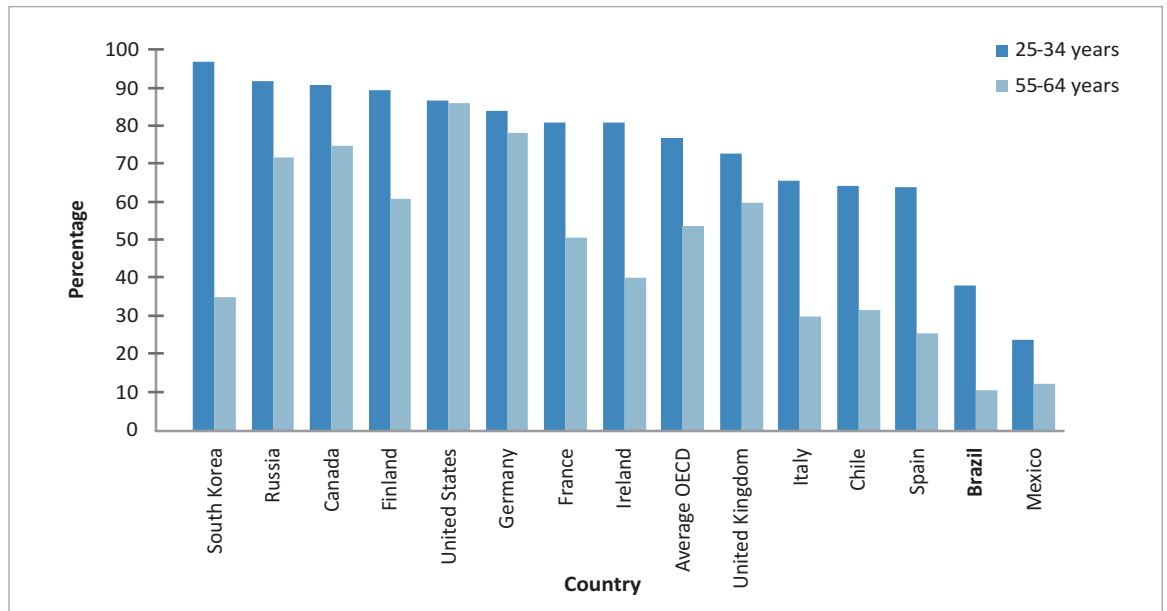
² In this report, international comparisons include data on the following groups of countries: 1) The G8 (the world's seven largest economies – Canada, France, Germany, Italy, Japan, the United Kingdom and the United States—plus Russia); 2) The G5 (developing countries – Brazil, China, India, Mexico, and South Africa); and 3) countries where significant progress has been made in education in recent decades: Chile, Cuba, Finland, Ireland, Spain, and South Korea. In figures where data are missing for certain countries, none was available.

that indicator from one generation to the next. In Brazil, the percentage of the population aged 25 to 34 that has finished high school (38%) is more than triple that of the 55 to 64 age bracket (11%).

Though this represents significant progress, during the same period, South Korea increased high school completion rates from 35% to 97%.

FIGURE 4

PERCENTAGE OF THE ECONOMICALLY ACTIVE POPULATION HAVING COMPLETED AT LEAST HIGH SCHOOL: A COMPARISON BETWEEN TWO GENERATIONS – SELECTED COUNTRIES, 2005



Source: Education at a Glance 2007, OECD.

Brazil's disadvantage in terms of workforce competitiveness is even more evident when college graduates are considered (**Figure A.2 in the Appendix**). In Brazil, only 8% of the population between the age of 25 and 34 has completed tertiary education, compared with 51% in South Korea and 41% in Ireland. Even rates in Chile and Mexico, at 18%, are higher than in Brazil.

Many children and young people leave school before completing basic education and high school

Ensuring that children stay in school is just as important as guaranteeing that they enter. Brazil has not succeeded in systematically keeping its students in school until they finish high school. An analysis of school attendance by age (**Figure 5**) shows that Brazilian students start dropping out of school from age 12 onward. This process accelerates after they turn 16, the legal age for formal entry into the labor market.

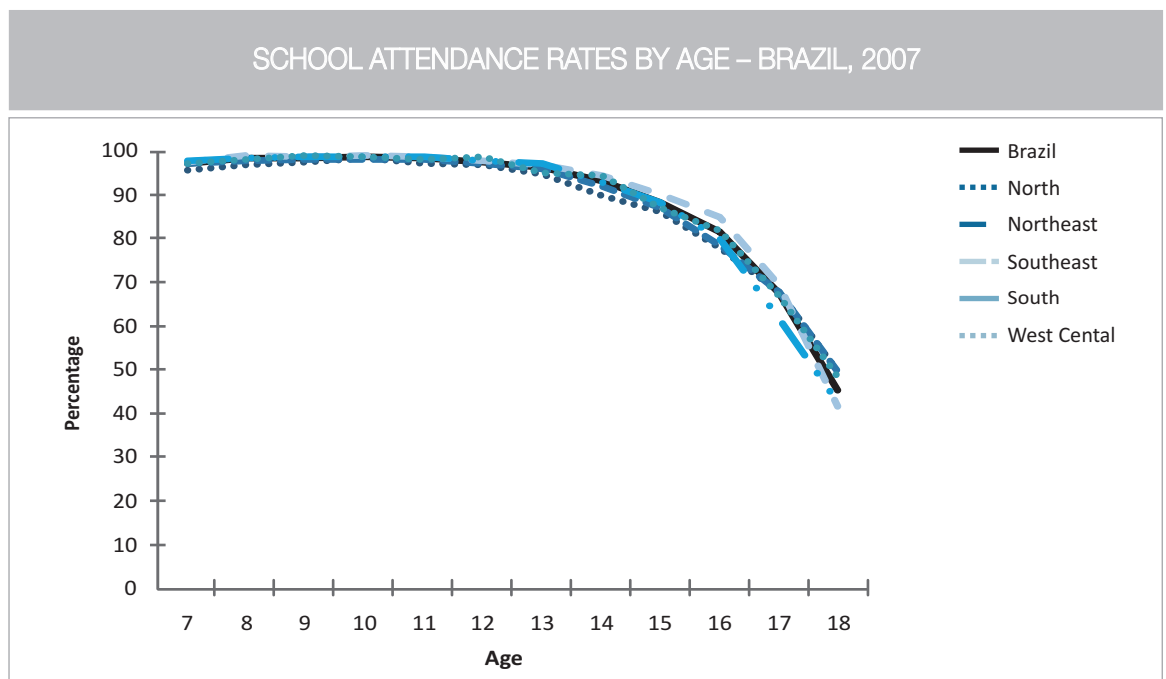
High rates of grade repetition contribute to students' decisions to leave school

Several factors help us understand why students leave school, among them the need to work, a lack of interest in school, and the poor quality of education offered to them. In addition, the entrenched practice of holding students back from one year to the next as a pedagogical or disciplinary technique makes repeaters more likely to leave school. In fact, Brazil has the highest repetition rate in basic education in Latin America³. More than 40% of high school students have fallen two or more years behind (age-grade distortion). Although this is an improvement over previous years, a large portion of young people are still behind in their schooling (**Figure 6**). Consequently, even students who stay in school until age 18 may not finish basic education.

In addition to the social damage, grade repetition also increases education costs in Brazil, since a student who spends multiple years in the same

³ According to a report by UNESCO (2007), of the countries in the region with data available, Brazil and Suriname have the highest repetition rates in basic education (20%), followed by Guatemala (13%), Nicaragua (10%), and Peru (9%).

FIGURE 5



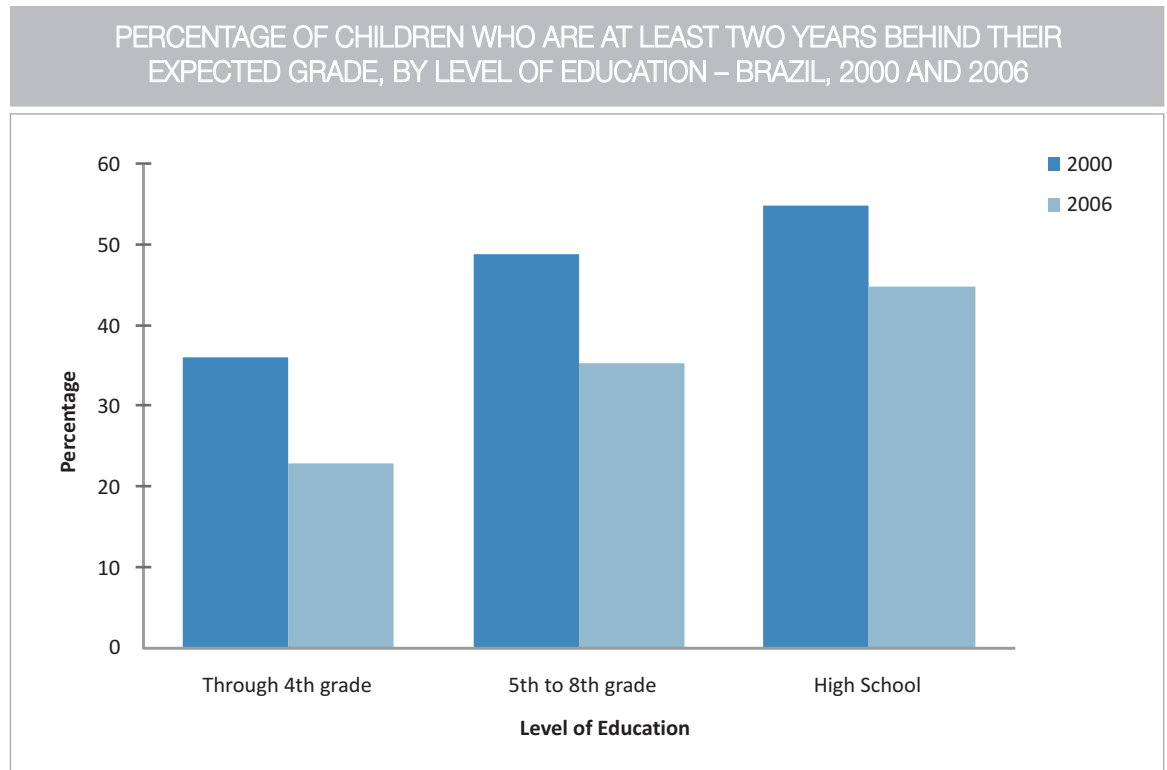
Source: National Household Surveys (Pesquisa Nacional por Amostra de Domicílio, PNAD), IBGE. Estimate by Ruben Klein in A Crise de Audiência no Ensino Médio, 2008.

grade has that year's worth of schooling paid for more than once. For example, in 2007, the average annual expenditure per student in the 27 state public school systems was 2,487 reais⁴.

Since the state systems together serve approximately 22 million students, every 1% rise in the rate of grade repetition costs the country more than 500 million reais per year.

⁴ Figures calculated by the Lemann Foundation, based on the education budget adopted by Brazilian states, according to information furnished by the National Council of Secretaries of Education [Conselho Nacional de Secretários de Educação – CONSED].

FIGURE 6



Source: INEP/MEC.

BRAZIL IS ONE OF THE WORLD'S LARGEST ECONOMIES, BUT ITS STUDENTS SCORE AMONG THE LOWEST ON INTERNATIONAL ACHIEVEMENT TESTS

Brazilian students do poorly on international assessments, starting at the early grades

One of the biggest advances in Brazilian education in recent years has been the consolidation of a culture of evaluation which aids in formulating public policy. Brazil has participated in several major international assessments and has developed a technically robust, transparent national assessment system. Today, data on academic performance and its determinants are collected and analyzed at all levels of instruction. Some states and even cities have also developed local assessment systems.

These measurements make it possible to compare students, schools, regions, and countries and to support decision-making by education officials. However, results have shown that Brazilian students score lower than their counterparts in most countries that participate in international exams.

Since 2000, Brazil has participated in the OECD's Program for International Student Assessment (PISA), which tests 15-year-olds in reading, math, and science⁵. In the 2006 round, Brazil ranked 49th among 56 countries participating in the reading test. Among Latin American countries, students in Chile, Mexico, and Uruguay obtained better scores than those in Brazil, while students in Argentina and Colombia did worse. It is important to emphasize that, of the knowledge areas covered by PISA, Brazilian

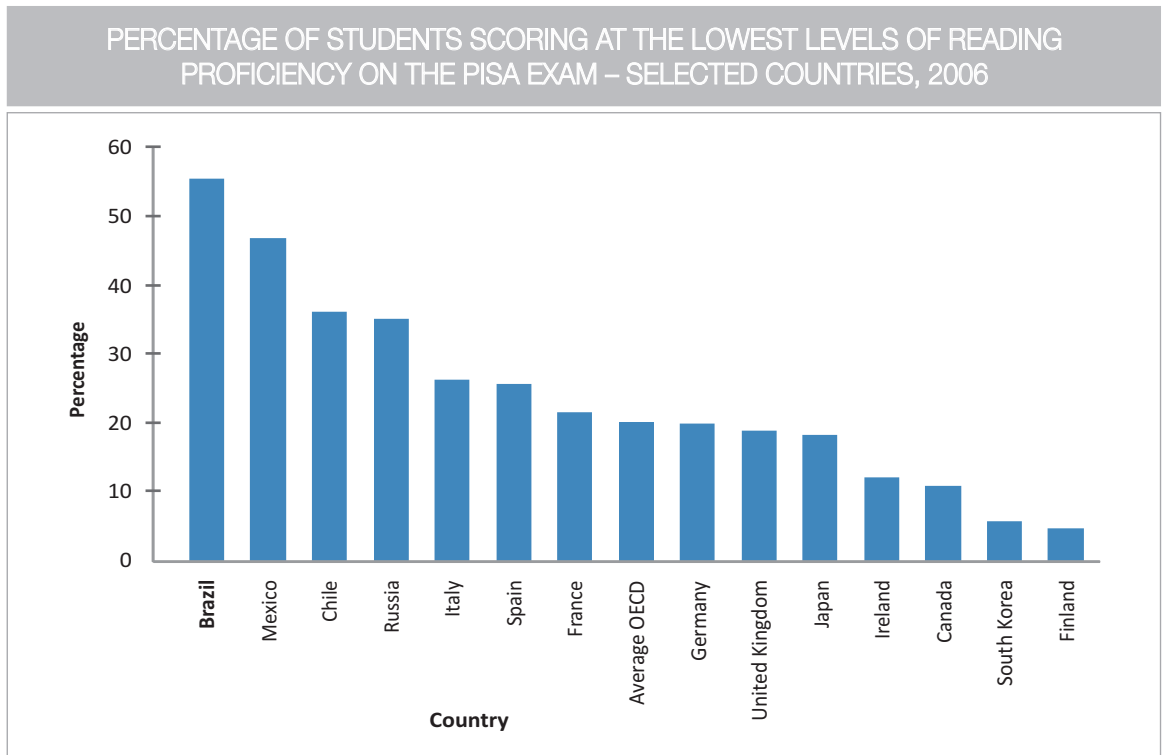
students obtained their highest scores in reading each time the test was administered, even though those scores did not improve significantly from one year to the other. Average math and science scores improved slightly between 2000 and 2006 (**Figure A.3 in the Appendix**); however, Brazil still ranked near the bottom of participating countries, at 54th and 52nd place, respectively. **Figure A.4 (in the Appendix)** shows the distribution of Brazilian students by proficiency level in the three PISA subject areas.

In reading, the majority of Brazilian 15-year-olds who took the PISA test in 2006 were classified at the lowest proficiency levels (level 1 or lower). For example, many were unable to locate explicit information in a text. Ten times as many Brazilians as Finns or South Koreans were classified at this low proficiency level (**Figure 7**). Reaching adolescence without mastering one of the most basic skills of modern life limits the ability of these individuals to continue studying or to compete for good jobs.

Furthermore, Brazil has few students who ranked at the most advanced proficiency level on PISA. Only 1% of the Brazilian students showed advanced skills in reading, while 22% in South Korea and 17% in Finland did so (**Figure 8**). With so many young people at low proficiency levels and very few at the high level, Brazil is at a disadvantage in terms of human capital relative to its economic peers.

⁵ Because reading is a fundamental skill, and is also necessary for learning in science and mathematics, this report focuses on test scores in reading. Charts showing the performance in all three subject areas can be found in the Appendix.

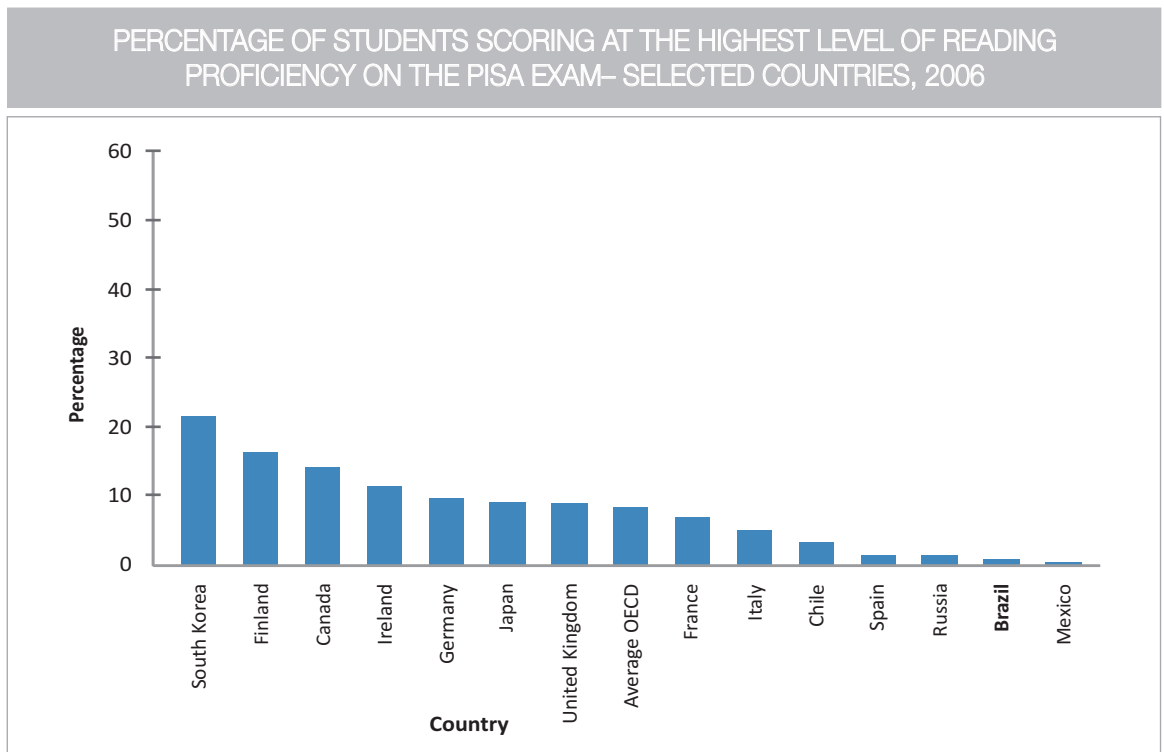
FIGURE 7



Note: The chart shows the percentage of students at or below level 1. Students classified as level 1 show only the most basic reading skills, such as finding a piece of information in a text. Those who score lower, although not necessarily illiterate, may have serious difficulties in continuing their schooling or making the transition to the job environment.

