Educational Change in Latin America and the Caribbean

The World Bank
Latin America and the Caribbean
Social and Human Development

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PREFACE

The World Bank's share of annual lending commitments allocated to education in Latin America and the Caribbean has increased greatly since its first loan to Chile in 1966. The Bank is currently financing educational investments in most countries of the region, with projects covering all levels of education, pre-school through post-graduate. The growth in educational lending, combined with rapid changes in the Region and in the global context, make this an opportune time to reconsider our lending policies and strategies for the sector.

One of the most important changes in the Region is the growing commitment by political leaders in many countries to profound educational reform. This was demonstrated most visibly in the Santiago Summit of the Americas II in April 1998, where the presidents of the countries of the Western Hemisphere committed themselves to an ambitious education agenda. This commitment was reconfirmed at a meeting World Bank President James Wolfensohn convened of LAC education ministers and private sector leaders in June 1998 at the Bank's headquarters in Washington, D.C. These commitments by the Region have clearly guided the preparation of this paper.

The preparation of this paper began with a workshop attended by educational experts from throughout the Region. That workshop offered important advice on Bank priorities within the education sector and on the processes we use in developing projects and carrying out studies. Those recommendations are incorporated in this paper. However, the workshop and subsequent consultations also revealed that the Bank has not done an adequate job of informing the public and, especially, educational experts in the Region, of what we are doing and how we do it. Hence, this paper attempts to not only define the priorities for the Bank, but also to communicate to our external audience what it is we are doing and how we are doing it.

This paper, which defines the Bank education strategy for Latin America and the Caribbean, was prepared in parallel with a global strategy for the education sector, which was approved by the Bank's Board of Directors in April 1999. Global and regional strategies must by definition be broad. They cannot and should not prescribe recipes for educational development to be applied identically in all countries. However, the priorities and operating principles enunciated in these strategies will help guide the development of country education strategies and Country Assistance Strategies with our country counterparts.

Acronyms and Abbreviations

AIJE	Programa de Apoyo a las Iniciativas Juveniles en la Escuela
ALCA	Free Trade Area of the Americas (Área de Libre Comercio de las Américas)
APL	Adaptable Program Lending
CAAP	Centro Andino de Artes Populares (Andean Center on Popular Arts)
CAS	Country assistance strategy
CEBIAE	Centro de Investigación y Acción Educativa (Center for Educational Research and Action)
CEE	Centro de Estudios Educativos (Center for Educational Studies)
CEFACEI	Family and Community Basic Education Centers (Centros Familiares y Comunitarios de Educación Inicial)
CEPES	Centro Peruviano de Estudios Sociales (Peruvian Center of Social Studies)
CG	Consultative Group
CIDE	Centro de Investigación y Desarrollo Educativo (Center for Educational Research and Development)
CINDE	Centro Internacional de Desarrollo Humano (International Center for Human Development)
CM	Carrera Magisterial
CONAFE	National Board for Educational Improvement (Consejo Nacional de Fomento Educativo)
CONOCER	Council for Normalization and Certification of Competency Standards (Consejo de Normalización y Certificación de Competencia Laboral)
ECLAC	Economic Commission for Latin America and the Caribbean
EDI	Economic Development Institute
EDUCO	Educación con la Participación de la Comunidad (Education with the Participation of the Community)
EDUSAT	Education via Satellite
ERO	Education Review Office
FLACSO	Facultad Latinoamericano de las Ciencias Sociales (Latin American Faculty of Social Science)
FUNDAPEC	Fundación de Crédito Educativo (Foundation for Educational Credit)
FUSADES	Fundación Salvadoreña para el Desarrollo Económico y Social (Salvadoran Foundation for Economic and Social Development)
GDP	Gross domestic product
GNP	Gross national product
GRADE	Grupo Analítico de Desarrollo (Group for Development Analysis)
IBRD	International Bank for Reconstruction and Development
ICETEX	Instituto Colombiano de Especialización en el Exterior (Colombian Institute of External Relations)
IDB	Inter-American Development Bank
IEA	International Association for the Evaluation of Educational Achievement
IFC	International Finance Corporation
INFODEV	Information for Development Program
JCSEF	Jamaica Computer Society Educational Foundation
LAC	Latin America and the Caribbean

LIL	Learning and Innovation Loan
MECE	Educational Quality Improvement Program (Mejoramiento de la Calidad Educativa)
MERCOSUR	South American Common Market (Mercado Común del Sur)
MINEDUC	Ministry of Education
MOE	Ministry of Education
NAFTA	North American Free Trade Area
NEU	Nueva Escuela Unitaria (New Multigrade School)
NGO	Non-governmental organization
OECD	Organization for Economic Cooperation and Development
OECD/DSTI	Organization for Economic Cooperation and Development Directorate of Science, Technology, and Industry
PIDI	Integrated Child Development Project (Proyecto Integral de Desarrollo Infantil)
PRONOEI	Programa No Escolarizado de Educación Inicial (Nonformal Preschool Education Program)
PVO	Private voluntary organization
RICYT	Red Iberoamericana de Indicadores de Ciencia y Tecnología (Spanish American Network of Science and Technology Indicators)
SEIS	Interactive Satellite Educational System
SENA	National Apprenticeship Service(Servicio Nacional de Aprendizaje)
SENAI	National Industrial Apprenticeship Service (Serviço Nacional de Aprendizagem Industrial)
TIMSS	Third International Mathematics and Science Study
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNICEF	United Nations Children's Education Fund
USAID	United States Agency for International Development
VU	Virtual University

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EXECUTIVE SUMMARY

The improvement of education in Latin America and the Caribbean (LAC) is indispensable to achieving the goals of human development, social change, economic progress, and the elimination of poverty set by the heads of states and governments of the Americas in the Plan of Action of the Second Summit of the Americas, held in Santiago, Chile in 1998. The challenges are enormous, but the potential for improvement through cooperative efforts in the region is also great. The countries of the Americas, believing with Domingo Faustino Sarmiento, rural teacher and president of Argentina in the 19th century, that "the cumulative intelligence of nations is author of the greatest achievements," have engaged in a hemispheric effort to improve education—an effort aimed at complementing their national strategies and strengthening regional cooperation.

The World Bank is contributing to education in the region by providing financial resources for innovations and reforms, and especially by facilitating the development and application of the nations' collective knowledge to respond to their individual and common challenges. Based on its worldwide experience, the World Bank is in an advantageous position to support the development of and provide global knowledge for local educational solutions, particularly those aimed at eradicating poverty and fostering economic growth.

A Changing World

Three interrelated social goals drive government investment in education in LAC countries: providing a skilled and flexible workforce in the interest of economic growth, fostering social cohesion and promoting democracy, and reducing social inequalities and poverty. However, because of the rapid and revolutionary changes taking place in the world today, the countries of the region may need to take a radically different approach to educating their citizens in the future.

Five major phenomena most greatly affect societal demands on the educational system:

- *Economic globalization* and technological changes, especially in information technology and telecommunications, are increasing the demand for workers with higher qualifications and the capacity to continually learn and adapt. One result is rising rates of return to higher education throughout the Region.

- Rising relative wages for the most educated and most skilled exacerbate an already *extreme inequality* of income in the Region. High income inequalities and persistent high poverty rates in most countries translate into the need for great improvements in the equality of educational opportunity in the Region.

- The almost universal transition from dictatorship to *participatory democracy* in the Region, combined with an increasingly active civil society, and growing problems of violence and crime translate into another new demand on the educational system—that of fostering social cohesion and civic participation.

- The *role and organization of the state* have changed in most countries of the Region, resulting in subnational governments having significant education responsibilities and the private sector having an increasingly important role in the finance and provision of education, especially at the university level. The resulting challenge for the Region is to reengineer central government ministries, develop capacity at the local level, and formulate public policies for private sector development in education.

- Finally, the Region is experiencing a *major demographic transition*, which will result in a

stable-sized school-age population by 2010 and a decreasing percentage of young people in the population over the first half of the 21st century. The result is simultaneously a unique opportunity to focus on the quality of instruction over simply expanding enrollments, and a need to increase the human capital of a shrinking share of young workers.

Achievements and Challenges

The new educational challenges facing Latin America and the Caribbean occur in the context of significant educational achievements over the last two decades. There has been a widening of access to education at all levels throughout the Region, with 85 *percent of the primary-school-age group now enrolled in school*. The median years of educational attainment have risen rapidly in some countries. Management capacity of educational institutions has also risen; almost every country now has at least a sample-based assessment of student learning, and several countries have educational foundations, research centers, and NGOs with *world class capacity to carry out policy analysis and evaluation*. This new level of capacity is reflected in numerous *educational innovations* (including such programs as *Escuela Nueva, EDUCO, Enlaces, Telesecundaria, Wawa Wasi, Provão, and Escuelas Subvencionadas)*, several of which are the focus of interest of educators from outside the Region.

The *private and non-profit sectors play a critically important role* in the financing and provision of education, especially at the tertiary level, where one-third of all university students are enrolled in private institutions. NGOs like *Fe y Alegría* play an important role in improving learning opportunities for poor children. Finally, the private business sector has become increasingly important in supporting schools.

Despite these impressive achievements, the educational challenges are daunting:

The *gap in educational performance and competitiveness between* LAC and OECD countries is widening. Not only is the educational attainment of the labor force relatively low, but the rapid growth in secondary- and, especially, tertiary-level enrollments in OECD countries over the past two decades has not been matched in LAC.

Inequalities in access to schooling, school readiness, school attendance, and learning outcomes still pervade the Region. The rural poor and indigenous populations are at an extreme disadvantage relative to other groups. Education is not yet fulfilling its potential to improve social mobility. Indeed, the probability that poor children will complete basic schooling is lower in LAC than in some much poorer countries of Africa.

The *quality of schooling* and school achievement levels need to be improved significantly. Latin American countries score far below Asian and European countries in international achievement tests like the Third International Mathematics and Science Study (TIMSS). While many factors contribute to this, most research points to the key role played by the low quality of teaching.

The *relevance of schooling*, especially at the secondary level, for entering the labor market, fostering peaceful resolution of conflict, and encouraging civic participation is also wanting. While it is at the secondary level where enrollments will grow most rapidly in the next decade, it is also at this level where curricula need the most revision.

The decentralization education reforms of the past decade have seldom filtered down to the classroom. Decentralization and pedagogic improvements need to be accompanied by stronger *individual and organizational incentives* to deliver quality instruction and effective learning, and

improved by information and governance to ensure accountability for results.

Priorities for the Bank

The World Bank is committed to using its unique combination of global experience and knowledge and financing capacity to help Latin America and the Caribbean confront the educational challenges of the next decade. While our assistance strategies will be defined and agreed to at the country level, regionally we will target priority areas where the Bank can bring the highest value added. These are most commonly areas where Bank knowledge and experience can assist countries in finding solutions to difficult problems.

Consistent with the Bank's mission to reduce worldwide poverty through economic growth and services and investments targeted to the poor, our overarching goal for the LAC region is to *raise the Region's human capital, especially, that of the poor.* Supporting this goal will require investments in quality and coverage targeted specifically to the poor, but also systemic reforms required for these investments to yield sustained benefits. To achieve this goal the Bank will emphasize the following strategic priorities:

- *Including the excluded* by, whenever possible, targeting interventions to the poor. Among the specific interventions the Bank would support are improving readiness for schooling through investments in early childhood programs and school feeding and school health programs, improving school attendance through financial incentives to poor families, increasing opportunities for secondary and tertiary education through income-contingent scholarships, and initiating quality improvements in schools serving poor children.

- *Raising the quality of teaching* and revitalizing the public schools that serve the poor by supporting improvements in teaching and learning, including radical improvements in teacher training, introducing the evaluation of schools and teachers, providing teachers with effective student evaluation tools to diagnose performance, and creating incentives for meaningful teacher professional development.

- *Improving the transition from school to the adult world* by adjusting the content of secondary education to equip youth with the knowledge and values for productive participation in work and society and assisting the Region in meeting the Second Summit's goal of 75 percent coverage at the secondary level.

- *Making decentralization work* by reengineering education ministries, supporting governance reforms and improvements in information that ensure accountability, and assisting countries in identifying changes in incentives that could alter the behavior of providers and affect the sustainability of reform initiatives.

- *Diversifying and reforming tertiary education* to raise quality and efficiency, improve access by the two bottom-income quintiles, and strengthen the integral role of the private sector in finance and delivery.

- *Stimulating and evaluating educational innovations,* especially in the use of education technology, to identify more cost-effective ways of using technology to increase access and improve quality.

The World Bank's Role in Supporting Educational Change

The World Bank's priorities will be applied on a selective basis at the country level to yield the greatest impact from Bank activities. The Bank/country dialogue leading to a Bank strategy at the national level will weigh the educational

needs of each country against the Bank's commitment to making needed policy changes and its capacity to implement programs and policies. This calculus will identify not only Bank country-specific priorities, but also the appropriate mix of project lending, policy advice, and technical assistance.

Realizing that educational reform is a lengthy process that only slowly yields results, the Bank will, whenever possible, support long-term educational development programs and adjust the mix of lending, policy advice, and technical assistance as circumstances require. The Bank's new lending instrument—*Adjustable Program Lending* [APL]—is well suited for use in the education sector precisely because it focuses on long-term development objectives and long-term joint commitments by the Bank and the borrowing country. The Bank's other new instrument—the *Learning and Innovation Loan* [LIL]—is especially well suited to the Bank's support of pilot innovations which require careful evaluation before being supported on a large scale.

While the Bank has always provided policy advice to clients based on its worldwide experience, more recently it has increased its own investment in knowledge management to facilitate the effective capture and dissemination of knowledge consistent with country (client) needs. The Bankwide knowledge management system in education will play an increasingly important role in assisting staff to serve client needs.

The Bank's education loan portfolio already reflects our support of several of the strategic priorities in this paper. The total volume of lending has grown over time, both in absolute terms and as a share of total Bank lending. The share of lending to early childhood and secondary education has grown in recent years, reflecting the near-universal coverage at the primary level. In percentage terms, the greatest growth in lending is in higher education.

The Bank is committed to working in partnership with governments and civil society to serve country needs. We will listen to the beneficiaries so their views are considered in designing investment programs. We will collaborate with governments and local researchers in carrying out analyses so that the Bank better understands the local context and researchers benefit from exposure to international experience. Finally, we will encourage and welcome honest feedback on our performance.

CHAPTER ONE
EDUCATION IN A CHANGING WORLD

"Education provides people with the keys to the world."
—José Martí, 1853–95

A remarkable technological and economic transformation is occurring worldwide that is prompting a profound reassessment of the social role of education and the way it is delivered. Not surprisingly, nations in Latin America and the Caribbean (LAC) are looking to education to help them adapt to the globalized economy and achieve their long-sought goals of democratization with equity.

Three interrelated social goals drive government investment in education in LAC countries—providing a skilled and flexible workforce in the interests of economic growth, fostering social cohesion and promoting democracy, and reducing social inequality and poverty. However, because of the rapid and revolutionary changes taking place in the world today, the countries of the region may need to take a radically different approach to educating their citizens in the future.

This document presents the strategy of the LAC region in the World Bank for education in the region over the next decade. The strategy is based on an education agenda and timetable that was presented and discussed at the Summit of the Americas II, which took place in Santiago, Chile in April 1998 (see Annex A). This document also reflects broader World Bank priorities and its dual-pronged goal of poverty alleviation and economic and social growth. The Bank's activity in education addresses both of these areas through investment in human capital of the poor to raise their earning potential and to increase the competitiveness and economic growth of countries.

This chapter highlights the following recent trends and challenges that have motivated the current reappraisal of the education sector in Latin America:

- Rapid economic and technological changes are making it necessary for the governments of the region to invest in the skills and education of the workforce.
- Widening access to education is the key to reducing persistent poverty and social inequality in the countries of the region.
- For the new democracies in the region to thrive, they must be sustained by the broad-based participation of an educated and informed citizenry.
- Changes in the role and organization of the state mean that central government is no longer solely responsible for providing education services, but is increasingly sharing that role with local governments, communities, families, individuals, and the private sector.
- The number of youth as a proportion of total population in the region will decrease during the next century, allowing governments to focus on educational quality issues, rather than expanding access, as in the past.

Rapid Economic and Technological Changes

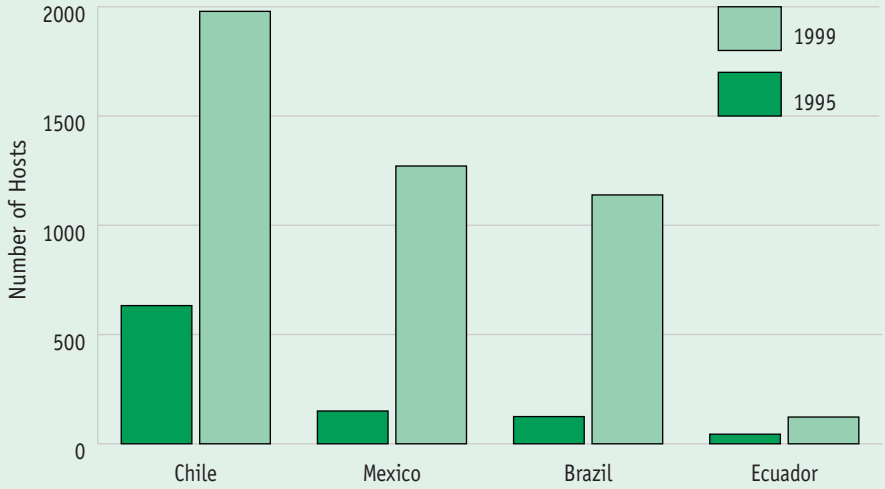
During the last decade, several LAC economies have begun to stabilize and even grow. This has been the result of the introduction of economic reforms that privatized inward-looking, state-dominated industries and caused them to become market driven, globally oriented, and efficient. Globalization and trade liberalization have prompted several LAC governments to adopt economic policies that focus on maintaining macroeconomic stability and providing an enabling environment for private sector development. On the social front, LAC governments are increasingly adopting human resources policies that aim to create a qualified and flexible labor force that will reinforce the country's economic competitiveness.

Meanwhile, markets are becoming increasingly global. Regional trade alliances such as MERCOSUR, NAFTA, and ALCA have lowered protectionist barriers and exposed LAC countries to intense international competition. This has presented governments with new opportunities for growth and access to foreign capital and technology. However, it also means that they will need to change their export base by increasing the value-added content (manufactured and knowledge-based products) of exports, which will require them to invest in sophisticated technologies and in the skills and education of the workforce.

Another challenge that LAC governments must face is the constant and rapid innovation in information technology, particularly in telecommunications and computer hardware and software. This has made it possible for information and capital to be sent across national borders in a fraction of a second, which has created both unprecedented opportunities and significant challenges for developing country governments. One example of the rapid pace of technological change is the exponential growth in Internet use during this decade throughout the world. LAC lags behind other regions (such as the OECD countries and those in Central Europe) in the number of Internet users, although there has been an impressive increase in this number in some LAC countries such as Chile and Mexico (see Figure 1.1). Therefore, it is vital that the educational systems in LAC countries teach children the skills they need to keep up with the evolving technological needs of industry.

