NINE

Schools for the Poor, Too

There is little (or no) consensus on the tools in our equity kit, with one exception: education. Just, fair, and democratic societies can be constructed only if good-quality education is available to all. The same is true for constructing more efficient and faster-growing economies. And other tools in our kit rely on education for their success.

Given its income, Latin America has extraordinarily poor-quality education. The majority of children who finish primary school fail to achieve basic skills in reading, writing, and arithmetic. In 2003, students in Mexico, Uruguay, and Brazil scored far below the OECD mean and below the poorest-performing major OECD country, Greece, on internationally comparable tests of learning; they also lagged far behind the top performers in two other developing regions, eastern Europe and East Asia.[1] In addition, the distribution of education is unequal, with five to eight years' difference between years of schooling for rich and for poor children,

1. In the 2003 PISA (Program for International Student Assessment), which surveyed students in forty-one countries, fifteen-year-olds in the three participating Latin American countries (Uruguay, Mexico, and Brazil) scored near the bottom in reading, math, and science. On an earlier PISA exam (2000), students from Argentina, Brazil, Chile, Mexico, and Peru performed just as poorly, scoring considerably lower than the OECD mean and below what would be expected given the countries' level of per-student investment (PREAL 2006). In both PISA exams (for 2000 and 2003), Latin American countries performed consistently below what would be expected given their GDP, whereas all countries in East Asia and the Pacific region performed above what would be expected (Di Gropello 2006). See also Filmer, Hasan, and Pritchett (2006).

and in most countries that gap increased over the past decade.[2] The gap in quality between the schools that rich and poor children attend is much greater than the gap in distribution of education.[3] Latin American families that can afford to send their children to private schools do so. Even middle-income households use private schools—often assuming an onerous financial burden for schooling of a quality that is only slightly better than that in public schools.

Average education levels have improved since the 1960s, but progress has been much slower than in East Asia and levels remain considerably lower than in developed countries (figure 9-1). Adults now average six years of schooling in Latin America, four years less than in South Korea, where the rich-poor gap is much smaller.[4] High drop-out and repetition rates that are almost twice the developing country average impede progress in raising average schooling levels and reinforce persistent educational divides.[5]

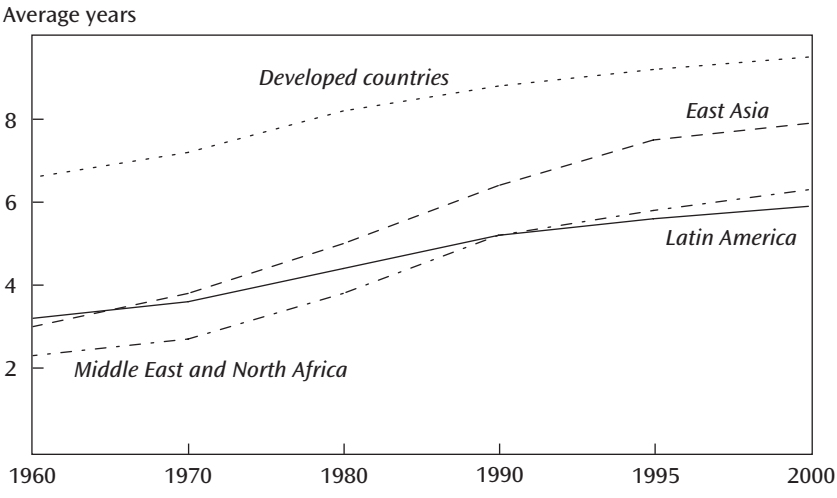
2. The educational Gini coefficients fell for most Latin American countries in the 1990s, but the gap (absolute difference) in years of education between the richest and poorest quintiles increased. For most countries (Chile and Mexico are notable exceptions), the gap in years of education between rich and poor is wider for younger adults (ages thirty-one through forty) than for older ones (ages fifty-one through sixty), suggesting that the problem of educational inequality may have worsened in the last few decades (De Ferranti and others 2004).