Source: PISA 2006, OECD.

FIGURE 8



Note: The chart shows the percentage of students at level 5. Young people at this proficiency level are able to perform a sophisticated and critical reading of different kinds of texts.

Source: PISA 2006, OECD.

A comparison with only Latin American countries, and with younger students, shows a similar situation. A recent study by UNESCO (the Second Regional Comparative and Explanatory Study – SERCE) assessed language, mathematics and science performance by students in the third and sixth grades of basic education in 16 countries of Latin America. In most countries of the region, except Cuba, the results showed a high concentration of pupils at the lowest skill levels (Figure 9).

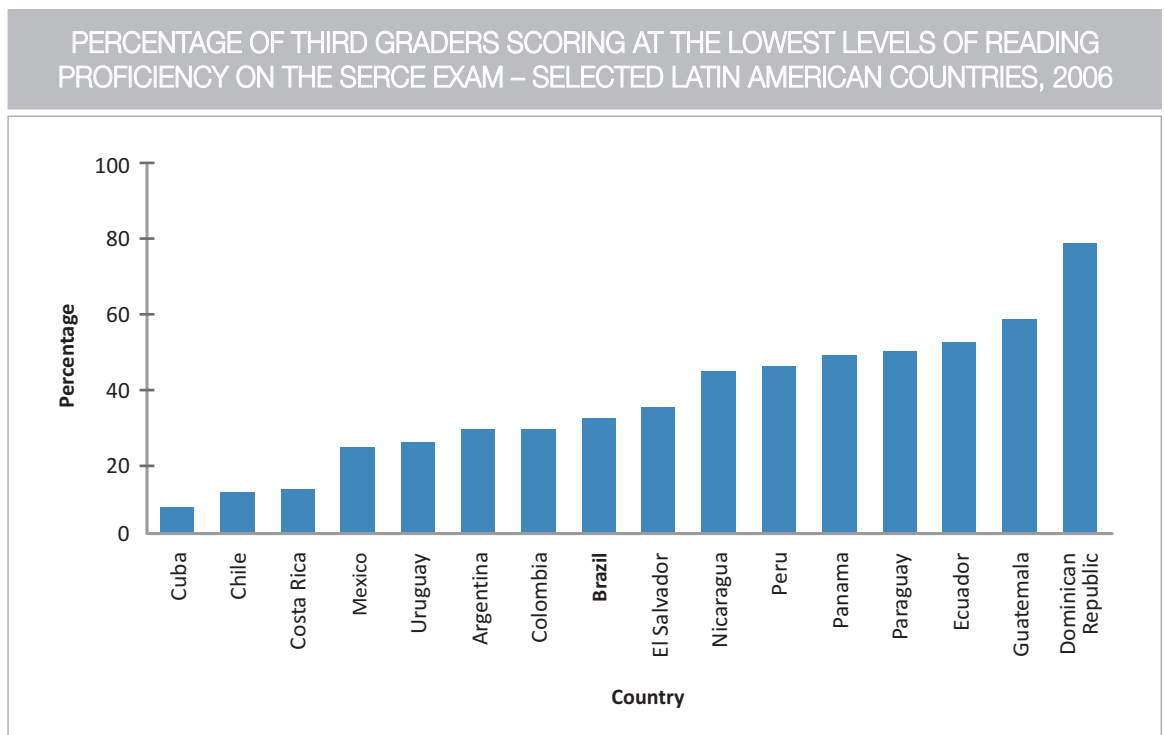
According to the exam, one-third of Brazilian third-graders were not capable of reading more than isolated words and phrases, or finding specific information in a text. This is especially worrisome, since it is precisely in these early grades when children are expected to develop the reading and

writing skills that are vital to the entire schooling process—including learning science and math. SERCE results in these two subjects also showed high percentages of students concentrated at the lowest achievement levels (Figures A.5 and A.6 in the Appendix).

National assessments also show that students are learning very little of what is expected, regardless of the level of education

Student performance assessments in Brazil routinely show low levels of student learning. Experts have not yet reached a consensus, nor are there official figures regarding what level of proficiency students should be expected to demonstrate at the end of each education cycle (4th and 8th grades of basic education and the 3rd

FIGURE 9



Note: The chart shows the percentage of students at level 1 and below. SERCE included four performance levels, with Level 1 being the lowest and Level 4 the highest.

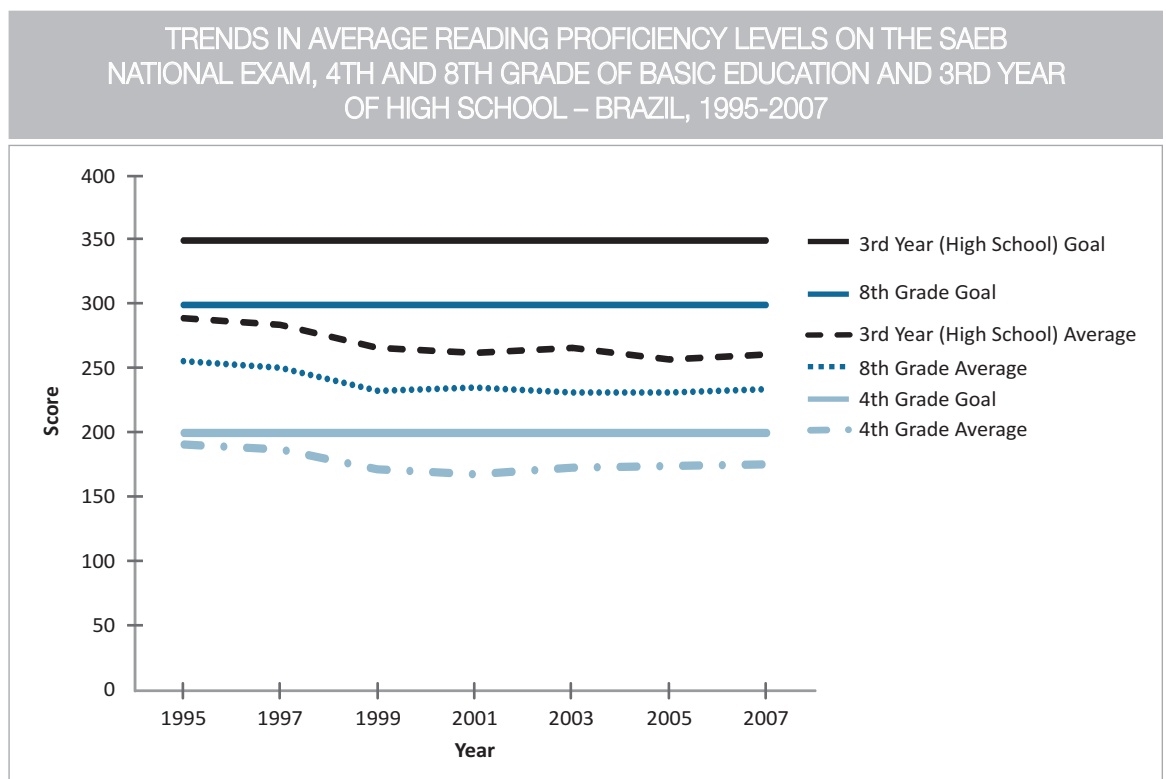
Source: How Much are Latin American Children Learning? Highlights from SERCE. PREAL, 2009.

year of high school). However, a report published in 2005 by INEP, the agency responsible for Brazil's national assessments, identified what it considered to be adequate levels of performance⁶. Since Brazil began conducting national assessments, the average score obtained by Brazilian students has fallen significantly below these levels (**Figure 10**).

Between 1995 and 2007, no significant change was observed in the levels of learning by Brazilian students in the grades analyzed. Furthermore, on average, children appear to learn little from one school level to the next. In fact, by the end of high school, a majority of students have not even achieved the levels expected for the end of basic education.

⁶ ARAUJO, Carlos H., LUZIO, Nildo. Avaliação da educação básica: em busca da qualidade and equidade no Brasil. Brasília : INEP, 2005. 71 p.

FIGURE 10



Note: The expected proficiency levels used in this chart were taken from the article entitled *Avaliação da educação básica: em busca da qualidade and equidade no Brasil* by Carlos Henrique Araujo and Nildo Luzio, INEP, 2005.

Source: INEP/MEC.

Even the poorest children have the opportunity to attend school, but completing basic education is not yet a reality for everyone

Quality education depends on a set of factors, among which are the human and material resources used to provide children and adolescents not only with access to education, but the opportunity to learn and progress in their academic lives. When the government is unable to provide quality education to the entire population, family income ultimately determines the quantity

and quality of education received by children in different social groups.

Between 1995 and 2005, the percentage of the poorest children enrolled in school increased at all levels of education. Even so, there are still enormous differences in schooling between rich and poor children in Brazil, especially at the high school level (Figures 11a and 11b). At that level, 75% of young people in the wealthiest quintile are in school, compared to only 25% of their peers from the poorest quintile.

FIGURE 11.A

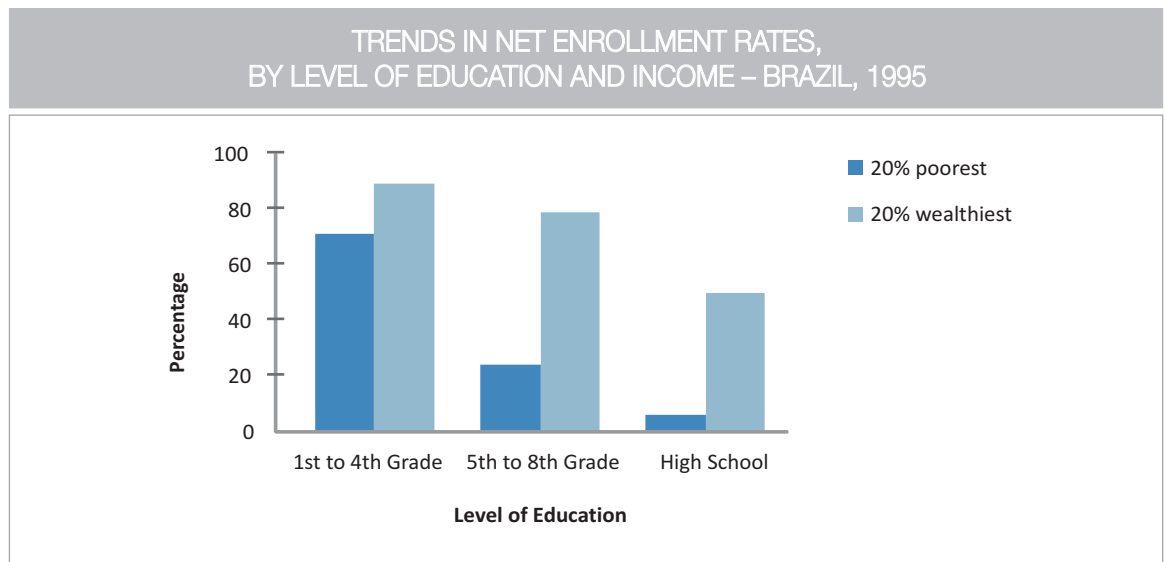
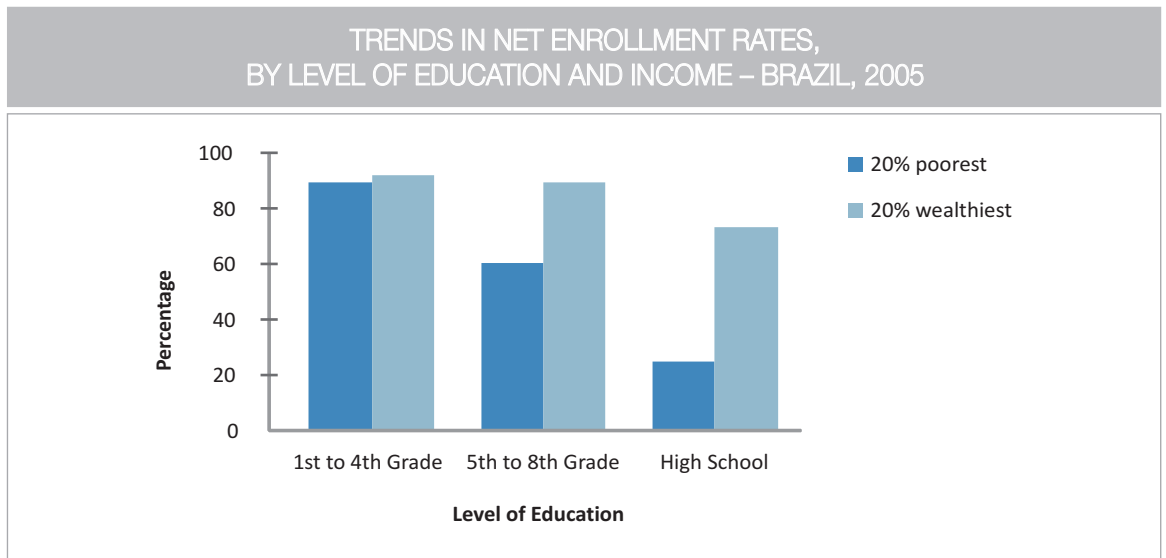


FIGURE 11.B



Source: National Household Surveys (Pesquisa Nacional por Amostra de Domicílio, PNAD), IBGE, 1995 and 2005. Prepared by the Center for Public Policies Studies (NEPP) at UNICAMP.

Every country has socioeconomic inequalities that are reflected in education (**Figure 12**). Although the disparity in performance between wealthy and poor students on PISA is less extreme in Brazil than in Chile or Germany, the low quality of education in the former extends to all income brackets. Even Brazilians from the highest socioeconomic level scored worse on the PISA reading test than the poorest students in countries such as Canada, Finland, Ireland, and South Korea.

While family income is the leading determinant of educational opportunities, color and gender can also be limiting factors

Besides income, two other aspects that negatively impact educational opportunities are race and gender. In Brazil, individuals of white or Asian descent⁷, regardless of income, have a better chance of advancing academically than African-descendants or indigenous people (**Figure 13**). For example, even among the wealthiest groups, only three out of every ten African-descendants or indigenous people gain access to tertiary education. Among whites in the same income bracket, that number rises to five out of every ten.

Similarly, in all income brackets, young women manage to complete more years of schooling than

young men. For example, among the poorest Brazilians, 30% of women completed at least high school, compared with only 22% of men.

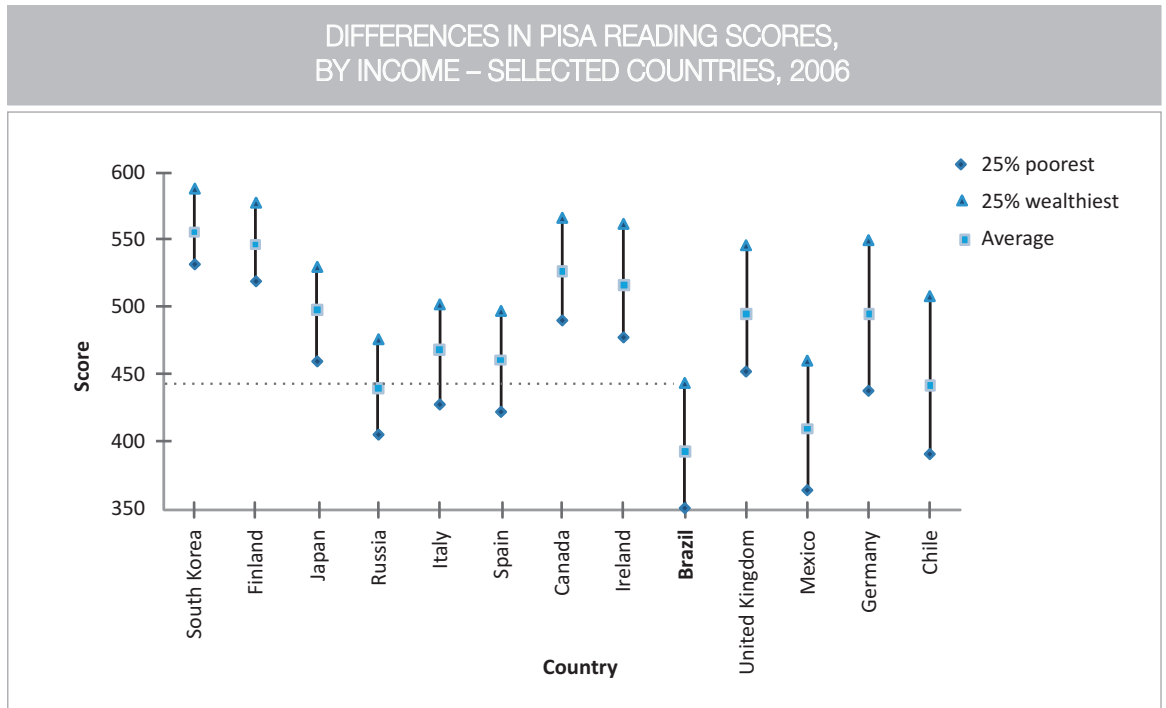
The quality of education services provided in the different regions of Brazil are also very unequal

In a country as decentralized and diverse as Brazil, it is not surprising to find variations in educational opportunities among states and regions. Since public education is financed by taxes, the capacity for wealth creation at federal, state, and local governments influences the quantity and quality of the education offered, even taking into account the redistributive policies adopted in recent decades (FUNDEF/FUNDEB).