Both economic globalization and technological change are putting enormous pressure on countries to develop and capitalize on their comparative advantages in the global system. These trends have had far-reaching consequences even for high-income countries such as Australia, Britain, Canada, and the United States. One of the major weaknesses of LAC countries in the global market today is a lack of human capital that has severely limited their capacity to do research and to introduce technological innovations. Thus, whether they can succeed in meeting the challenge of international competition will depend on how rapidly they are able to diversify their economies, upgrade the skills of the existing workforce, and prepare children to adjust to

Figure 1.1 Number of Internet Hosts per One Million Inhabitants in Selected LAC Countries



Source: International Telecommunications Union, 1997.

changing economic circumstances when they enter the world of work.

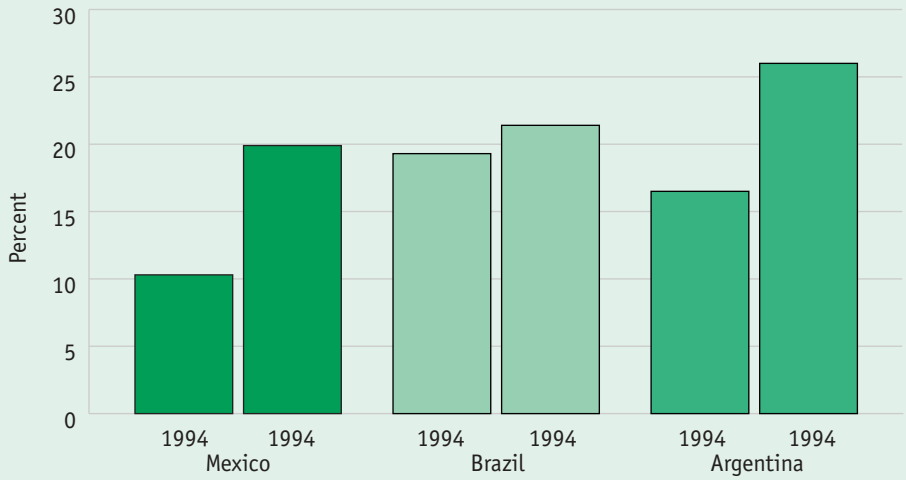
In this environment, there is a growing demand for workers with higher education qualifications. Private returns (the additional income resulting from the investments individuals make in additional education) to university education have been increasing during the past decade in Mexico, Brazil, and Argentina (see Figure 1.2). Data for Brazil indicate that wage returns to university education are greater than those to primary education, and these returns increase over time (Barros and Ramos, 1996). Already, there is growing evidence that in Argentina, Chile, and Mexico, which have liberalized their trade regimes in recent years, wage disparities have increased, presumably because of growing gaps in skill. This growing demand for educated workers is putting considerable pressure on governments to expand the higher education sector. There is a danger that the poor, who are already in a vulnerable position in society, will be further disadvantaged unless major efforts are made to ensure that they have educational opportunities beyond primary school.

As a result of all these pressures, education has become a fundamental element of both the social and economic policies of the governments of the region. Policymakers are now debating the amount and level of schooling required by their present and future labor force, and the type of education that schools should provide.

Poverty and Inequality

Poverty is still so pervasive in LAC that reducing its incidence is the greatest challenge facing policymakers. In 1993 approximately 156 million people (equal to the population of Brazil) were estimated to be poor in the region. There were 69 million people living in extreme poverty, the majority of whom (almost 40 million) lived in rural areas. According to ECLAC's 1998 estimates, the percentage of poor households in LAC did not change significantly between 1970 (40 percent) and 1994 (39 percent). Figure 1.3 illustrates the incidence of poverty in Latin America from 1950 to 1995. While the incidence of poverty declined during that period, the absolute number of poor people has continued to grow.

Figure 1.2 Private Returns to University Education



Source: World bank data; Pessino, 1995; Barros and Ramos, 1996.

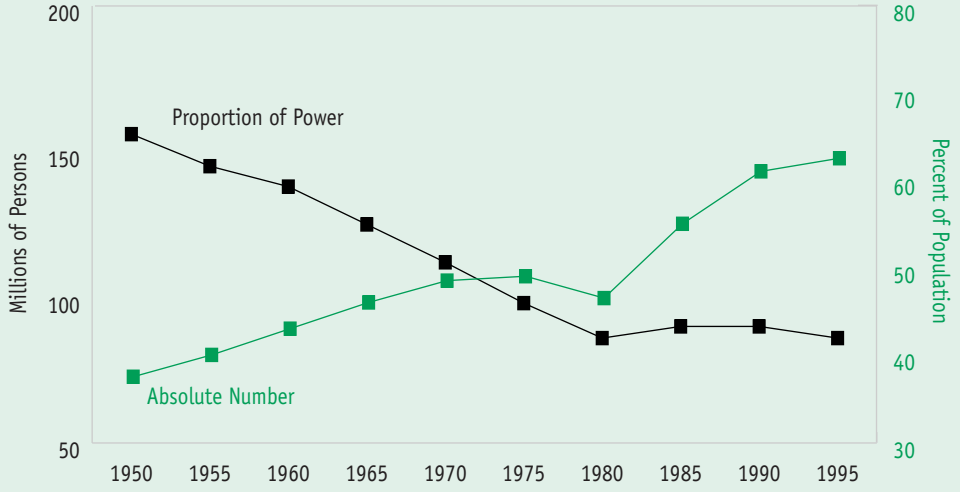
In addition, LAC continues to be one of the least egalitarian regions of the world. Figure 1.4 shows a comparison of income inequalities in LAC, East Asia and the Pacific, and Europe and Central Asia; that is, the ratio of the top quintile of the population to the bottom quintile in terms of their share of the national income.

Education is one important explanation of why some people have higher incomes than others. People who have had little education tend also to be less productive and are more likely to be unemployed and economically and socially marginalized than are people with more education. Consequently, education reduces inequality and poverty by enhancing the skills and productivity of the whole population by equipping them with the skills they need to adapt in volatile economic times.

There is much concern that globalization and liberalization are increasing income disparities in the world economy both within and between countries. The share of world income owned by the richest 20 percent of countries increased by 14 percent between 1965 and 1990 (UNCTAD in *The Economist,* 1997). Within countries, the wages of skilled workers tend to rise faster than the wages of those with fewer skills. In several LAC countries (for example, Bolivia, Brazil, Colombia, Honduras, Mexico, Paraguay, and Venezuela), the real earnings of unskilled urban workers fell significantly between 1990 and 1994, while those of professional and technical workers either increased or decreased at a slower rate. Even in those countries in which the real earnings of unskilled workers increased (such as Chile, Costa Rica, and Uruguay), the real earnings of professional and technical workers increased even more.

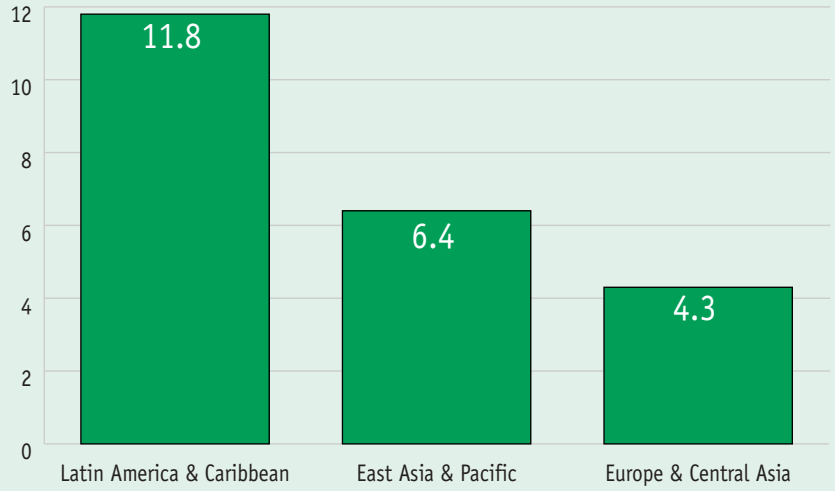
The paradox is that education is a powerful means for reducing poverty and inequality, but at the same time it can lead to exclusion and marginalization. Thus, educating the poor is a social, economic, and moral imperative and must be an essential element of any strategy for eradicating poverty and ameliorating social inequalities. One priority should be implementing programs that combine nutrition, health, and early childhood education because they can reduce the effects of poverty in the first stages of human development and enable children to concentrate and learn at school. For those among the poor who manage to

Figure 1.3 Poverty in Latin America, 1950–95



Source: Londoño, 1996

Figure 1.4 Ratio of Top to Bottom Quintiles Income Share, 1990s



Source: World Bank, 1997. Based on data in Deininger and Squire, 1997.

complete primary school, the priority should be to make it easier for them to acquire a secondary and post-secondary education.

Democracy and Civil Society

In recent years many of the countries in the region have been going through a transition from dictatorship to democracy. In some countries (for example, Argentina, Bolivia, Brazil, Chile, El Salvador, Guatemala, Haiti, Honduras, Nicaragua, Paraguay, Peru, and Uruguay), this has involved a period of civil strife, which has come or is coming to an end. All of the governments of the region except Cuba are now elected, and their primary goal is national reconciliation because democracies need to be built on the shared visions, common purposes, and collective actions of whole populations.

This regionwide return to democracy presents challenges that extend far beyond the election of public officers. These challenges include expanding participation in the political process, strengthening democratic values and social cohesiveness, safeguarding human rights, and modernizing justice systems. For democracy to thrive it must be sustained by the broad-based participation of an educated and informed citizenry. An educated population is more likely to interest and involve itself in how the country is run, thus increasing participation in the democratic process. The relationship between education and the practice of participatory democracy can be nurtured in the classroom because schools are appropriate environments for helping children develop critical reasoning for understanding the social, ethical, and moral consequences of their actions. In addition, adult education can teach individuals and groups to understand and tolerate ethnic and other differences and show them how to put democratic principles into practice.

Given the current trend toward the decentralization of government functions and responsibilities, national governments will need to develop local capacity for managing social services. The climate of democracy that now permeates most countries in the region has led to an increase in the number of private sector organizations that provide social services. This is a break with the historic trend of public sector dominance. To foster this new attitude, during Summit of the Americas II

LAC governments agreed that their educational curricula at all levels would aim to develop a democratic culture, ethical values, and a spirit of cooperation and integrity. The Ministry of Education in Argentina, for example, is implementing in the schools classroom activities aimed at cultivating civic values. The program, called *Education for Democracy,* is being implemented in collaboration with CONCIENCIA (a local non-governmental organization [NGO]), the CIVITAS network, and the World Bank.

Changes in the Role and Organization of the State

Another factor complicating education sector planning for the next decade is that the management of public education in LAC countries is being radically restructured as a consequence of the recent reforms that are changing the state's role in the economy and society.

The role played by the state has varied over the centuries, which has resulted in different approaches to education throughout the region's history (PNUD, 1998). For example, the colonial states in Latin America mirrored the organization of European society and established a distinct social pyramid. The colonialists regarded education as an important tool for spreading the language of the empire, for converting the indigenous population to Catholicism, and for maintaining rigid social control by providing indigenous populations with fewer educational opportunities than the European colonialists. The church, representing the Crown, created schools and universities for the colonialists and developed non-formal education programs for the native population.

After the LAC countries gained independence, it was necessary to build new national identities based on the principle of democratic representation. Education, perceived by the founders of the new nations as the most effective nation-building tool, became the responsibility of the state. For most of the century LAC governments took a dominant role in all aspects of social organization, including expansion of the public education system at all levels. This meant that schools were subject to highly bureaucratic, centralized management.

The decline of the welfare state across the world is affecting all of the countries in the region. What has been called the "reinvention of the state" is based on several different goals: increasing the efficiency of public finances and the essential services provided by the government, limiting the involvement of governments to those activities that cannot be effectively performed by the private sector, making service providers be more responsive to their clients, and promoting equity and the participation of stakeholders in all aspects of the management of social services.

The effort to put these goals into practice has had significant and long-term effects on education in the region. While the role of the state remains to promote the provision of basic education for all, it is no longer solely responsible for actually providing the education itself. Local governments, communities, families, individuals, and the private sector now share that responsibility. Educational policymakers are redefining the responsibilities of local and central governments and promoting the development of new decision-making processes, including decentralization, school autonomy, privatization, and community participation in and evaluation of educational institutions. However, it is too soon to tell what the shape of the education sector will be in the era of the reinvented state.

The Demographic Transition

At the threshold of the new millennium, the population of the LAC region is changing in ways that are having enormous ramifications for the education sector in all countries. While the population of the region has been growing substantial-

ly, school-age children are becoming a smaller percentage of the population in most countries.

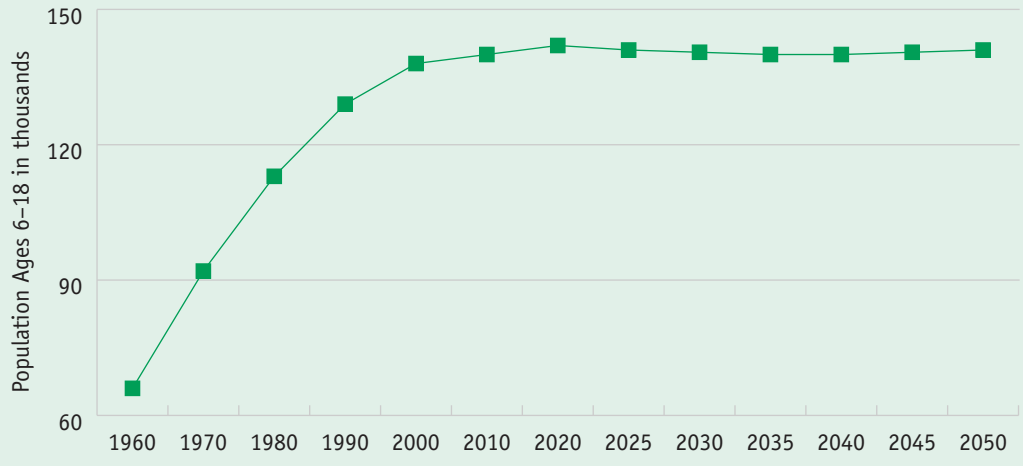
Between 1950 and 1990, the population in LAC increased almost threefold, from 166 million to over 440 million. The number of young people below age 15 nearly tripled from 66 million to 157 million, but their share in the total population declined from 40 to 36 percent. The overall population of the region is expected to grow to 742 million by 2030, although in the next 40 years the population below age 15 will remain almost constant, at around 160 million.

Figure 1.5 shows the projected growth of the population between ages 6 and 18 (school age) in LAC. The figures suggest that the growth of population between ages 6 and 18, which has been characteristic of the LAC region in the 20th century, will not continue in the 21st century. That age group will remain constant over the next 50 years. However, the pattern of population transition varies from country to country with corresponding variations in the implications for their education systems. In some countries in the region (such as Argentina, Chile, and Uruguay) that have aging populations (similar to those in developed countries), it is estimated that 70 percent of children aged 12 to 17 are enrolled in school. However, in other countries that have predominantly young populations (such as Honduras and Nicaragua), school enrollment rates are much lower, which suggests that these countries need to focus on improving quality and expanding coverage.

Population growth varies from country to country. In some LAC countries (including Brazil, Chile, and Jamaica), the total population is projected to increase by about only 30 percent between 1995 and 2030. In others (such as Nicaragua), it will increase more than 90 percent during the same period. The growth of the child population can be illustrated by the two extreme cases of Chile and Nicaragua (see Figure 1.6). In Nicaragua, where fertility rates and population growth are relatively high, the population aged 15 and under is also high (40 percent of the total population), while in Chile, young people comprise less than 30 percent of the population.

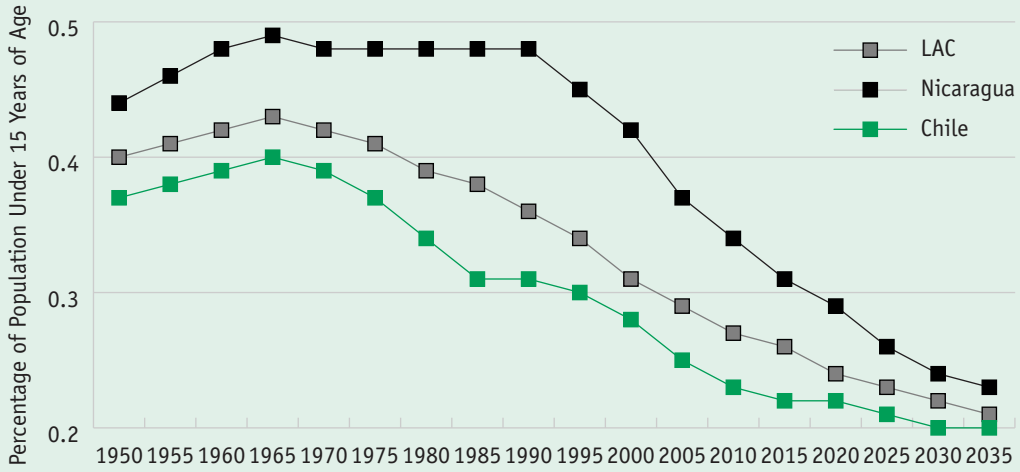
These shifts in the age structure of the population mean that governments are having to rethink their social and expenditure policies to meet the challenges of providing adequate health, education, and social security to their changing populations. In

Figure 1.5 Projected Population Ages 6–18 in LAC, 1960–2050



Source: World bank estimates, 1998.

Figure 1.6 Children as Proportion of Total Population 1950–2040: Selected Countries as Compared to LAC Region



Source: World Bank, 1995; United Nations, 1996.

those countries with aging populations (for example, Chile), there is going to be a growing need for social and health services, and there will inevitably be competition for scarce resources between the older population and children. However, the decrease in the share of the school-age population in the population as a whole (see Figure 1.6) should enable governments to redirect some of their resources to improve the quality of education.

New Climate of Reform

These trends both affect and are influenced by education. For nations to participate competitively in a global economy, current and future workers need to be educated and trained in the skills that will be in demand in the future. In addition, educating the poor is necessary to reduce pervasive inequalities and poverty, and to prevent the poor from being economically and socially marginalized. Social cohesion and democratic participation cannot be achieved unless all citizens are educated and taught "a spirit of cooperation and integrity" (Summit of the Americas II, 1998).

Moreover, the current trend toward decentralizing fiscal responsibilities has profound implications for the delivery of social services, particularly education. The government levels to which these responsibilities are being devolved will need to improve their management capacities if they are to meet the needs for access and quality. The shrinking population of young people in the region in the 21st century will provide both new opportunities and challenges to the educational authorities in the region.

In the knowledge-based society of today, the links between technology, market forces, poverty, democracy, and education are stronger than ever before. At the 1998 Summit of the Americas, the LAC governments made education a high priority as the means to achieve the "competitiveness and productivity required by modern economies," and to allow their populations "to contribute as worthy citizens to their respective societies" (Summit of the Americas II, 1998). In addition to this collective commitment, the government of each country in the region has pledged itself to reform its education system to meet the many challenges of the new millennium.

