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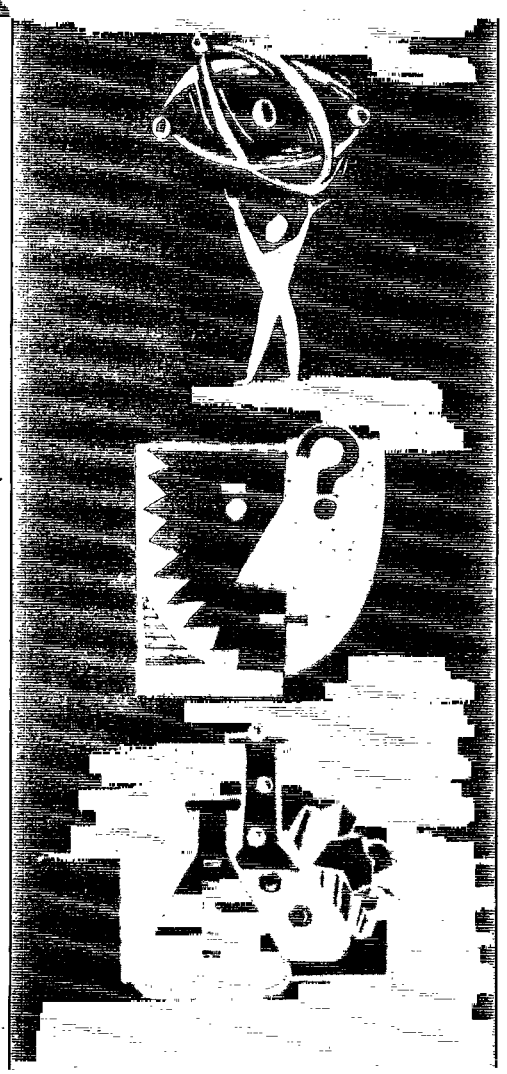
BRAZIL SECONDARY EDUCATION PROFILE

A Summary of "Secondary Education: Time to Move Forward"

Linda Larach



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Brazil: Secondary Education Profile

A Summary of "Secondary Education: Time to Move Forward"

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Foreword

Welcome to the Secondary Education Series of the Human Development Network, Education Group at the World Bank.

The World Bank has been assisting developing countries in their efforts to reform their secondary education systems for more than 35 years. During this period, the context and imperatives for education reform have changed considerably due to various factors such as globalization of the world economy and the impact of new technologies. This new environment requires rethinking the traditional way of providing secondary education and training systems and both industrializing and industrialized countries are grappling how best to prepare their youth to become productive workforce as well as responsible citizens. Thus, this series will address a wide range of topics within secondary education that reflect the challenges that we are facing now.

The publications in this Secondary Education Series might broadly be considered to fall into two categories, though there are clearly overlaps: those papers addressing policy issues and those describing in more detail particular countries' experiences. This paper, "Brazil: Secondary Education Profile – A Summary of Secondary Education in Brazil: Time to Move Forward", a report by the Inter-American Development bank and the World Bank, is in this second category. The intention behind these country case studies is to expose the complexity of secondary education and training systems and the correspondingly difficult choices that governments face in reforming them. It is only through a clearer understanding of what is happening in particular countries that fruitful discussion and analysis, and further research, can take place. We hope that these case studies stimulate debate. We welcome your comments.

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Introduction

This document provides a brief profile of the state of secondary education in Brazil. An overview of the organizational structure, objectives, curricular offerings, system size and governance structure of secondary education is provided. Issues relating to the quality, equity, management, and financing of the system are also discussed and promising innovations in the sector that could help address some of these issues are presented.