3. This is true whether measured by school infrastructure, teacher education, or spending per student. Outcomes, not surprisingly, also are unequal, with poor students from Brazil, Peru, Mexico, and Chile scoring sharply lower than their richer peers on the PISA exam in reading (Malkin 2006; PREAL 2006).

4. In 1960 the adult populations of Latin America and South Korea had basically the same level of schooling, 3.2 years on average (Barro and Lee 2000). In 1960 the education Gini coefficient for South Korea (population age 15 or older) was 0.55, compared with 0.34 in Argentina and 0.41 in Chile. Forty years later, South Korea had successfully lowered its education Gini by more than half, to 0.19, while Argentina and Chile saw little progress, displaying education Gini coefficients of 0.27 and 0.37 in 2000 (Thomas, Wang, and Fan 2003). Recent analysis shows that overall, Latin American workers have almost 1.5 years less schooling than do workers in countries with similar incomes, while workers in the East Asian tigers have almost one year more (PREAL 2006).

5. While primary repetition rates declined from 29 percent in 1988 to 11 percent in 2002, they remained almost double the world average (5.6 percent) and significantly higher than the average for even low-income countries (6.7 percent). Although most Latin American children, with the exception of those in some rural areas, now complete primary school, fewer children enroll in secondary school, and even fewer finish. Secondary repetition rates are in line with world trends, but they are significantly higher than in Asian countries like Indonesia, the Philippines, and Vietnam. Secondary school graduation rates also are low, around

FIGURE 9-1. Average Years of Schooling of the Labor Force, 1960–2000[a]



Source: Adapted from PREAL (2006), with data from Barro and Lee (2000).
a. Simple averages. Labor force is defined as those age twenty-five and over.

Across developing countries, the unequal distribution of schooling—as well as the low overall level of schooling—reduces average income growth, and it reduces income growth of poor households even more decisively.[6] In many countries, the wage gap between educated (skilled) and less-educated (unskilled) workers is rising. That seems to be a global phenomenon, but in Latin America the wage gap is especially large, perhaps as a result of some combination of skill-biased technological change and the integration of goods and capital markets through trade and international capital

60 percent or less in most countries. Argentina and Mexico have rates below those in Malaysia and Thailand, countries with similar or lower GDP per capita. In all Latin American countries, poor children continue to fall behind, displaying the lowest enrollment rates in primary and secondary school as well as the highest drop-out and repetition rates (PREAL 2006; WDI 2006).

6. Statistical analysis of the effects of the distribution of schooling measured at the country level suggests that income growth of the poorest 20 percent of households is about twice as sensitive to an unequal distribution as average income growth, controlling for the average level of schooling (Birdsall and Londoño 1997).

flows.[7] An unusually limited supply of educated workers results in an unusually large wage premium for those with higher education.[8] That premium, which increased dramatically in the 1990s, has been a major contributor to the sustained high overall wage (and thus income) inequality in the region, and the problem is only likely to get worse.[9] To the extent that technological change is skill biased, open economies in Latin America will struggle with huge pockets of unemployment given the region's uneducated, low-skilled workforce and the huge pool of low-wage workers in China and India, many with better schooling.

If Latin America's school systems can be upgraded and reformed, the region will have an opportunity to reap substantial benefits;[10] getting poor children into better schools can bring both faster overall growth and faster

7. See De Ferranti and others (2003); Rodrik (1997); Sánchez-Páramo and Schady (2003). Behrman, Birdsall, and Székely (2003) notes the likelihood that capital and skilled labor are complements to explain the finding of a statistically significant effect of the opening of capital markets on the rising gap in returns to skilled and unskilled labor.