CHAPTER TWO
EDUCATIONAL ACHIEVEMENTS

"Education is the foundation of peoples' prosperity."
—Benito Juarez, 1806–72

Over the past 30 years, Latin American and Caribbean countries have improved their educational systems in ways that reflect educational trends worldwide. This has been the case particularly during the 1990s, when the governments of the region have shown an increasing commitment to education and to the implementation of educational reforms. There are variations from country to country in terms of reforms and achievements. These variations in educational advancement are reflected in indicators on each of the different educational levels; however, the region as a whole has had several important successes:

- There has been a widening of access to education at all levels throughout the region, especially to primary education.
- Institutional capacity at the national and state levels has been strengthened in all countries.
- Several countries in the region have experimented with educational innovations, such as distance education on television.
- The private sector is increasingly providing educational services, especially at the tertiary level, and helping to improve the quality of public schools.
- NGOs are also increasingly providing services in both the formal and non-formal education sectors.

Expansion of Access to Education

There has been a widening of access to education at all levels throughout the region. More and more countries in the region extend educational services to younger children. The definition of pre-school education has evolved to mean education aimed at children aged three to six, while the terms "early childhood education" or "initial education" have come to signify the period from birth to age three.

Early childhood education is rapidly expanding. In several countries (for example, Bolivia, Jamaica, and Peru), poor children are beginning to benefit from the pre-school experience, although significant inequalities still persist between rich and poor children and between urban and rural children. Many LAC governments are adopting early childhood development programs that include health, nutrition, and education services for very young children, and often the child's family and community are encouraged to involve themselves in the implementation and management of the program.

Early childhood interventions vary by the focus of the intervention (children, parents, community agents), the site of the program (specially designed centers, churches or other community facilities, homes), and the delivery system (professional educators, paraprofessionals, trained parents). In contrast to the solid evidence on the general benefits of early childhood interventions, information on the cost and effectiveness of alternative delivery options is difficult to come by (Waiser, 1998).

Net enrollment rates in pre-school education in LAC have increased steadily, even during the "lost decade" of the 1980s when social programs were severely affected by the world economic crisis. Net enrollment rose from 3.4 percent in 1960 to nearly 23 percent in 1996. In the case of Mexico, at the beginning of 1980 only 2 out of 10 children were enrolled in pre-school, yet, by the end of the decade, the number enrolled had risen to 6 out of 10.

There is great variation in the level of coverage of pre-school education in the region, which is relat-

ed only in part to per capita income (Myers, 1996). Some low-income countries, such as Cuba and Jamaica, are ranked highest in the region in terms of pre-school coverage.

LAC countries can be grouped into three categories according to pre-school enrollment rates: countries with enrollment of 50 percent or higher (Chile, Costa Rica, Cuba, Guyana, Jamaica, and Mexico); countries with enrollments between 25 and 50 percent (Argentina, Bolivia, Brazil, Colombia, Haiti, Panama, Paraguay, Peru, Uruguay, and Venezuela); and those with enrollment rates below 25 percent (the Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, and Trinidad and Tobago) (see Map 1 in Annex C).

Primary education is now nearly universal in the LAC region. However, primary school completion rates vary widely. While in Uruguay, 93 percent of children enrolled in primary school reach grade five, in other countries, such as the Dominican Republic, only 14 percent reach that level (see Map 2 in Annex C). Progress is also being made in many countries to increase secondary school enrollments. In Chile in 1970 only 4 out of 10 school-age children had access to secondary school; today, 8 out of 10 do. Several other countries—including Colombia, Ecuador, Mexico, Nicaragua, and Trinidad and Tobagoæhave doubled their secondary school enrollment rates since 1970. In Argentina, Chile, Cuba, Guyana, Jamaica, and Uruguay the secondary net enrollment rate is over 55 percent. Costa Rica, Colombia, Mexico, Panama, and Peru have secondary net enrollment rates between 40 and 55 percent. The rest of the countries have lower net enrollment rates at this level (see Map 3 in Annex C).

Higher education in Latin America and the Caribbean dates from the 16th century. The first universities in America were founded in the Dominican Republic (1538), Mexico (1551), and Peru (1551), and were modeled after the universities of Salamanca and Alcalá in Spain. For centuries, universities have educated the professional classes, facilitating social mobility within the limitations of the existing social structure, and were centers for social and political reforms. During the last 50 years the number of universities and other post-secondary institutions in LAC increased fivefold. In 1994, over 7.4 million students were enrolled in a wide range of post-secondary institutions that included both traditional and non-traditional public and private universities, technical institutes, professional schools, and open (distance) universities.

The grouping of countries according to higher education enrollment reflects a somewhat different pattern from enrollment rates at the lower levels. Argentina, Chile, Costa Rica, Panama, Peru, Uruguay, and Venezuela have the highest tertiary enrollment rates of the region (over 25 percent). Bolivia, Colombia, the Dominican Republic, El Salvador, and Mexico form a second group, with enrollment rates between 15 and 25 percent (see Map 4 in Annex C).

For the region as a whole, in 1991 net enrollment rates reached 84.9 percent for children of primary-school age (ages 6 to 11), 36.1 percent for children of secondary-school age (12 to 17), and 16.9 percent for youths of higher-education age (18 to 22) (as shown by Figure 2.1). Moreover, adult literacy rates rose from 76 percent to 86 percent between 1970 and 1990. While gender differences in access to schooling have tended to disappear at all levels, they persist in many rural and indigenous communities.

The educational development of LAC countries could be described by the education index (a composite measure of adult literacy and average years of schooling developed by UNDP). Three sets of countries can be distinguished using this indicator: countries of high educational development

(Argentina, Chile, Costa Rica, Guyana, Peru, Trinidad and Tobago, and Uruguay); countries with medium educational development (Brazil, Colombia, Ecuador, Jamaica, Mexico, Panama, Paraguay, and Venezuela); and countries with low educational development (Belize, Bolivia, the Dominican Republic, El Salvador, Guatemala, Haiti, Honduras, and Nicaragua) (see Figure 2.2).

Disparities in educational development exist not only across countries but within countries, particularly in large countries. Mexico is a typical example. While the country as a whole has achieved nearly universal enrollment at the primary level, several states have primary completion rates below 60 percent. A second grouping of states has reached at least 60 percent completion of primary education, but enrollment and completion rates at the lower-secondary level remain low. The Mexican states most advanced in providing access to quality education demonstrate completion rates of at least 65 percent at the primary level and greater than 50 percent for lower secondary. The varied nature of the educational challenge (further discussed in Chapter 3) resulting from uneven educational development within Mexico is illustrated in Figure 2.3.

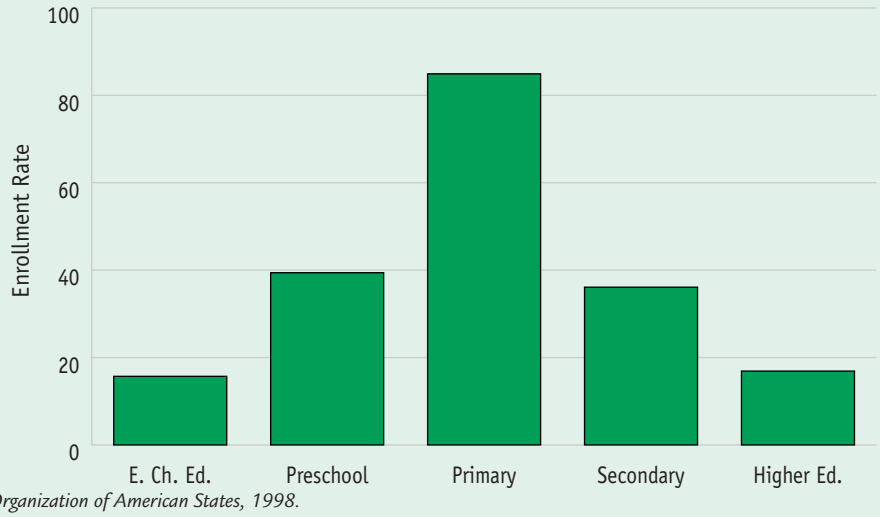
A similar situation exists in Brazil, where average years of schooling range from 4.1 in the northeast region of the country to 6.2 in the southeastern states. Net primary enrollment is as low as 64 percent in the northeast region, but reaches 79 percent in the southern states. An even greater disparity is illustrated by net upper secondary enrollment rates, which range from 13 percent in the Northeast to 35 percent in the South. The nature of these inequalities is discussed further in Chapter 3.

Figure 2.4 indicates the gap between actual enrollment and the two key goals set by LAC governments at the Summit of the Americas in 1994 and 1998, namely, primary schooling for everyone and secondary education for 75 percent of young people. As Figure 2.4 shows, the gap is still substantial, which means that achieving these goals will require concerted effort by each country.

Institutional Development

In addition to the direct benefits provided to children and youth, this extraordinary expansion of educational systems in LAC stimulated the creation of a wide range of public and private educa-

Figure 2.1 Latin America and the Caribbean Net Enrollment Rates by School-Age Group (%), 1990–96



Source: Organization of American States, 1998.

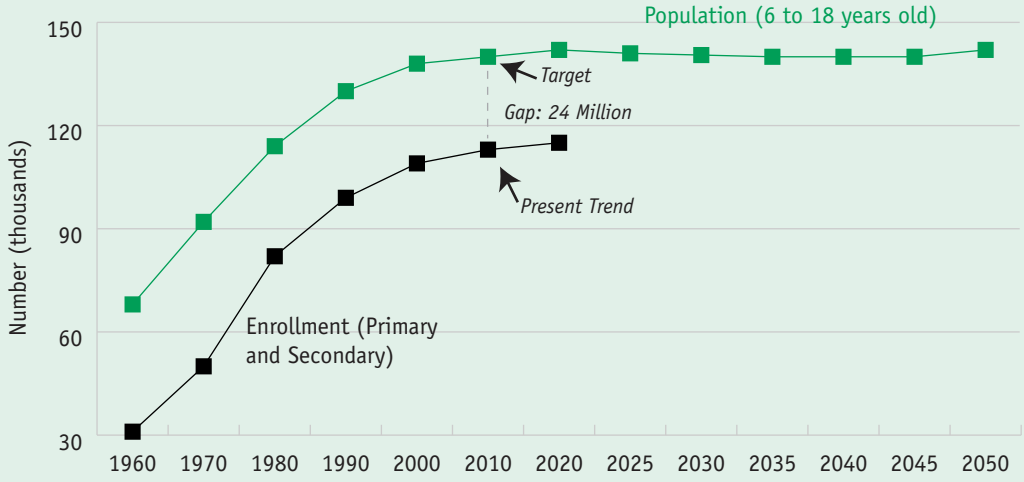
Figure 2.2

tional institutions. These institutions are now affected by profound changes in the role and organization of the state. A sign of this change is that many of the region's central governments formally recognize the autonomy of local and regional authorities and subsequently have transferred to them the responsibility for delivering social services to their local communities. This decentralization has the potential to increase responsiveness and accountability of service providers and to improve service delivery in all of the social sectors.

Figure 2.3

In the past, ministries of education in LAC were usually large and highly centralized in their decisionmaking. In recent years, driven by the need to contain public spending, some governments have cut back their state bureaucracies and decentralized segments of their operations. They are currently modernizing their management information systems and their institutional-learning mechanisms (research, evaluation, and policy analysis) in recognition that their primary respon-

Figure 2.4 Population and Resource Requirement Projections: Summit of the Americas Enrollment Goals



Source: World bank estimates, 1998.

sibilities are now policymaking, promoting social equity, and providing quality control for services throughout the sector. All ministries of education in the region now evaluate services in terms of key outcomes such as school enrollment and achievement. National tests for monitoring how well students learn were initially adopted in Brazil, Chile, Colombia, Costa Rica, Mexico, and several Caribbean countries and, in the last five years, have been adopted in nearly all countries and by several provinces in Brazil and Mexico (see Figure 2.5 and Table 1, Annex B).

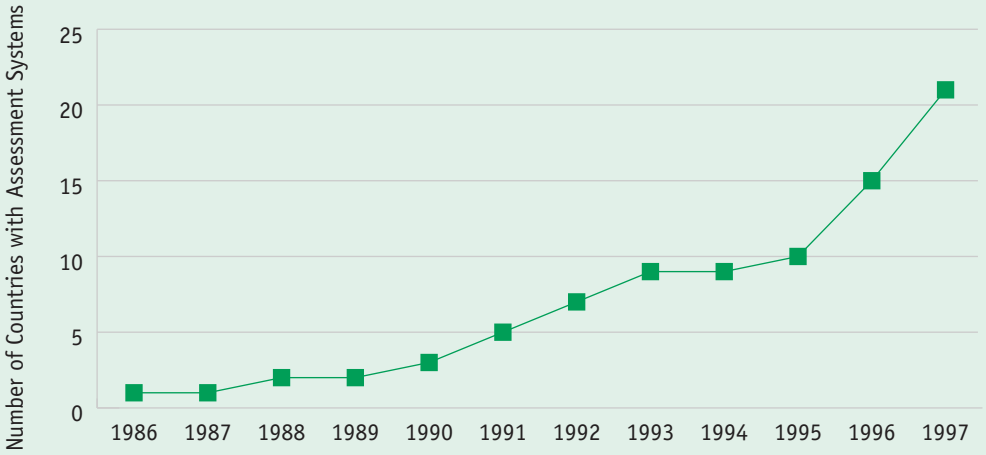
A number of countries established a system of evaluation and accreditation for higher educational institutions to improve the quality of teaching and learning that they provide. In Chile, for example, a higher education council was created in 1990 to accredit new educational institutions. In Colombia a 1992 law created a national accreditation council responsible for assisting any institution that wished to be accredited. Many governments in the region are in the process of seeking additional funds for their higher education institutions and now allocate their own funds to institutions according to transparent performance criteria.

Another recent development is the organization of national systems of science and technology. This involves a limited number of research universities, specialized NGOs, and slowly growing scientific and academic groups. Graduate education is being strengthened in several countries as well. Between 1991 and 1994, the number of graduate programs in Latin American and Caribbean universities increased from 2,189 to 8,615, most of which were at the master's level.

Innovations

Contributions from education, health, and labor units of the governments, the private sector, national foundations, and NGOs make the LAC region one of the leaders in educational innovation worldwide. *EDUCO* in El Salvador, *Escuela Nueva* and *Conexiones* in Colombia, *Eduquemos a la Niña* in Guatemala, *Enlaces* in Chile, *PRONOEI* in Peru, and *Telecurso 2000* in Brazil incorporate innovative techniques to expand education opportunities to girls and rural children and to improve teaching and learning.

Figure 2.5 Assessment of Educational Quality: LAC Testing Systems



Source: Rojas and Esquivel, 1998.

During the last several decades technology has been employed to meet the demands for innovative solutions to educational problems at all instructional levels, particularly those arising from perceived gaps in the formal delivery of instruction. For example, distance education in its diverse forms has been used to reach rural schoolchildren at the primary and secondary levels and to support teachers in these locations (and elsewhere) through in-service teacher training. The modalities have included interactive radio, cassettes, and more recently, telecenters.

Some of these experiences date back to the 1960s and earlier, although the majority remain pilot projects. One project, Mexico's *Telesecundaria*, which was created over 30 years ago to meet rural education needs in Mexico, is still held up as a model of its kind (see Box 2.1).

Box 2.1

TELESECUNDARIA IN MEXICO

Telesecundaria schools are a good example of the spirit of innovation in education that is noticeable throughout the LAC region. These schools provide a combination of distance and on-site secondary education for grades seven to nine in rural areas of Mexico where schools or teachers are in short supply and education is of poor quality. Lessons are delivered by means of television programs broadcast on EDUSAT, Mexico's educational broadcast system, and transmitted through Solidaridad 1, a government satellite, to 13,785 schools in two sessions daily. Specially trained classroom teachers facilitate discussion and coordinate learning activities based on content provided in the broadcast lessons.

A school can be equipped and wired to receive *Telesecundaria* broadcasts for a total cost of US$2,000. Technical adaptations are made where necessary. For example, 10 percent of *Telesecundaria* schools use solar power to overcome electricity infrastructure limitations. A *Telesecundaria* school can be set up at the request of the local community provided that they can demonstrate that 15 or more primary school graduates will participate and that appropriate facilities are available. The Mexican Ministry of Education then provides a teacher, a television set, a satellite dish, a decoder to decompress satellite signals, an instructional program, and textbooks.

Today, 16 percent of lower secondary students in the country attend *Telesecundaria* programs instead of traditional or technical schools. The education they receive emphasizes student-centered activities, parental participation, the practical application of lessons, and student presentations to their community. The curriculum is designed to be adaptable to students' needs, to the local context, and to available resources. The teacher's guide describes the possible constraints that teachers may face given the limited availability of learning materials and tools and suggests ways to overcome these constraints.

With support from the World Bank, the Mexican Government has now initiated equivalent programs for adults. In future, *Telesecundaria* schools will be able to access the Internet via *Red Escolar,* which began in 1997 as a computer technology project aimed at seventh to ninth graders. *Telesecundaria* has inspired similar educational technology projects in Costa Rica (1997), Panama (1995), and El Salvador (1998).

Source: Calderoni, José. 1998. *Telesecundaria: Using TV to Bring Education To Rural Mexico*. Education and Technology Technical Notes Series, Vol. 3, No. 2, Education and Technology Team, Human Development Network—Education, Washington, DC: World Bank.

Another example of a World Bank program is *World Links,* which promotes interactive learning communities for capacity building in several countries around the world, including Brazil, Chile, Paraguay, and Peru. By the year 2000, *World Links* will have a network of 1,500 secondary schools in 40 countries, facilitating communication and the dissemination of information and ideas across national borders by linking students and teachers to global information and communication resources. Through programs like *World Links,* the Bank will help schools design effective computer-based collaborative learning experiences for students.

Technology has also been used at the tertiary level. As a result, a range of institutional models for delivery of distance learning programs has grown out of traditional universities as a means of addressing problems of access, equity, and cost-effectiveness, and as a means of expanding access or filling specialized gaps in local teaching programs.

A recent innovation in the region has been the development of the Virtual University (VU) of the Monterrey Institute of Technology in Mexico, which builds on the Interactive Satellite Educational System (SEIS) and uses technologies in telecommunications, electronic networks, and multimedia. The VU extends educational services to universities, secondary schools, continuing education institutes, and companies not only within Mexico but in other countries in the LAC region and the U.S. and Canada. The development of such distance learning centers using interactive communications provides the region with an opportunity to raise the quality of teaching in key disciplinary areas to a competitive international level and to expand access to higher education in cost-effective ways. The African Virtual University, piloted with World Bank support, is a consortium of anglophone and francophone universities in Africa, and suggests the possibility for adoption and development in the LAC region.

Private Sector Involvement

The private sector is becoming increasingly involved in providing educational services, managing public schools, and supporting specific school programs in LAC countries. In general, private initiatives are most prevalent in those parts of the education sector where public coverage historically has been limited; that is, early childhood and tertiary education. Nevertheless, in some countries (for example, Argentina and Colombia), nearly 20 percent of primary school students and over 20 percent of secondary school students are enrolled in private schools. An increasing number of governments in the region see the involvement of the private sector as a potential solution to many educational problems. Not only does private sector involvement increase the actual number of student places, but it also improves quality by fostering competition for public finance between public and private providers.

An example of the competition for public finance is illustrated by the use of vouchers and scholarships in several LAC countries. The Chilean government was a pioneer in the use of vouchers to allow parents to choose the school to which they sent their children, and encouraged competition between public and private schools by allocating public resources to schools based on enrollment. Colombia also used a voucher system to assist poor families in sending their children to better quality schools. Trinidad and Tobago awarded grants to families to send their children to private secondary schools. (These grants are for the students who pass the placement exam at grade five but who cannot be accommodated by the public system because of a shortage of places.)

