

Expansion and inequality in Brazilian education

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Expansion

It is never untimely to remember that Brazil is a land of contrasts, and that these contrasts are closely associated with educational policies and practices. It combines a system of private education roughly comparable with that of the industrialized countries, catering for little over 10% of the population, with a low- performing educational systems offered to the majority. It holds the most productive system of post-graduate education and academic research among emerging economies¹, yet 20 million of its 100 million adult population is illiterate, and over 75% is functionally illiterate. It developed a system of educational statistics and testing on par with industrialized countries yet its 8-grade system of primary education has been unable to teach primary school children how to read and write in a proper way.

Expansion has been and still is the trademark of Brazilian education. In the early 50s, Brazil had a population of about 50 million inhabitants, 70% of which lived in rural areas. At that time, the population was comparable to that of France or England. Very few Brazilians – less than 30% of the population – were enrolled in schools of any type. Meanwhile, European countries had already completed universal coverage of primary education and were about to complete the expansion of secondary education.

Starting in the mid-fifties, Brazil experienced an extraordinary rate of growth in education. While the population grew over 3.3 times, to 170 million in the year 2,000, formal education enrollments reached 57,5 million students, which correspond to 34% of the total population. This is equivalent of enrolling about 19 cohorts – a world record. In the last 50 years, Brazil increased its educational system by about 1 million students per year on average.

¹ See the article by Elizabeth Balbachevsky in this volume

Table 1 – Evolution of enrollments, 1996-2002

Evolution of enrollments in Brazil 1996-2002								
Level	1996	1997	1998	1999	2000	2001	2002 % growth	
Infant	N/a	348,012	381,804	831,978	916,864	1,093,347	1,152,511	231.17%
Pré-School	4,270,208	4,292,208	4,111,120	4,235,278	4,421,332	4,818,803	4,977,891	16.57%
Literacy	1,443,927	1,426,694	806,288	666,017	674,044	652,866	607,815	-57.91%
Primary	33,131,270	34,229,388	35,792,554	36,059,742	35,717,948	35,298,089	35,258,089	6.42%
Accelerat	-	-	1,189,998	1,207,593	1,203,506	1,125,665	1,072,648	-9.86%
Secondary	5,739,077	6,405,057	6,968,531	7,769,199	8,192,948	8,398,008	8,710,584	51.78%
Special Ed	201,142	334,507	293,403	311,354	300,520	323,399	337,897	67.99%
Equival	2,752,214	2,881,770	2,881,231	3,071,906	3,401,830	3,777,989	3,779,593	31.16%
Vo-TEC					462,258	565,046		
Higher	1,759,703						3,070,774	74.51%
Total							58,967,802	

Source: MEC-INEP – Censo Escolar – Sinopse Estatística
 * % Growth: 2002/first year for which there were available data

Table 1 presents the evolution of enrollments in the 1996-2002 period. As in happened in the previous 50 years, growth has been steady, with some slumps occurring due to changes in priorities:

To notice, on Table 1:

- Education grew at all levels, but secondary and higher education grew in higher proportions, as a natural result of expansion at lower levels
- Primary education² reached a peak in 1999 and started to slow down after that year
- Literacy classes were progressively absorbed into primary education, given the stimulus of FUNDEF – a resource redistribution fund encouraging primary education enrollments
- Acceleration classes started in 1998, reached a peak in the year 1999, and started to decrease.

In addition to growing in enrollments, other signs of growth and expansion can be detected in the following policies and initiatives implemented since the sixties:

- Primary school was expanded from 4 to 8 years in the late sixties
- School year was expanded from 180 to 200 days in 1997
- Technical education was postponed for the end of secondary education in 1998
- Primary school teachers were required to complete higher education (15 years) as opposed to normal schools (11 years) of education
- Schooling opportunities were extended to pre-scholars and to over 3,7 million adults
- Several school districts attempted to expand the school day (full-time school)
- Since the sixties, several adult literacy campaigns have been launched to deal with the illiterate adults. The latest of these campaigns, Alfabetização Solidária, claims to have reached 3,6 million illiterates³

² Primary education is used in this paper to refer to the first 8 years of education. Acceleration classes refer to special programs geared towards older, typically multi-repeater students.

The government who took office in January 2003 continues with the expansion rhetoric and promised to:

- offer universal coverage from year 0 to primary school
- Expand primary and secondary education to full- as opposed to part-time
- Expand enrollment in secondary education
- Double enrollment in universities
- Eradicate adult illiteracy, officially reaching 20 million Brazilians.

Expansion has always been the typical policy response to what governments perceive as “demand” – regardless of the age or ability level of students. The title of Table 2 suggests how government supply corresponds to an idiosyncratic concept of “demand.”

Table 2 – Additional evidence on education inflation

Additional evidence of education inflation			
first grade enrollment, 2002	5,978,272	7-year old age cohort	3,300,660
4 th grade graduates, 2001	3,699,857	5 th grade enrollments, 2002	4,714,111
8 th grade graduates, 2001	2,707,683	9 th grade enrollments, 2002	3,481,556
11 th grade graduates, 2001	1,815,913	New college entrants, 2002	1,036,690

Source: MEC/INEP- Sinopse Estatística 2001 and 2002.

Table 2 shows some examples of over-enrollment resulting from the inflationary expansion model of educational planning and management characteristic of Brazil. In the case of 5th and 9th grades, over enrollment is due to high rates of repetition, but also to the entrance of overage students. In the case of colleges, the number of entrants is primarily composed by the backlog of over 4 million applicants held back by the entrance exams. Expansion is thus not due to lack of places for age-level students. Since the mid seventies, the total number of places offered in primary education was superior to the size of the 7-14 year old age cohort (Fletcher, 1975, Klein, 2003).

Table 3 presents unequivocal evidence of educational inflation by comparing student flows in 1996 and 2002. As a reference, the table also includes information on the year 2000 age cohort, based on the National Census. Age cohorts have been

³ According to Instituto Montenegro (Instituto Paulo Montenegro 2001), only 33% of Brazilian adults can adequately read normal, daily texts. This figure would put the functional illiterate population

increasing slowly in the 1990s and started to decrease after the year 2,000. In that year, the three first age cohorts were stabilizing at about 3,2 million per year.

Table 3 - The education pyramid, 1996-2002

The education pyramid, 1996-2002			
Grades	Enrollment 1996	Enrollment 2002	corresponding grade cohort
1	6,404,406	5,818,308	3,300,664
2	5,193,631	4,264,962	3,245,677
3	4,493,865	4,492,856	3,230,301
4	3,935,398	4,394,217	3,367,200
5	4,397,913	4,814,111	3,433,809
6	3,489,249	3,963,573	3,524,814
7	2,873,863	3,657,202	3,461,413
8	2,343,014	3,338,529	3,560,831
Total primary	33,131,270	35,258,089	26,794,232
9	2,527,580	3,481,556	3,521,881
10	1,727,171	2,575,801	3,497,668
11	1,274,933	2,239,544	3,682,950
Total Secondary	5,735,077	8,710,581	10,702,499

Source: Educational Census for years 1996 and 2002; IBGE population Census 2000 for grade level cohort of 7-17 year olds. Secondary school enrollments do not include about 121,000 students in 1996 and over 200,000 students in 2002 enrolled in 4-year secondary schools.

Table 3 illustrates that:

- School age cohorts have stabilized around 3,3 million children, but enrollments kept increasing.
- There has been a marked increase in the upper grades – more students are finishing eight grade. Even though those reaching grade 8th are much older than expected, the total enrollment at that grade is equivalent to one entire cohort. Yet, only 1,8 million students graduated from 8th grade in 2002.
- Part of the gap between first and second grade enrollment is due to enrollment of children under 7 years of age. However, the greater part is due to excessive repetition rates.
- Enrollment in secondary school is almost equivalent to the size of 3 cohorts.