8. In Latin America, less than 20 percent of the population has thirteen years of schooling or more, compared with 55 percent in the United States. The region's gross enrollment rates at the tertiary level average 29 percent, compared with an average of 70 percent in the OECD countries (91 percent in South Korea, 83 percent in the United States, and 62 percent and 67 percent in Canada and Spain, respectively). Tertiary enrollment rates in Colombia (29 percent), and Mexico and Brazil (24 percent) are lower than in Thailand (43 percent) and Malaysia (32 percent), but they are higher than in China and India (20 and 11 percent respectively)—although China is catching up fast, despite starting at lower levels in 1990 (with 3 percent tertiary enrollment compared with 15 percent in Mexico (World Bank EdStats Data Query). Workers with postsecondary education in Mexico, Brazil, and Colombia earn on average 3.3, 3.7, and 4.3 times, respectively, the labor earnings of workers with incomplete primary education; in the United States the differential is 2.5 (Vélez, Barros, and Ferreira 2004). In Brazil, 60 percent of the increase of the skill premium to tertiary education for 1981–99 could be attributed to supply shortage (Blom and Vélez 2004).

9. Wages are the major component of income, so rising wage inequality translates into rising income inequality. Wage gaps may well be magnified as globalization and technological change increase the demand for skilled workers and as inequality in tertiary education continues to rise in Latin America.

10. Good schooling is the keyword here, especially at the primary school level, where quality is a bigger concern than access. In most countries enrollment rates at primary school level have increased across all quintiles, and enrollment gaps between the rich and poor have been shrinking among children under twelve years of age. But while gaps in attendance, especially at primary school, are narrowing, gaps in quality may be growing larger. The increase in primary school enrollment in many countries may have come at the cost of better-quality education, since the increase in education spending at the primary level (to hire more teachers, provide school materials, improve school infrastructure) has not been sufficient to accommodate the increase in the number of students.

reductions in poverty.[11] Now is the ideal time to jump-start education. Fertility declines mean that for the next twenty years or so there will be fewer young people to educate relative to the still rapidly growing tax-paying labor force—and a comparably small contingent of elderly dependents. And ever-cheaper access to distance learning technologies like radio, television, and the Internet can eliminate geographical barriers to knowledge, allowing all countries to exploit opportunities for world-class teaching and learning. Radio in particular has huge cross-border potential, given that Spanish is a common language for so many students and that in several settings, radio's success has been demonstrated.[12]

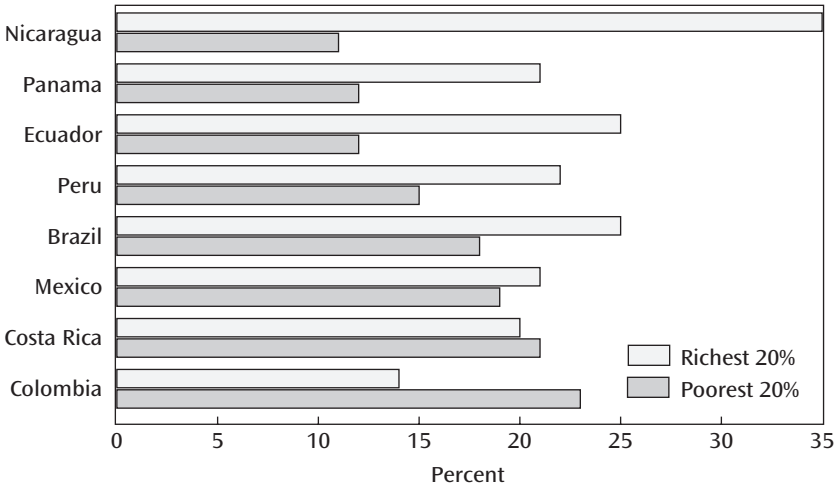
There are signs of progress. Countries in the region substantially increased their public spending on education, by 27 percent between 1996 and 2002 alone (figure 9-2 shows some evidence on the incidence of spending in selected countries).[13] Some countries whose primary and secondary

11. IDB (1997) estimates that growth could increase by as much as 1 percent a year if the average education of the workforce were to rise by one year (above trend) over the previous decade. That increase could also reduce the Gini coefficient of inequality by about 2 points over that period. Krueger and Lindahl (2001) shows that after correcting for errors in measuring years of education, changes in education positively affect GDP growth. Hanushek and Wößmann (2007) finds that the quality of education (measured by students' PISA scores)—rather than mere school attainment—has a significantly strong positive effect on individual earnings, on the distribution of income, and on economic growth. See also Hanushek and Kimko (2000) and Barro (2001).