Eight of the nine states in the Northeast receive supplements from the federal government in order to meet the required minimum annual spending per pupil for the first four grades of basic education. Meanwhile, the states in the South and Southeast not only do not receive this supplement, but are spending more than the minimum level per pupil per year. In the state of São Paulo, the average annual expenditure per pupil in the first four grades of basic education is 2,027 reais, while in the northeastern states the figure is only 1,221 reais.

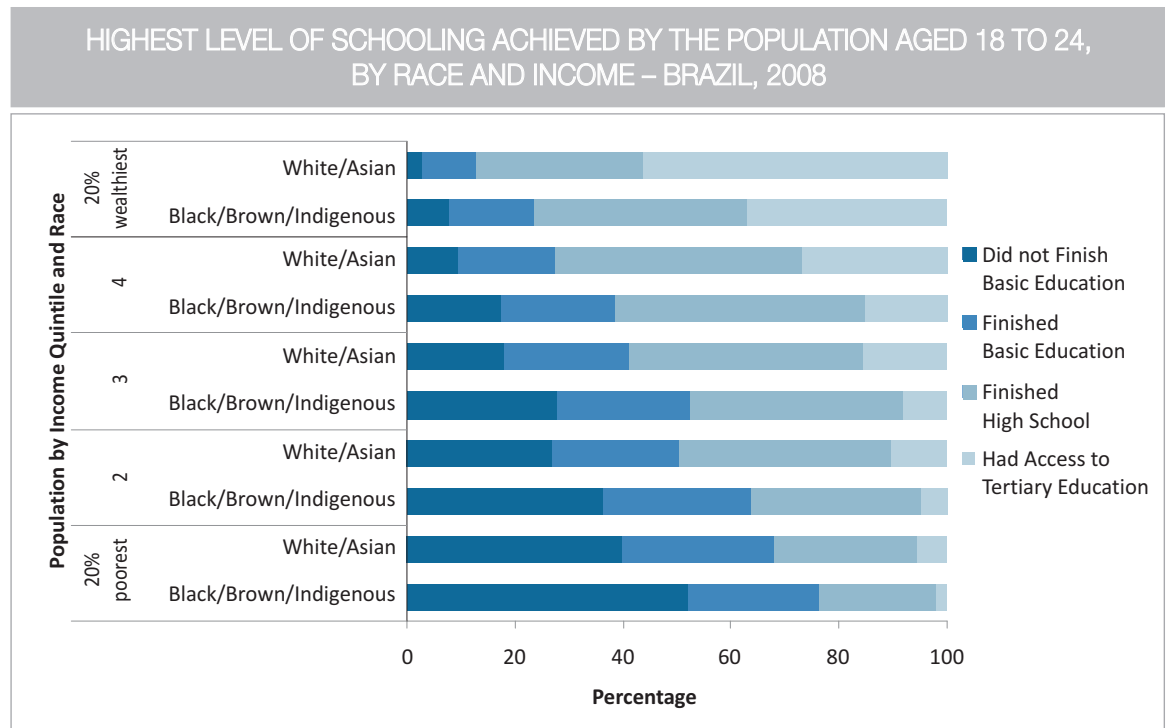
⁷ There are five pre-coded racial categories for census purposes in Brazil: white, black (people of African descent), yellow (people of Asian descent), browns (or pardos, the official term for the mixed race population in Brazil) and indigenous.

FIGURE 12



Note: For each country, the tip of the arrow indicates the average score obtained by young people in the highest income quartile (the wealthiest 25%). The base of the arrow indicates the average for young people in the lowest quartile (the poorest 25%). The distance between the points marks the degree of inequality between those two extremes. The central point on each arrow indicates the average for the country. Countries are listed in order from least to greatest difference between the scores of the rich and the poor.
Source: PISA 2006, OECD.

FIGURE 13



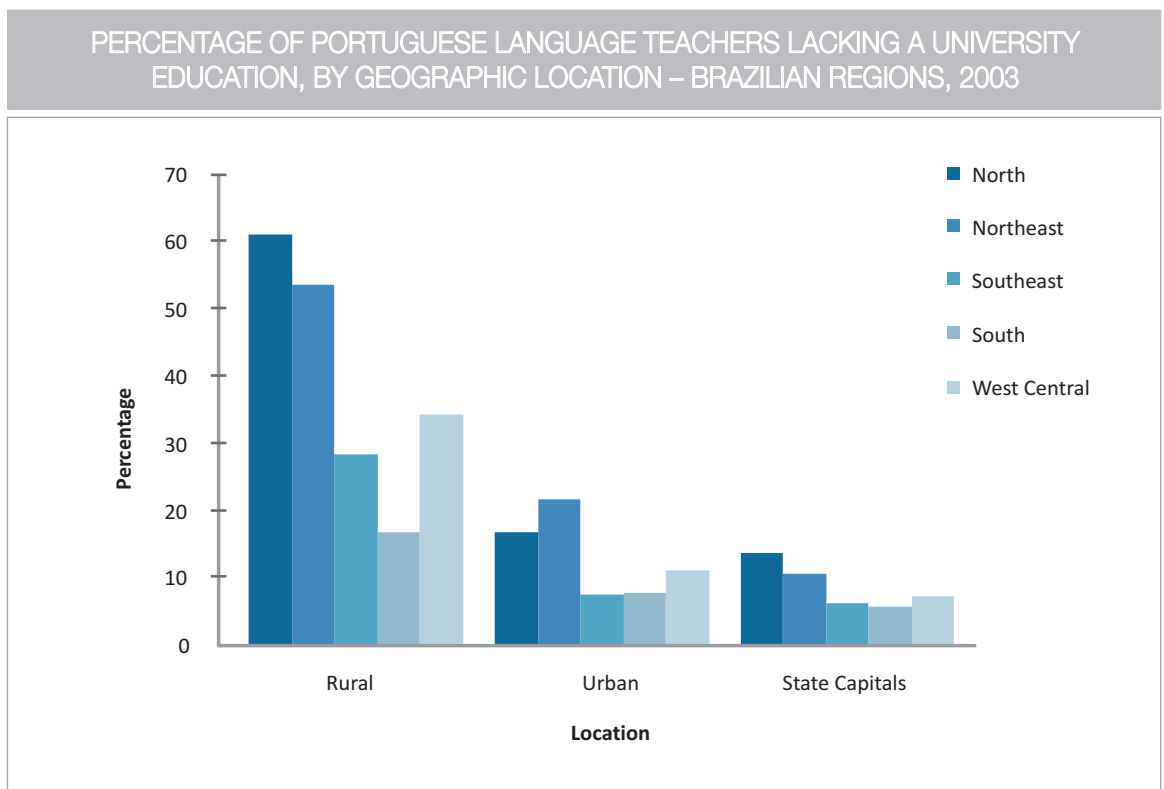
Source: National Household Surveys (Pesquisa Nacional por Amostra de Domicílio, PNAD), IBGE, 1995 and 2005. Prepared by Rafael Neves, using PNAD data.

Another important factor that determines the quality of education is teacher quality. Although imperfect, one of the indicators used to assess teacher quality is the extent of initial teacher training, since Brazil's current Education Guidelines and Framework Act [Lei de Diretrizes e Bases da Educação, LDB] recommends a university degree as the minimum qualification for teaching at the basic education level. The unequal distribution of teachers with a university education nationwide negatively impacts the equality of educational opportunities. In the North and Northeast, where 36% of Brazil's population lives, fully one-third of Portuguese teachers do not hold a university degree. The situation is even more serious in the rural areas of

those two regions where, on average, 55% of teachers have not earned a teaching degree (Figure 14).

When someone belongs to more than one disadvantaged group, it can be presumed that their educational opportunities will be even more limited. Based on the evidence, it is reasonable to assume that the chances that an African-descendant male in a low-income bracket, living in a rural area of Brazil's North or Northeast, will complete basic education and high school and advance to the tertiary level are dramatically smaller than for his peers whose characteristics are different.

FIGURE 14



Source: Census of Basic Education Teaching Professionals (Censo dos Profissionais do Magistério da Educação Básica), INEP/MEC.

BRAZIL IS BEGINNING TO DEVELOP STANDARDS, BUT LEGAL ISSUES, RESISTANCE, AND WEAK TECHNICAL CAPACITY HAMPER IMPLEMENTATION



Standards are essential to any process aimed at obtaining concrete results. They make it possible to set expectations, administer inputs more efficiently, compare results, and design monitoring and improvement systems. In the field of education, it is crucial to know exactly what the goals are, not only to pursue better quality education, but also to be able to monitor results and change course when necessary. A common definition of what is expected also helps administrators identify inequalities in educational opportunity and thus work towards eliminating them.

In this context, an educational system that seeks effectiveness, quality, and equity should at a minimum establish the following types of standards:

- Curriculum (or content) standards that clearly define the skills and competencies that students should master at each level of schooling;
- Performance standards that indicate the proficiency levels appropriate to each field of knowledge, at each of level of education;
- Opportunity-to-learn standards that specify the necessary technical, financial, and human resources to enable all students to achieve the expected proficiency levels.

There are no national standards that specify what each Brazilian child should know and be able to do at the end of each grade

The Education Guidelines and Foundations Act (LDB) dictates that curricula taught in Brazilian schools must have a common national core. It is up to the National Education Council (Conselho Nacional de Educação – CNE) to establish, in detail, the curriculum contents that make up this national core; however, this has not been done. According to the LDB, municipalities and states are also supposed to supplement the common framework by adapting it to local realities. Without national standards, only a few school systems have implemented these local measures, based largely on the initiative of individual administrators.

Part of the explanation for the fact Brazil still does not have national curriculum standards is that the

regulations governing collaboration among states, local governments, and the federal government have not been enacted. In the absence of a clear and well-regulated division of labor, basic national standards were never established.

The National Curriculum Parameters (Parâmetros Curriculares Nacionais – PCNs) published by the Ministry of Education (MEC) in 1997 are the closest thing to common core content standards at the national level that Brazil has. For each level of education (i.e., pre-school, basic education, and high school) and each area of instruction (e.g., language, mathematics, natural sciences, history, geography, arts, physical education, and foreign languages), the PCNs establish, generically, objectives, contents, assessment criteria, and instructional guidelines. Although the PCNs cannot be considered curriculum standards—and that really was not their function when they were produced—they are widely used by authors of textbooks and in developing continuing education programs for teachers. Some city and state school systems, and a number of private schools, use the PCNs as a basis for developing clear guidelines for their teachers as to what students must learn and be able to do each school year. In the public system, however, such use is still the exception.

Besides the PCNs, assessment systems have also been operating informally as a basis for curriculum development by schools and school systems, since these assessments establish a matrix of competencies and skills. This is not an ideal solution, because assessments cannot measure all the competencies taught in a curriculum and in many cases are limited to language and mathematics, leaving other subjects uncovered.

Another obstacle to curriculum standards is strong ideological resistance to the concept of a common curriculum, even if only at the state or municipal level. In the wake of Brazil's re-democratization, the perception took root that content standards are synonymous with an authoritarian approach and so should not be implemented. Thus, ensuring that all students have the opportunity to learn a common set of skills and competencies remains difficult.

Brazil is beginning to establish performance standards, but there is no official definition at the national level

While curriculum standards identify the subject matter and skills that students should learn and master, performance standards establish acceptable levels of performance for each stage in the educational process.

Using the national assessment systems as a basis, some education researchers and organizations have already laid out, on their own, what they believe to be a minimum and satisfactory level of student achievement. Since the results of these standardized tests are classified on a proficiency scale, we can determine, at least for reading and mathematics, the minimum competencies we should expect students to have gained by the end of the 4th and 8th grades of basic education and the 3rd year of high school. INEP, the agency responsible for administering Brazil's national exams, has published, in technical documents, expected performance levels for each of these grades. However, the government has not released those as official performance standards and as yet there is no consensus about them. In other words, although Brazil now has the tools needed to construct its performance standards, it still has a long way to go if it is to consolidate them.

The few existing opportunity-to-learn standards are not directly linked to improving student academic performance

Opportunity-to-learn standards specify the resources necessary to put curricula and performance standards into practice. They

include, among other things, the minimum amount of money to be invested in education, a description of the basic infrastructure needed for schools, and a list of the knowledge and skills that teachers should have in order to perform effectively in the classroom.

Although Brazilian education legislation mentions the need to ensure “minimum standards of quality,” these standards have never been clearly defined and so have never reached the schools and school systems. The existing standard—since the creation of FUNDEF in 1997—is a mandatory annual minimum expenditure per pupil, calculated not on the basis of the estimated resources necessary to achieve a quality education, but rather on the funds available in a given year.

Moreover, no determinations have been made as to the kind of infrastructure needed to ensure that schools offer their students an effective learning experience. This results in huge inequalities among Brazilian schools. For example, according to the 2008 School Census, only 37% of public basic education schools have libraries, and only 9% have science laboratories.

Nor has the country established teaching standards to ensure the quality of instruction. Brazilian law simply requires training at the university level for high school teachers and those assigned to grades 5 through 8 of basic education, and only recommends the same standard for the teachers in grades 1 through 4 and preschool. These are, therefore, simply standards that specify length of schooling and do not address the kinds of knowledge and skills expected of a good teacher.

THE COUNTRY HAS A TECHNICALLY ROBUST AND WELL-CONSOLIDATED ASSESSMENT SYSTEM BUT IT IS STILL SELDOM USED TO IMPROVE SCHOOLS

B 

Assessment systems are very complex initiatives, both technically and operationally. Thus, it is not easy to structure or operate them, or to use them to ensure that students are learning.

Nonetheless, in Brazil the federal government, some state governments, and even local governments have already made major progress in this regard. In the 1990s, Brazil began systematically collecting and analyzing data on student performance and its associated factors. Today, the national assessment system covers the final grades at all levels of education (4th and 8th grade of basic education and the 3rd year of high school) and supplies information on student achievement nationwide. Since 2005, when the tests became mandatory and began to cover the entire student body (Prova Brasil), it has been possible to obtain data from each individual school (**Table 1**).

Brazilian educational authorities regularly collect information on student performance in language and mathematics, along with student socioeconomic profiles and the characteristics of teachers and schools. In addition, they conduct various censuses at all levels of education and for different modes of instruction. The resulting data permit an in-depth understanding of the factors affecting the learning process and facilitate the design and evaluation of public education policies.

Exam results are posted on the internet in a clear and simple fashion, giving the general public access to information, categorized by individual school. The methodology of the assessments permits comparison of results over time. Databases containing more comprehensive information are made available to researchers and public policy analysts. This means that society now has more and better information about education in Brazil, which has in turn encouraged increased media coverage of educational issues as well as the mobilization of citizen organizations interested in the topic.

The development of an easy-to-understand index has mobilized the Brazilian public, encouraging people to monitor progress in education

The Ministry of Education (MEC) has developed an educational quality indicator that combines information on student performance on the Prova Brasil with data on student flows (retention rates) on a scale of 1 to 10. The indicator is known as the Basic Education Development Index (Índice de Desenvolvimento da Educação Básica – IDEB).

IDEB targets, to be achieved by each school, state, and municipality in the country by 2021, mobilized public attention around education improvement. Every two years, the government conducts an extensive campaign to publicize the results, showing which schools, municipalities, and states have been able to meet their interim goals and displaying trends in performance.

Nationally, the goal is to achieve a score of 6.0 (out of 10) by 2021. According to the MEC, that would bring Brazil in line with the current standard in OECD countries. In 2007, the national IDEB scores for basic education were 4.2 for grades 1 through 4 and 3.8 for grades 5 through 8, respectively. The score for high school was 3.5 out of 10.

The index and targets are also useful as guides for public policy. The federal government, for example, uses progress on the IDEB as one of the criteria for distributing funds to schools. Since 1995, the MEC has had a program that allocates money directly to the public schools (Program Dinheiro Direto na Escola – PDDE). Currently, schools that meet IDEB goals receive an additional 50% of grant funds as a bonus. The 200 municipalities with the lowest scores in the country on the IDEB also receive technical assistance from the MEC in drafting a plan for improvement.

It is worth emphasizing, however, that the IDEB can also have negative side effects. Some municipalities, in order to artificially inflate their

TABLE 1 . NATIONAL ASSESSMENTS

ASSESSMENT	GRADES COVERED	YEAR STARTED	OBJECTIVE	FREQUENCY	TARGET GROUP
Provinha Brasil	2nd grade	2008	Diagnostic assessment that helps teachers, coordinators and administrators categorize performance among students who are learning to read and write	Twice per year	Students in second grade, enrolled in public schools. Education Departments are responsible for administering the test
SAEB (National System for Basic Education Evaluation)	4th and 8th grade of basic education and 3rd year of high school	Established in 1990 but given regularly since 1995	Assess the status of instruction in state and municipal public school systems	Every two years	Sample of public and private schools
Prova Brasil	4th and 8th grades of basic education	2005	Assess the status of instruction in all public schools and school systems in Brazil	Every two years	All students in the 4th and 8th grades in all public basic education schools in Brazil that have more than 20 pupils enrolled in those grades
ENEM (National High School Examination)	3rd year of high school	1998	Assess the knowledge gained by high school graduates. The results of the exam are used by some higher education institutions in selecting candidates for admission	Annual	Optional for those graduating from public and private high schools
ENADE (National Student Performance Exam)	Tertiary education	2004	Evaluate tertiary education institutions	Annual	Sample of students who are starting and completing undergraduate courses in all private and federal public institutions
ENCCEJA (National Assessment of Youth and Adult Competency)	Basic Education and High School	2003	Certify the completion of basic education and high school for young people and adults	Annual	Young people and adults who have completed basic education and high school, whether public or private

index, have automatically promoted students or even excluded some students from taking the test (Prova Brasil). Although the concept of accountability provided by the IDEB is welcome in theory, it is important to ensure that it does not produce even more inequality in practice.