Above all, Table 3 illustrates the education pyramid of schooling in Brazil. Assuming a stable age cohort distribution during this period, there were about 6,3 million overage students in 1996 and almost 10 million overage students in the year

2002. Major efforts were undertaken in the late 90s to “universalize” primary education to ensure that all 7-14 year olds were in schools. In fact, the increase in enrollments did not attract many students in that age-bracket. Data from INEP’s Census show that in fact the new policies attracted mostly over-age students, thus contributing to increase the absolute and relative number of over-age students. The new 7-14 years old came mostly from the literacy classes, attracted by the funding from FUNDEF⁴. Thus, virtually 100% of the extra enrollment was due to the enrollment of new over-age students.

Overall, the foregone data suggest that the surplus of supply is not due to demand from age-level students, but mostly to:

- Excessive repetition and grade-retention, which will be discussed later
- Excessive number of students leaving schools during the academic year to return next year
- Admission of over-age students in primary schools, due to lack of targeting for FUNDEF and of policies limiting entry age.

According to official estimates, primary school students stay in schools for an average of 8,5 years, takes a little over 11 years to complete primary school and a little over 50% of those starting first grade will be able to complete the full primary school cycle.

The culture of expansion is deeply embedded in Brazilian educational politics and policies. Instead of focusing on the quality and inefficiency aspects of the problem, virtually all politicians, educational administrators and a majority of researchers believe and claim that there is still demand, need and room for educational expansion in Brazil.

The next three sections analyze the quality, efficiency, and equity implications of educational policies based on never-ending expansion and over-enrollment.

⁴ FUNDEF is a fund created for the purpose of improving the efficiency and equality in the distribution of resources for primary education. Resources are distributed to states and municipalities according to number of students. In the absence of an age limit, school systems inflated enrollments by attracting older students.

The costs of educational inflation: Quantity vs. quality

It is virtually impossible to talk about the impact of quantity on quality due to the fact that only in the early 90s educational authorities started to collect information on the achievement of students. Moreover, curricula and the conditions of schooling have changed, thus precluding any direct measurement of the impact of expansion on quality.

There are several sources of information about the quality of education in Brazil. There is the SAEB – Sistema de Avaliação da Educação Básica – for 4th, 8th and 11th grade, ENEM – Exame Nacional do Ensino Médio - for secondary schools, ENC – Exame Nacional de Cursos – for higher education. Brazil also participated on international assessments such as those sponsored by UNESCO/OREALC and the OECD.

Tables 4 and 5 present the results of the assessment of basic education for Portuguese language and mathematics, for grades 4th, 8th, and 11th. The figures at the top of each column correspond to the minimum standards expected for each subject and grade. Compare with this minimum, the results show a pattern of very low quality.

Table 4 - SAEB results, Language

SAEB results, Language						
	4th grade:		8th grade:		11th grade:	
	200	250	325			
	1997	1999	1997	1999	1997	1999
Brasil	186	179	259	232	283	266
Municipal	177	164	241	230	-	-
State	183	167	243	226	271	256
Private	224	208	286	279	317	305

Table 5 - SAEB results, Mathematics

SAEB results, Mathematics						
	4th grade:		8th grade:		11th grade:	
	225	325	400			
	1997	1999	1997	1999	1997	1999
Brasil	190	181	250	246	288	280
Municipal	181	174	239	240	-	-
State	187	177	241	239	271	267
Private	230	217	300	293	337	329

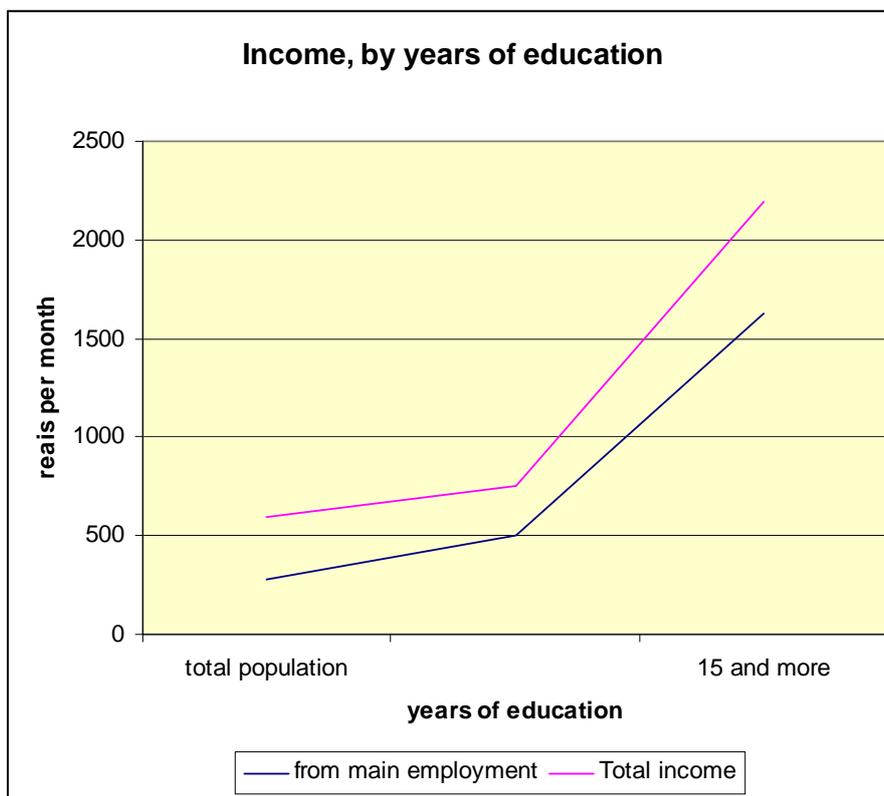
Overall, SAEB results show that:

- The majority of public school students do not reach the minimum standards. In each grade and subject, from 60 to 80% fail to do so.
- The achievement of state and municipal schools is virtually identical
- The achievement of private schools is consistently and significantly superior to that of public schools
- There is a slight decrease in overall scores in the last two rounds of SAEB tests (1999 and 2001, the latter not shown on Tables 4 and 5), suggesting a decreasing trend in achievement
- There is a large difference between the regions. The average achievement of an 8th grade student from states in the Northeast compares with the achievement of a 4th grade in a Southern state.
- In short, the public education is failing to contribute to diminish out-of-school inequalities. At the same time, as shown by Soares (2003), private schools adds more value especially for students coming from higher socio-economic levels, and less value to lower SES students – thus contributing to increase the equity gap.

Some analysts claim that standards set by the SAEB experts are unrealistically high. International comparison suggests otherwise. The assessment done by UNESCO's Office for Education in Latin American and the Caribbean of student achievement in the Latin American region show that the average achievement of Brazilian students are comparable to those of Argentina and Chile, but more than one standard deviation below the performance of students in Cuba (UNESCO 2000). If Cuban students can achieve much higher scores, it is unlikely that Brazilians or Argentines cannot. The OECD's PISA evaluation (OECD 2001) showed that over 56% of 15 year-old Brazilians at 7th or 8th grade did perform at or below level I in the Language Test. Level 1 is the bottom level on a 5-point scale. These results suggest that it takes Brazilians 7 to 8 years of schooling to barely decode and but not understand what they read. The Math results were even lower. Overall, the achievement test results of Brazilians on national and international assessments suggest that the educational system has not been able to prepare the majority of students for life and for further studies.

Some analysts claim that achievement tests may reflect distorted views of education about the real skills acquired by students in schools. Some even argue that more years of education – as supported by the expansionist inflationary policies – are more important than quality. In fact, labor markets data tend to suggest otherwise. Figures 1 and 2 present data on the relationship between education and income in the years 1992 and 2001.