One example of a public/private partnership is the *Fe y Alegría* schools, which are operated in 12 countries by religious organizations and receive public subsidies. These schools show how efficiency can be increased and services expanded

Box 2.2

COLLABORATION BETWEEN THE PUBLIC SECTOR AND NGOS FOCUSED ON THE POOR: FE Y ALEGRÍA

Working together, the public and NGO sectors can enhance the effectiveness of their educational enterprise and reduce government expenditures. One example of this kind of partnership is the regionwide programs run by the NGO *Fe y Alegría (FyA—Faith and Joy)*. These are formal and non-formal educational programs aimed at meeting those needs that are beyond the scope of traditional formal public education administered by the state. Created in 1955 by the Jesuits, *Fe y Alegría's* purpose is to provide quality education to poor children. It operates schools in 12 Latin American countries and has trained 15,214 teachers.

Fe y Alegría responds to demands from local communities for better educational services when national governments do not have the funds to do so themselves. The number of *FyA* educational centers increased significantly from 52 to 514 during the years of economic adjustment in Latin America as a response to limitations on public spending on social services and a lack of political will to widen educational coverage. Private sector organizations, such as *FyA*, receive public subsidies to provide educational services where regular public school coverage is lacking.

In the case of all *FyA* educational centers, local communities construct the physical facilities, manage the centers, and make decisions about the services they provide. Accountability to local people is a key element in the *FyA* approach in order to generate trust and a sense of local ownership. Although high desertion rates have plagued the LAC region, these rates have been markedly lower at the *FyA* centers than at government-managed schools. With the participation of the local community, the support of private organizations, and through agreements with governments, *FyA* has become a viable educational alternative for the poor.

through public/private partnerships (see Box 2.2). In Venezuela, associations of NGOs and foundations, with the help of private companies, have founded schools as alternatives to poor-quality public schools and expensive private institutions (for example, *escuelas integrales* and *escuelas comunitarias*). In the state of São Paulo, Brazil, a coalition of private companies supports the improvement of public education by testing public school students to identify educational needs not being met (see Box 2.3).

Enrollment in private higher education institutions has grown more rapidly in Latin American than in any other region of the world. With few exceptions (Argentina, Bolivia, Cuba and Uruguay), the proportion of students attending private institutions in the region more than doubled during the last 15 years. This largely unplanned phenomenon has been particularly remarkable in the Dominican Republic, El Salvador, Paraguay, and Venezuela. In fact, in several countries in the region, a majority of higher education students study at private institutions (see Figure 2.6), although in some countries, like Chile, private higher education institutions receive public funds. In addition, the region has been a pioneer in the development of student loan mechanisms for tertiary education. Although financial problems affect many existing schemes, several of these institutions (such as the privately financed FUNDAPEC in the Dominican Republic, ICETEX in Colombia, and ICEES in Mexico) have successfully provided students with financial aid to meet the growing demand for higher education.

Box 2.3

HOW THE PRIVATE SECTOR CAN HELP IMPROVE THE QUALITY OF PUBLIC SCHOOLS: THE IQE PROGRAM

The private sector can play a role in improving the teaching provided by existing public schools. For example, the *Instituto Qualidade no Ensino,* (the *Institute for Improving Teaching Quality*) has helped public schools in São Paulo raise their students' test scores and lower their failure and dropout rates. More importantly, this small-scale pilot had a significant influence on the government's own policies to improve learning.

The *IQE* is supported by private sector companies in São Paulo and provides financial and technical support to public schools with the aim of improving the quality of education they provide. The organization is conducting a pilot program in five São Paulo public schools. Students from these schools are tested three times a year in an effort to identify the areas in which remedial classes and on-site teacher training are needed. Test results are returned to the schools within three weeks in a format that provides detailed class-by-class and student-by-student information. Rather than providing a simple score, the reports contain details of each student's grasp of the various skills required by the standard mathematics and Portuguese curricula, which stress logic and problem-solving skills.

Armed with this information, the *IQE* sends a technical team into the school to provide teacher development workshops and individual guidance to teachers without disrupting regular classes. The team also assists administrators and teachers in adjusting class plans according to what was learned from the test results, selecting up to 30 percent of students to attend short-term remedial classes addressing specific skills. Teachers receive special wage incentives for the extra time they invest. A board, composed of volunteers from the companies that are funding the pilot, Secretariat of Education officials, teachers, and parents, supervises the process and assists the schools' administrators in problem solving and planning.

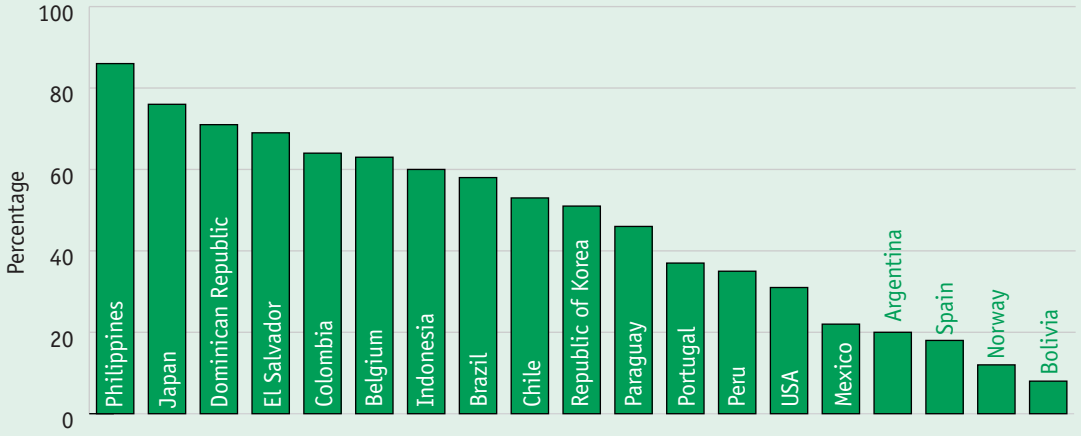
Schools involved in the pilot project have made rapid and significant gains in student educational attainment and retention rates at a low cost. After three years in the program, fourth graders at one school achieved Portuguese scores that were 49 percent higher and math scores that were 42 percent higher than those they had achieved in the first grade. Similar test results were achieved in all of the participating schools, while failure and dropout rates fell by 30 percent.

The large private sector role in education in the region is reflected in the growing importance of private sector finance. Compared to the average private sector financial contribution of 1.2 percent of GDP in OECD countries, several Latin American countries exhibit a much larger financing role for the private sector. Chile, for example, estimates its private sector finance at 2.6 percent of GNP and Peru at 2 percent of GNP (see Table 3 in Annex).

The Third Sector

Educational foundations, research centers, and NGOs add a dimension of participation by civil society in educational development that is unique to the LAC region. Between 1965 and 1995 the number of NGOs involved in education in Latin America and the Caribbean increased more than eightfold. These organizations have prompted many changes in the education sector over the past 30 years, especially during the economically

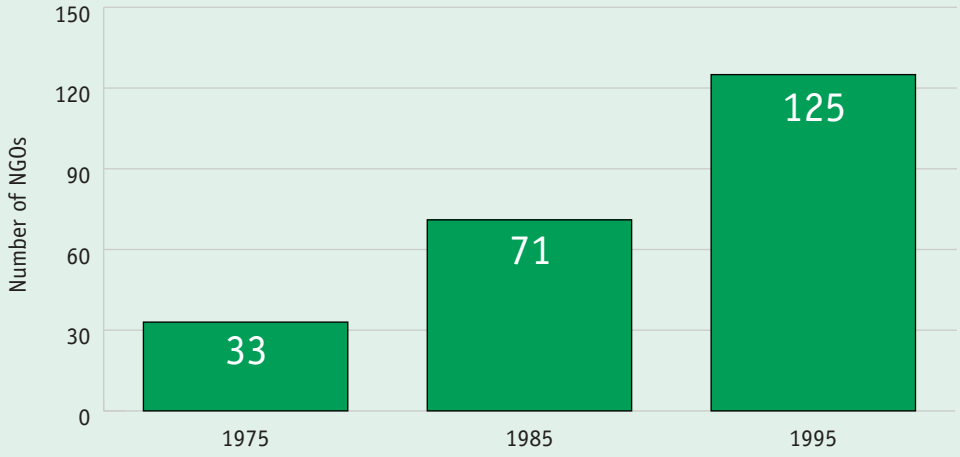
Figure 2.6 Enrollment in Private Higher Education (%)



turbulent 1980s, when governments dramatically reduced their spending on social services. During that time the number of education-oriented NGOs in the region actually doubled to fill this gap and meet growing social needs. Since 1985, the number of NGOs that specialize in teacher training, in the design of classroom materials, in girls' and women's education, literacy, and nonformal education dramatically increased as well.

A 1996 survey identified 135 NGOs working in education in 18 LAC countries (see Figure 2.7). Many have a long history of service—for example, the Carlos Chagas Foundation in Brazil, CEBIAE (Centro de Investigación y Acción Educativa) in Bolivia, CINDE (Centro Internacional de Desarrollo Humano) in Colombia, Foro Educativo in Peru, CAAP (Centro de Acción Popular) in Ecuador, Foro Juvenil in Uruguay, and more recently the

Figure 2.7 Growth in Number of NGOs Working in Education in LAC



Source: CIDE/AED, 1996.

Jamaica Computer Society Educational Foundation (JCSEF). More than half of the 135 NGOs coordinate their research, training, and other activities with other local NGOs, national and municipal governments, and international cooperating development agencies.

Private research centers are the leading producers of social science and policy research in the nonprofit sector in Latin America. They have played an influential role in developing educational innovations; providing policy analysis to promote social development; evaluating social programs; and keeping researchers, education practitioners, and the international community aware of each other's activities. Successful educational research centers include CIDE in Chile, CEE in Mexico, GRADE in Peru, CEPES in Paraguay, Instituto SER in Colombia, and FLACSO in several countries. These centers are a great asset to education in the region.

Significant Challenges Remain

Unprecedented quantitative and qualitative achievements have been attained by most LAC countries in a short time. Some of these achievements have been recognized by the international community. The United Nations has devised a human development index (a combined measure of life expectancy, educational attainment, and access to basic resources) as a way of assessing social progress in developing countries. In 1997 the U.N. classified 14 LAC countries as "high human development nations." These countriesæAntigua and Barbuda, Argentina, the Bahamas, Barbados, Chile, Colombia, Costa Rica, Dominica, Grenada, Mexico, Panama, Trinidad and Tobago, Uruguay, and Venezuelaæare not high-income societies, and are, therefore, able to advance their human development goals despite economic constraints.

However, the record is not entirely positive. Performance in terms of enrollment, completion, and average level of attainment has been poor relative to national expectations and compared to other regions, particularly given the demands imposed by a rapidly changing global environment (see Chapter 1). Although most children in the region have access to primary schooling, inequalities of access remain between children from poor families and those from better-off families. In addition, the quality of teaching and many facilities is low, which limits the effectiveness of what is taught, and the relevance of secondary and higher education to the world of work is tenuous, which holds back social and economic growth. The next chapter describes the economic and social constraints facing LAC governments as they begin to put together comprehensive national strategies for education in preparation for the global society of the next century.

CHAPTER THREE
CURRENT EDUCATIONAL CHALLENGES

"The child does not go to school only to learn but to develop the ability to learn."
—José Pedro Varela, 1845–79

Despite all the efforts that have been made in the recent past and a growing political commitment to educational reform, some severe limitations in the educational system still hamper development of the region. The implementation of reforms is painfully slow, and most countries in the region will not meet Summit of the America II objectives with their current efforts. Five formidable challenges still face the countries of Latin America and the Caribbean:

- The gap in educational performance and competitiveness between LAC and other regions of the world is widening.
- Inequalities in access to education, school readiness, school attendance, educational environments, and learning outcomes still pervade education in the region.
- Both the quality and outcomes of the educational systems of the region need to be improved.
- What is taught needs to be made more relevant to evolving economic and social realities.
- There is a pressing need to improve sector management and institutions in the context of educational reforms.

Countries are hampered in implementing the necessary educational reforms by weaknesses in their institutional framework (formal and informal rules and policies). There are few adequate incentives for change, weak accountability mechanisms, poor information and evaluation systems, and lack of participation of families and communities, all of which are needed to sustain reform efforts.

The Widening Competitive Gap

The disparity in the level of human resource development among LAC countries and other regions is growing steadily. This disparity is graphically apparent in all key educational outcomes—secondary school enrollment rates, school attainment, participation in higher education, and the number of scientists and engineers produced by the system.

The educational level of the LAC *labor force* is comparatively low. The average duration of schooling for a worker in OECD countries is 11.1 years, and in East Asia (excluding China) it is 8.1 years. However, the average for LAC workers is only 5.4 years (UNDP, 1994). This gap may widen because many countries (for example, OECD countries) are aiming to increase the educational attainment of their labor force over the next decades. This large and growing gap between the education of workers in LAC and those in the rest of the world is dramatically apparent in terms of both productivity and wage levels.

Progress in educational attainment varies considerably in LAC countries. Some countries, like Jamaica, initiated their reform efforts before other countries in the region and have sustained a subsequent increase in school attainment. Other countries have made substantial improvements during the last 10 years through a series of educational reforms, (El Salvador), while others (Nicaragua) set lower attainment targets and fell further behind (see Figure 1 in Annex B).

Increasing the number of people who acquire *secondary schooling* is vital for increasing human capital, and has been an important factor in the economic performance of some Asian countries (World Bank, 1993; Baker and Holsinger, 1997). However, the slow expansion of secondary school enrollment in LAC countries has perpetuated inequalities, impeded economic growth,

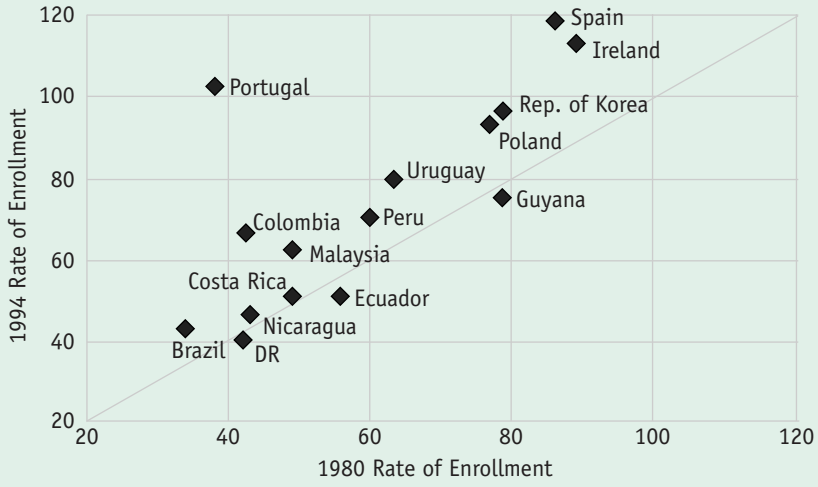
and constrained the growth of enrollment in higher education.

In 1970, Uruguay had higher secondary school enrollment rates than either Spain and Portugal (58.7, 52.3, and 51.1 percent, respectively). However, both Spain and Portugal achieved universal secondary education quickly, while this goal proved to be elusive in Uruguay. In the same year, Argentina had higher secondary school enrollment rates than the Republic of Korea. However, by 1994, all Korean children attended secondary school, but as many as 37 percent of Argentine children lacked this opportunity. Guyana and Poland had comparable secondary enrollment rates in 1980 (78 percent and 77 percent, respectively), but by 1994 Poland's enrollment rates had increased to 96 percent and Guyana's had fallen to 76 percent (see Figure 3.1). Meanwhile, secondary school enrollment rates in some countries of the region (such as Costa Rica, the Dominican Republic, and Nicaragua) have not increased for almost 15 years.

Enrollment rates in *tertiary education* in LAC for the most part have remained low, despite the growing need for LAC countries to have a skilled and well-educated labor force to be competitive in the global marketplace. Most LAC countries have gross enrollment rates in higher education institutions of between 10 and 25 percent, compared to an average enrollment rate in OECD countries of 51 percent, and in the Republic of Korea, one of the most advanced Southeastern Asian countries, of 47 percent. In fact, several OECD countries are moving rapidly toward universal participation at the tertiary level.

Figure 3.2 shows the relative expansion of higher education enrollment rates in some countries and the stagnation of higher education enrollment rates in others. In 1980, Mexico and Korea had similar higher education enrollment rates (14.3 percent and 14.7 percent, respectively), whereas, 14 years later, Korea had tripled its higher education enrollment (to 52 percent), while Mexico's rate remained stagnant. Rates have also remained stagnant in Brazil and Guatemala. In the same year (1980), Cuba, Greece, and Ireland had comparable enrollment rates. By 1994, Cuba's enrollment rate had dropped by 3.4 percent, while both Greece and Ireland almost doubled enrollment rates during the same period.

Figure 3.1 Secondary Education Gross Enrollment 1980, 1994, Selected Countries



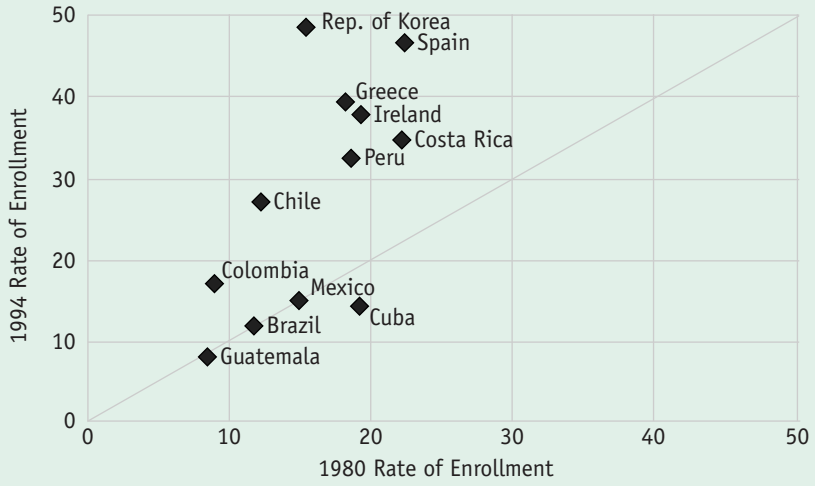
Source: UNESCO, 1997.

LAC universities are hampered by the quantitative and qualitative limitations of their graduate programs, which represent 2.4 percent of overall tertiary enrollment. The majority of graduate education programs are professional and master's degree programs rather than doctoral programs. In 1992, only 12 percent of graduate students in the region were enrolled in doctoral programs, and three of every four of the region's doctoral students were in Brazil. Only 1 out of 100 university professors in public universities in Bolivia has a doctorate. In Colombia, this figure is 2.2 out of 100 and, in Mexico, it is 3.5 out of 100. Brazil has the best prepared public university faculty of the region. Nevertheless, fewer than 25 percent of staff at public universities have doctorates (Figure 3.3). Building up research capacity, educating highly skilled university professors, and producing graduates with advanced technical and managerial skills may be difficult under these circumstances. Higher education as a whole has been slow to capitalize on new technologies, to integrate itself into the international community of scholars and scientists, to broaden its financial base, and to adopt more businesslike management techniques.