The profile is drawn from the IDB and World Bank report on secondary education in Brazil, *Secondary Education in Brazil: Time to Move Forward* (Report No. 19409-BR). It is important to note that this report defined secondary education as encompassing both lower (grades 5-8) and upper (grades 9-11) secondary even though lower secondary is legally joined with primary education (grades 1-4) as part of *ensino fundamental*. The reasons for this definition of secondary education are presented in the discussion of organizational structure. It should also be highlighted that the report does not address technical and vocational education because the Brazilian Government has chosen to separate technical education from secondary schools, leaving this area at the post-secondary level. The discussion of teachers and teacher training is also limited given that these issues will be analyzed in depth in a forthcoming study on teachers and teacher training in Brazil.[1]

Context for Secondary Education

Brazil has made great strides in basic education over the last ten years. In the early 1980s, an average Brazilian would attain less than four years of primary education and only half completed primary education. Currently, nearly 90 percent of children entering school are expected to complete the primary cycle (grades 1-4) (Table 1). As completion rates in primary education have increased, secondary education enrollments are on the rise. This reality points at the increasing importance of addressing secondary education in Brazil.

Table 1. Brazil, Improvements in System Efficiency

Grade	% expected to complete each cycle			Average years required		
	1995	1997	2007	1995	1997	2007
4th Grade	85	90	91	5.9	5.4	4.7
8th Grade	52	66	74	11.2	10.3	9.1
11th Grade	33	48	64	15.3	14.0	12.4

Source: Report No. 19409-BR (IBRD); Klein calculations, 1999.
Note for Table 1: The enrollment data for 1997 may be inflated due to the new availability of FUNDEF resources at a per student basis. Although INEP/MEC heavily audited the reported data, it is likely that the reports may be slightly overestimated. This can explain some, but not all, of the observed improvements between 1995 and 1997.

[1] *Brazil: Teacher Development and Incentives.* World Bank.

Description of the Secondary Education System

What follows is a general overview of the structure, objectives, curricular offerings, size, private sector share and governance structure of Brazilian secondary education. Recent developments in these areas are highlighted.

Organizational Structure

Brazil's basic education system is divided into pre-school, an eight-year cycle (*ensino fundamental*), and upper secondary education (*ensino médio*). The *ensino médio* (9-11), as described by the 1996 Education Law, is the final phase of basic education to which all citizens are guaranteed access.

The *ensino fundamental* cycle legally unifies the former primary (grades 1-4) and lower secondary (grades 5-8) cycles. However, in practice, grades 1-4 are usually housed in separate schools from grades 5-8. Fifty-eight percent of schools offering upper secondary education (grades 9-11) also offer the final four years of *ensino fundamental*. Given these operational characteristics as well as many instructional similarities, it is judicious to include both grades 5-8 (lower secondary) and 9-11 (upper secondary) in the discussion of "secondary education."

Objectives

The 1996 Education Law defines three objectives for secondary education. The first is *academic preparation*, building upon the foundation of mathematics, Portuguese and science acquired in lower grades. A second objective is the *acquisition of tools for citizenship*, including critical thinking skills, ethical sensibilities, and social skills. Third, secondary education must *prepare youth for employment*, with the goal of producing flexible learners, capable of adapting to changes in the labor market in an increasingly global economy.

Curricular offerings

As the objectives described above hint at, the traditional two-track system of general and vocational secondary education has been abandoned in Brazil. The adoption of the 1988 Secondary Curriculum Guidelines marked this shift. By affirming that the curriculum for upper secondary should emphasize general education and only contain 25% non-academic programmatic offerings, the guidelines have formalized the trend away from vocational curriculum. Vocational education is left as a post-secondary, professional sector of education offered mostly outside of the formal *ensino médio*.

School Shifts

Secondary schooling is provided both during the day and at night. The predominance of night schools is a central feature of secondary education in Brazil since night schools are the school of choice for a large number of upper secondary students. Around 60% of students enrolled in upper secondary education (9th – 11th grades) are enrolled in night schools because a majority of them

work full time. The decision to study at night is largely determined by the age of the student – as the student gets older and opportunity costs of attending school rise, the more likely he/she is to opt for night schooling. Night schools provide young working adults the opportunity to complete their secondary schooling.

System Size

Secondary education enrollments in Brazil amount to approximately 20 million students; about 13 million are enrolled in lower secondary and 7 million in upper secondary. In 1998, the net enrollment rate was 85% in lower secondary and 31% in upper secondary (Table 2).