Figure 1 - Income, by years of schooling, 2001⁵



⁵ Source: IBGE, PNAD 2001.

Figure 2 - Relative income by schooling, 1992-2001⁶

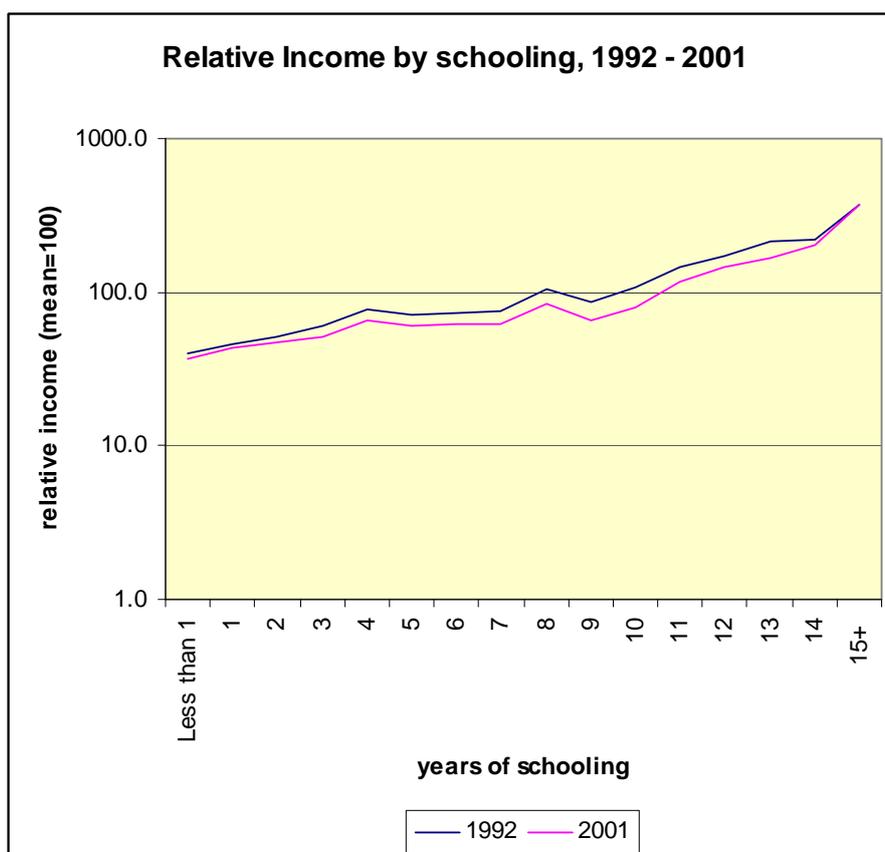


Figure 1 shows the wage variations according to years of schooling, and Figure 2 compares de income distribution around the mean in 1992 and 2001. Figure 2 shows, while in 1992 it took about 7-8 years of schooling to reach the national mean wage, in 2001 it took about 10-11 years to do so. Since the mean value did not change much during the period, it means that workers need to study more years to earn the same salaries.

Table 6 presents data on the levels of schooling of the work force. It shows that Brazilians start to work at a relatively early age – almost one third of the 15-year old cohort is already in the labor force. However, it also shows that labor force participation interferes significantly with years of study only for those in the 10-14 age group. The reason is twofold. First, most of the jobs are incidental and part time, and active

⁶ Source: IBGE, PNAD 1992 and 2001

participation does not necessarily mean a job. Second, a significant number of 15+ old students go to evening schools.

Table 6 - Age and years of study, active and inactive population

Age and years of study, economic and non-economic active population						
age	economically active		economically inactive		total	
	years of study	total	years of study	total	years of study	total
10	2.7	276,246	3.3	3,012,104	3.2	3288350
11	3.2	398,634	4.0	2,972,838	4.0	3,371,472
12	3.9	521,827	4.8	2,957,031	4.7	3,478,858
13	4.6	704,621	5.5	2,712,529	5.3	3,417,150
14	5.3	914,290	6.2	2,490,443	6.0	3,404,733
15	6.1	1,181,077	6.9	2,212,810	6.6	3,393,887
16	6.8	1,581,868	7.5	1,878,570	7.2	3,460,438
17	7.3	1,826,175	8.2	1,634,906	7.7	3,461,081
18	8.0	2,057,625	8.5	1,295,901	8.2	3,353,526
19	8.4	2,197,035	8.5	1,011,520	8.4	3,208,555
20	8.5	2,286,607	8.5	848,151	8.5	3,134,758

Source: PNAD, 1999

Figure 3 presents data on education and unemployment. These years were chosen because most of the structural adjustment of the Brazilian economy to face international competition and “globalization” was completed in the beginning of the nineties. To properly understand these tables, and what they may mean, it is important to know that over 60% of the wage earners in Brazil have 8 or less years of education, about 20% have between 9 and 11 years and less than 20% have higher education degrees.

Figure 3 - Unemployment and years of schooling

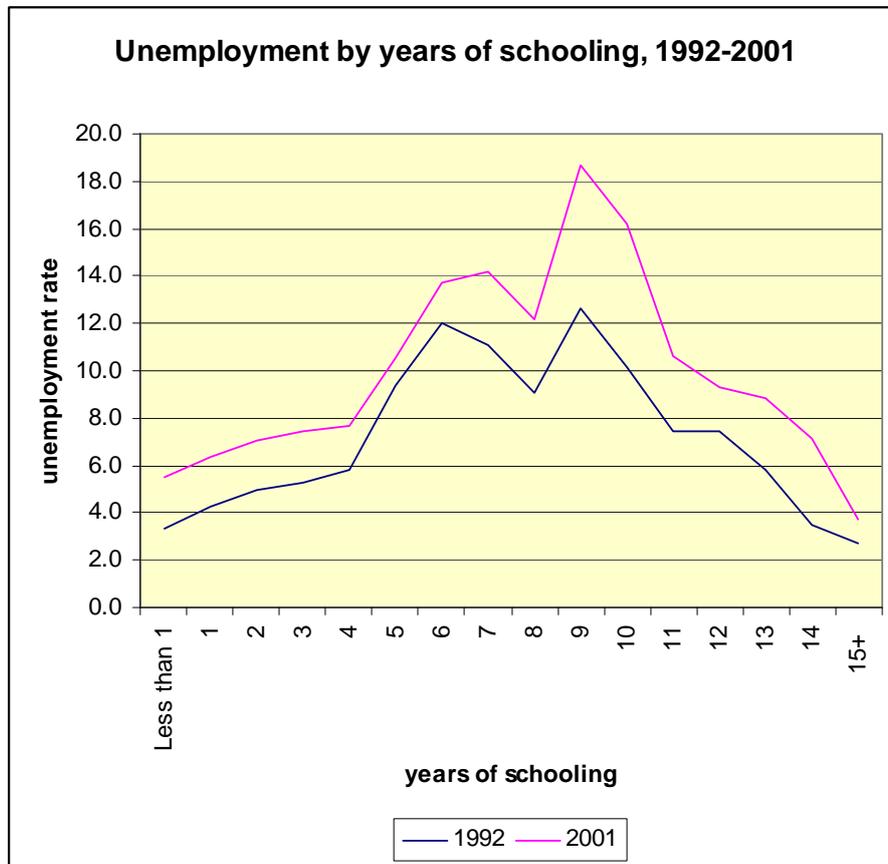


Table 7 presents the years of schooling and the number of workers in the labor force in 1992 and 1999. This table shows:

- A decrease in the number of workers with four or less years of education and a steady increase thereafter. This may reflect either a substitution of less for more schooled workers or the impact of the new entrants in the labor market
- The 11-year of education group (complete secondary education) experienced the highest rate of growth in the period, followed by those with college degrees.
- Overall, more than 66% of the places offered in the labor market do not require more than 8 years of education – contrary to the popular view that only those with secondary education can find jobs.