12. Bolivia implemented a very successful interactive radio education program in the 1990s at a cost of one dollar per student. Mexico and Brazil have had generally positive experiences using relatively more expensive television programs for mass education (Anzalone and Bosch 2005; Moura Castro 2002). But it is important that countries use distance learning technologies as part of an overall strategy that ensures availability of materials and trains teachers and other support personnel in how to use and maintain equipment. In Mexico, telesecundarias (based on distance learning through satellite communications) now account for about 20 percent of total secondary enrollment, with a particularly strong presence in rural areas. But quality is an urgent challenge—telesecundaria students performed significantly worse on the 2003 PISA exam than students in other types of schools, even after relevant school and individual characteristics were controlled for (Hagerstrom 2006).

13. Public education spending in Latin America increased from 3.4 percent of GDP in 1996 to 4.3 percent of GDP in 2001–02 (World Bank EdStats Data Query). Spending allocation varies across countries: Chile has seen a large, equalizing convergence across the primary, secondary, and tertiary levels; Mexico has experienced steady growth at all levels, thereby maintaining unequal patterns; and Brazil has a large bias toward tertiary education, which receives seven times more funding than does secondary education (De Ferranti and others 2004). Lindert, Skoufias, and Shapiro (2006) shows that in seven countries (Brazil, Dominican Republic, Ecuador, Guatemala, Mexico, Peru, and Uruguay) public spending on primary education is somewhat progressive (55 percent of expenditures go to the poorest

FIGURE 9-2. Percent of Total Public Education Spending on the Richest and Poorest 20 Percent of the Population



Source: PREAL (2006).

school completion rates are among the lowest in the region began to give priority to raising those rates among the poor and have significantly raised schooling levels across all income groups.[14] Colombia, El Salvador, and Nicaragua are giving more autonomy to rural schools—in the case of Nicaragua, to all public schools. A few countries are starting to evaluate teacher performance and experimenting with programs designed to pay good teachers more. Programs in Brazil and Mexico that provide cash

two quintiles), largely because richer families opt to send their children to higher-quality private schools. Secondary education spending benefits mostly the middle quintiles, with the poor largely uncovered (since most drop out or do not enroll in secondary school) and, again, with the rich for the most part sending their children to private schools. Public spending on tertiary education is regressive in all seven countries. Most countries spend more heavily on secondary and tertiary education, which tends to make the overall effect of education spending regressive. In six of the nine Latin American countries for which data are available, the poorest fifth of the population receives less than a fifth of all education spending (PREAL 2006).

14. Brazil raised the proportion of rural and urban youth with six years of schooling by almost 20 percent between 1990 and 2002. Guatemala and El Salvador also have made important gains, especially since 1995 (PREAL 2006).

transfers to families on the condition that they keep their children in school are proving effective in increasing levels of schooling among the poor (see chapter 3). Chile made valiant efforts to rationalize public spending on higher education by introducing fees in public universities—and the fact that students are now contributing to the costs may help explain their June 2006 protests over the poor quality of education.[15]

But the politics of education reform in the region are difficult (box 9-1). Despite years of positive rhetoric, progress where it counts—better schools for poor students—has been halting. Even where there is political will, the institutional constraints are daunting. We call attention to four important areas for the education reform agenda.