Table 2. Brazil, Coverage and Completion Rates in Basic Education

Grades (Cycles)	Gross Enrollment 1998 (%)	Net Enrollment 1998 (%)	Population having completed a given level in 1996 (%)	Expected completion by students entering first grade in 1998 (%)	Expected years to complete each cycle by students entering first grade in 1998
Primary (1-4)	163	100	79	90	5.4
Lower Secondary (5-8)	105	85	45	66	10.3
Upper Secondary (9-11)	68	31	28	48	14.0

Sources: Report No. 19409-BR (IBRD): MEC/INEP/SEEC; PNAD (1996), and Klein student flow estimates, 1999

Public and Private Share

In 1997, the public sector accounted for 85% of lower and upper secondary school enrollments. The private sector enrolled about 15% of secondary students in this same year, reflecting a higher participation in upper secondary education. The private sector accounted for 20 percent of enrollments and more than a third of all upper secondary education establishments in 1997.

The public sector share is distributed among the state, municipal and federal school systems, representing, respectively, 69%, 15% and 1% of the total number of enrolled secondary students. State systems bear the largest share in both lower (70%) and upper secondary (72%) whereas the municipal system has a much higher participation in lower secondary (20%) than in upper secondary (6%).

Public Sector Governance Structure

As is reflected by the enrollment share statistics, all three levels of government (municipal, state, and federal) have historically been involved in the financing and provision of all levels of public

education. However, the 1998 Constitution helped clarify the different responsibilities in the provision and financing of basic education and these were further delineated by Brazil's 1996 Education Law (LDB). The LDB distributes administrative responsibilities as follows: municipal and state governments share responsibility for financing and provision of grades 1-8, while state governments are primarily responsible for the provision of grades 9-11.

Quality and Learning

The Brazilian secondary education system confronts problems of low levels of student achievement (as measured by the national assessment test, SAEB) and high dropout rates, which are largely a consequence of chronic repetition. Although repetition rates and student achievement may be related, they are discussed separately because the evidence about their relationship is mixed. Observations by Brazilian educators, for example, suggest that repetition reflects more behaviors than learning.

Repetition and Dropout Rates

Once students reach lower secondary education, dropping out becomes a critical problem. Of students entering the first grade in 1998, only 66 percent are expected to complete lower secondary education (8th grade). One out of three students who join the 9th grade will never complete upper secondary education (11th grade) (Table 2).

Dropping out is in large measure a response to chronic repetition within the system. Previous studies, such as *A Call to Action* have shown that a child who repeats first grade is at greater risk for future repetition.[2] In 1997, it took a student on average 10.3 years to complete 8th grade and 14 years to complete 11th grade (Table 2). It is important to note, nonetheless, that these 1997 indicators of internal efficiency do reflect small improvements from 1995 (see Table 1 above).

Student achievement

In terms of overall learning levels, Brazilian secondary school quality is quite low. According to results of a recent national assessment test (SAEB 1997), only 52 percent of 8th graders and 26 percent of 11th graders are achieving at the expected level for their grade in Portuguese. Outcomes for math achievement are also worrisome; 52 percent of 8th grade students performed below the expected mathematics level for *fourth* grade students.

Despite the strong effect of contextual variables on student achievement in Brazil, studies show that school-level effects are relatively important.[3] A critical question therefore is *what*

[2] "A Call to Action" World Bank/UNICEF/Projecto Nordeste, 1997

[3] An analysis of the impact on mathematics achievement of community and contextual variables, school-level variables, as well as a full additional year of schooling in Brazil's secondary schools revealed that school variables alone can generate greater learning gains (.32 marginal product impact) than an additional year of schooling (.29 marginal product impact). The contextual (SES and community) variables accounted for .81 of the impact on mathematics achievement.

characteristics of Brazilian secondary schools contribute most to student learning? This question was explored through a quantitative analysis of 1995 SAEB data. The key findings of this analysis are described below. As with all quantitative studies, there are limitations to the analysis and results need to be interpreted with caution.