In fact, holders of secondary school diplomas constitute only 16% of the total labor force. As shown on Figure 3, unemployment grows from 6 to 10% for this group of workers.

Table 7 - Labor force by years of schooling, 1992 and 1999

Labour force by years of schooling, 1992 and 1999		
Years of Schooling	1992	1999
< 1	8,364,936	6,754,744
1	1,736,233	1,512,197
2	3,162,357	2,885,688
3	4,509,457	4,056,879
4	8,653,390	8,200,487
5	4,246,647	4,625,562
6	2,298,196	2,679,296
7	2,264,408	2,828,120
8	4,727,754	6,028,120
9	1,112,669	1,671,745
10	1,310,879	2,015,066
11	6,362,067	10,061,278
12	738,408	929,297
13	481,539	619,812
14	774,707	745,140
15+	3,178,558	4,497,233
Total	53,822,005	60,155,790

Source: IBGE-PNAD, 1999

Taken together, these five tables show that:

- The correlation between education and income is positive, as predicted by traditional Human Capital Theory.
- In Brazil, the wage differential are fairly large, and disproportionately larger for holders of higher education diplomas
- Relative salaries have been decreasing for all but the holders of higher education diplomas. The decrease has mostly affected those with 5-11 years of schooling. This probably means that being literate (4 years of education, the old primary school makes a difference
- Completing the 8th and 11th grade still commands a higher salary (signaling), but significantly less than in the past. Labor markets rely on screening effects of education, but seem to compensate for greater supply of graduates and possibly, lower skills. The labor market may value other non-cognitive abilities (Autor, Levy, and Murnane 2001) that school have been unable to impart.
- Holders of incomplete secondary education degrees fare worse in the labor market than those finishing primary education.

- Winner takes all. Finishing college commands a high premium⁷.

Contrary to common belief, it seems that labor markets are not particularly interested in students with (low quality) complete or incomplete secondary education. This group is the one with major relative salary losses and higher unemployment rates. The myth that “globalization” works equally in all countries and the “globalization” requires everybody to hold a secondary school diploma is just that – a myth – at least as far as the labor markets of the World’s 9th economy are concerned.

Overall, educational policies based on indiscriminate expansion do not contribute to establish a system of education with minimum standards of quality – be it measured in terms of academic or labor market skills. More years of poor education do not improve the academic and labor market situation of the less advantaged.

The costs of inflation: Quantity vs. efficiency

Does inflationary educational expansion foster efficiency? If conventional concepts of efficiency are considered (output/input) the answer is obviously negative. However, the inefficiency of educational policies based on unchecked expansion may be even worse than conventional economics may suggest.

There are several sources of inefficiency in the Brazilian model of education based on unlimited expansion. We have already considered the effects of additional number of students per grade, and of the time it takes a student to complete primary or secondary education. Table 8 summarizes what happens in a typical academic year in Brazil

⁷ Yet, there are major wage differentials according to the type of degree. In addition, there are also major differences in the candidates for different degrees – the highest paying degrees are associated with higher performance students and higher entry requirements in the respective colleges.

Table 8 – A portrait of the inefficiency of Brazilian education

A portrait of the (in)efficiency of the Brazilian educational system					
Grades	Initial enrollment	# students passing	Total loss	% loss	# students failing
1	5,978,272	4,407,236	1,571,036	26.3%	901,878
2	4,782,389	3,374,254	1,408,135	29.4%	649,518
3	4,625,014	3,761,420	863,594	18.7%	437,138
4	4,342,009	3,699,857	642,152	14.8%	389,401
5	4,763,018	3,453,792	1,309,226	27.5%	573,902
6	3,963,575	3,209,582	753,993	19.0%	389,787
7	3,622,550	2,849,036	773,514	21.4%	286,136
8	3,221,262	2,754,818	466,444	14.5%	248,407
Total Primary	35,298,089	27,909,995	7,388,094	20.9%	3,876,167
9	3,438,523	2,282,490	1,156,033	33.6%	352,478
10	2,479,473	2,043,951	435,522	17.6%	187,986
11	2,138,931	1,815,913	323,018	15.1%	106,246
12	62,182	54,312	7,870	12.7%	2,192
Total Secondary	8,398,008	6,196,666	2,201,342	26.2%	648,902

Source: MEC-INEP: Censo Educacional 2001 and 2002

This table presents two indicators of inefficiency: number of students failing and total loss. The difference between total loss and students failing is accounted for by students who enroll in the beginning of the year, leave the school during the year for some reason, and return next year. The evidence that most students remain is based on the relationship between total enrollment and the size of age cohorts – virtually 100% of 7-14 year olds are enrolled and more than 85% of 15-17 year olds are also enrolled.

The SAEB results and those of international comparative assessments suggest that repetition and losses are strongly associated with low student performance – rather than excessive rigor of teachers. If teachers applied the same criteria of experts responsible for external assessments, repetition rates would be in the 60 to 80% level in each grade.

Losses are greater in certain grades – first, fifth and 9th, reflecting specific difficulties schools have in teaching children to read and write in the first grade and in

other transition years. Total loss in the 9th grade may also suggest the inadequacy of a unified secondary school system with no options left for students⁸.

Other important sources of inefficiency include the existence of two major public school systems in virtually all municipalities – creating inefficiencies in school zoning, school size and staffing. Higher than necessary enrollments create the need for additional schools and staff. There are now, in Brazil (data from the 2001 SAEB questionnaires):

- 214,188 schools
- 1,581,044 primary school teacher equivalent
- 1,189,650 classrooms for primary education (sufficient for over 60 million students in double shifts)
- Almost 500.000 secondary school teachers

Another important indicator of inefficiency is teacher salary. If teacher salaries are below market levels, it is difficult to recruit qualified persons for the job. The FUNDEF legislation in Brazil requires schools systems to spend at least 60% of total educational expenditures on teacher salaries. With this ceiling, the salaries for teachers with secondary school degrees are competitive, but the salaries for teachers with higher education, required by the new legislation, are not, as shown on Table 9. It shows that teachers with 11 years of education, teaching in the first four grades, generally earn wages similar to the average of other employees with similar levels of education. These salaries may be adequate to attract average-level students to the teaching profession⁹, but are certainly not attractive to the most talented students. Teachers with 15 years of education, teaching 5th grade and above, generally earn wages salaries 30 to 50% below the market level. That virtually guarantees that less talented students will be attracted to the teaching profession.

⁸ Brazil is the only country the author knows in which there is no differentiation within or between schools. Forcing students – the majority of which with weak academic background - to follow a same, college-oriented curricula may entail not only high inefficiency, but even higher inequity (Oliveira, 1996, 2001). As shown in the previous section, Brazilian labor markets do not seem to put a premium on extended, low quality and low-skills education.

⁹ Legislation passed in the late 90s require all teachers to complete higher education. As the result, these teachers who present get market-level salaries will acquire 4 more years of education and decrease their relative salaries by 30 to 50%.

Table 9 - Monthly teacher wages¹⁰

Monthly teacher wages (reais, 2001)					
teaching level	teacher's schooling			Premium for higher education	# of teachers
	<11 years	11 to 14 years	15+		
Secondary	445	634	968	52.7%	348.831
Primary	339	476	770	61.8%	521.268
Primary 1-4	219	416	713	71.4%	881.623
Primary 5-8	190	487	946	94.3%	104.765

Source: IBGE-PNAD- 2001

In the case of primary education, and given limited budgets, additional policies contribute to reduce the total amount of resources available to pay teachers, thus lowering the wages of teachers: reducing teaching loads, increasing primary education from 8 to 9 grades or increasing the number of hours students spend in schools. In many municipalities, expanding pre-schools put additional burden on education budgets, thus lowering the amount of resources available to pay primary school teachers. On the other hand, non-expansionist policies such as reducing the total number of students from 35,3 to 26,7 7-14 year olds could improve teacher salaries anywhere from 50 to 100%, depending on other efficiency measures.