As a result of the limitations of the higher education systems of Latin America and the Caribbean, the scientific and technological infrastructure is inadequate to respond to the needs of a knowledge-based economy. In LAC countries, important indicators for research and development, such as expenditures in science and technology, the number of research institutions, and the proportion of the labor force who are scientists and engineers, lag behind other regions of the world. In 1993, Mexico's labor force consisted of 33.65 million people, twice the size of Spain's labor force of 15.26 million people. However, Spain had 121,000 researchers that year, almost six times more than Mexico. In 1996, the number of researchers per thousand in the labor force was 3.17 in Portugal, but only 0.55 in Brazil. These are not promising statistics for Mexico and Brazil—two of the largest economies in LAC (see Figure 2 in Annex B).

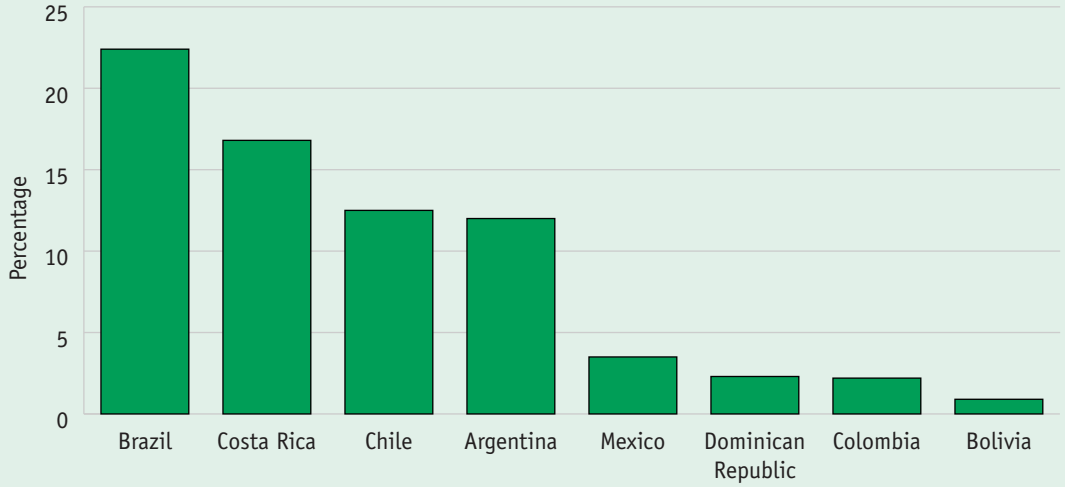
Brazil and Mexico are also the two largest exporters of high technology in LAC, yet they invested only 0.4 and 0.2 percent of their respective GNPs in research and development in 1992. In contrast, the Republic of Korea and Israel

Figure 3.2 Higher Education Gross Enrollment 1980, 1994, Selected Countries



Source: UNESCO, 1997.

Figure 3.3 Percent of Public University Faculty with Doctoral Degrees, 1992–94, Selected LAC Countries



Source: García Guadilla, 1997.

invested 2.1 percent and Singapore invested 0.9 percent. Most Latin American and Caribbean countries invest less than 0.5 percent of their GNP in research and development. In addition, the contribution of the private sector to research and development in LAC is relatively small compared to Canada and the United States, where private enterprises share more than half of all research expenditures. The private sector would have to double its financing of research and development in Latin America (from 24 percent) to approach the public/private ratio that prevails in most industrialized countries.

The lack of an appropriate environment for scientific and technological development is the reason why the region contributes so little to global knowledge and applied research. The representation of the region in international journals, patents, royalty receipts, and international awards is very modest as well. Non-residents account for most patents in LAC countries. Those countries in the world that have a high proportion of scientists and researchers in their labor force tend to be more inventive, as evidenced by the ratio of patent applications to population size (see Figure 3 in Annex B).

Inequality

Educational inequalities in Latin America can be traced back to colonial times when, in 1503, Queen Isabel of Spain established the institution of *encomienda*, which encouraged native Americans to work in the colonial territories in exchange for some kind of education. During that time, the first schools for the descendants of the colonialists were organized. Centuries later, the founders of the nations of the Americas recognized that ignorance had prevented indigenous people from "acquiring knowledge, power, and civic virtue," indispensable for managing "the science of government," as Simón Bolivar said in his speech to the Congress of Angostura in 1819. By the 19th century the poor and indigenous populations were effectively excluded from the education systems in the region.

Inequality in access to education, school readiness, school attendance, educational environments, and learning outcomes still pervade education in the region. This point is emphasized in the Inter-American Development Bank's 1998–1999 report, *Facing Up to Inequality in*

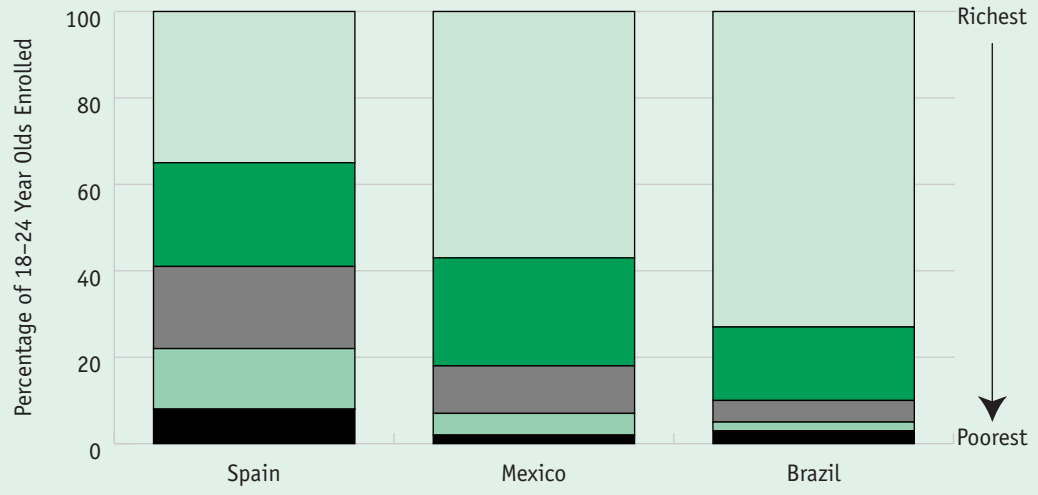
Latin America. Poor children have less access to schooling and have fewer opportunities to develop the necessary skills to benefit from schooling than non-poor children. The wealthy and upper-middle social classes benefit disproportionately from the best educational services in the region. Recent estimates suggest that barely 2 percent of the population with special educational needs due to physical, sensory, or mental disability are receiving any form of specialized services in LAC.

Available data on access does not reveal significant gender disparities in the region. Indicators of efficiency and quality of education do reveal some inequalities in, for example, attainment on achievement tests in mathematics (Tulic, 1998). Although recent data from household surveys (Waiser, 1997) indicate few disparities in net enrollment between girls and boys in poor areas, there is an urgent need for gender-disaggregated data relating to retention, repetition, completion, and learning achievement, especially in poor communities and indigenous populations.

What is apparent, however, is that there are significant wage differentials between males and females in the labor market in most countries of the region. Such wage differentials can be the result of either differences in skills or differences in treatment, that is, from discrimination by employers. Studies (Psacharopoulos and Tzannatos, 1992) have shown that these earning differentials are primarily the result of discrimination. The school can play a crucial role in changing the gender stereotypes that have perpetuated such social inequalities, of which the differences in earnings are but one symptom. Research into gender stereotypes in instructional materials, teacher attitudes, and classroom interaction will assist in helping target future interventions to increase educational opportunities for girls.

Improving the quality of basic education for the poor and underserved, extending the coverage of early childhood education, and expanding access to upper-secondary and higher education are essential to reducing inequalities within LAC countries and to reducing disparities in educational outcomes between the region and elsewhere. Figure 3.4 indicates the significant inequalities that exist in enrollment in tertiary education in the region. In the cases of Mexico

Figure 3.4 Higher Education Enrollment by Income Quintile



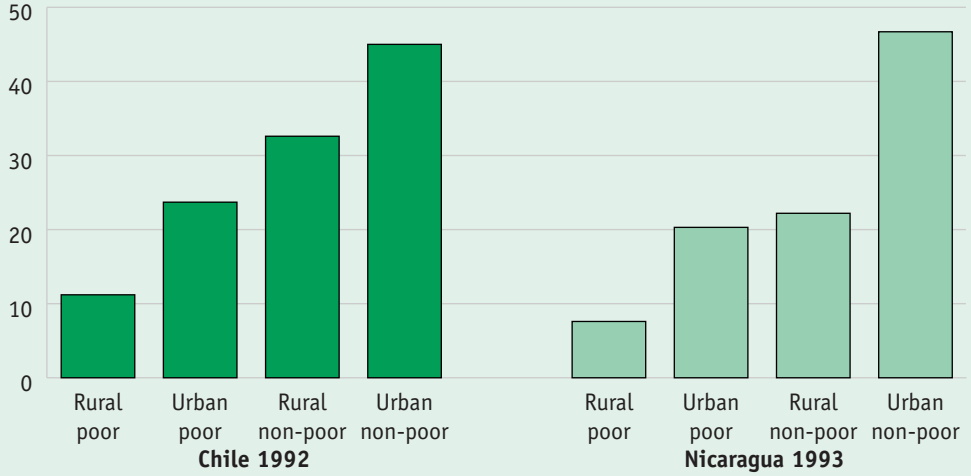
and Brazil, students enrolled in university come overwhelmingly from the top income groups. The top income quintiles represent almost 60 percent of enrollments in Mexico and more than 70 percent in Brazil.

Rural populations compare unfavorably with their urban counterparts on key social indicators, including those related to education. In Latin America, illiteracy is two to six times higher in rural than urban areas. Rural poverty and related characteristics, such as geographical isolation and the need to use children as domestic labor, severely limit the time children have to prepare for school, if they get to go at all. It also makes them more tired and less receptive when they do actually manage to attend school, which inhibits their ability to learn. Differences in pre-school enrollment for poor and non-poor children in rural and urban areas in Chile and Nicaragua are shown in Figure 3.5. The pattern of exclusion of the poor, particularly the rural poor, is similar in many countries in the LAC region that are otherwise quite dissimilar. However, both the public and the private sectors in Jamaica, for example, have explicitly targeted pre-school children through compensatory programs, resulting in comparatively high enrollment even for the rural poor.

Limited *access* to basic services (health and nutrition) is further exacerbated by generally low educational attainment of women in rural areas. High illiteracy rates are strongly correlated with high fertility rates, poor interaction between children and their caregivers, and high child mortality rates. As a result, rural children suffer from educational disadvantages compared to urban children before they even enter the school system. The gap between rural and urban children in access to schooling is particularly wide at the pre-school and post-primary levels and is explained by the low socioeconomic status of rural dwellers (low demand) and by the limited availability of education services (inadequate supply) in rural areas.

The cases of Brazil and Costa Rica (see Figure 4 in Annex B) illustrate the contrast in educational opportunities among four groups of secondary-school children in LAC—the rural poor, the urban poor, the rural non-poor, and the urban non-poor. Students from poor rural families have few opportunities to pursue further education. Many stu-

Figure 3.5 Pre-School Net Enrollment Rates in Chile and Nicaragua: Poor vs Non-poor (%)



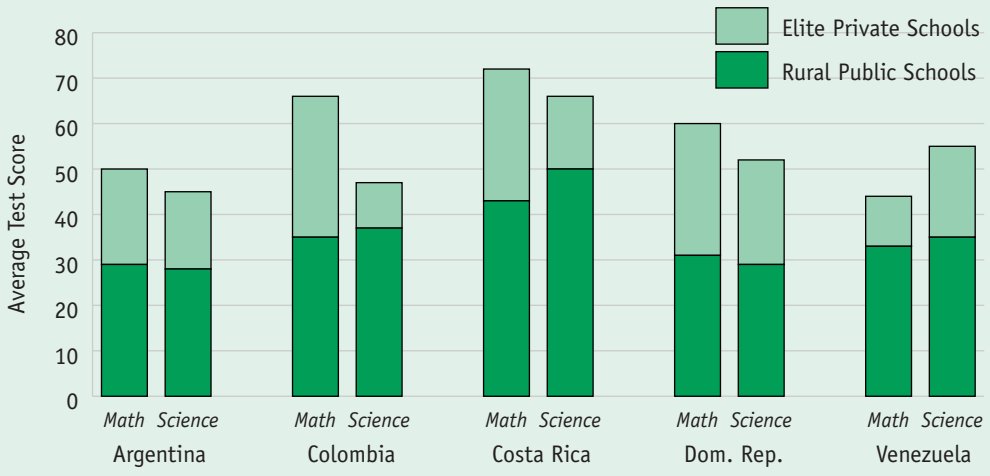
Source: World Bank estimates based on household survey data.

dents have to migrate to urban areas even to be able to attend secondary school. These disparities in access to opportunities translate into different levels of achievement. The results of a 1992 pilot study conducted in five Latin American countries by the Third International Mathematics and Science Study (TIMSS) indicate that the academic achievements of 13-year-olds differed depending on whether they attended an elite urban private school or a rural public school (see Figure 3.6).

In addition to suffering the consequences of poverty, children of *indigenous populations* often have to deal with cultural and language differences among their community, family, and school environments. These differences may explain the high-school dropout rates and the low level of academic achievement among ethnic minorities. Ethnic minorities, estimated at nearly 40 million people in Latin America, have the lowest educational attainment and highest poverty rates in the region, making them among the most educationally disadvantaged groups in the world. LAC governments have not been able to rise to the challenge of the nearly 400 ethnic groups distributed throughout the region. In countries such as Bolivia and Guatemala, indigenous people comprise the majority of the population—over 50 percent and 66 percent, respectively (IISD, 1995).

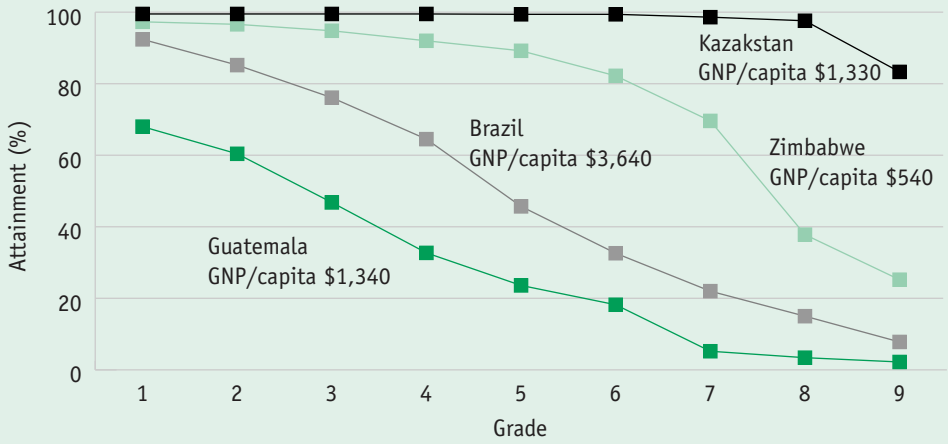
The main challenge for achieving the goals of Summit of the Americas II is erasing the educational deficit of the poor, particularly in terms of their *educational attainment*—in other words, the number of years of schooling they have had. Poor children in most LAC countries do enroll in first grade, but most drop out before completing their basic education. The level of attainment of the poor in several LAC countries is low compared to the level in many countries in other regions of the world, such as Central Asia and East Africa. Figure 3.7 illustrates the attainment of poor children aged 15 to 19 in four countries—Brazil, Guatemala, Kazakhstan (with a per capita GNP comparable to that of Brazil), and Zimbabwe (the poorest of the four). Educational attainment profiles of seven LAC countries disaggregated by economic grouping appear in Annex B (see Figures 5–11). These profiles show that educational attainment for the poor is invariably low, even in countries where access to the early school grades is relatively equal across socioeconomic strata.

Figure 3.6 Achievement Test Results, 1992



Source: UNESCO/OREALC, 1995.

Figure 3.7 Educational Attainment of Poor Children (Highest Grade Attained by Poor Youth Ages 15–19)



Source: World Bank, 1997b; Filmer, Pritchett, and Tan, 1998.

Policies can substantially change inequality trends over time. In Nicaragua the difference between the affluent (upper quartile of the population) and the poor (the lowest quartile) in terms of the median educational grade they attained is increasing. However, in some countries, such as Jamaica, that gap is closing, and there is movement toward greater equity in educational attainment (see Figure 12 in Annex B).

Educational outcomes, such as how well students score on tests, continue to reflect differences among social classes in most countries. Children from low-income families tend to do poorly on national tests. Generally, private school students do better than their peers in public primary and lower-secondary schools. For example, the results of the National System of Education's Quality Measurement tests for Chilean students in the fourth and eighth grades (see Figure 13 in Annex B) suggest that the socioeconomic status of students is an indicator of how students are likely to perform on mathematics and science tests (Larrañaga, 1997).

Advanced technologies present society with the opportunity to spread knowledge widely and, thus, to foster equity and enhance the quality and relevance of education. However, there is a danger that those who are not connected to information networks and who lack the necessary skills will be excluded from the potential benefits of technology.

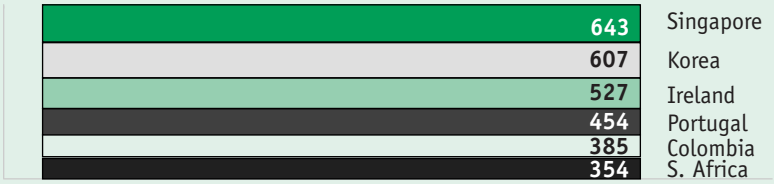
Teaching and Learning

Most educational experts on the region agree that the outcomes produced by the region's school systems are unsatisfactory. This is confirmed by national test results and by international comparisons of student learning. Teacher evaluations that have been carried out suggest that a significant number of students fail to reach the minimum standard necessary to advance to the next grade, which causes a serious repetition problem.

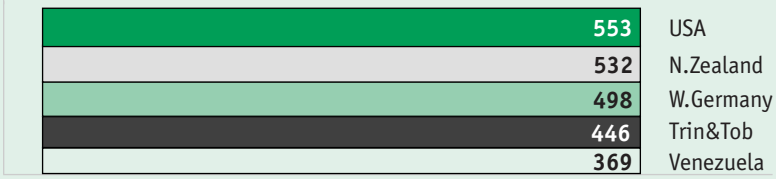
In 1992, two countries in the region, Trinidad and Tobago and Venezuela, participated in a test carried out by the International Association for the Evaluation of Educational Achievement and UNESCO. The nine-year-olds in these LAC countries had lower scores in reading than their counterparts in other regions of the world. In the Third International Mathematics and Science

Figure 3.8

Average Math Achievement Test Scores of 8th Graders, Selected Countries



Average Reading Achievement Test Scores of 9 Year Olds, Selected Countries

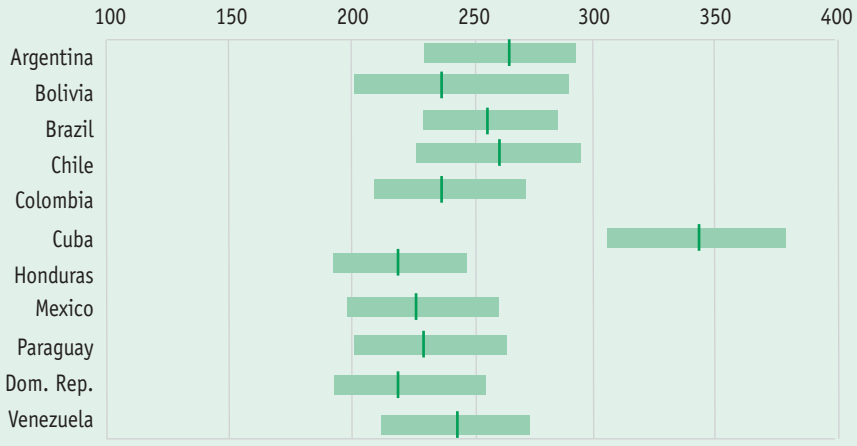


Source: IEA, 1996.