In the case of Brazilian *secondary school teachers*, experience appears to contribute most to higher student increases in achievement. Interestingly, teacher salary, education, and pedagogical style failed to demonstrate significant effects on student learning in this study. The lack of impact of teacher education on student experience is likely a reflection of the inadequacy and poor quality of teacher training. Approximately 24 percent of lower and 10 percent of upper secondary teachers have not completed post secondary studies and about 43 percent of legally uncertified teachers are teaching in the Northeast region.

The availability and maintenance of *adequate facilities and instructional inputs* is extremely important in explaining student achievement. In fact, once equalized for these inputs, achievement differences among private, municipal, and state schools are eliminated. Maintenance also has a strong positive effect on achievement growth rates, perhaps reflecting more capable school-level administration.

Absenteeism

Absenteeism was found to have a strong negative effect on learning in Brazilian secondary schools. The challenge is especially relevant for night schools where overall instructional time is lower and absenteeism is higher.

Secondary schools in Brazil where *principals* have more experience tend to have lower achievement growth rates. In contrast, principals' salary levels seem to have a positive effect on student achievement. It is important to note that secondary school principals in Brazil are usually politically appointed, with no established minimum qualifications for selection.

A number of *innovations in school governance* in Brazil (including direct transfer of financial resources to schools, election of principals and the institution of community based school councils) had a modest positive impact on learning.

Equity

Access to secondary education is particularly a problem in rural areas and educational attainment varies significantly by region and socioeconomic background. Furthermore, there are large inequities in access to school quality inputs across income groups.

Access to Education in Rural Areas

Access to education through lower secondary does not appear to be a problem in most areas in Brazil. In fact, the ratio of gross to net enrollments (1.63 for primary and 1.24 for lower secondary)

indicates that there are more enrollments than would be required for universal coverage (see Table 2). Access, nonetheless, remains a problem in isolated rural communities.

Almost 95 percent of enrollments in lower secondary and nearly 99 percent of enrollments in upper secondary education are in urban areas. In contrast, only 5.2 percent of lower secondary enrollments are rural even though 25.9 percent of total enrollments at the primary level are rural. It is not clear to what extent the drop-off in the share of rural enrollments between the primary and lower secondary levels is due to higher dropout and repetition rates in rural areas or to localized problems of physical access to lower secondary. A common pattern for the few rural students who do finish lower secondary education is to migrate to urban areas either to work or continue their education.

Regional Differences in Educational Attainment

Brazil comprises 27 states (including the Federal District) ranging from the economic powerhouses in the Southeast to the poor states of the North and Northeast. This vast heterogeneity is mirrored by large differences in the development of education systems between states. In many of the poorer states in the Northeast, 2 out of 3 students do not complete *ensino fundamental*, and only a small minority reaches upper secondary. In contrast, in the more developed states in the South and Southeast, a higher standard of living and significant reductions in repetition rates in primary grades have widened educational opportunities and produced a broad-based expansion in secondary education. In São Paulo, for instance, two out of three students complete *ensino fundamental* and enrollment in upper secondary schools is approximately one third of the total upper secondary school population for Brazil.

Table 3. Brazil, Regional Differences in Basic Education Indicators (1998)

	Avg. Number of grades completed (1996)	Primary Enrollment (Net)	Students Expected to Complete 8th Grade	Upper Secondary Enrollment (Net)	Students Expected to Complete 11th Grade
Brazil	6.0	95%	50%	31%	26%
Northeast	4.4	90%	35%	14%	20%
Southeast	6.6	97%	65%	43%	35%

Sources: Report No. 19409-BR (IBRD): MEC/INEP/SEEC, PNAD, and Klein model simulations

Lower Educational Attainment among the Poor

The child of a wealthy family usually completes university education. In contrast, the poor account for a very small fraction of the population which has attained more than 4 years of schooling. Among the 15 to 21 year-old population, the poor (bottom 30%) represent less than 25% of those individuals with 5 to 8 years of education and less than 10% of those with more than 8 years of schooling. There is only a 15% likelihood that a student from the lowest deciles (an income group roughly equivalent to the population under the poverty line) will complete primary education and a 4% chance that s/he will complete secondary education.