The foregoing data and discussion demonstrates that inflationary expansionist education policies do not contribute to efficiency. Such policies do not contribute to raise academic standards, to increase social or individual rates of return, neither to attract nor maintain a qualified teaching force.

The cost of inflation: Quantity vs. equity

Expanding educational systems is justified by public authorities as beneficial to the poor. The majority of the population believes that this is so – given their daily experience with the fact the people with higher levels of schooling tend to earn higher salaries. Equality of access becomes synonymous with equality of opportunities.

¹⁰ An official publication, *Geografia da Educação no Brasil* (Instituto Nacional de Estudos e Pesquisas Educacionais 2001 p. 59) shows average salaries of 425 reais for 1-4th grade teachers, 605 for 5-8th grade teachers and 700 for 8th grade teachers, for an average load of 20 contact-hours per week. There are great regional variations running from 221 to 1.364 reais for basic education teachers (pre-school to secondary school level).

However, as classic political economy points out, there is a difference between “la volonté générale” and “la volonté de tous”: what is good for every one is not necessarily good for all. Expanding education offers more opportunities to the poor. The poor can now come to pre-schools, primary schools, and have almost universal access to secondary schools. There is no doubt that expanding favors inclusion. However, the net benefits of inclusion without quality must be examined. Since resources are scarce, it remains to analyze which investments would mostly foster equity¹¹.

Historically, public investments in education in Brazil have been growing and leveled at around 5% of the GDP. An official publication, *Geografia da Educação Brasileira* (Instituto Nacional de Estudos e Pesquisas Educacionais 2001), estimates that total public investment in education in 1998 reached 47 billion reais, roughly equivalent to 5.2% of GDP. In 2002 that would roughly correspond to 20 billion dollars, which are roughly distributed as illustrated on Table 10. The disproportionate amount of per capita resources devoted to higher education is part of the overall picture of educational inequities¹².

¹¹ One difficulty of discussing equity issues in Brazil is the fact that most people do not “believe” in the simple fact that resources are scarce. The majority of people believe that the government has any amount of resource that may be required, it only lacks the “political will”. Regarding the level of public investment in education, the best estimates from Secretaria do Tesouro Nacional has been varying from 5.1 to 5.5 of the GNP. That corresponds to about 20 billion dollars in 2002.

¹² Public education is free in Brazil. Over 70% of students in these institutions come from secondary private institutions. Given the high rates of return to higher education, this probably the single most important contribution to income concentration in Brazil.

Table 10 - Public investments in education¹³

Public and per capita investments in education			
	Total investment (billion of dollars)	Number of Students	investments per student
Infant	1	4,200,000	238.00
Primary	11	32,500,000	338.40
Secondary	3	7,500,000	400.00
Higher Education	5	800,000	6,250.00
Total	20	47,000,000	425.00

Within prevailing circumstances, expanding pre-school in the municipalities systematically involves diluting resources, which would normally be invested in primary education. There is no evidence that pre-schools are targeted to the most needed. There is also no evidence that students going to pre-schools in Brazil have any gains, short-term or lasting as far as drop out, achievement or other benefits are concerned¹⁴.

Most of the equity impact of inflationary expansion policies on primary education has already been shown:

- Poorer students take longer to complete a grade and are less likely to leave schools after 8,5 years of schooling – the average school leaver takes almost 11 years to graduate.
- Older students get lower grades in the SAEB exams at all levels and subjects. Merely retaining students does not contribute to improve learning. However, automatic promotion policies have not demonstrated that they contribute to improve learning or earning, even though they might improve the chances of completing a degree
- Additional years of poor education lead to relatively lower salaries.

¹³ Public investment based on 1998 data from Geografia da Educação Brasileira (2001) and adapted by the author. Number of students in public schools have been rounded. These figures are compatible with World Bank estimates in Report 24413, 2002, Table 2.1. The author's estimation is that expenditures in infant education are probably higher, perhaps around 2 to 2.5 billion; that part of the resources for primary education is diverted for secondary education, which has less direct funds than reported; and that higher education costs more.

¹⁴ There is some evidence from the USA that excellent pre-school provision may give some head start to otherwise disadvantaged students. The advantages are less academic and mostly behavioral: increased probability to stay in schools, less crime rate, etc. (Carneiro, Heckman, and Manoli 2002; Krueger 2002).

We have seen that, when they reach age 14, students – mostly the poorer – start becoming active in the labor market. One third of 15th year olds and almost two thirds of 17 year olds are working or looking for jobs. The majority of these youngsters remain in schools – schools in Brazil are part time and more than 50% of secondary school is evening schools. However, they enter the labor market with less years of education, hence lower wages and with inadequate skills. Apprenticeship programs are not valued in the country, and technical education is reserved for those completing secondary education.

Overall, inflationary expansion policies clearly undermine quality, efficiency, and equity. The next part examines what happens to educational policies that take a different view.

Attempts to improve quality, efficiency and equity

Amidst an overarching framework which fosters unending expansion and ignores quality, efficiency and equity implications several attempts have been made to improve quality, efficiency and at the federal, state and municipal levels.

Regarding *quality*, the educational reform in the state system of education of Minas Gerais in the early 1990s is a case in point. The reform was based on existing international and national evidence and experience with “what works” and included simultaneous pedagogical, managerial, and financial reforms at the school level. Over about 8 years of sustained effort, it managed to effectively improve the achievement of students, as shown in the results of SAEB through the nineties. However, this is the only documented case in which educational reforms have contributed to improve quality, but even this effort has not proven to be sustainable in the long run (Oliveira 1998; 2002). In spite of many efforts, there is no public evidence from other states or municipalities concerning effective, significant, and sustainable quality gains. *No state or municipal system of education, in Brazil, can offer evidence that it offers education of minimum quality to the majority of its students in any way, much less in a sustainable way.*

Various strategies have been undertaken to address *efficiency*. In most cases, the attempts were focused on specific topics, with no overall impact. FUNDEF – the

National Fund for Primary Education – for example, significantly contributed to the transparency in the use and possibly to an initial increase in the amount of resources devoted to primary education. However, many of its effects were overridden by counter-efficiency measures, the most important of which was the continuous growth of supply, in spite of demographic changes: more than two million overage students were enrolled, thus diluting possible efficiency gains of FUNDEF.

Table 11 illustrates how FUNDEF contributed to increase the number of older and under-age students, rather than 7-14 year olds in the primary education system¹⁵.

Table 11 – Over-age student population, 1996-2002

Over-age student population, 1996-2002

Region	years	Total	between 7 and 14 years of age	15 years and more	% 15 years and more
Brazil	1996	33,131,370	25,909,860	7,221,510	21.8%
	2002	35,150,362	27,572,578	7,577,784	21.6%
Bahia	1996	3,553,446	2,315,394	1,238,052	34.8%
	2002	3,629,276	2,251,200	1,378,076	38.0%
Ceará	1996	1,843,948	1,312,969	518,268	28.1%
	2002	1,863,625	1,397,306	466,319	25.0%
Goiás	1996	1,135,948	801,191	334,757	29.5%
	2002	1,099,223	823,200	276,023	25.1%
Paraná	1996	1,808,149	1,508,496	299,653	16.6%
	2002	1,693,577	1,533,161	160,116	9.5%
São Paulo	1996	6,394,838	5,312,782	1,082,058	16.9%
	2002	5,993,885	5,300,860	693,035	11.6%

The table shows that for a total increase of 2 million students between 1996 and 2002 there was an increase of 1,6 million 7-14 year old students which were presumably out of the reach of schools. However, the majority about 1 million of these “new” 7-14 year olds were previously enrolled in the so-called literacy classes – they only moved from one to another classification, they were not out of school. Overall, only about 600,000 7-14 years olds came to schools for the first time, the majority of new students was already over 15 years. In many states distortions augmented. In the

¹⁵ The increase in the number of younger students is largely due to the inclusion of the old “liberacy classes” in the first grade of education. See the figure on table 1.

state of Bahia, for example, the actual number of 7-14 year olds decreased, while the number of overage students actually increased.