Assessments are not yet helping schools to improve academic performance

Assessments have played a key role in stimulating debate on education in Brazil. They have already fostered initiatives by some educational administrators, such as giving awards to teachers whose students exhibit the best results, or making training courses available to those whose schools perform poorly. Despite these steps forward, the information obtained from standardized tests is not yet fully utilized by individual schools in making academic decisions or in curriculum development and improvement. In general, the type of assessment being done does not allow teachers and school administrators to easily understand gaps in academic performance. And yet to bring about changes in schools and classrooms, it is essential that the assessments help educators to identify and resolve the problems that are preventing students from mastering certain skills and concepts.

The recent development of state and municipal tests—many of them using the same measuring stick as the national system—may help assessments become tools that can be used daily to improve academic performance. In Brazil, in addition to some municipal assessment systems, there are at least sixteen states that have developed their own tests: Alagoas, Amazonas, Bahia, Ceará, Distrito Federal, Espírito Santo, Goiás, Mato Grosso, Mato Grosso do Sul, Minas Gerais, Pernambuco, Rio de Janeiro, Rio Grande do Sul, São Paulo, Sergipe and Tocantins (**Table A.1 in the Appendix**). Since the state exams are developed within the network that actually administers schools—which is not the case with the federal government exams—strengthening of these systems could lead to greater alignment between assessments and the curriculum.

Attention should be paid, however, to issues of fragmentation among the different assessment systems used in Brazil today: the same students are taking more than one test on the same areas of knowledge. This lack of coordination can create waste, since assessments require a major mobilization of human and material resources. Consequently, national, state, and municipal assessment systems should attempt to complement each other. The national system should focus on measuring the extent to which students are being served in their right to learn. The states and municipalities, because they are closer to the schools, should focus mainly on pedagogical support in order to improve the dynamics of the classroom, making it possible, for example, to connect teacher training and pedagogical resources to the problems that students encounter in learning.

Another way to bring the assessments closer to the reality of the classroom is to offer teachers technical resources—educational materials, curriculum guides, training courses—that are aligned with the competencies measured by the assessment system. This practice is not yet systemically carried out in Brazil.

A culture of participation in international assessments is also taking root

As a complement to national assessments, Brazil has been involved in international efforts to monitor the progress of education. It has participated, since the first rounds, in both the PISA (2000, 2003, 2006, and 2009) and the LLECE (Latin American Laboratory for Assessment of the Quality of Education) (1997, 2006) exams (**Table 2**). Such participation enables Brazilian society not only to focus attention on its own educational progress, but to compare its progress against that of other nations.

With the results of these evaluations in hand, it is easier to understand key deficiencies in a global context and identify the areas that need greater attention. Participation in international assessments also adds transparency and credibility to national data on education.

TABLE 2 . MAJOR INTERNATIONAL ASSESSMENTS

ASSESSMENT	GRADES COVERED	OBJECTIVE	FREQUENCY	PARTICIPATION BY BRAZIL
PISA (Programme for International Student Assessment) - OECD	Students age 15, regardless of grade, in public and private schools	Assess, through performance on the tests, whether students have the knowledge and abilities required to participate in the global knowledge society	Every three years, since 2000	In all rounds
LLECE (Latin American Laboratory for Assessment of the Quality of Education) – UNESCO	First study: 3rd and 4th grades of basic education in public and private schools. Second study: 3rd and 6th grades of basic education in public and private schools	First study: Assess levels of achievement by students of the region in mathematics and language arts—and the factors associated with the quality of that education. Second study: science was added as a subject area	Frequency not defined, held in 1997 and 2006	In all rounds
TIMSS (Trends in International Mathematics and Science Study) – IEA (International Association for the Evaluation of Educational Achievement)	4th and 8th grades of basic education in public and private schools	Compare student performance in mathematics and sciences	Every four years since 1995	Never participated

MOST SCHOOLS LACK DECISION-MAKING POWER AND FAIL TO TAKE RESPONSIBILITY FOR THEIR RESULTS

The decentralization of power in public education systems—a process that gradually turns over key decisions to schools and their directors—is a way to increase society's control over the quality of instruction. Since schools are ultimately responsible for offering education services, their administrative teams should have the power to make key decisions in order to improve quality. The assignment of classes, academic offerings, and the allocation of human and material resources are choices that depend on the specific context of each individual school and should be made at that level. Ideally, the increase of authority at the local level also encourages students and their parents/guardians to get involved in the school, because they find it easier to demand results and suggest improvements.

If schools are to have more decision-making power, then, in order to exercise that autonomy competently, they need to have the resources and technical capacity that will enable them to assume responsibility for their results in front of the community and the administrative authorities they serve.

In Brazil, this process of “empowerment” is hindered by a set of factors that deprive schools of the necessary sense of authority and responsibility: legal limitations, little tradition of participation by families, lack of technical skills on the part of teachers, and the overload of non-academic functions imposed on the principal.

Management of education in Brazil is fragmented and there are no clear definitions as to the duties and functions of each administrative sphere

Alongside the expansion of enrollment, and as a consequence of political re-democratization, Brazil launched a process of decentralization of education. The 1988 Constitution and the 1996 LDB regulated the functions of states and local government with respect to education and set minimum levels of expenditure for each sphere of government. This means that the responsibility for providing services and for developing and implementing public policies is divided among the three levels of government. The federal government is responsible for financing university-level education and maintaining the federal technical

schools, as well as the budgetary function of transferring funds to the states and municipalities. The states focus their attention primarily on basic education and high school. The municipalities are responsible for providing pre-school and basic education—the latter in collaboration with their respective state. However, since no law has yet been passed to establish how this collaboration should take place, relations between states and municipalities ultimately depend on individual administrators.

Brazil now has about 5,500 municipal public education systems and 27 state systems. Each of them can independently establish salaries, teacher career development paths, curriculum guidelines, allocation of resources, etc. for the more than 200,000 Brazilian schools. Despite the dispersal of authority, municipal and state systems are regulated by a body of national legislation and by the National Education Council (CNE). They also get technical support from the Ministry of Education (MEC) which often provides funding and offers training directly to the schools. In other words, precise boundaries delineating the duties of each level of government have not yet been drawn. Given this ambiguous system of authority, the role of schools in Brazil have not yet been clearly defined.

Brazilian schools have little autonomy when it comes to crucial decisions about their operations

The decentralization process has not reached the schools, since they still do not have independent authority to make the most important decisions associated with the quality of instruction and actual student academic performance (**Table 3**). In general, administrators have little or no say about the composition of their teams, the assignment of classes to specific teachers, or the choice of the kind of continuing training available to their professional staff, for example. Schools do not have significant budgets for their activities, but bear the burden of administering the scarce funds available for everyday maintenance. Selection of most school principals in Brazil is still based on political interests.

TABLE 3 . LEVELS OF DECISION-MAKING AUTHORITY IN BRAZILIAN EDUCATION

DUTIES	LEVEL OF DECISION-MAKING			COMMENTS
	MINISTRY OF EDUCATION/ NATIONAL EDUCATION COUNCIL	SECRETARIES OF EDUCATION (STATE OR MUNICIPAL)	SCHOOL	
Hiring and firing teachers		X		In general, teachers are recruited through public exams and assigned to schools by the secretaries of education. As public servants, they acquire tenure after a probation period of three years, according to law. The most the schools can do is to decline to recommend hiring someone after the probation period, or to open administrative proceedings to dismiss and transfer professional personnel, but those avenues are rarely used.
Hiring and firing directors		X		Teachers rise to the position of principal by either public exams, direct election, or appointment by the secretary of education, mayor, or governor. When hired as the result of public exams, the same rules for dismissal apply to principals as to teachers. When elected, completion of their term of office signals the end of their tenure. In the case of appointees, their departure from the post depends on the political wishes of the person who appointed them.
Teacher promotion		X		Each state or municipality establishes a career ladder for professional teachers. In general, teachers are not effectively evaluated. Promotion is based on length of service and earning advanced academic degrees.
Salaries		X		Each state or municipality sets the salaries of its professionals, but the recently approved national salary floor dictates the minimum amount to be paid to all public school teachers.
Budgets and use of funds	X	X	X	Most of the education budget comes from states and municipalities, supplemented by the federal government. Decisions on expenditures and spending priorities distributed among the three levels of government. Schools are allowed to manage only funds for small projects or maintenance.
Maintenance		X	X	The secretaries of education control the appropriations for investment and maintenance of infrastructure. Most of the funds that are transferred directly to the schools are appropriations intended for everyday maintenance.

TABLE 3 . LEVELS OF DECISION-MAKING AUTHORITY IN BRAZILIAN EDUCATION

DUTIES	LEVEL OF DECISION-MAKING			COMMENTS
	MINISTRY OF EDUCATION/ NATIONAL EDUCATION COUNCIL	SECRETARIES OF EDUCATION (STATE OR MUNICIPAL)	SCHOOL	
Choice of textbooks and other educational publications– National Educational Book Program (Programa Nacional do Livro Didático - PNLD)	X		X	Textbooks are chosen by the school from a pre-selected list developed by committees contracted by the federal government. Schools indicate two choices per subject. Since orders for books for each subject are placed in different years, it is not always possible to acquire integrated collections.
Purchase of textbooks and other educational publications - PNLD	X	X		The Ministry of Education purchases the books and sends them to all Brazilian schools, based on their selections. Some state and municipal secretaries of education also offer textbooks and related materials outside the PNLD.
Organization of the classroom and hours	X	X	X	The minimum number of classroom hours per year is set by law at 800, distributed over at least 200 days of actual school work. State and municipal departments of education may increase the number of hours and distribute them throughout the year. The assignment of classes to specific teachers may be made at either the the department of education or at the school level.
Curriculum	X	X	X	General guidelines have been drawn up at the national level. It is up to the states and municipalities to define their curricula more specifically. The school, in turn, can make its own academic recommendations in determining the subject matter presented to students in each grade. In practice, however, most teachers still decide individually what material to cover in their classes.

It is important to emphasize that even if school principals had greater autonomy, many of them would not be technically prepared to make key decisions that could lead to an improvement in student learning. Therefore, if schools are to play an effective role in this regard, their administrators will need support in developing the necessary skills. They also need logistical and technical support: municipal and state education leaders should work in partnership with the local school administrators. Some federal government programs can also help, by offering funding and training directly to the schools and municipalities (**Box 2**).

Another important factor in ensuring balance between the authority to implement changes and the burden of assuming responsibility for them is the

presence of a monitoring system that furnishes information about each school. Brazil already has such a mechanism. Using it, teachers, principals and administrators can obtain reports on their performance and outline strategies to improve, in addition to being held accountable to society for the results.

Funds transfer programs, based on improvement in performance indicators, are a good example of how information from schools can be used by system administrators. Two experiences at the federal level are the Money Directly to Schools Program (Program Dinheiro Direto na Escola – PDDE) and the Plan for Coordinated Actions (Plano de Ações Articuladas – PAR). Both contribute extra funds directly to schools and municipalities (**Box 3**).

BOX 2 . TECHNICAL ASSISTANCE FOR DECENTRALIZATION - FUNDESCOLA

The School Strengthening Fund (Fundo de Fortalecimento da Escola – Fundescola) was instituted by the National Education Development Fund (Fundo Nacional de Desenvolvimento da Educação – FNDE), under the MEC. It works with state and municipal secretaries of education in the North, Northeast, and West Central regions and receives financing from the World Bank. Its aim is to promote improvement in the quality of basic education by increasing the time that children in the public schools of those regions stay in school and continue to learn.

To that end, the fund offers services, products, and financial/technical assistance to schools and education departments (**Box A.1 in the Appendix**). The benefits include strategic planning manuals for school administrators, financial resources distributed directly to the schools based on these plans, legal guidance for municipal education secretaries, training manuals for teachers and literacy teachers, and minimum standards for school functioning.

Fundescola was launched in 1998 and structured in stages. It is expected to continue operating through 2010, and to spend a total of more than US\$ 1.3 billion.

Source: www.fnde.gov.br/index.php/fundescola-apresentacao.

Families are important partners in advancing the quality of education

Families are an important link in the chain of autonomy, authority, and responsibility at the school level. In addition to societal control of education, participation by parents and guardians in the day-to-day functions of schools and in assisting students can effectively contribute to improvements in student performance.

In Brazil today, public schools often receive assistance from representative bodies, such as school councils and their equivalents, which are composed of members of the community: parents, students, teachers, and school employees. Their functions are generally related to financial, administrative, and academic management, and can feature different degrees of responsibility, involvement, and autonomy. Legal provisions and

a set of incentives (manuals, financial transfers, and official programs) now exist to ensure such participation.

However, there is still a long road to travel in terms of strengthening these institutions, since the hierarchy of the school systems hampers the effective engagement of those families that have less political capacity. Since many parents did not attend quality schools and still believe that education is a government problem, not a family one, contributions by this group remain limited. It is up to the technical staff of the schools to cultivate relations with the families and inform them about what it is possible to do so that, in the future, the schools can call upon them for more effective support.

BOX 3 . FINANCIAL ASSISTANCE FOR DECENTRALIZATION: PDDE AND PAR

The Money Directly to Schools Program (Programa Dinheiro Direto na Escola –PDDE) consists of financial assistance to public basic education schools in state and municipal networks and to private special education schools maintained by non-profit entities. The money is earmarked for the purchase of durable goods, maintenance, preservation, and minor repairs to the school itself. It may also be used to purchase non-durable goods necessary for the school to function; learning assessment; implementation of a pedagogical project; and pursuit of educational activities. Program funds are transferred to all schools in Brazil, according to the number of students reported on the school census taken in the previous year. Rural and urban public basic education schools that reach their interim targets on the Basic Education Development Index (IDEB) receive an extra allowance equal to 50% of the transfer.

The Plan for Coordinated Action (Plano de Ações Articuladas – PAR) – Since 2007, all funds transfers and technical assistance provided by the MEC to the municipalities have been conditioned on the drafting of a PAR. The purpose is to see that municipalities adopt and adhere to a planning and reforms checklist in order to improve their educational indicators. Using information from an assessment of the local educational context and with the aid of a document to guide their work step by step, the local technical team develops an action plan. Actions can be taken by the municipality directly or may require technical and financial aid from the MEC. When organizing PAR actions, the municipal education administrator describes the kind of support the municipality needs in various areas. When the PAR is approved by the MEC, the executives sign a technical cooperation agreement with the federal government.

Source: www.fn.de.gov.br/index.php/programas-dinheiro-direto-na-escola and www.fn.de.gov.br/index.php/programas-par.

QUALITY TEACHING HINGES ON IMPROVEMENTS IN TEACHER PREPARATION AND COMPETENT MANAGEMENT OF THE PROFESSION



The teaching profession in Brazil is currently not very attractive to young people who are beginning their careers. Low salaries, limited prospects for professional advancement, and poor social prestige drive the best students away from teaching degree programs and teacher training courses. As a result, many of the students who decide to enter the profession start from a very poor foundation in their own basic education experience. Figures from the National Secondary School Examination (ENEM) show that 30% of those entering teacher degree programs were among the worst students in high school. Furthermore, even among graduates of teacher training programs, 20% say that a teaching career is their second choice in terms of professional plans; despite earning their teaching diploma, they will go into teaching only if they cannot do some other kind of work.

Guaranteeing competitive salaries and a career path that values the efforts and ability displayed by teachers in the classroom are ways to make the profession more attractive to young people. However, we must also consider the 2.5 million

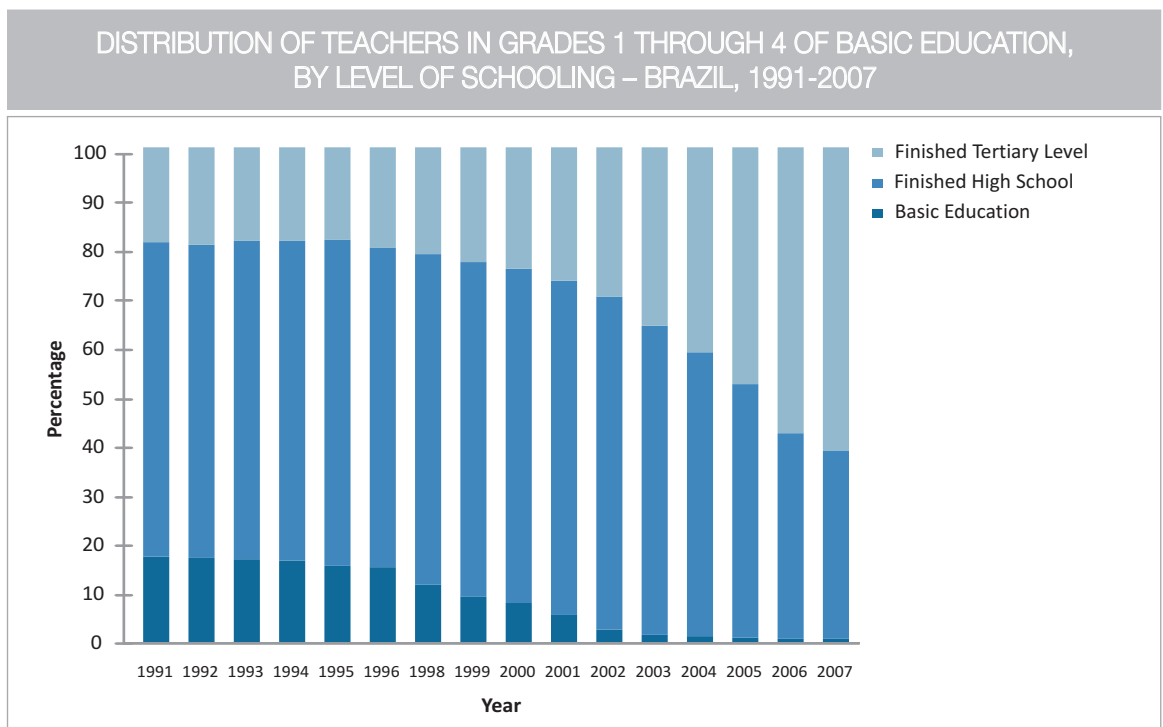
instructors who are already teaching in Brazilian schools. It is urgent to help them improve their skills and fully establish themselves in a career that balances rights with responsibilities and has clear standards to indicate what is expected of them as teachers, as well as frequent evaluations to monitor their performance.