Inequities in School Quality Inputs

An analysis of the availability of school quality inputs in upper secondary schools across socioeconomic groups revealed, among others, two important findings. First, wealthier children spend more time in school, predominantly in daytime schools. The rest of the Brazilian students spend much less time in school, and over half of them attend night schools. Second, there are sizeable differences in the availability of most educational inputs (books, laboratories, and other equipment) between schools attended by the rich and those attended by middle and low income groups. The most salient difference is in the availability of computers; 60% of the schools catering to the rich have computers, in contrast to 20% of the schools attended by the poor.

Management and Institutional Development

There are two issues that particularly stand out with regards to the management and institutional development of secondary education in Brazil. The first issue relates to the shared responsibility of municipal and state governments for lower secondary. The second one is concerned with decentralized school governance.

State and Municipal Coordination

As was discussed earlier, the 1996 Education Law clarified municipal and state responsibilities for education, whereby municipal and state governments will continue to share responsibility for the financing and provision of grades 1-8 and state governments are primarily responsible for the provision of grades 9-11. The shared responsibilities present complex challenges for the further development of secondary education in Brazil since various strategies, such as those aiming at the more efficient utilization of school spaces, are contingent on state-municipal coordination. For political and historical reasons, collaboration between states and municipalities has been difficult to achieve.

School Governance

Secondary school governance still heavily depends on central decision-making for both complex and simple tasks. Community participation in school governance (through school councils, etc.) appears to be growing, but questions remain as to the level of responsibility these councils actually exercise. By 1994, 12 Brazilian states had established school councils (*colegiados*) but only a few of them actually had some autonomy for decision-making and financial management. Providing schools with an environment conducive to self-improvement is considered a first step in improving student outcomes, and several states are currently taking steps in this direction.

Costs and Financing

The public sector effort in education in Brazil (4.7 percent of GDP) exceeds the Latin American regional average (3.7 percent). However, multiple inequities and inefficiencies characterize it. For instance, although higher education enrollments represent only 2 percent of total enrollments in the

education system, it captures 25 percent of total education expenditures (Table 4). This financing largely benefits the wealthy, since the poor for the most part do not exceed primary education.

Table 4. Brazil, Public Spending on Education, 1995

Sub-Sector	Enrollment (%)	Millions of US$	Millions of R$	%
Pre-school	10.8	1.930	1.761	5.5
Primary (1-4)	48.2	12.834	11.711	36.3
Lower Secondary (5-8)	*28.2*	*8.292*	*7.566*	*23.4*
Upper Secondary (9-11)	*10.9*	*3.285*	*2.998*	*9.3*
Higher Education	1.9	9.002	8.214	25.5
Total	***100***	***35.342***	***32.250***	***100***

Sources: Report No. 19409-BR (IBRD): Calculated from MEC/INEP/SEEC and IPEA/DIPOS/MPO

Furthermore, despite decades of mandatory education financing and federal transfer programs, sharp regional and intra-state disparities in per-student expenditures persist.

In terms of per-student expenditures, Brazil appears to spend little in comparison with many other countries but such comparisons do not factor in the actual costs of producing a graduate. Once spending on repetition and dropout are taken into account, Brazil's per-student expenditure levels increase by more than 50%. In 1998, the estimated unit cost (per student/per year) for lower secondary is US$544.45 and US$564.98 for upper secondary (Table 5).

Table 5. Brazil, Average Cost of One Year of Attainment (1998 US$)

Course of Instruction	Average years to complete cycle	Estimated Cost per Year	Average, Per Cycle Graduate	Cost per Student per Grade
1-4	5.4	441.78	2,385.61	596.40
5-8	4.9	544.45	2,667.81	666.95
9-11	3.7	564.98	2,090.43	696.81

Sources: Report No. 19409-BR (IBRD): Klein 1999

The cost per graduate estimates that are adjusted for repetition and dropout amount to US$820.84 for an 8th grade graduate and US$1,020.49 for an 11th grade graduate (Table 6).