FUNDEF was also intended to improve efficiency by increasing teacher salaries. However, the major impact of FUNDEF was on improving the salaries of lay teachers in the regions where salaries were very low. It can be easily demonstrated that this is a consequence of the fact that FUNDEF made it mandatory to spend 60% of total funds on teachers. In the majority of states, these expenditures were already superior to 60% of total education expenditures. In fact, FUNDEF contributed to increase salaries of non-qualified teachers. However, even – as some government authorities claim – if salaries were increased, no relationship was shown between better salaries and better performance of students.

A major block to improving *efficiency* is and continues to be the existence of two public systems, state, and municipalities. Dual command dilutes responsibility, makes local educational planning even more difficult, and generates excessive supply of schools and teachers. FUNDEF was supposed to serve as the instrument to promote municipalization, by allocating funds to where students were.

Table 12 shows the evolution of state vs. Municipal enrollment in this period. The net transfer of students from states from municipalities was of 3,9 million students, about 20% of total state enrollment. In practice, almost half, 1,8 million of this total occurred in the State of São Paulo, where no previous municipalization efforts had occurred. In 2002, São Paulo still holds the largest (77%) network of state schools in the country. The relative participation of municipalities – from 10.9 to 17.6 is mostly due to new enrollments of overage students and to changing the status of literacy classes into first grade. Except for the state of São Paulo, only a maximum of 2 million students were actually transferred from state to municipal systems in this 8-year period.

Table 12 – Rates of municipalization, selected regions, 1996-2001

Region	Year	Rate of Municipalization, 1996-2001			
		Total enrollment	state schools	municipal schools	% of municipal schools
Brazil	1996	33,131,370	18,168,772	10,921,053	33.0%
	2002	35,150,362	14,236,020	17,653,143	50.2%
Bahia	1996	2,887,940	1,309,045	1,318,205	45.6%
	2002	3,629,276	1,124,330	2,313,273	63.7%
Ceará	1996	1,641,289	526,322	807,507	49.2%
	2002	1,863,625	324,916	1,338,780	71.8%
Goiás	1996	1,086,875	648,845	307,081	28.3%
	2002	1,099,982	550,617	440,344	40.0%
Paraná	1996	1,781,853	877,637	762,037	42.8%
	2002	1,693,577	760,690	802,320	47.4%
São Paulo	1996	6,572,322	5,078,539	726,704	11.1%
	2002	5,993,885	3,285,418	1,936,175	32.3%

Other efforts to improve efficiency at the state, municipal and school level have been undertaken – various authorities and organizations implemented managerial and training programs of various kinds. Organizations such as CONSED – the Council of State Secretariats for Education, and Ford Foundation have implemented programs of that sort. The state of Bahia implemented a massive program to help municipalities to improve management practices associated with a program to increase school autonomy (Fundação Luís Eduardo Magalhães 2000). This program was later implemented in 54 municipalities all over Brazil under the auspices of the Instituto Ayrton Senna and Fundação Banco do Brasil¹⁶. Overall, however, most attempts to improve efficiency were either undocumented or failed to produce or to publish any significant gains.

The remainder of this paper deals with one specific issue directly related to dealing with the inflationary model: how to deal with student flows.

¹⁶ This program is named Escola Campeã, started in 2001 and is expected to last until the end of 2004. Specific efficiency targets are established and are monitored and evaluated., such as reductions in transportation, optimization of school buildings, increasing teacher salaries as a result of better management practices, etc. No report has been published to this data, but this seems to be a promising approach to the extent that it integrates a number of actions in a consistent way – as opposed to the typical “Christmas Tree” approach to educational innovation characteristic of Brazil and many other countries.

Dealing with students flows

Even though expansion was and still is the dominant trend, several attempts have been made to deal with the problem of student flows since the mid 90s, and they include: automatic promotion, longer cycles and acceleration programs. In some systems, more than one strategy has been implemented. The tables below present some data on these issues.

Table 13 – Passing and failure rates, 1995-2001

Passing and failure rates, 1995-2001 - Brazil						
Grade	1995			2001		
	Passing	Failure	% fail	Passing	Failure	% fail
1	4,099,833	1,252,284	23.4%	4,407,236	901,878	17.0%
2	3,518,677	973,365	21.7%	3,374,254	649,518	16.1%
3	3,286,297	582,169	15.0%	3,761,420	437,518	10.4%
4	3,016,629	383,081	11.3%	3,699,857	389,401	9.5%
5	2,683,124	821,145	23.4%	3,453,792	573,902	14.2%
6	2,347,412	532,083	18.5%	3,209,582	389,787	10.8%
7	1,999,183	331,168	14.2%	2,849,036	286,136	9.1%
8	1,720,196	176,985	9.3%	2,754,818	248,407	8.3%
Total 1-8	22,671,349	5,052,280	18.2%	27,509,995	3,876,547	12.4%
9	1,395,086	335,579	19.4%	2,282,490	352,478	13.4%
10	1,145,688	145,597	11.3%	2,043,951	187,986	8.4%
11	1,093,886	59,678	5.2%	1,815,913	106,246	5.5%
Total 9-11	3,634,610	540,854	13.0%	6,142,354	646,710	9.5%

Source: MEC-INEP - Sinopse Estatística, 1996 and 2002.

Table 14 – Passing and failure rates, 1995-2001 – São Paulo

Passing and failure rates, 1995-2001 - São Paulo						
Grade	1995			2001		
	Passing	Failure	% fail	Passing	Failure	% fail
1	756,569	21,228	2.7%	724,534	24,422	3.3%
2	765,884	207,250	21.3%	711,441	29,836	4.0%
3	697,388	103,045	12.9%	701,025	15,354	2.1%
4	688,411	52,419	7.1%	677,391	66,103	8.9%
5	681,483	147,689	17.8%	652,620	37,468	5.4%
6	637,609	113,327	15.1%	709,516	39,380	5.3%
7	569,753	61,256	9.7%	701,008	39,429	5.3%
8	511,225	31,831	5.9%	668,035	60,233	8.3%
Total 1-8	5,308,482	738,045	12.2%	5,545,570	312,225	5.3%
9	446,112	87,003	16.3%	609,428	69,622	10.3%
10	360,198	36,433	9.2%	544,672	47,097	8.0%
11	359,689	13,375	3.6%	503,683	28,696	5.4%
Total 9-11	1,165,995	136,811	10.5%	1,657,783	145,415	8.1%

Source: MEC-INEP - Sinopse Estatística, 1995 and 2002.