Performance-Based School Reform

Success would be measured by how much children learn rather than by increases in enrollment and spending. Performance-based systems begin with a widely shared vision of what society expects of its schools and map out the resources needed to attain that vision. Regular monitoring shows how far a country has come in meeting its goals and where policy adjustments may be needed. Unfortunately, the most important performance indicator, national achievement tests, are a relatively new phenomenon in most countries and do not play a central role in policy design or evaluation.[16] It will be a sign of real commitment to better education when governments regularly measure and report on student learning through national and international tests.[17] National test results that are broken down by school level and subgroup (for example, poor students, male and

15. Chile also has created incentives for quality improvement by tying a fraction of public subsides to each student admitted whose score on the national university entrance exam is among the best 27,000 (Thorn, Holm-Nielsen, and Jeppesen 2004; Bernasconi and Rojas 2004).

16. In Chile, national tests are well established and used for policy purposes. In Brazil, two national evaluation tests were introduced in the last decade, but they do not yet play a central role in policy design or evaluation.

17. Only eight Latin American countries (Argentina, Brazil, Belize, Chile, Colombia, Mexico, Peru, and Uruguay) have participated in internationally comparable achievement tests (not counting the UNESCO/OREALC regional test). Most governments claim tests are too expensive, but considering how much they invest in education, it is difficult to see why they would not want to measure results.

BOX 9-1. Politics and Public Schools

Politics may be the biggest obstacle to improving education in Latin America today, and few governments have figured out how to deal with it.

The political challenges that reformers face are daunting. Governments have a virtual monopoly in designing and delivering public education. They face little competition, and they are subject to only minimal oversight by civil society. The consumers of public education—most of them poor—have little information and almost no influence on education policy. Influential elites, who send their children to private schools, are not directly affected by the failings of public schools.

As a result, public education is "captured" by informed, well-organized interest groups—primarily teacher unions and universities—that can engage decisionmakers. Governments, realizing that they have few allies against these groups, tend to give in to their demands, leading to ironclad job security for teachers, regardless of performance, and free university tuition for the rich. The poor lack such power. They seldom have a seat at the negotiating table and rarely take to the streets to protest poor school quality. Because they lose out to groups with more political muscle, their children are left with third-rate educations in underfunded and poorly managed public primary schools.

To be sure, governments have taken the politically popular decision to expand enrollments, thereby putting more poor children in school. But few have successfully tackled the politically difficult reforms that would improve the quality, equity, and accountability of schools, largely because powerful vested interests oppose them.[1] The lack of reform is due largely to failure of leadership and the absence of strong demand for policy reform. As part of

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The text of this box was written by Jeffrey Puryear and Tamara Ortega Goodspeed of Partnership for Educational Revitalization in the Americas (PREAL).

1. One can imagine political parties that, in the name of the poor, stand up to special interests and demand the hard decisions needed to improve public schools. That seldom happens, however, perhaps because party leaders perceive that doing so will cause them more trouble than doing nothing, at least in the short term. And, of course, presidential leadership could help energize state bureaucracies and party leaders and craft political strategies for change. But presidents realize that unions and universities are strong and well-organized while the poor are not, making the political payoff from pushing through difficult reforms smaller than the payoff from capitulating to those who benefit from the status quo.

their strategy to confront political obstacles head on, leaders from all sectors need to strengthen demand. Doing so requires three inputs: information, involvement, and empowerment. Governments should inform consumers of public education by providing them with reliable, timely, and user-friendly information on the education system. They should involve consumers by soliciting their input during the design and evaluation of reforms, thereby giving them an ownership stake that they would be more likely to defend. And they should empower consumers by delegating significant decisionmaking authority, particularly on financial issues, to local entities so that they can more easily participate. These steps will not guarantee success. But they will begin to tip the political balance away from the powerful groups that currently dominate education policy, giving the poor a better chance of having their interests served.

There have been a few successes. In the early 1990s, Nicaragua implemented an innovative and ambitious program to ensure school accountability and parental participation that public schools can choose to join if they wish. Championed by strong ministerial leadership—and with support from international organizations and donors—the Autonomous Schools Program established a system of school-based management, creating local school councils controlled by parents and responsible for hiring and firing principals and allocating resources derived in part from fees paid by parents.