Table 6. Brazil, Cost to Produce a Graduate (1998 US$)

Course of Instruction	Number of Years to Produce a Graduate	Estimated Cost per Student Year	Total Cost per Cycle Graduate	Cost per Student per Grade
1-4	5.8	441.78	2,562.32	640.58
1-8	13.6	482.85	6,566.76	820.84
1-11	22.7	494.51	11,225.38	1,020.49

Sources: Report No. 19409-BR (IBRD): Klein 1999

Estimates based on current student flow projections and per-student spending levels reveal that the Brazil-wide costs for the provision of *ensino fundamental* will start to decline over the next few years, while the costs of upper secondary education will continue to rise. The initiation of the decline of *ensino fundamental* costs will vary from state to state. These costs are already starting to fall in some of the more developed states such as São Paulo, while costs are still rising in less developed states like Bahia. Although there are institutional barriers to overcome (principally the division between state and municipal systems), it should theoretically be possible to finance all of the expansion of access in grades 5-8 and almost half of the expansion of access to upper secondary education through a combination of shifting resources between grade levels and modest improvements in efficiency within *ensino fundamental*. Similarly, better targeting of investments should be adequate to raise education quality without a significant increase in the overall level of education spending.

Issues Summary

To summarize, the main challenges that Brazil faces with regards to secondary education are:
- curtailing repetition and correcting student flows;
- improving student achievement by focusing on critical school characteristics and ensuring equitable school quality inputs;
- increasing access to secondary education in rural areas;
- reducing regional and socioeconomic inequities in educational attainment;
- overcoming historical and institutional barriers to state and municipal coordination;
- providing schools with an environment that is conducive to self-improvement; and
- improving financial efficiency through, among others, better targeting of investments (regionally, between education levels, and within the range of educational inputs).

Innovations

What follows is a sampling of some innovations that have been developed in Brazil and which could help address some of the challenges confronted in the secondary education sector.

Classes de Aceleração Program

The *Classes de Aceleração* program was created as a strategy for reducing high levels of repetition and age-grade distortion. The program groups over-age *ensino fundamental* students (grades 1-8) in modules within which students progress and are evaluated at their own pace. As students advance, they are eventually placed back into the main system at higher, more age-appropriate grade levels. The program relies on an integrated teacher training and curriculum design program, age-appropriate materials, and continuous assessment.

The strategy was first implemented in 1996 in the State of São Paulo in grades 1-4 with the School Flow Reorganization Project ("*Ensinar pra Valer!*") and the initial results have been promising.[4] A year later the program was adapted for lower secondary education in Paraná (under the *Ensinar e Aprender* program). Similar strategies have also been developed in Bahia and Ceará.

Telecursos 2000.

Although distance education is not a recent innovation in Brazil, *Telecurso 2000* is highlighted because it exemplifies a turning point in Brazilian distance education that resulted from the dramatic increase in computer use and the widespread implementation of social marketing techniques. The program uses broadcast television, print materials, and mentors, as well as support center classrooms termed "*telesalas*".

Currently, there are more than 700,000 students enrolled in one or more Telecurso subjects and preliminary results have been positive. Initial evidence has shown that, under the right conditions, Telecurso students perform at least as well as comparable students attending regular schools. This was the case of "Projeto Serra do Mel" in Rio Grande do Norte, where a student achievement evaluation, using SAEB data, showed that Telecurso students performed better than the control group. Average scores for Telecurso students were higher than those for other schools in the same municipality, and higher than the average for the state as a whole.

FUNDESCOLA State-Municipal Joint Planning

The FUNDESCOLA project has adopted a joint state-municipal planning forum to promote collaboration and coordination between municipal and state education management personnel in order to maximize efforts and resources. The mayors, or their representatives, in conjunction with the state secretary of education and the state president of the National Association of Municipal Education Managers are members of the microregion forum. This forum operates as a local planning instance of the project to: (a) negotiate the priorities within and across the municipal and