Study (TIMSS) in 1996, Colombia (which was the only country from the LAC region in the study) did not place well in most of the mathematics and science tests (see Figures 3.8 and 3.9) compared to 40 other countries. However, the Colombian students performed better in those areas of science given more attention by textbooks and classroom instruction (Valverde, 1997).

The Colombian performance in TIMSS is probably representative of the region as a whole. In a 1999 study of the language and mathematics performance of third- and fourth-grade students in 13 LAC countries, Colombia scored about average (Laboratorio Latinoamericano de Evaluación de la Calidad de la Educación, 1999). This suggests that the majority of countries in the region would

Figure 3.9 Third Grade Language Achievement Scores (Median, 25%, 75%)



Source: UNESCO data in CINDE/Diálogo Interamericano, 1999.

also perform poorly in global comparisons of learning achievement.

Not only is the academic achievement of LAC students below expectations, but governments are encountering problems with *socialization*. Youth violence and antisocial behavior, adolescent pregnancy, and school desertion in several LAC countries have prompted implementation of youth programs that complement and supplement the teaching provided in schools. These programs aim to instill positive social attitudes and democratic values and teach marketable skills. The governments of the region are aiming to "include in educational programs, within the legal framework of each country, objectives and contents that develop democratic values, [and] a spirit of cooperation and integrity" (Summit of the Americas II, 1998).

The fact that educational outcomes are so poor in LAC suggests that *the school environment* often does not encourage learning. Often, the physical infrastructure is poorly constructed and maintained. There is a shortage of teaching materials and textbooks in public schools in general and rural schools in particular in most countries. In addition, the amount of time assigned to learning activities in the school varies from as little as 720 hours a year (in Argentina and Paraguay) to over 1,000 hours (in Colombia, Cuba, Haiti, Honduras, and Jamaica). This is far less time than expected according to international standards and compared with average hours of learning in industrialized countries (1220 hours per year) (Schiefelbein, 1995). These are the official hours, but in practice, high rates of student and teacher absenteeism limit the amount of time spent actually teaching and learning in school according to studies conducted in countries such as El Salvador (FUSADES, 1994), Peru (Ramirez and others, 1994), Mexico (Ezpleta and Weiss, 1994), Paraguay (Hobbs and Walder, 1995), and Ecuador (Naranjo, Montoya, and Enriquez, 1996). In addition, teacher strikes interrupt the school timetable several times a year in most countries. These strikes can last more than a month as in Venezuela in 1996, Bolivia in 1995, Panama in 1993, and Peru in 1991 (Inter-American Development Bank, 1996). Nevertheless, *the quality of the teaching* may be more critical for learning than the amount of time involved. However, teachers often do not provide stimulating instruction and are not trained to encourage active learning, discussion, or group work (see Box 3.1). Evidence from Guatemala suggests that this seems to affect girls in particular, since teachers initiate classroom interventions more with boys than girls, and that boys generally participate more actively in class (see AED, 1996).

The majority of schools in the region do not receive adequate support or leadership for teaching, either from the local community or from the central government. As a result, they lack direction and purpose. Teachers have no incentive to improve their teaching or to adopt innovative methods because they lack professional autonomy and have limited exposure to ideas about teaching and learning. Universities, teacher training organizations, and teacher associations do not provide teachers with sustained professional support.

Relevance of Education

In all countries of the region education has a vital role to play in promoting economic progress and social change. In fact, there has been increased demand for secondary education in the LAC region. There are two reasons for this: achievement of universal primary school enrollment in several countries, and the demands of the labor market for workers with skills appropriate to the evolving demands of the global economy and the resulting new work environment. Yet current teaching practices and curricula tend to reflect outdated methods and attitudes, which preserves the rich social and cultural heritage of the past

Box 3.1

THE CASE OF NORTHEAST BRAZIL

Student outcomes from schools in the Northeast region of Brazil fall far below outcomes from schools in the relatively wealthier states in the Southeast and South. In response to this, in 1995 Secretaries of Education from the region joined with the National Confederation of Teachers' Unions, the National Association of Municipal Education Managers, and two prestigious federal universities to initiate a series of studies designed to increase their understanding of the problem of low achievement in the Northeast. With the support of the Federal Ministry of Education, the World Bank, and UNICEF, they commissioned a study of the classroom practices and behavior of first-grade teachers in the public schools in two of the region's states—Bahia and Ceará. The study covered 140 first-grade classes totaling 1,650 children in 94 municipal and state schools. The objectives of the study were to observe how teachers and students interact in the classroom and to identify the teaching methods that contribute most to students' academic achievement.

The study confirmed many of the criticisms that had been made of schooling in LAC for some years. The researchers found that the amount of time spent on teaching was less than expected, classroom activities focused on the teacher rather than on the students, teachers did not use classroom materials and teaching aids, and relied on outdated techniques based on dictation and students copying lessons in notebooks, and there was almost no interactive learning. On the other hand, the study noted that the teachers had little support from parents or the local community and had no incentives to change their pedagogical practices. In addition, the teachers had no adequate guidelines about how to do their jobs and had few materials or textbooks.

On the positive side, the researchers concluded that children learned better in classrooms that had their artwork and written work hung on the walls. Students also learned significantly more when teachers executed sequenced programs of discrete instructional activities each day, which proves that well-organized teachers are an essential ingredient for effective instruction. The children also learned more when they were actively engaged in classroom activities, attentive to the learning task, and informed about homework assignments. Teachers were more effective when a wide variety of instructional materials was available for use in the classroom. Finally, the verbal ability of teachers is critical. Teachers who are effective communicators are more successful in enabling students to learn.

Source: Programa de Pesquisa e Operacionalizacao de Políticas Educacionais. 1997. *Brazil: A Call to Action, Combating School Failure in the Northeast of Brazil.* Brasília: Projecto Nordeste/World Bank/UNICEF.

but does not meet the urgent requirements of the present and the pressing needs of the future. This lack of relevance is particularly troublesome given the economic context, labor market conditions, the movement toward democracy, and the regional consensus expressed in the Summit of the Americas II about the need to increase and improve the human capital of the region.

Educational institutions in LAC do not seem to provide students with the cognitive tools, socialization, and labor market skills to allow them to enter the productive sectors of either their own or other nations. The science and mathematics curricula that are now used are becoming obsolete, teachers lack appropriate training and teaching materials, and schools have little access to national and international information or to knowledge exchange networks. Students continue to copy and recite facts instead of developing cognitive skills that will help them acquire and assimilate new knowledge. The ability to analyze,

reflect, and innovate æ which is indispensable for workers in a global economy æ depends heavily on the link between a country's capacity to develop and transmit knowledge through education and the individual's capacity to learn about, understand, and accommodate change.

The main link between education and the world of work in LAC is *the vocational and technical institutions* or national apprenticeship services. The first of these in the region—SENAI in Brazil and SENA in Colombia—were started about 50 years ago, and most countries of Latin America now have similar schemes in place. Although these institutions were successful in the past, the majority have been unable to keep pace with changes in the work environment. There is much debate about what role secondary schools and the private sector could and should play in helping young people successfully make the transition from school to work. The role of all of the institutions involved in education and work needs to be examined, and a system of qualifications and standards needs to be developed in the interest of updating work competencies.

The long-term vision for secondary education in LAC countries is being redefined in much the same way as it is in European countries, with a shift from schooling strictly by subject matter toward relating what is learned in school to real life and the labor market. In planning for significant increases in quality and relevance of secondary schooling, LAC countries must critically assess the role that secondary education must play in the lives of youth in the short and medium terms. In addition to informing the long-term vision for secondary education improvement in LAC, three purposes of secondary schools remain critical to the lives of young people and the social aims of education: preparing students to go on to higher education, preparing them for the world of work, and fostering their social and personal development. A fourth purpose is relevant to the current state of LAC education: providing compensatory education to students who have completed primary schooling in a system characterized by low quality of teaching and learning.

In the short and medium terms, LAC secondary schools must develop the basic capacities of literacy and numeracy in students who complete their primary education without having mastered those skills. As quality of primary education in the region increases over time, the focus of secondary schools can then shift accordingly from providing compensatory education to more specific training in specialized skills according to the demands of the labor market. In the long term, this requires the availability of skill-oriented, specialized training programs for secondary and post-secondary students who have already mastered basic learning skills and can therefore fully benefit from short-term training courses in job skills. Acquiring the skills for continuous learning beyond secondary education is indispensable for young people in their transition to higher education or the world of work.

In addition, the higher education sector in LAC grew so rapidly during the 1970s and 1980s in response to social pressure for open enrollment (admission without requirements beyond possession of a high-school diploma) that it was difficult for universities and other institutions to find enough well-qualified professors and administrators. Both the teaching and curricula of these higher-education institutions became largely irrelevant to the needs of society and the market. The higher-education sector is also failing to fulfill its important roles in the education sector as a whole. These roles include improving teacher training, developing teaching materials and curricula, turning out qualified scientists, and offering research and consultants to schools to help them plan and evaluate the services they provide to students.

Table 3.1 LAC Education Reforms

	Year Reform Initiated	Student Evaluation	Mgmt Info Systems	Parent Participation	Decentralized Management
Argentina	1994	X	X		X
Brazil					
Minas Gerais	1991	X	X	X	X
Paraná	1995	X	X	X	X
Chile	1991	X			X
Colombia	1989		X		X
Dominican Republic	1990	X	X	X	X
El Salvador (EDUCO)	1992	X		X	X
Mexico	1991	X	X	X	X
Nicaragua	1992	X	X	X	X
Paraguay	1995		X	X	X

Source: Based on data in AED (1996).

Institutional Capacity

The changing role of the state and the trend toward decentralization in LAC are changing not only the way educational services are provided, but also the way they are managed and organized. The educational reforms introduced in the Region over the past decade have resulted in a number of important changes in the governance and management of education, including the creation of student evaluation systems, strengthening of information systems, creation of formal mechanisms for parental participation, and decentralized management (see Table 3.1).

However, as discussed in the series of preparatory meetings leading up to the Summit of the Americas II, these important reforms have yet to significantly affect educational outcomes. Part of the problem, as previously discussed, is the inputs to the educational process—the schooling readiness of children, the capacity of teachers to teach, and the availability of learning materials and physical spaces conducive to learning. Other problems are lack of information, adequate incentives, and poor management, as discussed in Burki and Perry (1998). Despite the implementation of sample-based testing systems in many countries, information problems remain acute. Both ministry staff and parents have little information about the performance, especially the value added, of particular schools. School directors or supervisors seldom provide substantive evaluation and feedback to teachers to guide their professional development. Teachers lack the information and sometimes the capacity to diagnose learning problems of individual students.

The general problem of information, however, is less important than the shortage of incentives to improve learning and school performance. School directors do not have the resources to motivate teachers and stimulate them to improve their teaching skills and use innovative classroom practices. Teachers are not rewarded for the quality of their teaching or their level of effort in helping students learn. There are no standards for the teaching profession, nor mechanisms for evaluating teachers. Parents have only weak incentives to participate in school governance.

Weak incentives are closely linked to weak authority. Teachers and directors, who have the best information about the school, have little authority to act on that knowledge. They cannot change the curriculum, select different textbooks, or in other ways take actions to improve school

performance. Directors often lack the authority to remove poor teachers. In addition, the school councils that in theory provide parents the opportunity to participate in school governance often fail to give parents any real authority.

A final underlying difficulty with the traditional school system in LAC is its slow evolution in the face of glaring problems. Even in the context of low income and high poverty, one can find excellence in publicly provided services (Tendler, 1997). There are excellent schools and excellent teachers, directors, supervisors, and teacher trainers within any school system. However, there are also very bad examples of each. The richness of the range of educational experience provides a fertile ground for learning and improving. Creating a learning organization will require changes in values and behaviors that go beyond solving information problems.

The combination of poor information, weak incentives, and lack of authority leads to insufficient responsibility or accountability for the performance of schools. While the Region's education reforms of the past decade provide the potential for correcting some of these problems, this potential is unlikely to be realized in the absence of strong leadership and assistance from education ministries at the national and regional levels. Chile's experience since 1990 demonstrates that change is possible (see Box 3.2).

Financing the Reforms

The governments of the region have all expressed their commitment to education by increasing their public expenditures on education. Except for the volatile period of 1980 to 1985 when they declined by nearly 30 percent because of regional macroeconomic instability, expenditures on education have risen in every country in the region. Average government spending on education rose from 3.9 percent of the regional GNP in 1980 to 4.2 percent in 1994. Government expenditure in education as a percentage of GNP in LAC ranged from 1.7 percent in Guatemala (1995) to 8.2 percent in Jamaica. In most LAC countries, the average education share of GDP is similar to that in most OECD countries, especially when private expenditures are added (see Tables 2 and 3 in Annex B). However, most LAC countries are at an earlier stage in the demographic transition compared to the OECD average.

Level of expenditure is only one piece of the puzzle; efficiency in use of resources within the sector is necessary for maximizing improvements in the system. For example, in countries such as Brazil and Chile, inefficiency in the education sector at the tertiary level is evidenced by the fact that gross enrollment rates are very low despite relatively high levels of expenditure as percent of GDP (see Figure 3.10).

Technology as a Tool for Educational Improvement

In the past, the use of technology within the educational system was perceived as an important but peripheral activity within the formal system. Now, with the increasing availability of computers in the classroom, the growing interest of LAC countries in planning for computers in all primary and secondary classrooms by the year 2000 (for example, in Chile, Costa Rica, and Jamaica), and advances in knowledge and experience using diverse learning formats, it will be imperative that countries in the region integrate and institutionalize such technologies within a rational policy framework so that they can be strategically implemented in the classroom. This is especially important to avoid the possibility of costly mistakes in the purchase of educational technology that does not really address the special educational issues confronting a given country.

Technology may be underused at its current level of deployment in the region—16 percent of

Box 3.2

EDUCATION REFORM IN CHILE: A PROMISING BEGINNING

Since the beginning of the 1990s, Chile has approached education reform with a strategy of continual and incremental changes initiated by schools, rather than a comprehensive, linear action plan. Four basic factors explain the relative success of the reform process:

- A national consensus exists that education plays a strategic role in economic growth, social cohesion, and political development.
- The government has continuously and consistently made education reform a priority and has supported reform, in spite of changes in national and ministerial administrations.
- There is macroeconomic stability and growth, making financial resources available to sustain reform.
- There is widespread public acceptance of proposed policies, which focus on the need to modernize the education sector rather than on addressing issues of control and institutional power relationships in the sector (Cox, 1998).

A decentralized strategy is being used to improve educational quality. The approach involves action at the school level, establishment of incentive systems and competitive processes, use of networks, and curriculum reform. A national call for each school to generate responses to educational challenges (*Projects for Educational Improvement [PMEs]* opened the door for local level innovation to become the engine for reform. In 1997, 80 percent of eligible primary schools were implementing PMEs which they had designed and which had been approved and funded by the government.

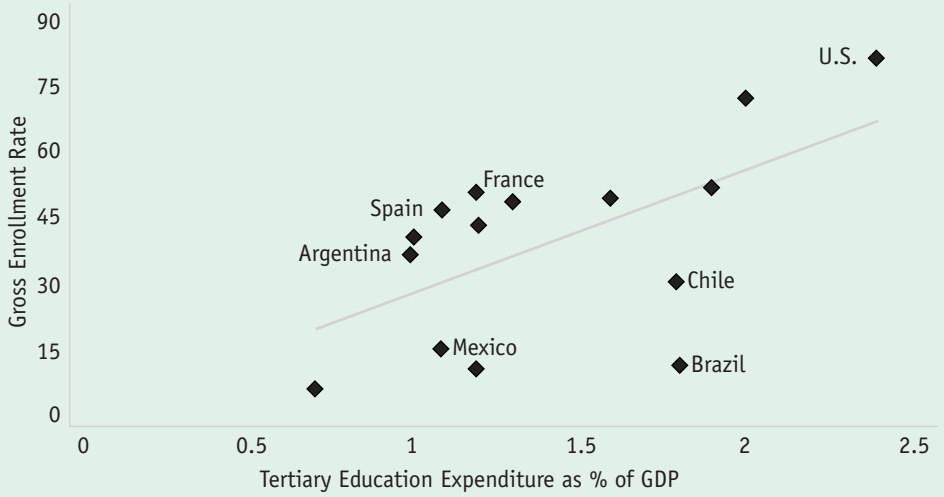
The projects are as diverse as the educational needs of the country and may involve more than a single school. The *900 Schools Program (P900)* is targeted on the 900 lowest-achieving schools in rural and poor urban areas. It focuses on meeting the specific needs of the learners in those schools to increase achievement, improve teaching quality, provide books and other educational materials, and improve physical school infrastructure. *Enlaces* is a project that seeks to increase the use of computers in schools and create on-line learning communities, connecting primary and secondary schools to a national network and then to the Internet. Other projects focus on a variety of areas including teacher training, specialized teaching methodology and curricula for rural schools, installation of classroom libraries, and deconcentration of the Ministry of Education by transferring functions to the provincial departments.

In spite of the variety in project content and methodology, there are several common elements necessary to the success of *PMEs*:

- A consensus must be built in the process of defining national education policies.
- Decentralization is necessary for increased responsiveness to societal demand.
- Systems must be based on incentives, information sharing, and evaluation, and should demonstrate efficient use of resources.
- A priority must be placed on equity that responds to differences, rather than providing homogenous educational services.
- There must be local level participation in the design of the educational process, generating a sense ownership within communities.
- Teamwork and networking must support the establishment of a culture of communication.
- Experimentation and incremental improvement must be stressed, making education reform a process of social learning (Cariola, 1996).

These criteria unify expectations, goals, and performance in the education sector. This approach to education reform is an incremental, inductive process of system-wide transformation. The whole of the Chilean education reform far exceeds the sum of its parts.

Figure 3.10 Efficiency in Higher Education: Percent GDP and Enrollment Rate



Source: UNESCO, 1997; OECD, 1998.

Mexican secondary students are enrolled in education through *Telesecundaria*, but not all countries have taken advantage of the potential of even the most cost-effective technologies for delivery of complete basic education. The impact of technology on instructional practices and school management is potentially profound; however, the educational systems of the region into which technologies such as computers are being introduced often employ conservative didactic approaches characterized by rote learning and little if any interaction among students or between the teacher and the student. Teachers, teacher trainers, and other educational functionaries will need professional development in content and instructional techniques to relate the new technology to more appropriate teaching methodologies.