The number of years of schooling completed by Brazilian teachers has increased in recent years, but not all teachers have completed higher education

Current legislation requires that basic education teachers working in grades 5 to 8 and high school teachers have a university diploma and, since 1996, recommends the same for instructors in grades 1 through 4 of basic education and preschool. In part as a consequence of this legal recommendation, the level of schooling among teachers in grades 1 through 4 has risen significantly in the past ten years. Between 1997 and 2007, the percentage of teachers in that group who had a university education rose from 19% to 61% (Figure 15).

⁸ The LDB accepts high school training for those teachers who are already in the classroom or who enter to teach preschool and the first four years of basic education. A bill (PL 3.971) passed by the Brazilian Congress in October 2009 makes a university diploma mandatory for those teachers, including those who were hired before the law passed. This bill has yet to win final approval by the Senate and to be signed by the President of Brazil.

FIGURE 15



Source: INEP/MEC.

Despite this progress, almost one-third of the teachers in basic education have only finished high school. Most of these are concentrated in the poorest regions of the country. In the North and Northeast, almost half the basic education teachers have not completed tertiary education (**Figure A.7 in the Appendix**).

The increase in schooling has not ensured that teachers are prepared for their role in the classroom

Having a university diploma does not necessarily mean that a professional is sufficiently prepared to meet the challenges of a classroom. A recent survey by the Carlos Chagas Foundation (2008) shows that the great majority of Brazilian teacher training courses have little connection with the realities of practice: only 28% of the subjects included in the Pedagogy curriculum—the course that trains teachers to teach in grades 1 through 4—deal with the “what” and the “how” of teaching. Furthermore, 40% of the subjects offered in this course deal with the theoretical foundations of education, such as, for example, sociology and philosophy of education. Not even the mandatory internship is planned so as to bring future teachers into close contact with the realities of a school and in most cases, it is not supervised.

To compensate for the lack of preparedness with which teachers arrive at their schools, state and municipal secretaries of education and the federal government attempt, each in their own way, to invest in training teachers who are already in the classroom. In 2003, almost half of Brazilian teachers said they had participated in some sort of in-service training during the previous two years.

However, it is difficult to rate the quality of professional development courses, since there is enormous variation among them. One finds everything from structured programs with pre-established hours to loosely planned initiatives that meet only long enough to fill the hours of ‘teamwork’ specified in a teacher’s career track. Furthermore, in most of these courses the basic education curriculum and the instructional tasks performed in classrooms

are not the central focus of the training. And so, despite various initiatives in this area, it is not yet possible to identify the impact of continuing training on student performance and effective changes in the classroom.

The Training Program for Literacy Teachers (Programa de Formação de Professores Alfabetizadores – Profa) is an exception. It was developed in 1999 by the MEC to focus on literacy. A survey by UNESCO (2009) shows that this was one of the continuing education programs that received the highest marks from teachers, since it was supported by plenty of methodological materials, as well as compilations of texts and suggestions for their use by teachers in the classroom. The program was implemented in partnership with the state and municipal education systems. The Programa Pro-Letramento, established by the MEC in 2007, resembles Profa, but also deals with the teaching of mathematics. Recently, the Brazilian government announced a new set of measures to try to improve both the initial and continuing education of teachers (**Box 4**).

Progress has also been made in teacher remunerations, but the field is still not competitive enough to attract the best people

The increase in number of years of schooling achieved by Brazilian teachers was accompanied in the last decade by increases in their compensation. Average salaries for teachers in public schools rose more than pay for other public- and private-sector occupations during this period (**Figure A.8 in the Appendix**). Several factors contributed to this increase. FUNDEF, and subsequently FUNDEB, required that at least 60% of the fund’s resources be used to pay teachers’ salaries. More recently, a minimum monthly national salary was established for the profession: 950 reais for a 40-hour work week. Some Brazilian states and municipalities have even started to adopt measures that call for performance-based salary increases.

BOX 4 . NATIONAL POLICY FOR TRAINING BASIC EDUCATION TEACHERS

The federal government began in 2009 to implement a specific plan to accelerate the initial and continuing training of teachers. Established by decree, the National Basic Education Teacher Training Policy (Política Nacional de Formação de Professores da Educação Básica) provides for the following actions:

- Train, in the next five years, 330,000 teachers who are already working in basic education. The courses are designed for three groups of teachers: 1) those who do not have a university education; 2) those who are teaching in a field other than the one in which they were prepared; 3) holders of bachelor's degrees that do not include a teaching credential, who need supplementary studies to help qualify them to teach. To accomplish this, new openings reserved specifically for these groups were created at public universities.
- Expand continuing education programs to all areas of knowledge, and to high school teachers. Currently, the programs offered by the MEC are limited to Portuguese and mathematics, and to teachers working in basic education (the Pró-Letramento and Gestar programs).
- Encourage changes in training course curricula so that they more effectively address the actual problems encountered in public basic education schools. To that end, states and municipalities that are able to coordinate efforts between their school systems and teacher training institutions will receive federal financial support.

Source: Ministry of Education (www.mec.gov.br) and GATTI, Bernardete; BARRETTO, SÁ, Elba. *Professores no Brasil: impasses and desafios*. Brasília: UNESCO, 2009.

Despite these steps forward, average pay for teachers in the public schools is still lower than the average for other occupations that require a university education, whether in the public or private sector. A recent study by UNESCO (2009) indicates that the average salary for basic education teachers in Brazil is approximately 1,200 reais, compared with 1,750 reais for nurses, a career that usually attracts people from the same socioeconomic background. Furthermore, Brazilian basic education teachers are at disadvantage in the international context, particularly with respect to Latin American countries where per capita income is close to the Brazilian level (**Figure 16**).

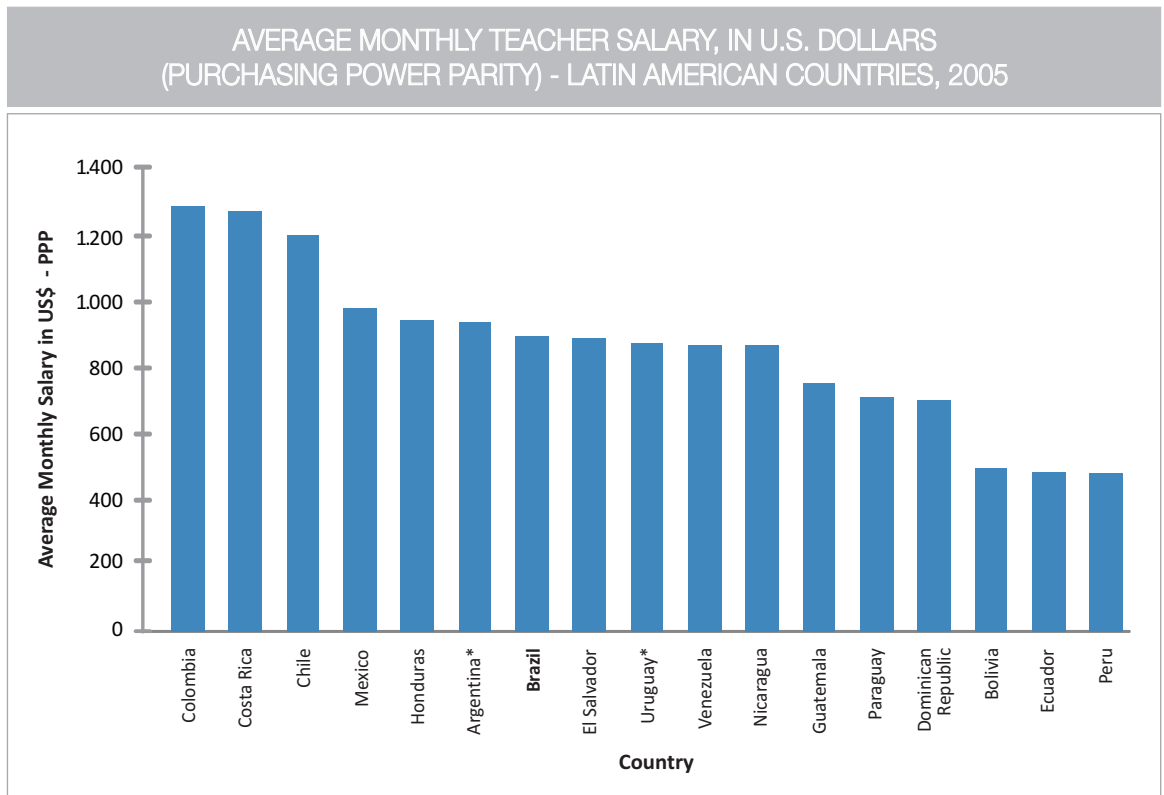
Although salary is not the only factor that determines the attractiveness of a career, it is hard to believe that Brazil will be able to recruit the best high school students to the teaching profession unless a significant effort is made to improve the pay of these professionals.

To ensure that students can learn, competent management of the teaching profession must supplement quality training and competitive salaries

In Brazil, laws that regulate career development for teachers in public schools mandate that, among other things, the only way to enter the profession is through a public exam, that promotion is based on degrees held and length of service, and that teachers are entitled to tenure.

These legal provisions were instituted in order to ensure the political independence of public servants and a minimum degree of stability in school staff. However, by adopting diploma and length of service as the principal incentives for promotion, appreciation for individual merit and effort was relegated to the back burner. Furthermore, other aspects already covered by legislation, such as the probationary internship and performance-based advancement, that could make a positive impact on education, are still mere formalities in the majority of school systems.

FIGURE 16



Note: *Urban areas only.
Source: Morduchowicz and Duro, 2007.

Current career development practices in public school teaching and the almost unconditional grant of tenure are still preventing the best teachers from being rewarded and recognized for their work. Furthermore, they hinder the removal of those whose professional profile is not consistent with instructional activities.

To ensure students' right to learn, therefore, competitive teacher salaries and appropriate training are not enough; changes must be implemented in management of the profession so that more capable professionals can be recognized and struggling teachers can receive support. Current proposals for reform in this area include the following:

- Changes in recruitment –the process for selecting teachers is not usually based on a set of skills that a teacher must master in order to perform well in the classroom. This means that not only does the

process often fail to select the most effective teachers, but it also does not identify the skills and areas of knowledge that should be covered in initial teacher training.

- Teacher evaluation –implementation of systematic assessments of teacher performance still encounters strong resistance. However, if these assessments are based on transparent criteria and designed to help teachers develop their skills, they can help to strengthen the teaching profession.

- Support for continuous refinement of skills – Mentoring programs in which teachers can contact more experienced professionals who will observe them and help them improve their instruction methods, can both encourage teachers to continually keep themselves up to date professionally and contribute to increased respect for education professionals.

- Improvement of career advancement plans – One important point is that these plans help keep good teachers in the classroom, by allowing them to foresee prospects of someday earning higher salaries and being given new responsibilities. In addition, a work schedule that helps reduce the rotation of teachers among schools should be established. It is also important that professional development practices include opportunities for new professional challenges, such as a transition into management and supervisory positions at schools.

- Bonus and incentive policies – Currently the legal principle of paying all teachers the same makes it

difficult to grant bonuses or incentives to school and teachers. If there is no connection between pay and the quality of teacher performance, it is less likely that teachers will be motivated to excel in their duties.

Regardless of the type of reform, it is important that changes in the teaching profession focus steadily on improving student academic performance. Also, policy makers must keep in mind that getting education professionals to buy into reform will facilitate its implementation.

AN ANALYSIS OF PUBLIC SPENDING IN THE SECTOR SHOWS THAT MORE AND BETTER INVESTMENT IN BASIC EDUCATION IS ESSENTIAL



Brazilian law guarantees a minimum level of public spending on education, and expenditures in this area have recently increased

Since the beginning of the 20th century, Brazilian legislators have sought to ensure minimum standards for spending on education, if only intermittently. Current law requires that the federal government, states, and municipalities invest fixed percentages of their tax revenues on education: 25% in the case of states and municipalities, and 18% in the case of the federal government. The group of laws now in force also stipulates the kinds of nondiscretionary expenses that can be recorded as money spent on education. These are found in Maintenance and Development of Education (Manutenção and Desenvolvimento da Educação – MDE) (**Box A.2 in the Appendix**).

In addition to this budgetary earmarking, in 1997, Brazil established a system to help equalize expenditures on education and ensure a minimum level of spending per pupil at the national level for each of the stages in basic education. The original system, the Fundo de Manutenção and Desenvolvimento do Ensino Fundamental e de Valorização do Magistério – FUNDEF (1997-

2006), was later replaced by the Fundo de Manutenção and Desenvolvimento da Educação Básica e de Valorização dos Profissionais da Educação – FUNDEB (2007-2020). Within each state, FUNDEB sees that 80% of the funds tied to education are redistributed to the municipalities according to a nationally defined minimum figure per pupil. When investment at a given level of education does not reach the nationally established minimum, the federal government makes up the difference. Beginning in 2010, the federal government will also start contributing 10% of the total value of the fund.

In 2009, the minimum annual per pupil expenditure used for calculating the FUNDEB in grades 1 through 4 was 1,221.34 reais. Nine states (Alagoas, Amazonas, Bahia, Ceará, Maranhão, Pará, Paraíba, Pernambuco and Piauí) serving 30% of the students enrolled at that level of education, received supplemental payments from the federal government in order to reach the minimum figure. However, three states, serving about one-fourth of the students at that level, spent between 2,000 and 2,500 reais per pupil, almost double the minimum amount (**Table 4**).

TABLE 4 . ANNUAL EXPENDITURE PER PUPIL IN GRADES 1 THROUGH 4 OF BASIC EDUCATION – URBAN SCHOOLS, 2009

EXPENDITURE PER PUPIL	NO. OF STATES WHERE PER PUPIL SPENDING EQUALS THAT FIGURE	NO. OF STUDENTS SERVED IN THOSE STATES	% OF ENROLLMENT IN TERMS OF THE NATIONAL TOTAL
R\$ 1,221.34	9	3,529.491	30.7%
from R\$ 1,221.35 to R\$ 1,500.00	6	3,429.166	29.8%
from R\$ 1,500.01 to R\$ 2,000.00	9	1,862.697	16.2%
from R\$ 2,000.01 to R\$ 2,501.31	3	2,682.441	23.3%

Source: Federal government (http://portal.mec.gov.br/dmdocuments/port_788_140809.pdf), accessed on 3/2/2010.

Since the level of spending on education is tied to tax revenues, factors such as growth in the economy, the increase in taxes that can be earmarked, or simply the general level of collection, generate additional revenues for the sector. Between 1996 and 2005, the amount available at the three levels of government rose from 63 billion to 87 billion reais (adjusted for inflation).

As a percentage of national income (GDP), Brazil has advanced to a point where it spends 3.8% on basic education, a level similar to average spending in OECD countries in 2006 (Figure 17). The distribution of expenditures by level of government (i.e., federal, state, or local) also changed during the period, reflecting the nationwide policy of decentralizing basic education (Figure 18).

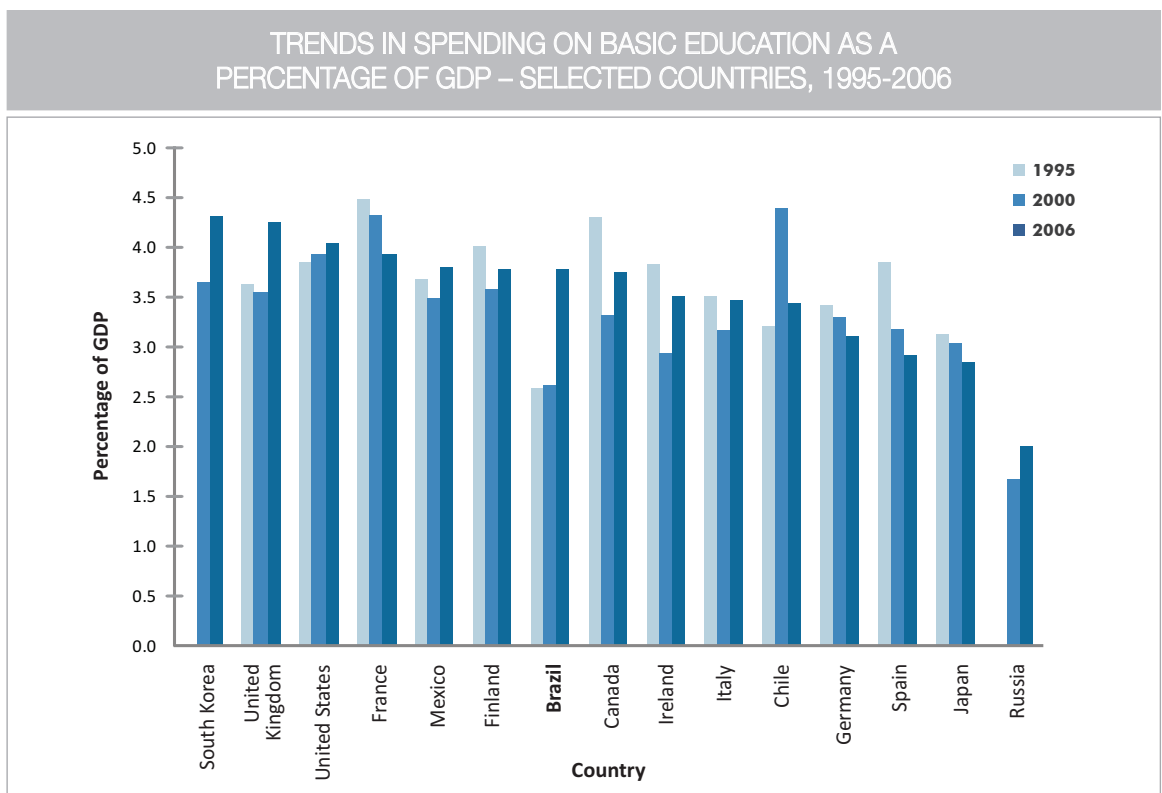
It is important to note that this progress occurred despite the existence of a constitutional mechanism known as Detachment of Federal Government Funds (Desvinculação dos Recursos da União – DRU). Over the last 15 years, the DRU enabled the

federal government to cease spending 20% of its constitutional obligation toward education. Thus, the 18% of total federal funds that, by law, are supposed to finance education was reduced to about 14%. This, according to MEC estimates, meant that the sector received 100 billion reais less between 1994 and 2009. Although the DRU was abolished in 2009, it will not be until 2011 that the federal government will once again invest the constitutionally required 18% in education.