[4] Of children who started in "Aceleração I" in São Paulo from 1996-1998 (normally these children were in grades 1 and 2), 37.8 percent were tracked back into 4th grade, 19.6 percent were tracked into 5th grade, and 1.4 percent were tracked into 3rd grade. About 1/5th of children (21.3 percent) moved on to "Aceração II" and the overall dropout rate was 8.4 percent – higher than the statewide average, but not so high when considering that this is a population at particularly high risk for dropout. Of children in "Aceleração II," 2.5 percent went on to 4th grade, 76.3 percent went on to 5th grade, 2.8 percent stayed in the "Aceleração II" or had some other remedial work, and 6.3% dropped out. While further evaluation of the program is needed, initial evidence has shown that students that have been rejected by the traditional system can succeed in one that is more flexible and responsive to their particular needs.

the state education systems in the microregion; (b) agree on the consolidation of the various municipal action programs into a single, prioritized microregion action program, (c) agree on common targets for the microregion action program; (d) plan and monitor the implementation of the microregion action program; and (e) and propose the annual implementation program.

FUNDEF

In 1997, the Brazilian Government undertook a major effort to improve inequities in per-student spending in *ensino fundamental*, which includes lower secondary education, by launching the Fund for Development of Fundamental Education and Valorization of Teachers (FUNDEF).[5] The principal result of the FUNDEF is that every child in Brazil's *ensino fundamental* will study in a school system spending at least a minimum amount per child annually. The immediate impact of the program has been substantial, including: (i) a 50 percent increase in average teacher salaries in the Northeast; (ii) a 6 percent increase in initial enrollments; and (iii) nearly 11 million students benefiting from increased educational expenditures within their systems. Incentives for expanding access to lower secondary are built into the FUNDEF, as each additional student retained in the system represents additional income.

World Bank Support to the Country

Although the vast majority of World Bank support for education in Brazil has focused on basic education, it has supported some work at the secondary level. The IBRD has financed two sector studies that dealt with secondary education issues. The first of these was on vocational and technical education and was carried out in the early nineties. The second one was completed last year – *Secondary Education in Brazil: Time to Move Forward* – and is the basis for this profile.

With regards to project work, the IBRD is including some support to secondary education in the state loans. For example, the Bahia Education Project includes a component that strengthens secondary school autonomy and builds a few schools in areas of low supply. Support for federal-level initiatives for secondary education are being channeled through a large IDB-financed project.

[5] The FUNDEF operates as follows: (i) 25 percent of all tax revenues and constitutional transfers in any given state comprise the minimum constitutionally-mandated state investment in education. At least 60 percent of that total must be invested in the state's FUNDEF, with the remaining resources going to other education investments, including Upper Secondary and Higher Education. (ii) If the fund's total value divided by the initial enrollment in first through eighth grades is less than R$315 per student (about US$300 in 1998), the Federal government complements the state fund until it reaches that amount, drawing on resources from the general budget. (iii) The FUNDEF is then distributed equally to the state and its municipal systems on a per pupil basis. In an effort to improve teacher quality, 60 percent of the FUNDEF must be used to fund teacher salaries and teacher training programs.

Annex

Additional Statistics

Table A1. Brazil, Structure of Education Expenditures by Sub-Sector (%) 1996

	Federal	State	Municipal	Total
Pre-School	0.0	0.6	18.5	5.6
Ensino Fundamental (1-8)	11.2	77.7	71.8	58.6
Upper Secondary (9-11)	9.4	9.7	7.8	9.0
Higher	19.4	12.0	1.9	26.8
Total	*100*	*100*	*100*	*100*

Sources: Report No. 19409-BR (IBRD): World Bank Expenditure Review
Note: Excludes special education, physical education and administrative support.

Table A2. Brazil, Structure of Education Expenditures by Government Administration (%) 1996

	Federal	State	Municipal	Total
Pre-School	0.0	5.2	94.8	100.0
Ensino Fundamental (1-8)	5.1	59.7	35.3	100.0
Upper Secondary (9-11)	27.3	48.0	24.6	100.0
Higher	77.9	20.1	21.0	100.0
Total	*20.2*	*49.1*	*30.8*	*100.0*

Sources: Report No. 19409-BR (IBRD): World Bank Expenditure Review
Note: Excludes special education, physical education and administrative support

Titles in the Secondary Education Series

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