Table 15 –Evolution of repetition and loss, 1996-2001

Evolution of repetition and losses - 1996 - 2001

1996							
	Enrollment	Pass	Fail	% pass	% fail	Total loss (*)	%loss
Brazil	33,131,270	24,069,956	4,639,990	72.7%	14.0%	9,065,314	27.4%
Bahia	2,887,940	1,851,475	481,994	64.1%	16.7%	1,036,461	35.9%
Ceará	1,641,289	1,089,793	191,081	66.4%	11.6%	551,496	33.6%
Goiás	1,086,875	725,488	142,706	66.7%	13.1%	361,387	33.3%
Paraná	1,781,853	1,337,334	253,667	75.1%	14.2%	444,519	24.9%
S. Paulo	6,572,322	5,578,746	568,595	84.9%	8.7%	991576	15.1%
2001							
	Enrollment	Pass	Fail	% pass	% fail	Total loss	%loss
Brazil	35,258,089	27,909,995	3,666,564	79.2%	10.3	7,384,094	20.9%
Bahia	3,706,887	2,475,575	567,828	66.8%	15.3	1,231,312	33.2%
Ceará	1,855,939	1,512,666	167,432	81.5%	9	343,323	18.5%
Goiás	1,099,982	845,608	142,706	76.9%	12.9	254,374	23.1%
Paraná	1,691,131.00	1,403,359	163,443	83.0%	9.6	287,772	17.0%
S. Paulo	6,092,455	5,545,570	312,225	91.0%	5.1	546,885	9.0%

(*) repetition plus drop-outs

Source: for enrollment, 1995 Education Census; for pass and fail rates, 1996 Education Census.

Overall, these tables show that:

- There was a marked decrease in the rate of repetition between 1996 and 2002. National rates fell from 22.2% to 13.8 for primary education and from 14.8 to 10.5% for secondary education. First grade failure decreased from 30.5 to 20.4%.
- Decreases were even more significant in the state of São Paulo, where automatic promotion practices have been adopted: from 13.9 to less than 1% for primary education and from 11.7 to 8.7% for secondary education.
- In spite of decreased rates of repetition, overall loss (repetition plus drop-out) remained very high. For Brazil as a whole, it fell from 27.1 to 20.0 between 1996 and 2001. In states like Ceará and Goiás, there was a marked reduction in dropout rates, even though failure rates did not drop significantly.

In the next paragraphs, we analyze the effects of specific policies.

Automatic promotion

The most dramatic evidence of automatic promotion policies comes from the state of São Paulo, as shown on Table 14. Automatic promotion has been widely implemented in the state system, and, to a lesser extent, in municipal systems. In less than 10 years total loss has been reduced to less than 9% and enrollments in different

grades became uniform, as shown on Table 16. At least in the state system, the introduction of automatic promotion was accompanied by policies and directives concerning how to deal with students running behind the academic program. There is no evidence about the actual implementation of those directives.

Table 16 – Enrollments and age cohorts, State of São Paulo

Enrollments and age cohorts, state of São Paulo			
Grade	Enrollment in 2001	Age	Cohort size in 2000
1	771,421	7	607,350
2	756,580	8	565,229
3	730,831	9	639,361
4	759,301	10	630,929
5	729,518	11	703,376
6	788,908	12	749,682
7	784,743	13	718,541
8	771,153	14	669,650

Yet, in the first four grades, enrollments are typically 20% or more above the size of the age cohort. In the same period, SAEB and state-held exams called SARESP show no major improvement or decrease.

The impact of automatic promotion policies in a case like São Paulo illustrates that:

- Even in the case of automatic promotion, adjusting students flows does not yield immediate results, it may take additional years for the system to operate more smoothly
- Automatic promotion does not improve the quality of the educational system, as reflected in the state and national external exams (SARESP and SAEB)
- Younger students are reaching 4th and 8th grades in greater proportions than before. In the past, lower 4th and 8th grade averages were attributed to older, multi-repeater students. Present results suggest that younger students, promoted automatically, replaced those older students at the lower levels of performance. If automatic promotion does not decrease averages, it certainly decreases the levels of students in fourth grade. This suggests that automatic promotion entails significant equity implications.

The case of São Paulo is probably the most careful and elaborated attempt to introduce automatic promotion in Brazil. Even though it may be too early to evaluate its impact – as it breaks traditional behaviors; there is no evidence that it does any good to students or educational systems. Efficiency gains, if obtained because of smoother student flows, have not been converted into quality gains.

Cycles

Academic cycles of 2, 3 or 4 years have been introduced in various municipal and state educational systems in Brazil. There are two basic differences between cycles and automatic promotion. First, curricula are generally designed to be taught during the cycle - not necessarily within a given grade. Second, promotion at the end of the cycle depends on students achieving certain standards.

Studying the effect of cycles on promotion is very difficult, since official statistics are not available to researchers in Brazil¹⁷. Data would need to be obtained on a case-by-case basis. Observing data from individual municipalities clearly indicate that at the end of the cycle repetition rates tend to increase. Overall, as shown on the 1996-2001 comparison, the overall repetition rates have decreased, thus suggesting that cycles (and automatic promotion) are associated with a decrease in repetition and retention rates.

As with the case of automatic promotion, there is no evidence that cycle improves student learning. A thorough review of the existing literature on cycles and automatic promotion in Brazil (Souza, Alavarse, Steinvasher, Jeffrey, and Arcas 2003) or books such as those published by Franco (Franco 2001) or the series of discussions on the topic published by the Brazilian Congress (Câmara dos Deputados and Comissão de Educação Cultura e Desporto 2002) failed to produce a single, consistent, empirical, much less definitive study of those issues.

Differently from automatic promotion, cycles are based on the assumption that teachers will have more time to “work” with the specificities of students, and that students will have more time to learn the mandated curricula for the cycle. The lack of specific curricula, teaching strategies and other resources to differentiate or individualize instruction makes it hard to believe that such practices per se may contribute to student learning. Rather, the increase in repetition rates at the end of the cycle suggest that such practices may have negative efficiency and equity implications – at it would take longer to “notice” that students are not learning.

¹⁷ A 2002 World Bank report noted that “secret” data has been provided for the Bank but would not be released to other researchers in Brazil. The lack of public access to public data is a major barrier to improving the quality of research and debate about educational policies in Brazil.

Acceleration programs

Starting in the mid 90s, a number of initiatives have been undertaken in different municipal and state systems. The initiatives vary from purely nominal changes to carefully designed attempts to address the student flow problem. Most initiatives were focused on offering special programs that would allow students to skip grades. Some programs included special pedagogic materials and strategies. In addition, a few programs were clearly focused on using acceleration programs as a means to smooth student flows. In other words, some programs were merely nominal, some were pedagogic innovations to deal with problem students, and some were more strategically focused on the issue of student flows. As shown on Table 1, between 1998 and 2002 over one million students have been enrolled in acceleration programs of different kinds. Given the variety of strategies and interventions it is impossible to compare the differential or overall effect of such programs.

Some such programs have been subject to external evaluation, as in the case of the Acelera Brasil the State of Bahia and the state of Tocantins (Oliveira 2001; Fundação Carlos Chagas 2002; Fundação Cesgranrio 2003)¹⁸. Together, these programs reached several million students and account for over 60% of the total number of students enrolled in acceleration programs in Brazil; the state of Bahia accounted for over 50% of the total national efforts after the year 2,000. These programs share a number of characteristics:

- They are part of a larger program of educational reform and of a political commitment to normalize student flow
- They use specially designed materials for students
- Teachers receive direct supervision throughout the academic year
- The programs are closely monitored and externally evaluated
- Students are promoted by their own teachers, on the basis of performance
- These programs represent a major financial commitment and cost from 20 to 25% in addition to regular annual student costs
- The purpose of these programs is to help 1-4 students to achieve 4th grade level and continue on to the 5th grade; in the case of the 5-8th program, students have two years to achieve 8th grade level.

¹⁸ The states of São Paulo and Paraná also commissioned but never published the external evaluations of their programs.