Although technology is not a panacea for solving the systemic problems of educational systems, the demand for competency in the use of technology is growing from parents, schools, and especially the labor market. For children from the poorer sections of populations, the benefits of educational technology may prove elusive unless strategies are carefully developed to spread the use of technology to students in different educational and geographic circumstances throughout the region.

The involvement of the private sector, which often leads with the demand for and competencies in the use of technology, will become increasingly important as a means of working with the public sector to introduce technology into schools and universities. The INFODEV project in Jamaica, jointly supported by the IFC, the World Bank, and the IDB, provides a good example of the way a private sector organization can provide the lead in introducing information technology in classrooms to help improve educational quality and equity.

Renewing the Commitment to Education Reform

Although there are many shortcomings and challenges in the education sector in Latin America and the Caribbean, there are reasons for optimism. The nations of the region have repeatedly identified education as a top political and economic priority in the Presidential Hemispheric Summits (1994 and 1998), the Nariño Accord (1994), and the meetings of the Heads of States of the Iberoamerican Nations

(1991–96). Most countries are implementing educational reforms aimed at improving learning outcomes at all levels, providing opportunities for community involvement in schools, improving the efficiency of school management, developing new curricula and teaching materials, and upgrading teachers' skills. Private foundations and international donors are supporting these efforts. The World Bank is committed to the reform of education in LAC countries and to the development of a new agenda for education in the decade ahead.

CHAPTER FOUR
BUILDING THE EDUCATIONAL AGENDA FOR THE NEXT DECADE

"The conditions for social change are as never before, and education will be its master organ."
Gabriel García Marquez

The challenges outlined in the previous chapter are substantial, and to overcome them will require a renewed commitment on the part of governments and international donors, as was established at the Summit of the Americas II. As noted in Chapter 2, the countries of the region differ greatly in terms of their levels of educational development. Some countries in the region still face a significant challenge in terms of access to and retention in primary schooling, while the major challenge in other countries is access to the secondary and higher levels. In this chapter we will explore educational priorities emerging in the region.

The World Bank is committed to using its unique combination of global experience and knowledge and financing capacity to help Latin America and the Caribbean confront the educational challenges of the next decade. While our assistance strategies will be defined and agreed to at the country level, regionally we will target priority areas where the Bank can bring the highest value added. These are most commonly areas where Bank knowledge and experience can assist countries in finding solutions to difficult problems.

The Bank's Top Educational Priorities in the Region

Consistent with the Bank's mission of reducing worldwide poverty through economic growth and services and investments targeted to the poor, our overarching goal for the LAC region is to *raise the Region's human capital, especially, that of the poor.* Supporting this goal will require investments in quality and coverage targeted specifically to the poor, but also systemic reforms required for these investments to yield sustained benefits. To achieve this goal the Bank will emphasize the following strategic priorities:

- *Including the excluded by,* whenever possible, targeting interventions to the poor. Among the specific interventions the Bank would support are improving readiness for schooling through investments in early childhood programs and school feeding and school health programs, improving school attendance through financial incentives to poor families, increasing opportunities for secondary and tertiary education through income-contingent scholarships, and initiating quality improvements in schools serving poor children.
- *Raising the quality of teaching* and revitalizing the public schools that serve the poor by supporting improvements in teaching and learning, including radical improvements in teacher training, introducing the evaluation of schools and teachers, providing teachers with effective student evaluation tools to diagnose performance, and creating incentives for meaningful teacher professional development.
- *Improving the transition from school to the adult world* by adjusting the content of secondary education to equip youth with the knowledge and values for productive participation in work and society and assisting the Region in meeting the Second Summit's goal of 75 percent coverage at the secondary level.
- *Making decentralization work* by reengineering education ministries, supporting governance reforms and improvements in information that ensure accountability, and assisting countries in identifying changes in incentives that could alter the behavior of providers and affect the sustainability of reform initiatives.
- *Diversifying and reforming tertiary education* to raise quality and efficiency, improve access

by the two bottom-income quintiles, and strengthen the integral role of the private sector in finance and delivery.

- *Stimulating and evaluating educational innovations,* especially the use of education technology, to identify more cost-effective ways of using technology to increase access and improve quality.

Including the Excluded

There are still major inequities in access to education within the countries of the LAC region. While primary school enrollment rates are high in most countries, access to early childhood development programs, preschool, secondary, and higher education is still limited to those from the higher-income groups. Not only is it harder for underprivileged groups to overcome the time and opportunity costs of sending their children to school, but the only schools that are available to them (in terms of both distance and cost) are often of low quality. These underprivileged groups include indigenous populations, poor children in rural and urban areas, the physically handicapped and, in many instances, girls. Policies of inclusion are essential to fostering social cohesion and decreasing the incidence of violence and civil unrest.

Targeting. In each country it is possible to identify the groups that are most at risk by means of household surveys or poverty mapping. It is important that such information is appropriately disaggregated in order to clearly identify needs and target interventions to those subgroups most at risk, such as girls from indigenous populations.

Box 4.1

MEXICO: EXTENDING ACCESS THROUGH CONAFE'S RURAL COMMUNITY EDUCATION PROGRAM

Many of Mexico's poor and marginalized population now have access to preschool, primary, and post-primary education through the Consejo Nacional de Fomento Educativo (CONAFE). The *Rural Community Education Program* brings educational opportunities to rural indigenous and migrant communities that traditionally have had no access to public education because of their geographical isolation. CONAFE's success in providing these communities with relevant, high-quality education is due, in part, to its attention to three key areas: investing in teachers, the design and development of quality educational materials, and institutional strengthening through community participation in school management.

The program provides primary, pre-primary, and post-primary education and adult literacy activities. The programs are multigrade because some communities have few students. Instructors are recruited in the rural areas served by the program. They are young people between ages 15 and 24 who have completed school to the ninth-grade level. They are provided with training and teaching materials that have been specially designed for rural, multigrade schools. The instructors are then assigned to isolated rural communities in which they are given food and housing and, in some cases, a school facility. After teaching for two academic cycles they may receive a scholarship to continue their own education. Schools in CONAFE's *Rural Community Education Program* function with a significant level of autonomy. Parents and communities participate actively in school management.

CONAFE's work benefits not only the youth facilitators and the students in its rural schools, but also the wider communities served by the program, because it teaches students how to become active participants in community life and local development. CONAFE is now developing a secondary education program modeled after its primary community education program. The World Bank has supported CONAFE through a series of loans and has committed to supporting CONAFE in a new phase of programs for pre-school and primary school children.

The *Eduque a la Niña* project in Guatemala provides a range of incentives—scholarships, community outreach, and motivational classroom materials—to encourage girls to remain in school (AED, 1997).

Another successful example in the region of an intervention targeting the poor is the *Rural Community Education Program* of Mexico's Consejo Nacional de Fomento Educativo (CONAFE), which has played a major role in bringing education services to poor indigenous communities and migrant agriculture workers in rural areas (see Box 4.1).

Efforts must be made to improve the quality of schooling received by poor and underprivileged communities. The *900 Schools* project in Chile, part of the *Educational Quality Improvement Program (MECE),* targeted primary schools in impoverished areas of the country where the quality of teaching and learning is low. The bottom 10 percent of schools in terms of scholastic achievement were selected to participate in the program. Another example of successful targeting of the poor is the scholarship component of Brazil's *Bolsa Escola*. This program arranges for the monthly payment of one minimum-wage salary to participating low-income families whose school-age children attend school at least 90 percent of the time. The scholarship program is intended to promote enrollment, regular attendance, and permanence in public schools of needy children who might otherwise enter the labor market at a very young age (Waiselfisz, 1998).

Meeting Basic Needs. The basic needs of children extend beyond educational services to nutrition, health, and other social services. The children of poor families frequently lack access to social services of adequate quality, despite the abundant evidence that better nourished and healthy children perform significantly better in school and are less likely to repeat grades (Myers, 1992, 1996).

Schools can play an important and cost-effective role in helping deliver basic social services to poor

Box 4.2

PANAMA SCHOOL FEEDING PROGRAM: TARGETING THE POOR

The school feeding program in Panama is a good example of an intervention that uses the education system to improve the nutrition of the poorest children in the country. The World Bank, the Inter-American Development Bank, and the Panamanian Ministry of Education initiated the program in 1991 to provide daily lunches and snacks to pre-school and primary school children in the 14 poorest districts of Panama. This program benefited over 80,000 schoolchildren in 1998. Called *FES (Social Fund)*, the program serves only the poorest of poor schools, focusing on alleviating the widespread malnutrition that exists among the children of rural and indigenous populations. The parents of the children rotate responsibilities among themselves. They collect supplies of rice, beans, and oil from a distribution point and prepare the children's lunches and snacks, which are sometimes complemented by meat or fish provided by the families or by vegetables grown in school gardens. The heavy involvement of community members, parents, and teachers in implementing the program appears to have greatly contributed to its success.

The program uses public schools as a vehicle to channel transfers to beneficiaries because wealthier children tend to be enrolled in private schools. A further element of targeting is the fact that the program uses poverty and nutrition indicators to select the most needy school districts. This ensures that those children who are most at risk of malnutrition are the ones who benefit.

children, as in the case of Panama (see Box 4.2). Where there are no health centers, the early detection of illnesses and the deliverance of simple health messages in epidemics prevention often rely on the collaboration of schools and teachers. Beyond this, many of the "best buys" in public health mentioned in the World Bank's *1993 World Development Report* can be facilitated through a school-based approach. School health programs should have no "pre-prepared" agenda. Rather, what constitutes an effective, efficient, and sustainable school health intervention depends very much on the particular case and the desired outcomes (World Bank/PAHO, 1998).

Early Childhood Interventions. There is by now substantial evidence that poor health and an inadequate early learning environment lead to handicaps that are difficult to reverse later in life, beginning with difficulties in school that result in the high probability of grade repetition and early dropout (Myers, 1992; Behrman, 1996; Levinger, 1996; Young, 1997). Thus, these handicaps lower the return to both public and private investment in education. Early childhood programs may both increase the efficiency of investments in schooling and promote equity in the population they serve.

The Bank's strategy in early childhood care is to strongly support low-cost, non-formal programs targeted at poor children, while supporting evaluation research which can help countries identify the most cost-effective options given their particular circumstances. An example of the kind of program supported by the Bank is Bolivia's *Integrated Child Development Project (Proyecto Integral de Desarrollo Infantil [PIDI])* which targets children aged six months to six years living in areas of high poverty. The program supports the development of home-based child-care centers and the training of community women (*educadoras*), in addition to providing health and nutrition monitoring and programs to stimulate children's social and intellectual development. Support of this program has been accompanied by an effort to carefully evaluate its cost and impact.

The World Bank will contribute to the identification of groups which are excluded from social and educational services; promote access for those groups to all levels of education; facilitate the integration of health, nutrition, and education services when appropriate to meet basic, interrelated needs; and promote early childhood intervention programs to better prepare children of excluded populations for schooling. To that end, the Bank will support the design and implementation of early childhood programs and the reform of school health programs to emphasize cost-effective screening, referral, and health education directed at those children at risk in poor areas (such as in Brazil's *Innovations in Basic Education Project* in slum areas of São Paulo). It will also encourage the development of the concept of a "health-promoting school" in recognition of the importance of health, nutrition, and early stimulation and learning in the development of a child's capacity to benefit from the learning experiences in school, and to bridge the inequalities between the poor and those more advantaged.

Improving the Teaching and Learning Process

There is a need to raise the quality of teaching and learning in LAC to improve educational outcomes. This will require new methods of teaching for active learning, increased attention to teacher development, and the effective use of monitoring and evaluation systems for education decisionmaking.

Active Learning. A key factor in improving the quality of public schools, particularly those that serve the poorest populations, is to make the student the central focus of the education system and to encourage active learning in which teachers facilitate, rather than dictate, instruction.

New Zealand and Australia have undertaken comprehensive education reforms that involve active classroom learning (see Box 2 in Annex). The active learning model incorporates teaching strategies and classroom arrangements that give students responsibility for their own learning. Teachers give them the tools they need to acquire knowledge, and the students then work at their own pace with the aim of becoming proficient in essential skills and knowledgeable about subjects. An example of this can be found in the *Nueva Escuela Unitaria in Guatemala* (see Box 4.3).

Teacher Development. Schools are effective when teachers know the content and goals of the curricula, when they provide a classroom environment conducive to learning, and when they evaluate student progress and their own effectiveness as educators and continually adjust instruction based on that evaluation process. Promoting the professional development of teachers in these areas is the sine qua non for improving school effectiveness. Occasionally this is an effort on a monumental scale. In Brazil, for example, out of a total of nearly 1.4 million teachers nationwide, only 608,000 (fewer than half) have a post-secondary certificate. The establishment of specific professional teacher standards and the creation of accountability mechanisms for those standards are essential to the "professionalization" of the teaching profession

To ensure that teachers are well prepared and capable, it will be necessary to substantially improve teacher education (both pre-service and in-service) and working conditions throughout the region. Promising young students will be attracted into teacher training if the profession is properly respected, there are continuous opportunities for learning and participation in innovation, teachers are paid reasonable wages and have professional autonomy and recognition, and if they are supported by professional associations. Teachers need to be given incentives to constantly review and

Box 4.3

TEACHERS' ROLE IN ACTIVE LEARNING: NUEVA ESCUELA UNITARIA IN GUATEMALA

Teachers are often the source of some of the best ideas for improving the way they teach and the way students learn. In the *Nueva Escuela Unitaria (NEU) (New Multigrade Schools)* in rural Guatemala, teachers are the key players in developing the curriculum and in deciding how it is to be taught. Teachers from different *NEU* schools meet together regularly to discuss their ideas, knowledge, needs, and problems and share how they address educational needs in their schools. The teachers then agree on changes to initiate when they return to their classrooms and later inform the group of how the changes worked in practice. This form of social learning is the central idea of the *NEU* model. These support groups encourage teachers to feel that they are accountable for what they do in the classroom and raise their level of concern about their students' achievement.

The innovations that have developed in these teachers' groups have enriched the education process in Guatemala. In the classrooms in *NEU* schools, children of various ages play together and cooperate on lessons and projects sitting at common tables instead of individual desks. The principle of self-directed learning that prevails in *NEU* schools allows students to work at their own pace and develop time management skills. Collaborative projects help students develop communication and social skills, and the incorporation of cultural themes in those projects (such as human rights or natural resource management) means that what the students are learning is relevant to their lives.

renew their classroom practices in support of the active learning process discussed earlier, sometimes through scholarship programs acting as an incentive for professional development.

In addition to conventional in-service teacher training, opportunities for professional development are provided through an increasing variety of innovative programs. Uruguay has initiated the practice of study tours for teachers to observe and experience good classroom practices in other parts of the country and abroad. A local support network based on learning circles has also been developed. Many of these programs are based around a network of schools and attempt to link training programs to local needs. An example of such a demand-based system is found in São Paulo state, Brazil, where university courses are offered to respond to the needs of practicing teachers. A variety of distance education programs, such as in the state of Minas Gerais, Brazil, and the use of interactive radio in Costa Rica, has also been implemented.

Most reform efforts in the region include measures to compensate teachers for the costs they perceive themselves as incurring in the education reform process. Increasingly, reforms focusing on upgrading the skills of teachers are exploring ways to link teacher pay to actual classroom performance and learning outcomes, such as in Mexico's *Carrera Magisterial*. Other reforms, for example, in Chile and Uruguay, entail the creation of single-shift schools, with increased hours of teaching and class preparation. While these reforms demand more of teachers, they can provide a mechanism for teachers to achieve both increased pay and improved professional status.

Teachers' associations can play a vital role in working with governments to explore ways of developing just, equitable, and effective remuneration and management practices, which can improve teacher performance. In the case of Colombia, the inability of the central government to engage teachers' associations in a dialogue has been cited as partly responsible for the failure of some of the recent education reforms (Montenegro, 1995). On the other hand, in Mexico, the *Carrera Magisterial* program, which compensates teachers according to their professional skills, performance, and professional development [training], was the result of the collaboration between the central education authority and the largest teachers' union, the Sindicato Nacional de Trabajadores de la Educación.

Although significant improvements have been made in the legal framework and management information systems, this first generation of education reforms has had little impact on pedagogy and teacher training. The attitudinal and behavioral changes needed to adopt a more active learning approach will require strong professional support for teachers, through both in-service and pre-service training.

The second generation of reforms needs to urgently consider ways of designing incentives to facilitate the development of a "learning institution" in each school and in the teaching profession as a whole. Teachers should develop the capacity to evaluate their own pedagogic practices, identify problems, and seek solutions, and they will need to be supported in this kind of professional development by supervisors, teacher trainers, and the development of local teacher support networks. National ministries and regional secretariats of education must take the lead in the creation and maintenance of a learning organization.

Evaluating Education Outcomes. Just as the evaluation of student performance is an essential input to good teaching in the classroom, it is also essential to good management and policy formulation. The current emphasis on decentralizing responsibilities and functions to local levels of government and to schools, and the increasing participation of parents and other stakeholders in

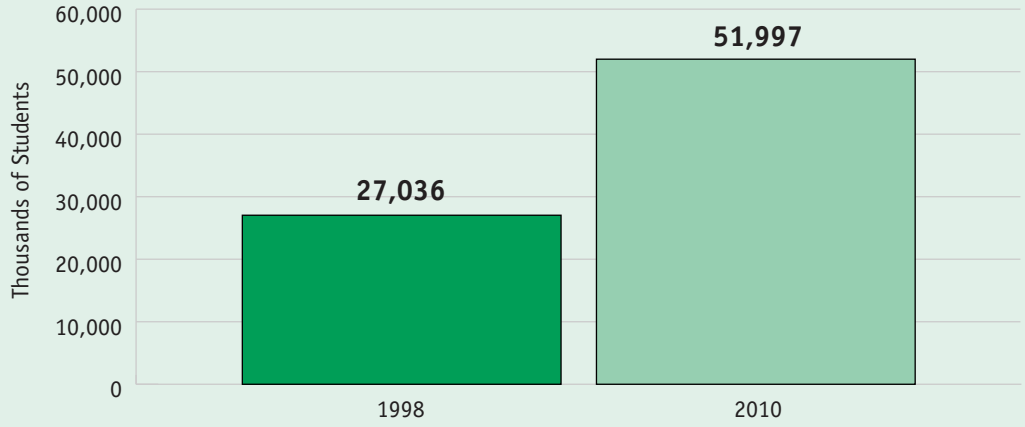
educational decisionmaking requires reliable, timely, transparent information in usable form. Central and regional governments have an important role to play in the continued development of evaluation mechanisms and the dissemination of school performance statistics, taking care to control for non-school factors in assessing such performance. A lead has been taken in this regard by New Zealand. To deal with the problem of information asymmetry and to create greater accountability, New Zealand has established an Education Review Office (ERO), an independent body reporting directly to Parliament, whose task is to assess the performance of schools and report its findings and recommendations to the public.

The World Bank will support countries in strengthening teacher development systems. This will include changing the structure and content of pre-service teacher education, and creating regular, ongoing programs for the professional development and supervision of teachers. Such programs will focus on skill enhancement and look at new ways of changing teacher attitudes and behaviors in the classroom, in support of a more active learning approach. Recognizing that in several countries teachers' associations are one of the major actors in education reform, either facilitating or impeding the change process, the World Bank will seek ways to work with teachers' associations in a positive and creative manner. This will involve including teachers' associations in an extensive dialogue—for example with the participation of community and parent association leaders—to encourage associations to be more receptive to new ideas and to the needs of their teacher constituencies. The World Bank will also support ministries in strengthening educational evaluation by facilitating the shift from sample-based testing to systemwide use of information for diagnostic purposes, ensuring that teachers have access to reliable information on student learning outcomes with which to evaluate their pedagogic practices.