Spending on tertiary education is still out of proportion to spending on basic education

Of total spending on education, 85% goes to basic education and high school, and 15% to tertiary education. In terms of per pupil expenditure, however, there is an enormous imbalance, although this seems to be lessening following the implementation of more recent legislation. According to INEP (Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira), in 2000 the disparity in per pupil spending between the two levels of education was eleven to one. In 2007, that ratio fell to six to one: 12,322 reais per pupil in

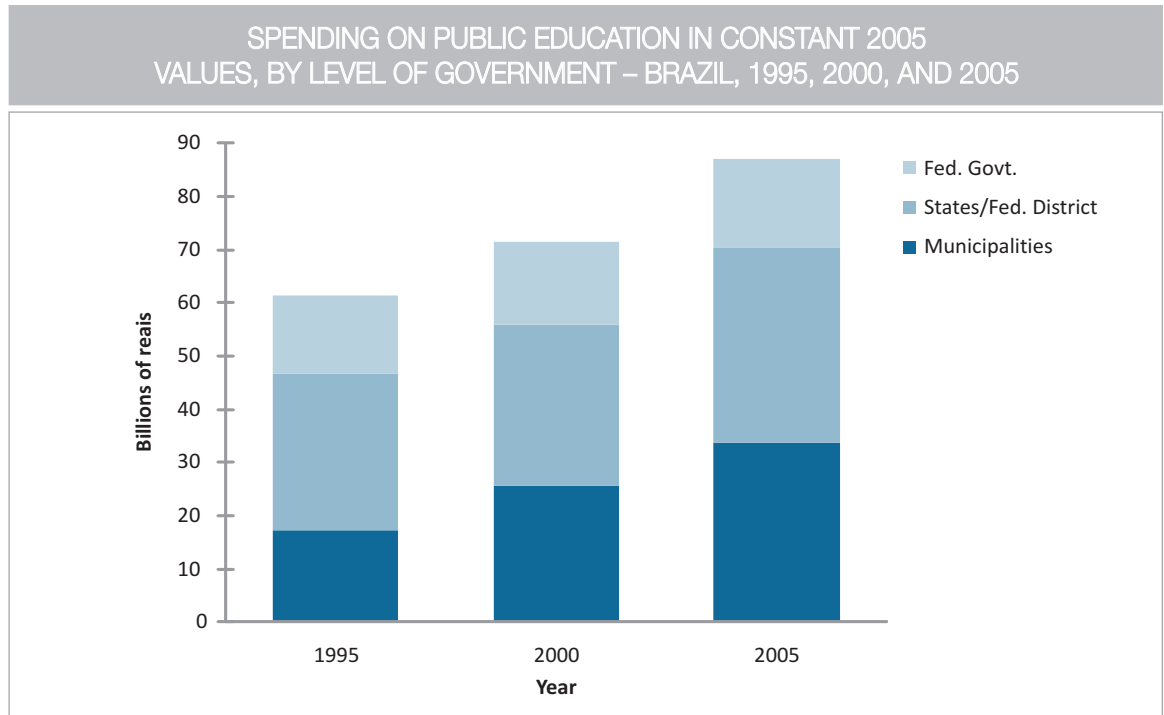
FIGURE 17



Note: Countries are listed in order of the percentage invested in 2006.

Source: Education at a Glance 2009, OECD.

FIGURE 18



Source: Based on Abrahão de Castro and Duarte (2008), *Descentralização da Educação Pública no Brasil: Trajetória dos gastos e das matrículas*, IPEA.

tertiary education compared with 2,005 reais in basic education.

Despite this progress, international comparisons of per capita GDP and education spending per pupil (**Figure 19**), suggest that, given its level of economic development and the number of students enrolled in each level of education, Brazil is making a stronger effort to send a small (and wealthier) segment of the population (1.2 million students) to university than it is spending to teach essential skills to those in basic education at the base of the pyramid (46.6 million students). Of all the countries featured in the comparison, the imbalance in Brazil is by far the worst.

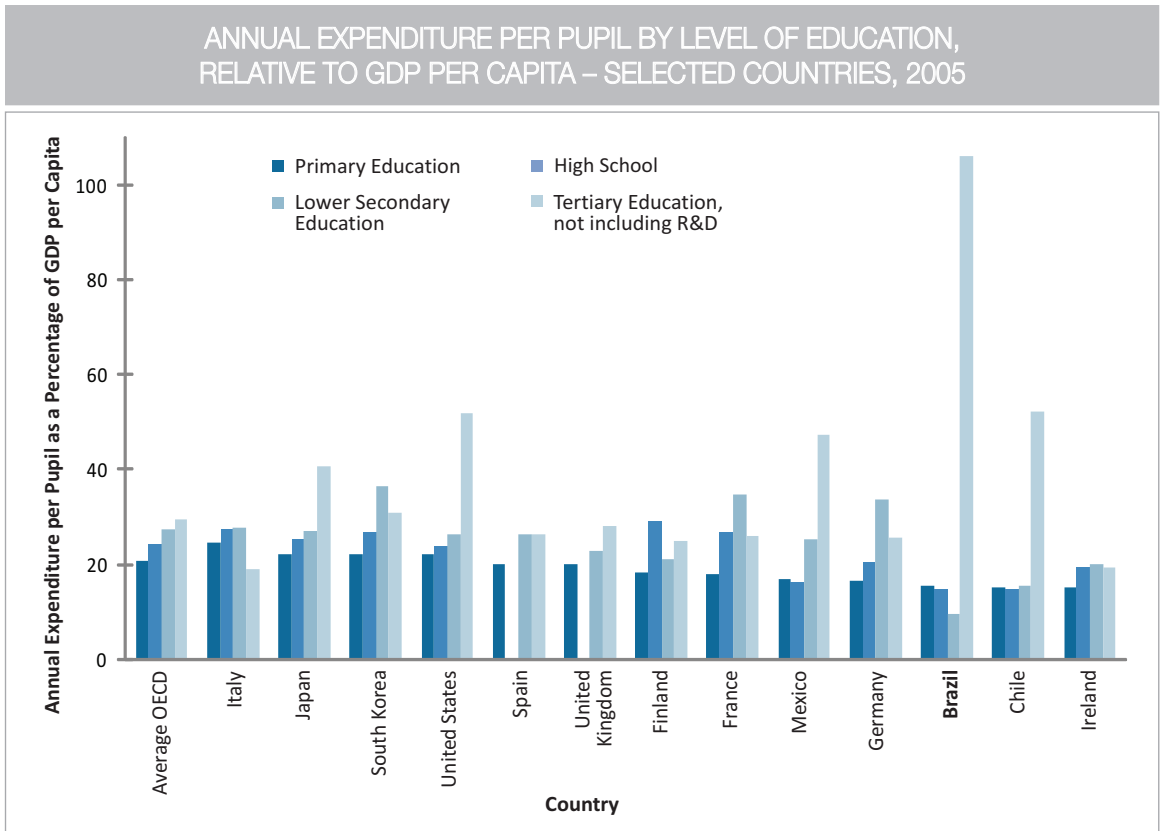
The minimum expenditure now guaranteed for education is still too small. The federal government should—and can—invest more

Even with the increase in educational spending, both in absolute terms and as a percentage of GDP, per pupil expenditure, especially for basic

education, is still low when compared with the developed countries, and even with other countries in the region, such as Chile and Mexico (**Figure 20**).

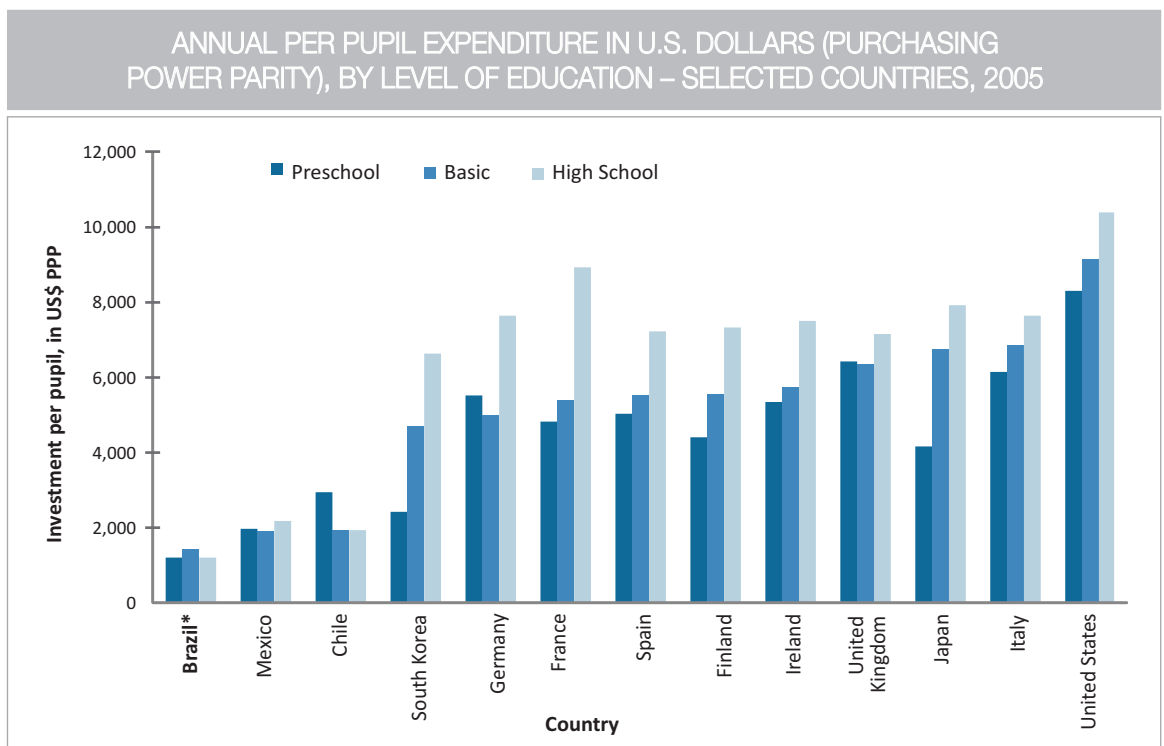
It is important to note that the tax burden in Brazil is not much different than that of countries used as a comparison in this document (the average tax burden in OECD countries is 36%, and in Brazil, it is 35%). This suggests that greater investment in education does not necessarily require an increase in taxes. To be sure, the proportion of the population that is of school age (5 to 19 years) is higher in Brazil than in the OECD countries (27% and 19%, respectively). However, in this regard a comparison between Mexico and Brazil is interesting: although Mexico has a lighter tax burden than Brazil's (20% versus 35%); a smaller GDP (US\$1.1 trillion versus US\$1.6 trillion) and a higher percentage of the population that is of school age (31% versus 27%), Mexico still spends more per pupil on basic education, in absolute terms, than does Brazil.

FIGURE 19



Note: For Italy, the data are from 2004; for Spain, the two stages in basic education are combined; and for Brazil and Chile, the data are from 2006. **Source:** Education at a Glance 2008, OECD.

FIGURE 20



Note: The countries are listed by level of per pupil investment in basic education. *Includes only public investment for all levels of education. **Source:** Education at a Glance 2008, OECD.

A breakdown of the national tax burden among the three levels of government also shows that, despite an increase in taxes, expenditures on education remained stable, or even declined, as a percentage of GDP (**Figure 21**). Furthermore, the chart shows the disproportionate effort by the states and municipalities relative to the federal government. While the former spend 2% of their GDP on education, the federal government spends half of that: 1%.

And so, although the recent trend of increased investment in basic education is positive, it is clear that funding is still not sufficient, especially at the federal level. It is vital not only to manage existing resources more effectively, but to make more money available for education.

Minimum spending per pupil is not yet defined on the basis of the amount necessary to ensure quality of academic performance

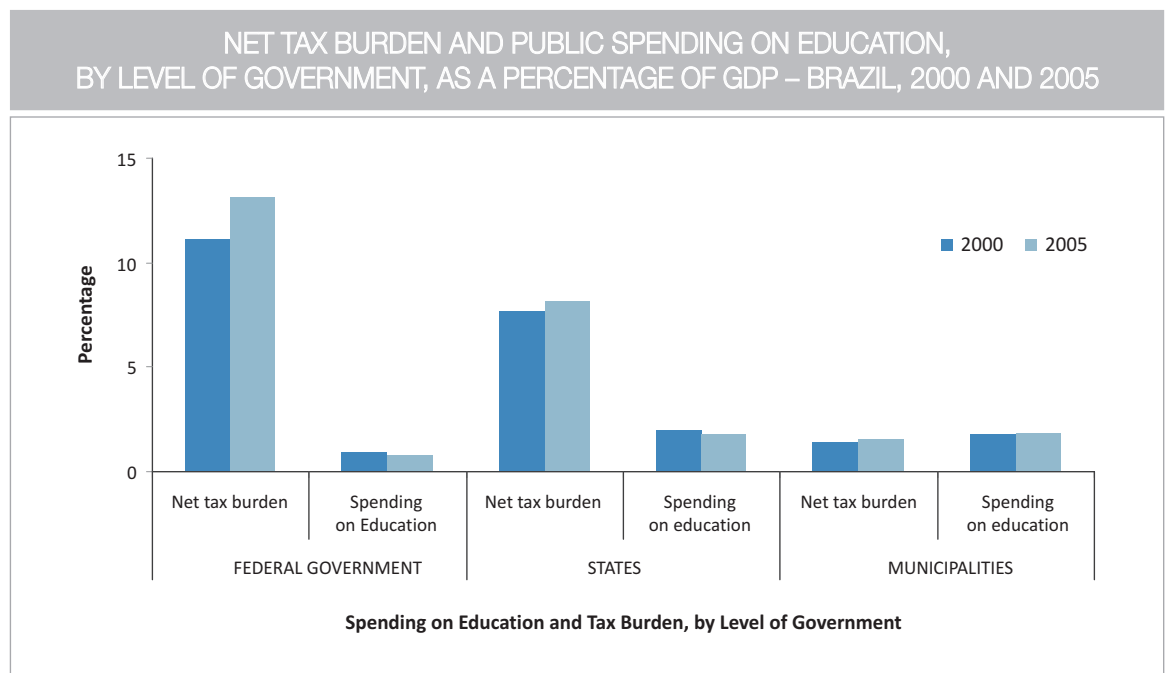
A standard way to calculate budgets is to use the cost of the minimum number of inputs necessary for the implementation of a given project. In the case of Brazilian public education, this logic is mandated by law (**Box 5**), and known as the “minimum

standard of quality.” However, even today, the minimum figure for per pupil spending is not being determined this way. The figure has instead been set on the basis of the volume of funds available to the sector, divided by the number of students enrolled in the preceding year. In other words, federal, state, and municipal governments need only to invest a pre-defined sum in education, regardless of whether or not this amount is sufficient to ensure the quality of the educational services provided.

The establishment of a minimum value based on quality could help increase federal government spending on education because, under the Constitution, the role of the federal government in financing education is to supplement the investments by states and municipalities.

It is important to emphasize that defining the amount of funds necessary to achieve the “minimum standard of quality” should take into consideration what inputs and processes are indeed capable of making a favorable impact on student performance. Otherwise, the increase in funding will not be accompanied by improvements in learning.

FIGURE 21



Source: Based on Gomes and Capanema, Financiamento da Educação: Perigos à vista?, 2009.

BOX 5 . MINIMUM PER PUPIL EXPENDITURE: LAWS THAT ARE NOT BEING OBEYED

The 1988 Constitution of Brazil established a “guaranteed standard of quality” as one of the guiding principles for improving education in the country. Constitutional Amendment No. 53, passed in 2006, says that the federal government, states, and municipalities must use financing to ensure an improvement in education quality and do so using a nationally defined minimum standard.

Other more recent laws mandate that spending on education be based on an annual minimum per pupil investment sufficient to ensure a quality education (i.e., the “quality” cost per pupil):

- The LDB, enacted in 1996, says that the State's duty toward public education should be discharged via a guarantee of “minimum standards of educational quality, defined as the minimum kind and quantity of inputs per student indispensable to the teaching/learning process.” The law also establishes that with respect to basic education, it is the responsibility of the federal government, at the end of each year, to calculate the “minimum per pupil cost capable of ensuring quality education.”
- The National Education Plan (2001-2010) establishes the obligation to define minimum standards regarding infrastructure and school services for all levels of basic education as a clear target for its first years of implementation (i.e., until 2005).
- Regulations regarding implementation of FUNDEB program (1997-2006) allowed the federal government, states, and municipalities five years in which to adjust their contributions to the Fund so that the minimum amount spent per basic education pupil would ensure a minimum standard of instructional quality. That deadline passed at the end of 2001 without the value of that minimum standard ever having been established.
- FUNDEB regulations (2007) mandate that the true cost of each level of education, mode of action, and type of educational establishment, as calculated by INEP, be used as the basis for determining the minimum cost of quality per pupil.

Despite extensive legislation on the subject, the “quality cost” per pupil has yet to be implemented based on the resources needed for quality instruction. A simulation using the “minimum standard of quality” shows that an annual investment of at least 1,942 reais per pupil is required for grades 1 through 4 of basic education. That figure exceeds Brazil's current minimum investment of 1,221 reais per pupil annually, but is still far below what countries in the G8 and OECD are spending (*Figure 20*).

Summary of the CAQi (per pupil cost to ensure quality education)	Nursery School	Pre-school	Basic Education		High School	Basic Education – Rural Areas	
			Grades 1 to 4	Grades 5 to 8		Grades 1 to 4	Grades 5 to 8
Average size of educational unit (number of students)	130	264	480	600	900	60	100
Length of student school day (number of hours)	10	5	5	5	5	5	5
Average class size	13	22	24	30	30	15	25
Personnel cost + payroll taxes (%)	81.60%	76.80%	76.10%	75.50%	76.50%	80.40%	75.10%
CAQi (R\$)	R\$ 5,266	R\$ 2,042	R\$ 1,942	R\$ 1,902	R\$ 1,957	R\$ 3,219	R\$ 2,464
Total cost (in % of per capita GDP)	39%	15.10%	14.40%	14.10%	14.50%	23.80%	18.20%
Differential (grades 1 through 4 of basic education = 1)	2.71	1.05	1	0.98	1.01	1.66	1.27

Note: Excludes costs of food.