In all published reports mentioned above, and consistently along the various years of implementation, the average of students in the acceleration programs were roughly equivalent to the average of regular 4th and 8th graders in the same school system. In the 2002 evaluation in the state of Tocantins, for example, the averages in Portuguese for 4th grades were 145 and 153 for the regular and the acceleration group, using a SAEB-equated scale. Quality and year of implementation may account for local variation in results – in general, scores are higher in the first years and tend to slow down as the acceleration programs become routine and reach for more difficult students.

Other acceleration programs were also implemented in various states and municipal school systems – the state of Ceará has been particularly active in implementing such programs.

The existing evidence suggests that given certain circumstances, acceleration programs can contribute to quality – at least in the sense of ensuring that older, multi-repeater students can reach averages compatible with those of regular students. Under normal circumstances, as repeatedly shown on SAEB results, these are the students achieving the worst results. These quality gains also mean important equity gains. First because those students were able to receive a better-quality education. Second because, by skipping grades, they may be in a position to stay more years and school and eventually finishing primary education – as opposed to dropping out after successful years of repetition in lower grades.

Regarding efficiency, some cost-benefit studies on some such programs have demonstrated the economic gains of successful completing grades – as opposed to automatic promotion (Oliveira 2001). Table 21 shows that the proportion of students older than 15 years in 23 municipalities involved in Acelera Brasil programs is 2.8% of total enrollment, as opposed to 7.8 for the country as a whole.

Table 17 – Older students in municipalities under acceleration programs

Older students in municipalities under acceleration programs			
Municipality	Students > 15 years	Total 1-4th grade enrollment	% students over 15 years of age
Rio Branco	34	6,613	0.5%
Eunápolis	2,142	11,153	19.2%
Ilhéus	1,069	15,362	7.0%
Irecê	41	4,635	0.9%
Pereiro	41	2,082	2.0%
Sobral	120	18,774	0.6%
Anápolis	393	19,370	2.0%
Pastos Bons	28	1,638	1.7%
São João Batista	149	2,645	5.6%
Montes Claros	36	9,737	0.4%
Sabará	20	7,244	0.3%
Virginópolis	0	562	0.0%
Campo Grande	1,915	35,072	5.5%
Santarém	626	34,631	1.8%
Campos	152	20,543	0.7%
Macaé	66	11,963	0.6%
Mossoró	172	8,352	2.1%
Campo Bom	3	3,637	0.1%
Sapiranga	11	4,307	0.3%
Itajaí	5	8,732	0.1%
Joinville	45	24,691	0.2%
Palmas	90	9,272	1.0%
Porto Nacional	107	1,533	7.0%
Total	7,265	262,548	2.8%
BRASIL	1,542,936	19,727,684	7.8%

Overall, and with few exceptions, acceleration programs failed to achieve dramatic changes in the student flow profile. A thorough review of the literature on cycles and automatic promotions (Gomes 2003) suggests no conclusive evidence on the possible benefits of either cycles or automatic promotions in Brazil. As mentioned by authors, in countries where such practices are adopted there a number of other practices which may ensure that students manage to learn at least the minimum requirements associated with each grade. Moreover, in the majority of countries where such practices are adopted, there is an implicit or explicitly and early tracking of students – as soon as 5th grade in most countries. At the end of the day students in these countries may simply get a certificate of completion of students. In Brazil all certificates are formally equivalent. Thus, in many or most cases, automatic promotion may easily become associated with false diplomas.

The cases of Bahia and Goiás are instructive, since these have been two states with very strong rates of participation in acceleration programs. The data from Table 11 show that in the case of the State of Bahia, the actual number of students increased, and the number of students over 15 years of age also increased. In the case of Goiás, the decrease in total numbers have been modest, but the decrease in older students have been relatively large. States which adopted other policies such as cycles, automatic promotion and which undertook much less “acceleration classes,” such as Ceará, Paraná and São Paulo, achieved more remarkable results in reducing the total number of enrollments and the number of older students.

The explanation probably lies in the fact that, particularly in the case of Bahia, public authorities failed to limit the entrance of older students, thus contributing to worsen, rather than to improve the age-grade correlation. In the case of Goiás one possible explanation is the reluctance of municipalities to involve greater number of students in acceleration programs.

Overall, the analysis of the three strategies, automatic promotion, cycles and acceleration programs seem to show that:

- None of these efforts, per se, is sufficient to correctly address the student flow problem
- Cycles and automatic promotion do not contribute to quality, but probably increase inequity.
- Well designed and implemented acceleration programs may contribute quality, efficiency and equity gains, but, at least thus far, have not been able, by themselves, to redress the student flow problem
 - In the case of municipalities, one of the reasons may be the co-existence of state and municipal systems of education – students keep moving from one to other system and thus compromising the effort
 - In other cases, and especially in Bahia, the lack of strong rules to limit the admission of older students is responsible for the increased age-grade distortions
- In all cases, three common problem remain:
 - First, dealing with age-grade distortion requires a strict collaboration between state and municipal education systems. It is likely that only when education is municipal the problem will be solved – since municipalities will have full control of FUNDEF and receive the benefits of greater per capita per enrolled student.
 - Second, age-grade distortions are part of a larger complex of issues, which include the definition of school programs, expectations and responsibilities of schools and principals, structure of incentives, etc. Unless these issues are addressed simultaneously, direct attempts to deal with student flows will only

yield limited results. Until expansion predominates as the motto of educational policy, schools and teachers will feel no incentive to improve or insure quality.

- Third, the bottom line is student learning. Student learning in public schools, in Brazil, is severely limited by the incapacity of school to teach first grade students to read and write. Without a firm basis and fluency in these basic skills, students will have difficulty in further schooling – independently of retention or automatic promotion policies. Unless and until all schools guarantee that all students learn to read and write with adequate fluency at the end of first grade education in Brazil will see widen the gap between richer and poorer students.

The recent experience of countries such as the United States (National Reading Panel 1998; Snow, Burns, and Griffin 1998) and the U.K. is illustrative of the need and possibilities of change. In these countries, and particularly in the UK, average reading scores have not changed significantly in the last 50 years, but the number of students failing to achieve minimum standards was as low as 45% in the mid 90s.

Government initiatives such as the U.K.'s National Literacy Strategy (OSE 1996; Beard 2000; DEE 2000b; Riley 2001; Beard 2003; Stuart 2003) have contributed to increase the proportion of students reaching the Level 4 minimum standard from 55% in 1996 to over 75, for both reading and writing, and over 80% for Reading alone. The Fullan report (Fullan 2000) is particularly eloquent in the analysis of the factors that make such reforms both possible and effective. They require an updated understanding of what literacy is, a state-of-the art knowledge of the contributions of cognitive psychology to the teaching of reading and writing, the specification of adequate curriculum guidelines (DEE 2000a), study programs, teacher education, instructional materials, assessment, external evaluation linked to increasingly high performance targets.

If public policy has any purpose, it must be to serve the poor and ensure equal or less unequal opportunities of access, permanence, success and completion of schooling. Issues of equity have to be addressed on their own merits, but they cannot be solved unless quality and efficiency issues are simultaneously addressed. Given resource scarcity, equity can only be served if choices are made – concerning priorities and the allocation of political, administrative, technical and financial resources.

Historically, Brazilian society has never learned to promote equity through social policies – improvements benefiting the poor have so far been the consequence of

overall economic growth. Largely, and for the majority of the population, education has failed both to promote and to be used as an instrument to promote social mobility and less inequality. Until and unless Brazilian society understand the limitless expansion of education does not foster the cause of equality, the scenario of magic realism. In 100 years of Solitude, Gabriel Garcia Marques depicts the successive generations of Arellanos, Amarantas, Ursulas, Jose Arcadios running in circles around a never ending repetition of a hopeless, crude reality. In the same way, Brazil and Brazilians are likely to continue to assist new Ministers of Education proposing endless expansions and extensions that will only contribute to perpetuate the prevailing state of affairs.

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