Reformers bypassed unions—already weakened by divisions and infighting—by appealing directly to teachers with pay incentives tied to the autonomous project. Earlier changes in the Education Ministry bureaucracy and the establishment of ministry delegates at the municipal level also helped overcome political barriers. At the macro level, the program benefited from strong links to broader goals related to the process of democratization and market reform. By 2000, more than 50 percent of primary school students and nearly 80 percent of secondary students were enrolled in autonomous schools. The success of the program, which initially was implemented through a ministerial directive, helped it survive years of legislative battles later.[2]

2. For more on Nicaragua's Autonomous Schools Program, see Gershberg (2004) and Arcia and Belli (2002). For more on the politics of education reform, see Kaufman and Nelson (2004); Grindle (2004); Navarro (2005); Corrales (2006, 1999).

female students, students from ethnic and racial minorities) should be widely publicized in an easy-to-understand format.[18]

Genuine Accountability: Voice and Choice

Schools should be accountable to citizens for achieving educational objectives. Schools in Latin America are accountable to almost no one. Their goals are poorly specified, and attainment is difficult to measure. Teachers are seldom evaluated, never dismissed, and paid the same amount whether they perform well or poorly. Parents and communities have little information on how schools are doing and almost no power to effect change. Citizens should demand that the central government make accountability a central component of education policy by setting clear objectives; holding ministries, schools, and teachers accountable for achieving those objectives; and giving them the authority to do so.

In most countries accountability requires voice. There should be a radical decentralization of education services in order to involve parents and local communities in governing and running schools. Hiring and payroll should be done at the local level, with the central government allocating funds to schools on the basis of the number of enrolled students and compensating for low family income.

Accountability also requires choice. There should be some mechanism to ensure greater competition; options include allowing parents to choose among public schools and, through vouchers and other child-based subsidies, between public and private schools.[19]

Preschool for the Poor

Investment in early childhood education benefits all children, especially those from poor and disadvantaged families.[20] It costs less and produces

18. Parents and local communities should receive regular updates on teacher qualifications, teaching materials, and school budgets in a clear and understandable format. And all actors need to know which policies show promise under what conditions.

19. The central government's key roles are in quality control and financing to minimize inequity across geographical areas. See PREAL (2006) for guidelines.

20. Research shows that poorer children reach school age with a significantly greater disadvantage in cognitive and social abilities than better-off children. Paxson and Schady

more dramatic and lasting results than investment in education at any other level.[21] Poor children also benefit indirectly, because their parents, single mothers in particular, have more flexibility to join the labor force.[22] Preschool enrollment has increased over the past decade, especially among the poor in countries where programs target disadvantaged rural populations; however, even though poor children are most likely to benefit from preschool, they are least likely to attend.[23] Governments need to increase public funding for both public and private childcare and preschool programs that reach the poor, complementing them with programs to help parents improve their child-rearing practices. Programs need to account for the needs of working women by extending their hours and the number of children and parents covered.

Fewer Subsidies for Better-off Students at Public Universities and New Post-secondary Options for More Students

In most countries, public systems of higher education subsidize the rich and are accountable to almost no one for the quality of their services.[24] The relatively few students from poor families who manage to finish high

(2007) shows substantial differences related to socioeconomic status and parental education among six-year-old children in Ecuador. Early deficits are associated with weaker future academic performance and lower adult economic and social outcomes (Grantham-McGregor and others 2007; Rutter, Giller, and Hagell 2000). Evidence from internationally comparable tests of student learning in developed regions suggests that countries with universal preschool programs have been able to enhance the equity of the education system by attenuating the impact of family background on student performance without sacrificing average levels of educational attainment (World Bank 2005c).