Source: National Campaign for the Right to Education (Campanha Nacional pelo Direito à Educação), 2009.

RECOMMENDATIONS

Brazilian education has made some important advances in recent decades: the number of students enrolled has grown, national assessment systems have been established, teachers are completing more years of schooling, and governments have started to invest more money in education. Recognition of this progress, however, must not overshadow the urgent need to improve. With the economy becoming more and more globalized and dependent on individual knowledge as a means of creating wealth, supporting a labor force that is unable to compete can become very costly for Brazil—both socially and economically.

Brazilian society was late in demonstrating a willingness to make personal and political sacrifices in order to train its future generations. Moreover, movement has been slow. Countries that decades ago were in a situation worse than Brazil's have managed to find internal solutions to their educational deficiencies and have progressed more rapidly. Brazil can learn a lot from their example in making education a national priority. In order to do so and offer a quality education to all Brazilians, regardless of social class, the following steps are essential:

a) Develop and implement curriculum standards

Academic standards must exist, at least at the state and municipal levels. It is important that they be effectively implemented in every school. Standards not only serve as a guide for teachers in the classroom, but also as a reference for teacher training programs that can effectively prepare professionals for the classroom, as benchmarks for performance assessments, and as a guarantee of equity in the services provided to students from different social backgrounds.

b) Continually refine the assessments system

It is vital not only to ensure that society can monitor student performance, but also to give educators and the administrators responsible for instruction a tool that can assist them in their pedagogical work.

c) Seek a balance between authority and responsibility at the school level

The responsibilities delegated to the schools must be consistent with the human and material resources available to them. On the one hand, schools need to have authority to make key management decisions—decisions that include, for example, hiring employees and administering their budgets. In that regard, it is important that they receive from society and the education authorities the operational and technical support they need to fulfill their mission to educate future generations. On the other hand, it is extremely important that schools be responsible for their results and held accountable for the academic achievement of all their students.

d) Place the best professionals in the classroom

In all schools, but especially in those that serve the most vulnerable students, the presence of good teachers has a huge impact on learning. However, attracting and retaining the best teachers in schools requires structural changes in the career ladders developed for Brazilian public education. Among the steps that will need to be taken are: developing selection procedures that take into consideration teacher's classroom skills; instituting plans for professional advancement and career development; and reviewing currently salary structures that hinder the payment of bonuses and other ways of rewarding the best teachers. Changes of this kind would represent an important paradigm shift in education in Brazil.

e) Increase investment in education

Common sense says that there is no free lunch. There is no such thing as a low-cost, high-quality education. However, merely increasing expenditures on education will not ensure better results. The investment must be focused on priority policies, such as those mentioned above, and the available funds must be administered transparently. All human and material resources available for education must be used with a view to making a positive impact on student achievement.

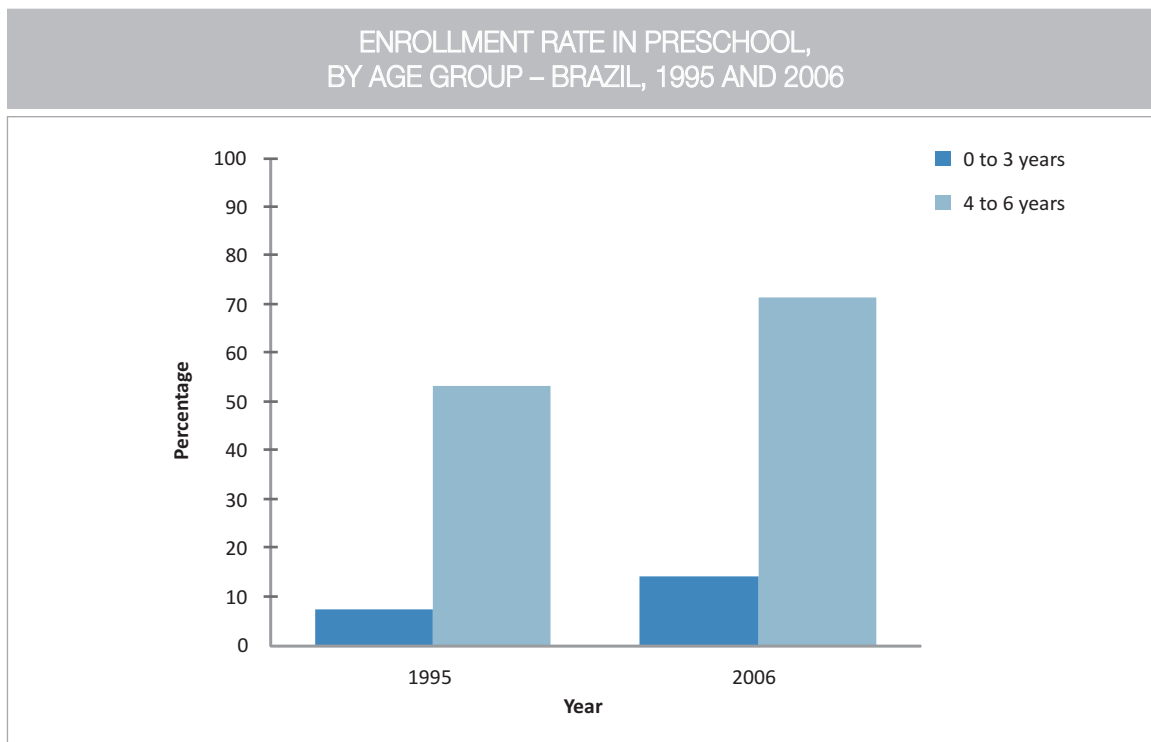
Lastly, as a special recommendation, we cannot fail to mention the potential contribution that effective application of technology to education could make to Brazilian society. Although human contact is of unequalled value in the development of individuals, there are countless other ways in which knowledge can be disseminated, and many of these are becoming cheaper every day, as technology develops. Private schools and companies are using these resources to great advantage. The democratization of these kinds of solutions, with a

focus on the quality of the learning experience, can help Brazil reduce the differences in access to knowledge among social classes and geographic regions.

Overcoming inertia in Brazilian education requires increasing the pace of progress. If we are to ensure a promising future for the coming generations, important decisions and reforms need to be made now.

I. ENROLLMENT

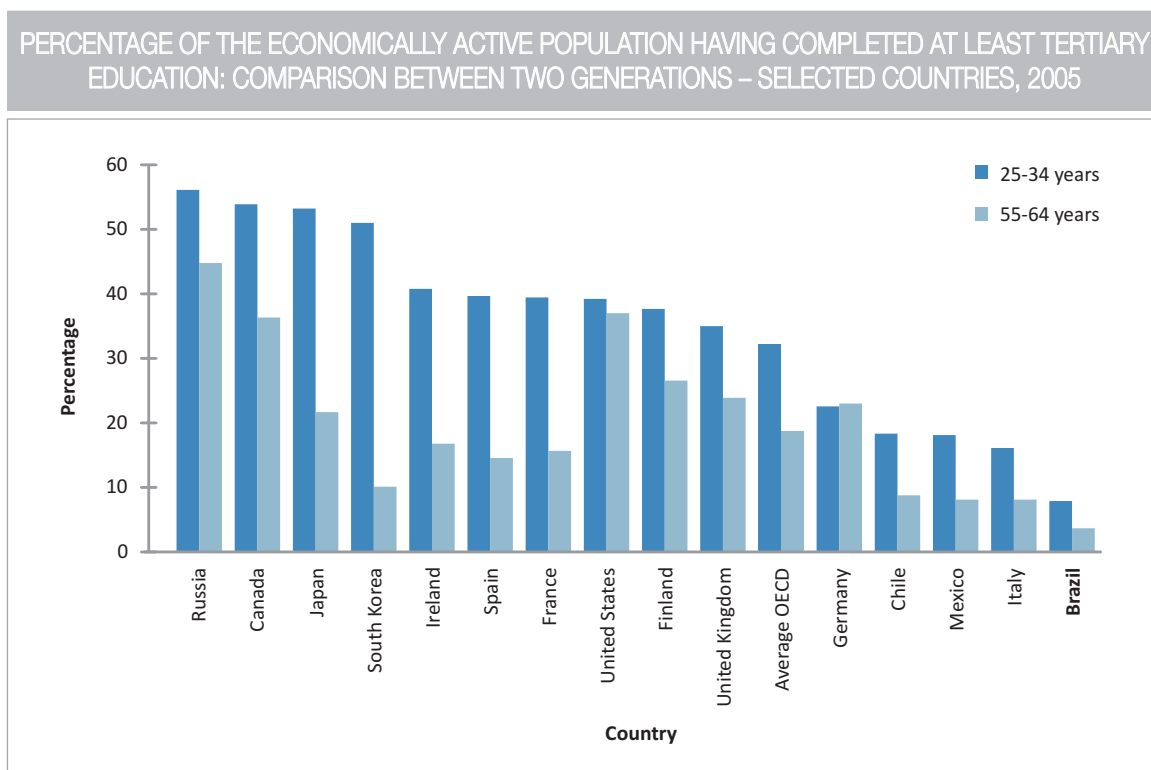
FIGURE A.1



Source: National Household Surveys, IBGE. Estimates by the Institute for Applied Economic Research (IPEA).

II. STAYING IN SCHOOL

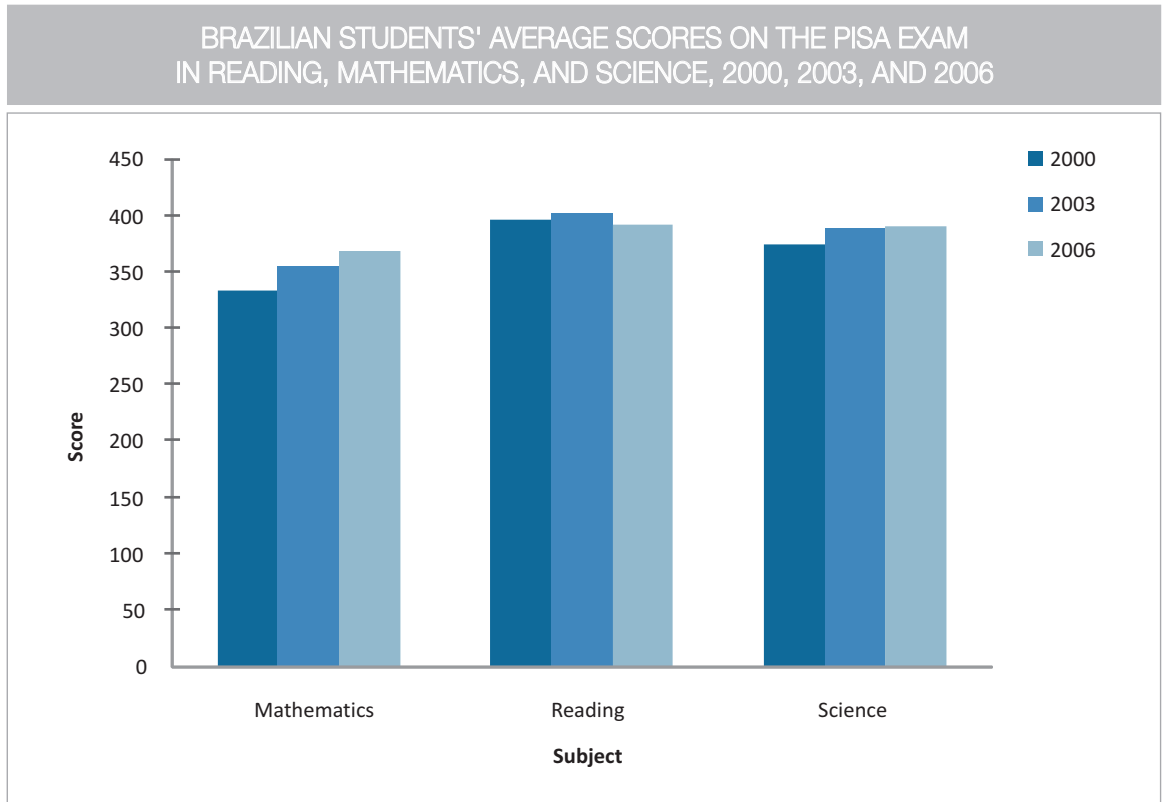
FIGURE A.2



Source: Education at a Glance 2007, OECD.

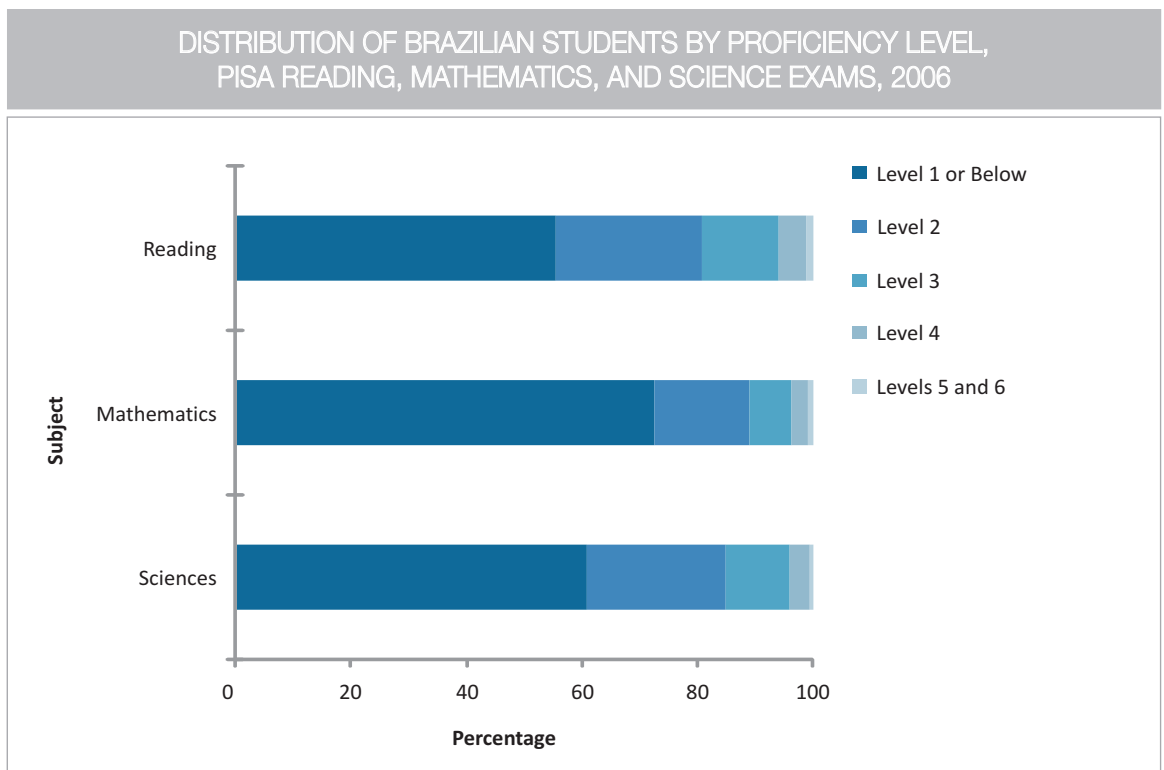
III. TEST SCORES

FIGURE A.3



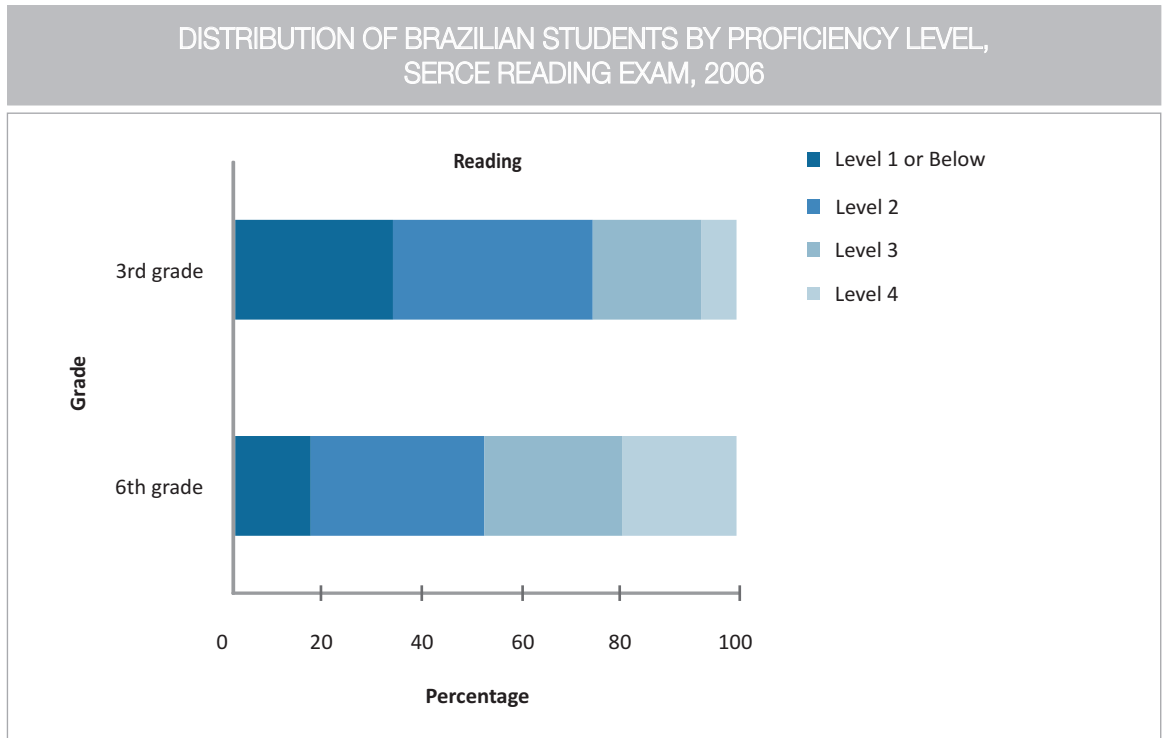
Source: PISA 2000, PISA 2003, and PISA 2006, OECD.