21. World Bank (2005c); Heckman and Masterov (2007); Carneiro and Heckman (2003).

22. A study in Brazil in the mid-1990s found that access to affordable childcare in the slums of Rio de Janeiro was associated with higher female labor force participation and earnings (Deutsch 1998). See Attanasio and Vera-Hernández (2004) for evidence from Colombia.

23. In Latin America, 40 percent of children still do not enroll in preschool; the proportion is even higher (around 70 percent) in countries with high poverty rates, such as Guatemala, Honduras, Nicaragua, and Paraguay (PREAL 2006; World Bank EdStats Data Query).

24. Because most poor children in Latin America never finish secondary school, public funds spent on higher education almost automatically favor the rich (about 80 percent of resources go to the two richest quintiles on average). Although ratios are generally declining, on average, Latin America still spends more than three times as much per student at the university level than at the primary level; in several countries, the ratio is much higher (PREAL 2006).

school are ill-prepared for further study and often are unable to pass difficult entrance exams at free public universities. They are left with few choices, which usually involve paying for education in private institutions that put less emphasis on initial test scores or forgoing higher education altogether. In Brazil, students from the poorest 40 percent of the population make up just 3 percent of the student body at public universities.[25] Countries need to introduce fees at public universities for those who are able to pay and give an increasing share of public funds directly to needy students, rather than to institutions, in the form of merit-based loans and scholarships that they can use at the institution of their choice.[26] The public needs to demand that independent national accreditation agencies generate and analyze data on the performance of institutions of higher learning. Institutions that receive public funding can be broadened to include non-university, postsecondary programs, such as two-year colleges and postsecondary technical training, augmenting both the equity and efficiency of public spending on postsecondary education.[27] Governments

25. Mexico, Colombia, Chile, and Argentina fare somewhat better, but access to higher education is still highly unequal (Holm-Nielsen and others 2005). In Mexico, only 3 percent of the eighteen- to twenty-four-year-olds from the poorest quintile of households attend a tertiary education institution, while 26 percent from the wealthiest quintile do so (Brunner and others 2006). In Colombia in 2002, the enrollment rate in tertiary education was less than 20 percent among the low-income population (defined as strata 1 and 2 of six socioeconomic strata) but close to 60 percent for high-income students (Cerdán-Infantes and Blom 2007).

26. Increased financial aid to students enrolled in the fields of science and engineering would help increase the supply of trained, highly qualified professionals and contribute to the region's innovative capacity.

27. Experience in East Asia suggests that institutions such as two-year junior colleges can produce graduates with the skills needed on the labor market. In Taiwan, more than 90 percent of exports are produced by junior college graduates in small and medium-size businesses, which together employ about 80 percent of the workforce. Non-university tertiary institutions also have made a positive contribution in South Korea, where junior colleges enroll about 25 percent of the students in tertiary education—preparing them for careers in vocational fields such as health care, business, and engineering—and often set up partnerships with local businesses, especially SMEs, offering customized training financed by the businesses and adapted to their needs (Grubb and others 2006). In 2002, there were as many as 3,000 non-university tertiary institutions in Latin America, of which roughly 60 percent were private. In countries like Peru, Argentina, Brazil, and Chile these institutions account for more than 35 percent of total enrollment in tertiary institutions while in most of Central America they still account for less than 5 percent (Schwartzman 2003; World Bank 2002a; Bernasconi and Moura Castro 2005). Many countries have invested heavily in publicly managed systems of vocational training. But for the most part, those systems are expensive and irrelevant to the constantly changing demands of private industry; in addition, they often do not reach the poor, who barely finish primary school.

should subsidize demand through voucher-like systems, thereby encouraging small entrepreneurs to develop and supply training and broadening access for eligible students.

Fixing the supply of education is of course only one part of the solution. Demand for education, particularly beyond primary school, is low among the poor, not only because public schools are so ineffective (reducing the "return" to schooling), but because poor job prospects and discrimination in employment mean staying in school just may not seem worth it. We address demand-side issues in other chapters.