FIGURE A.4



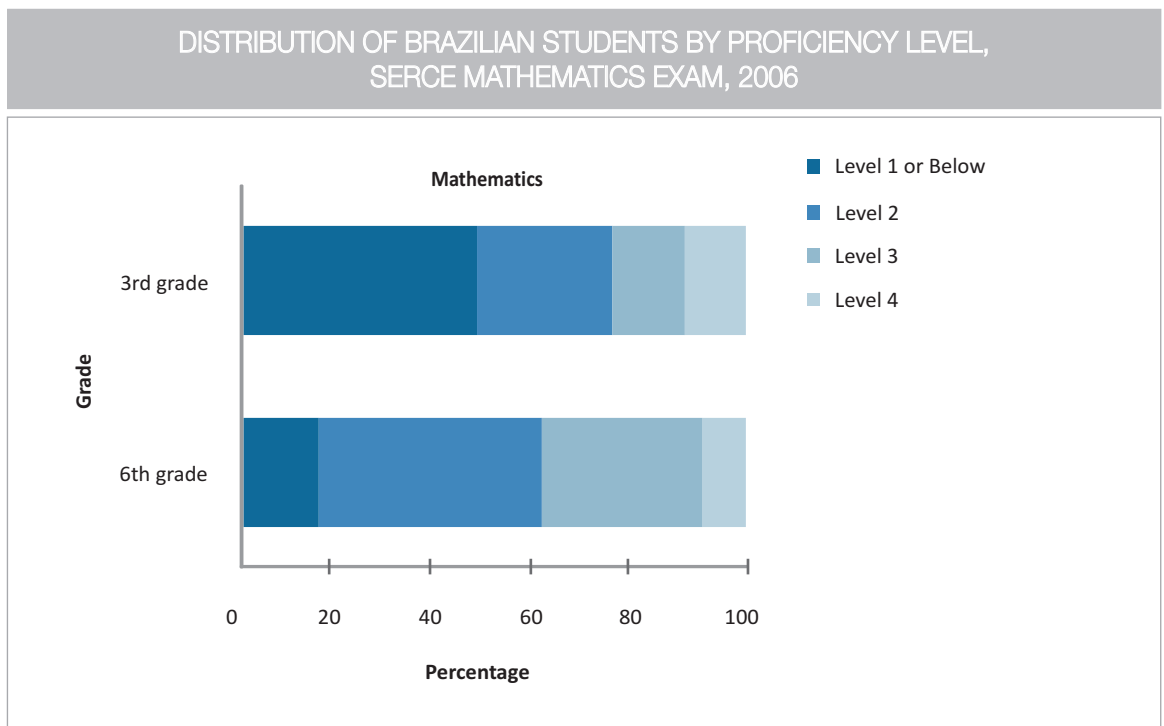
Source: PISA 2006, OECD.

FIGURE A.5



Source: Student Achievement in Latin America and the Caribbean (executive summary), UNESCO: OREALC/LLECE, 2008.

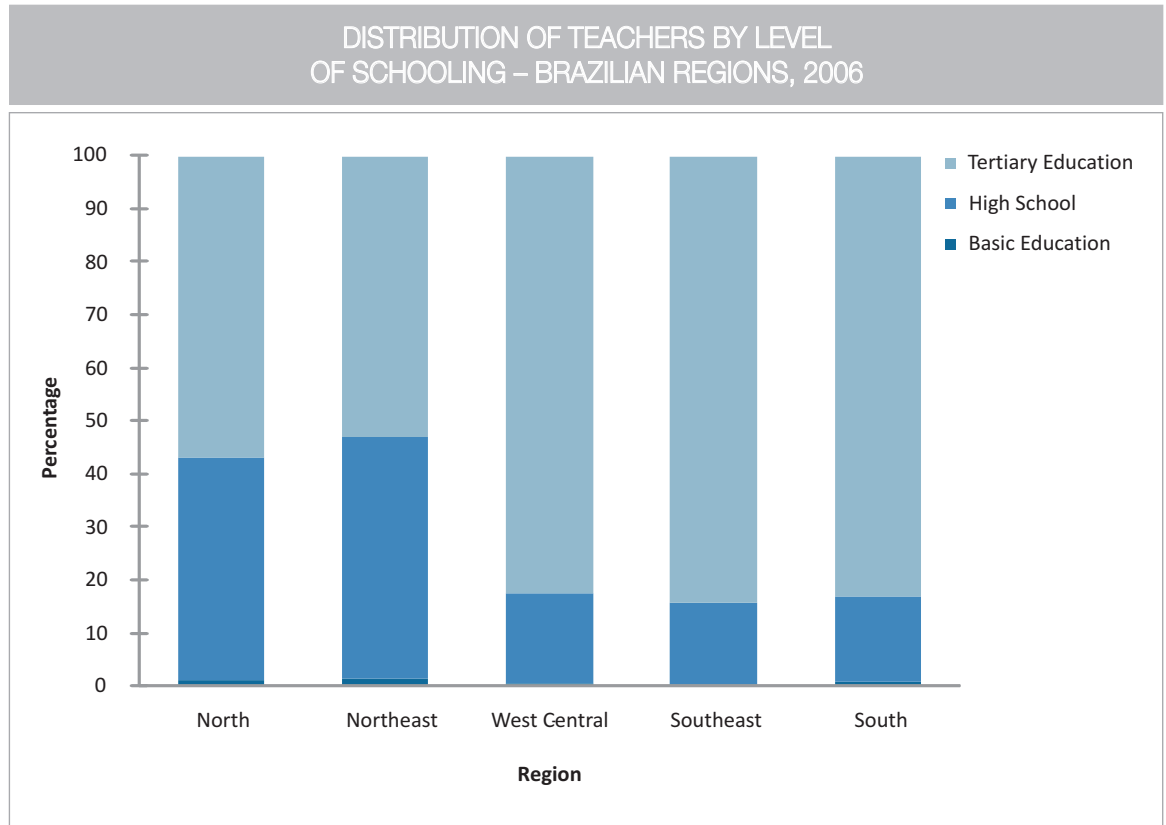
FIGURE A.6



Source: Student Achievement in Latin America and the Caribbean (executive summary), UNESCO: OREALC/LLECE, 2008.

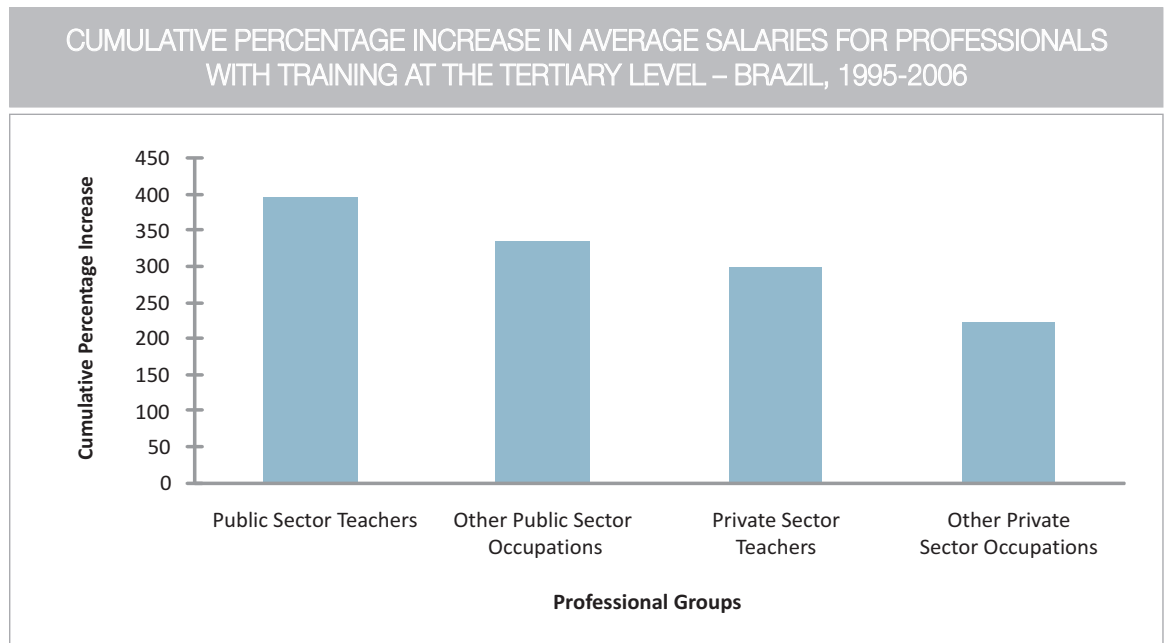
VIII. THE TEACHING PROFESSION

FIGURE A.7



Source: School Census, INEP/MEC.

FIGURE A.8



Source: Moriconi (2008), using PNAD/IBGE data.

TABLE A.1. STATE ASSESSMENT SYSTEMS

STATE	ASSESSMENT PROGRAM	FREQUENCY	YEARS IN WHICH CONDUCTED	COVERAGE	GRADES	OBJECTIVE
Alagoas	SAVEAL Alagoas Educational Assessment System	Discontinued for lack of funds	2001 and 2005	By sample in 2001 and universal starting in 2005	4th and 8th grades of basic education	Assess the educational policies of the state school system in order to improve the quality of education
Amazonas	SADEAM Amazonas Educational Performance Assessment System	Annual	2009	Universal	Final year of basic education and 3rd year of high school	Evaluate students in the state school system and use the scores and statistical data as guidance and an aid to management
Bahia	SABE Bahian Education Assessment System	No information available	2009	Universal for all high schools in the state system	1st year of high school	Develop a culture of assessment in the public school system, with implications for educational policies
Ceará	SPAECE Permanent System for Assessment of Basic Education	Every two years	Since 1992. Starting in 2007, literacy has also been included	Universal and mandatory for all state and municipal public schools	4th and 8th grades of basic education and all three years of high school. Since 2007, includes 2nd grade of basic education	Assess academic performance and contribute to institutional assessment and education research
Distrito Federal	SIADE System for Assessment of the Performance of Educational Institutions in the School System of the Federal District	Annual	2008	Universal for high school and basic education. By sample for other levels. Mandatory for schools in the public system and optional for private schools	2nd, 4th, 6th, and 8th grades of basic education, 3rd year of high school, preschool, special education, and adult education	Assess the conditions under which public and private schools offer services in order to ensure students' full measure of achievement

TABLE A.1. STATE ASSESSMENT SYSTEMS

STATE	ASSESSMENT PROGRAM	FREQUENCY	YEARS IN WHICH CONDUCTED	COVERAGE	GRADES	OBJECTIVE
Espírito Santo	PAEBES Espírito Santo Basic Education Assessment Program	Annual	Since 2000	Sample	In 2009: Literacy, 4th and 8th grades of basic education and 2nd year of high school	Continuously and permanently assess the education system
Goiás	SAEGO Systems for Assessment of Education in the State of Goiás	Annual	2001 to 2005 (when it was replaced by Prova Brasil). Not conducted in 2003	Initially based on sample. Since 2004, universal	4th and 8th grades of basic education and 3rd year of high school	Assess students in the state school system and produce indicators that permit comparisons of their performance. Evaluate the teaching staff.
Mato Grosso	Assessment Program for the First Cycle of Literacy Instruction	Twice annually	No information available	Public school system	Children age 6 to 8	Results are passed on to schools to use to improve the process of teaching students to read and write
Mato Grosso do Sul	SAEMS Mato Grosso do Sul Basic Education Assessment System	Annual	2003 to 2005	Universal for all public and private schools	4th and 8th grades of basic education and 3rd year of high school	Evaluate students in the rural schools and schools having fewer than 30 students in these grades
Minas Gerais	SIMAVE Minas Education Assessment System	Annual	2001 and 2003; Annual, starting in 2006	Universal and mandatory for all public schools	4th and 8th grades of basic education and 3rd year of high school	Evaluate the academic performance of students
Pernambuco	SAEPE Pernambuco Educational Assessment System	Twice annually	2000, 2002, 2005 and 2008	Schools in the public system	2nd, 4th, and 8th grades of basic education and 3rd year of high school	Assess the instructional situation in public schools in the state

TABLE A.1. STATE ASSESSMENT SYSTEMS

STATE	ASSESSMENT PROGRAM	FREQUENCY	YEARS IN WHICH CONDUCTED	COVERAGE	GRADES	OBJECTIVE
Rio de Janeiro	SAERJ Rio de Janeiro State Education Assessment System	Annual	Since 2008	Universal	4th and 8th grades of basic education and 3rd year of high school	Assess the competencies and skills of students in the public system in Portuguese and mathematics
Rio Grande do Sul	SAERS Rio Grande do Sul School Achievement Assessment System	Annual between 1996 and 1998. Twice annually, starting in 2005	From 1996 to 1998 assessments were done annually. The SAERS was implemented in 2005.	Universal and mandatory for all state schools. Optional for municipal and private schools	2nd and 5th grades of basic education and 1st year of high school	Assessment school instruction, with emphasis on groups that MEC exams do not reach. Assessments serve as parameter for distribution of human and material resources
São Paulo	SARESP São Paulo State School Achievement Assessment System	Annual	Since 1996	Sample from 1996 to 2002. Universal from 2003 to 2005. Mandatory for all state schools. Optional for municipal and private schools	1st, 2nd, 4th, 6th, and 8th grades of basic education and 3rd year of high school	Assess the status of education in the public schools of São Paulo
Sergipe	SAPED Periodic Teacher Assessment System	Annual	2004	Teachers in basic education in the state school system	5th to 8th grades of basic education and 1st to 3rd years of high school	Results serve to verify performance by teachers and identify candidates for bonuses and awards
Tocantins	Office of the Coordinator of Performance Assessment	Twice annually, in partnership with the IAS [Ayrton Senna Institute], and every two years with the FCC [Carlos Chagas Foundation]	No information available	Universal	1st to 5th grades of basic education	Assist the regional education executives in developing pedagogical projects

BOX A.1. TWELVE ACTIVITY LINES COVERED BY FUNDESCOLA

1) Strategic Planning by the Office of the Secretary (PES)

Managerial process carried by the Office of the Secretary of Education and aimed at achieving a desired outcome effectively by employing the best concentration of efforts and resources.

2) School Development Plan (PDE Escola)

By preparing its PDE, a school diagnoses its situation, identifies its values from that analysis, lays out its vision for the future, and describes its mission, as well as sketching out objectives, strategies, targets, and action plans for the long, medium, and short term.

3) School Improvement Project (PME)

This is the set of targets and actions selected by the school, based on the PDE Escola. The project makes possible a direct pass-through of resources to the school. The focus is on improving student academic performance.

4) The Active School (Escola Ativa)

This is a pedagogical action aimed at rural schools where more than one grade is combined in a single class (from 1st to 4th grade of basic education). The objective is to prepare teachers to deal with this kind of school organization.

5) School management and achievement program (Gestar)

This is a continuing education program, conducted in both in-person and via semi-remote distance education, designed to train teachers of grades 1 through 8 in mathematics and Portuguese.

6) Reading and Writing Assistance Program (Praler)

This program was launched in 2003 to train first and second grade teachers. The pedagogical approach taken in this program fosters the use of diverse methodologies to teach reading and writing.

7) Minimum Standards for School Operations (PMFE)

These are the basic conditions, and list of inputs, necessary for the provision of essential school services so that the teaching and learning process occurs in an appropriate manner.

8) Educational Micro-planning

In municipalities served by the program, educational micro-planning studies are conducted to identify and describe needed adjustments in the creation, expansion, or reorganization of urban basic education schools, as well as to give guidance regarding school transportation and distribution of educational materials. The program also covers the hiring and training of personnel, based on balance sheets that identify deficits and surpluses in classrooms, teaching materials, and the number of teachers and other

BOX A.1. TWELVE ACTIVITY LINES COVERED BY FUNDESCOLA

professionals needed for a school to function. Such planning seeks to better guide technical staff and secretaries of education in preparing budget proposals, thereby preventing the waste of available resources and ensuring that needy communities are served.

9) Survey of School Status (LSE)

This is a tool for collecting data on the status of regular basic education schools in order to improve education planning in the states and municipalities served by Fundescola. The computerized LSE system developed in 2002 enables states and municipalities to update earlier figures and produce managerial reports to aid administrators in making decisions that achieve minimum operating standards and improve conditions in the school buildings.

10) School Building Adaptation Project (Pape)

This project is intended to establish conditions of safety, health, stability, and functionality in school buildings.

11) Educational Space [Espaço Educativo] – School Construction

This action enables states and municipalities to boost the capacity of their schools systems by constructing new schools to meet the demands identified by the micro-planning process.

12) Program for Improvement of the Quality of School Furnishings and Equipment (PMQE)

Classrooms in newly constructed schools as well as schools that received assistance from the School Building Adaptation Project are given fans, steel storage cabinets and desks for teachers and students.

Source: FNDE/MEC (www.fnde.gov.br/index.php/fundescola-acoes).

BOX A.2 . SPECIFICATION OF THE TYPES OF EXPENDITURES THAT MAY BE COUNTED AS EDUCATION EXPENSES AND PAID FOR WITH EARMARKED FUNDS (ARTICLE 70, LDB, 1996)

The following can be recorded as expenditures on education:

- Remuneration and advanced training of teaching staff and other education professionals
- Procurement, maintenance, construction, and preservation of facilities and equipment needed for education
- Use and maintenance of goods and services associated with instruction
- Statistical surveys, studies, and research project directed primarily toward enhancement of education quality and expansion of coverage
- Conduct of ancillary activities necessary to the functioning of school systems
- Awarding of scholarships to public and private school students
- Amortization and costing of credit operations intended to satisfy the provisions in the items of this Article
- Procurement of educational materials for school use and maintenance of school transportation programs

The following cannot be recorded as expenditures on education:

- Research, when not connected with educational institutions or when conducted outside educational systems and not primarily directed to the enhancement of their quality or expansion
- Subsidies granted to public or private philanthropic, athletic, or cultural institutions
- Training of special personnel for public administration, whether military or civilian, including diplomats
- Supplementary feeding programs, medical, dental, pharmaceutical and psychological care, or other forms of social assistance
- Infrastructure projects, even if performed to benefit the school system directly or indirectly
- Teaching personnel and other education workers, when outside the realm of their duties or pursuing activities unrelated to instruction

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