Meeting the Needs of Youth

Both access to and quality of secondary education need to be considered in meeting the needs of LAC youth for general academic and skill-oriented practical training. The first goal specified in the secondary education portion of the Agenda of the

Figure 4.1 Target Growth in Net Secondary Enrollment



Source: World Bank, 1998.

Summit of the Americas II is to increase enrollment rates to 75 percent by 2010. As illustrated in Figure 4.1, this will require enrolling an additional 25 million students, almost doubling the current level of enrollment.

The countries of the region agreed at the Summit that secondary education should equip students with the capacity for self-directed learning throughout their lives. This is particularly important because, with the rapid evolution of technology driving changes in labor market demands, the capacity to learn is a critical factor in determining income and social mobility. A problem-solving methodology and integration of conventional subject disciplines have been introduced in the teaching of technology as a subject *(Craft, Design, and Technology)* in secondary school curricula in, for example, the United Kingdom and the United States. *Craft, Design, and Technology* has proved successful in integrating such subjects as science, math, art and design, and language skills in a project-based approach relevant to perceived competency needs in the labor market. In this way, reforms in secondary school curricula can assist in easing the school-to-work transition by requiring students to apply knowledge in innovative ways to specific problems and to develop creativity, problem-solving skills, entrepreneurial skills, and effective communication.

In addition to academic needs met by formal public school systems, issues important for the personal and social development of LAC youth include employment and the transition from school to work, adolescent health, intercultural understanding, environmental awareness, and political participation. These issues may be addressed in schools, but are often the focus of youth programs, community centers, and non-formal education foundations. These organizations and programs have proliferated in LAC in recent years, largely complementing the services provided by public schools and filling gaps where fiscal budgets are constrained.

Secondary schools should provide students with a general education in the intellectual, cultural, and social realities of their societies. This may include such issues as violence, drug abuse, health awareness, and political participation. There should be more coordination among schools and youth programs to help students develop as individuals and as responsible members of society. Schools, however, are often isolated from youth and local community initiatives and activities, particularly in impoverished areas. Programs have been introduced to actively involve youth in extracurricular activities in the school, and school-based extracurricular programs for youth have been established, such as the *Programa de Apoyo a las Iniciativas Juveniles en la Escuela (AIJE)* in Argentina. The goals of such programs are to provide attractive alternatives for youths in environments where there is a high incidence of problems such as alcoholism, drug abuse, early pregnancy, and violence. Communication among teachers, students, parents, and other community members needs to be improved, making the school more attractive to students and promoting collaboration between the school and the local community. Finally, local communities need to design and implement effective strategies that contribute to addressing social issues; improving family relationships; encouraging cooperation; fostering cultural, ethical, and civic values; and enhancing adolescents' decision-making skills.

A community-based approach to meeting the needs of youth by strengthening the linkages between the school and other social service providers is demonstrated in the design of the *Colombia Youth Development Project* (see Box 4.4).

Just as schools should teach skills relevant to the needs of the labor market, many secondary-level vocational training institutions will need to reorient their programs to become more flexible and responsive to new technologies, increase opportunities to acquire work experience at private enter-

Box 4.4

MEETING THE NEEDS OF COLOMBIA'S YOUTH: THE COLOMBIA YOUTH DEVELOPMENT PROJECT

The lives of youth in Colombia are a reflection of the tremendous social and economic upheaval of past decades, characterized by massive rural-to-urban migration, high rates of unemployment, disintegration of traditional forms of social cohesion, and an increase in violence. The Bank-financed *Colombia Youth Development Project* addresses the problems of low-income youth. The main objective of this project is to test and evaluate alternative multisectoral, community-based, participatory approaches to developing and delivering services and to provide activities for low-income youth in order to improve school retention and increase reinsertion rates for school dropouts, increase the employment rate of older youth, increase youth participation in community activities, and bring about a reduction in juvenile delinquency and intrafamily and community violence.

The range of youth issues to be addressed in the service integration schemes are (i) learning outcomes: strengthening collaboration among schools, other service providers, and communities; putting in place support systems for students with learning and personal difficulties; and promoting parent education; (ii) school-to-work transition: job orientation and placement and employment information services; (iii) health promotion: promotion of healthy lifestyles; and (iv) social capital reinforcement: conflict resolution skills, cultural and recreational activities, life-skill activities, and interventions aimed at strengthening community relations.

prises and public agencies, and promote self-employment opportunities for youth. This will also require reliable labor market information systems and the cooperation of the private sector.

The private sector is both a direct beneficiary of the outcomes of secondary and vocational schools and a learning environment in itself, providing experiences and training in skills complementary to formal education requirements. Workplaces should be encouraged to offer incremental learning and training opportunities to workers to help them stay abreast of changing technologies and to continue their education into adulthood.

In recognition of the variety of opportunities for professional development, LAC countries are beginning to grant official certificates to students who reach a certain level of proficiency in a given skill defined by the productive sector. These certificates are issued to students who graduate from diverse types of training institutions. Mexico has established skill competency standards and a certification system that is beginning to transform the vocational education and training institutions from supply-driven to demand-driven organizations, with both employers and workers contributing to the identification of standards. There is general agreement in LAC on the importance of private sector involvement in secondary education through supporting national apprenticeship services.

In the area of youth education and development, *the World Bank will support countries* in redefining the nature of secondary education and the management of its providers. At the lower-secondary level one of the important functions of the schools may be to address the deficiencies of the primary schools in developing basic competencies. Where this is the case the World Bank will focus its interventions on the needs of the lower-secondary schools. Throughout the secondary level, but in particular in upper-secondary schools, the focus should be on providing an educational environment that ensures the development of the knowledge, skills, and attitudes relevant for the

transition of students to the labor market, and on working with communities to eradicate social problems related to youth. The Bank will also work with the private sector, ministries of education and labor, and local stakeholders to provide a variety of opportunities for lifelong learning.

Reforming Educational Institutions

The first generation of the educational reforms of the past decade emphasized the reform of school governance, decentralization of decisionmaking power to subnational governments, and creation of testing and evaluation systems. These reforms created some of the necessary conditions for improved performance and accountability. To fully realize the benefits of these changes, a second generation of reforms will need to focus more clearly on the school and the student and address the incentives and working conditions that influence schoolteachers and directors. These reforms may, also, require empowering teachers, directors, and citizens at the local level with accompanying technical assistance to build local capacity to assess local needs and design and implement appropriate interventions.

Local capacity and governance. The decentralization reforms of the past decade have transferred much school decisionmaking to the level of municipalities, provinces, and, in a few cases, schools. The transfer of such responsibility has only rarely been accompanied by aggressive efforts to build local capacity. Strengthening management capacity at the subnational level and devolving decisionmaking still further to the level of the school will require a major effort over the next decade.

Parents' participation in the education provided to their children will be made more effective by empowering them with a voice through the establishment of school governance councils. Several LAC countries have already established school councils with parental representation. The role of these councils, however, needs to be strengthened and supported with financial resources, capacity-building activities, and information on school performance. Innovations in Chile, for example, demonstrate how such decentralized strategies can be used to improve educational quality; educational improvement projects generate an incentive for school-level responses to educational challenges, accompanied by access to funds for capacity-building activities. Schools participating in this program have become centers for local innovation. This drives the reform process from below, as opposed to the top-down approach taken by many LAC countries during the first generation of education reforms.

Reengineering ministries of education. The decentralization reforms of the past decade have rarely been accompanied by the restructuring of education ministries consistent with their new roles of ensuring quality and equity and strengthening local capacity. Education ministries must have the capacity to formulate, communicate, and implement policy; evaluate schools and programs; and provide technical assistance to local governments, schools, and teachers. The reengineering required of the ministries includes changing organizational structure (for example, creating an independent office of school evaluation); changing organizational culture (from one of rules enforcement to one of providing help and information, as demonstrated by Chile's regional information centers); and changing human resources (for example, increasing in-house capacity for effective communication among schools, teachers, and parents). One example of such change is New Zealand's office of educational evaluation (Box 4.5).
The management of continuing education reform itself is a core function of the new education ministry. This implies the need for the education ministry to be a learning organization that con-

Box 4.5

NEW ZEALAND'S EDUCATION REVIEW OFFICE

To deal with the problem of information asymmetry and establish greater accountability, New Zealand has established as part of its education reform the Education Review Office (ERO). The ERO is an independent body which reports directly to Parliament whose task is to assess the performance of schools and report to the public its findings and recommendations.

Under the law the ERO has the authority to enter and inspect schools as it deems necessary. The present practice, however, is for ERO to audit a school every three years and conduct follow up visits for schools with significant problems. In assessing school performance, trained ERO reviewers visit schools and see whether they are in compliance with relevant laws and their charters. Following evaluative criteria prepared by the Office, the reviewers observe classroom practices and interview members of the board of trustees, school directors, teachers and students. ERO does not set educational standards; rather it simply measures school performance against the Ministry of Education's best practice guidelines on teaching, school governance, and management. The ERO is an integral part of New Zealand's efforts to raise the level of accountability in schools.

Source: Perris, Lyall. 1998. Implementing Education Reforms in New Zealand: 1987–1997. Education Reform and Management Series 1(1). Washington, DC: World Bank.

tinually identifies problems, formulates solutions, and evaluates results. Experience in several countries has shown that another critical factor in reform is strong and continuous leadership within the ministry (Linden, 1997). In the Dominican Republic, for example, changes in personnel and the weak management of reforms at the central level led to the failure to fully implement a model of reform that actually enjoyed broad political and popular support.

The World Bank will support efforts to deepen governance reforms and communication strategies that will empower parents and enable them to hold schools accountable. This will necessitate building capacity at the school and community levels to evaluate performance and identify areas and strategies for improvement. Teachers will need to feel ownership of such reforms through the development of incentives as much as by being involved in the process of planning and implementing reforms. Management needs to be strengthened at the subnational level as municipalities assume more responsibility and accountability for education. In turn, central ministries will need to be designed to assume a new role in this decentralized structure, which will involve a change in tasks, human resources, and management systems to encourage and support local initiatives. A corollary to this would be the development of transparent evaluation and management information systems. Extensive research on the characteristics of successful learning organizations will help in making changes which move beyond mere structural reorganization to changes in the organizational culture of ministries of education, shifting their focus from control to support.

Using Technology to Improve Education

While technology has the potential to radically change schooling (for example, university instruction via the Internet or television-based distance teacher education via national satellite), it also presents governments with difficult new challenges. For example, computer systems require

constant upgrading and innovation and adequate telecommunications infrastructure. Incorporating the use of computers and other information technologies in the classroom requires significant teacher retraining and the development of specialized support materials. There is also the risk that those who lack access to this new technology (who are likely to be those who already lack access to high-quality schooling) will become further marginalized. Avoiding these challenges and minimizing risks will require careful planning if technology is to become an integral part of national education strategies.

There is a special role for localized pilot projects to test suitability of technology for use in education on a large scale. In Chile, for example, a pilot project called *Enlaces* is experimenting with computer networking in primary and secondary schools and has been refined and scaled up to the national level.

The World Bank will support a number of activities related to educational technology, including the design, implementation, and evaluation of pilot projects; establishment of distance delivery systems for widening access to all levels of education and teacher training programs; dissemination of knowledge and information about effective practices; and building local capacity for the use of technology in the classroom and the delivery of education. Extending access to information resources for both students and teachers can be accomplished through computer networking. Special attention will be given to programs that address educational needs of those geographically isolated from conventional public education institutions.

The Bank will support efforts to prepare teachers to take the lead in the use of educational technology in their local school systems. It will be imperative to develop in teachers and other functionaries the competencies in using such technology to make instructional practices more interactive and to enrich, supplement, and expand the curriculum to meet local and national standards. Assistance will be given to countries seeking to address the chronic shortage of highly skilled and trained teachers in LAC by expanding pre-service and in-service teacher training activities via distance delivery.

The Bank will support efforts to increase access to higher education through the diversification of services delivered by existing campus-based institutions. Cost-effective strategies for the use of interactive technologies at the tertiary level will be explored, particularly the piloting of distance education centers shared by a consortium of universities, secondary schools, and other institutions (see, for example, the description of Universidad Virtual del Sistema Tecnológico de Monterrey in Chapter 2).

The Bank will support efforts to provide more empirical bases for the use of educational technology at all educational levels, including the study of the fiscal implications of its use. The role of the private sector will also be explored in developing educational technology and providing technical assistance to ministries of education and local school systems in the design, development, and evaluation of new educational applications. In the context of the increasing decentralization of education systems, the different roles of the central and local authorities will need to be clarified in providing leadership and support for—as well as monitoring of—new technologies in the classroom and for managing and coordinating educational statistics.

Reforming Tertiary Education

Educators in the LAC region have long been interested in the contribution tertiary education makes to society. At the ceremony inaugurating the University of Chile almost 150 years ago, Venezuelan educator Andrés Bello emphasized the role that universities play in "disseminating knowledge to all classes of society." He elaborated on this theme by adding, "all paths of university

research and student learning should converge in one center: the country." These days there are a variety of innovative ways for higher education institutions to contribute to society. The World Bank is committed to helping higher education institutions reinvent themselves and find better ways to respond to recent social and economic changes across the region.

Diversity and access. There is a need to create a wider variety of higher education institutions and courses. In contrast to the excessive emphasis in the past on the supply side, higher education must now become more responsive to the needs of stakeholders, namely students, governments, professional bodies, and community interest groups.

For four centuries LAC universities have served and produced the elite of the region. However, in recent decades, they have significantly increased enrollments, creating sharp trade-offs between the goals of equal access and quality. New higher education models are being developed in the region to manage this trade-off. For example, the Higher Education Law that passed in Argentina in 1995 aims at developing different types of higher education institutions and improving university management and finance. Consistent with the stated priorities, the Bank is supporting Argentina in implementing this new policy.

Strengthening the Role of the Private Sector. Constraints on government finance and the need for a broader range of higher education institutions mean that the private sector should be encouraged to play a bigger role in both financing and providing higher education in LAC. Failure to use government funds to leverage private finance will constrain access and equity of access to higher education. Government financing needs to provide incentives to public institutions of higher education to diversify their sources of revenue, and incentives to private institutions to raise quality and increase access by students who lack the capacity to pay full-cost tuition charges. Implementation of changes in higher education financing will also require that all universities be given the autonomy to manage their resources and account for the use of those resources. In addition to increasing private financing and the supply of higher education, there is a need for public policy to ensure minimum quality, including that of privately managed institutions.

Given the public sector fiscal constraints in the region, countries planning any expansion of tertiary education would have to finance such expansion through some combination of private sector funding and lower-cost provision through increased efficiency using, for example, cost-recovery mechanisms. Accessing private sector contributions to fund the expansion of higher education will be one of the greatest challenges facing the region in the coming decade.

Improving the Quality of Teaching. It is vitally important to improve the quality of the education provided in higher education institutions—both public and private. First, the curricula of most higher education institutions will need to be modernized and made more flexible. Second, raising quality will require addressing the current scarcity of professors with postgraduate training (see Figure 2 in Annex B). Third, it is necessary to establish accreditation systems and procedures and evaluation systems that provide incentives for raising quality. For example, Argentina, Brazil, Chile, and Colombia have already established accreditation institutions and procedures. The National Higher Education Evaluation System in Brazil provides the public with information on the outcomes of the national higher education system and on the performance of individual institutions and both undergraduate programs (see Box 4.6 for Brazil's *O Provão* program) and graduate programs.

Strengthening Graduate Education. Many countries in the region lack a critical mass of scientists,

Box 4.6

THE BRAZILIAN NATIONAL EXAM OF UNDERGRADUATE PROGRAMS

The *National Exam of Undergraduate Programs,* or *O Provão,* was inaugurated in 1995 in Brazil. Students, teachers, and administrators strongly support this testing mechanism which aims to ensure that university education in Brazil is of high quality. The program was designed to gauge the performance of the institutions more than that of the students, although students must pass the exam to have their degrees recognized by the government.

Provão measures the basic knowledge and skills possessed by undergraduate students of administration, law, civil engineering, chemical engineering, veterinary medicine, and dentistry. In the future this evaluation mechanism will be extended to all undergraduate programs in the country. The results of this evaluation provide prospective students with critical information on teaching, learning, the curriculum, and teacher performance that will guide their selection of university.

The institutional results are made public, and their publication has attracted considerable media attention. The complete reports, including test results, information on teachers, student profiles, and their assessment of the institutions and programs in which they participate, are distributed on CD-ROM and are also available on the Internet (http://www.inep.gov.br/enc). In addition to providing summary evaluation information, *Provão* publishes critical data on the socioeconomic characteristics of the students, their cultural environment, and the nature and format of available undergraduate programs.

engineers, and trained professionals needed to remain competitive in the global marketplace and in the world academic community. Governments and universities need to focus on strengthening graduate programs in the region, especially at the doctoral level, to produce highly educated specialists who create and exchange knowledge and, by becoming university teachers, pass on their knowledge to the next generation of graduate students.

The World Bank will provide assistance to countries to create a wider range of higher education institutions and delivery systems (including private and distance education providers) to offer further educational opportunities to the growing number of secondary school graduates, especially from among the poor. More equitable access to higher education by lower-income students will be supported by, for example, the introduction of student loan and scholarship mechanisms. Cost-recovery mechanisms in public institutions will be directed at quality and equity improvements. The Bank will also support initiatives to strengthen the role of the private sector in the financing and provision of higher education. Accreditation and evaluation systems and professional development for faculty will be supported to improve the quality of higher education, especially in universities that serve low-income students. To provide the faculty required by growing university enrollments, support will be given to programs strengthening graduate education, especially at the doctoral level.

CHAPTER FIVE
THE WORLD BANK'S EVOLVING ROLE IN SUPPORTING EDUCATIONAL CHANGE

"The cumulative intelligence of nations is author of the greatest achievements."
—Domingo Faustino Sarmiento, 1811–88

The World Bank has been contributing to the education sector in LAC since 1966, when it extended its first education loan in the region to Chile. Since then, the region has benefited from receiving a disproportionately large share of total Bank lending in education. By 1998, its annual lending to the sector had reached US$1.5 billion and its annual disbursements had grown to US$690 million.

In order to fulfill the promise of the new era for education that was outlined at the Summit of the Americas, governments, donors, NGOs, and stakeholders will have to work closely together in a prolonged effort to ensure the success of the next phase of the reforms. Already, partnerships of this kind have sprung up throughout the education sector in LAC, with the World Bank as an enthusiastic participant. Recognizing the essential need for a collaborative approach to education in the next decade and beyond, the World Bank has recently made its decisionmaking and lending procedures more flexible, open, and responsive to the views of other players in the education field.

This chapter discusses the Bank's evolving contribution to the development of client countries and how this change process has affected Bank support for educational reform in LAC. The chapter addresses the following questions on its role in supporting the regional agenda for education:

- How will the World Bank determine the application of its strategic priorities?
- What is the Bank doing at present?
- What does the Bank bring to the table?
- How will the Bank address the identified priorities?

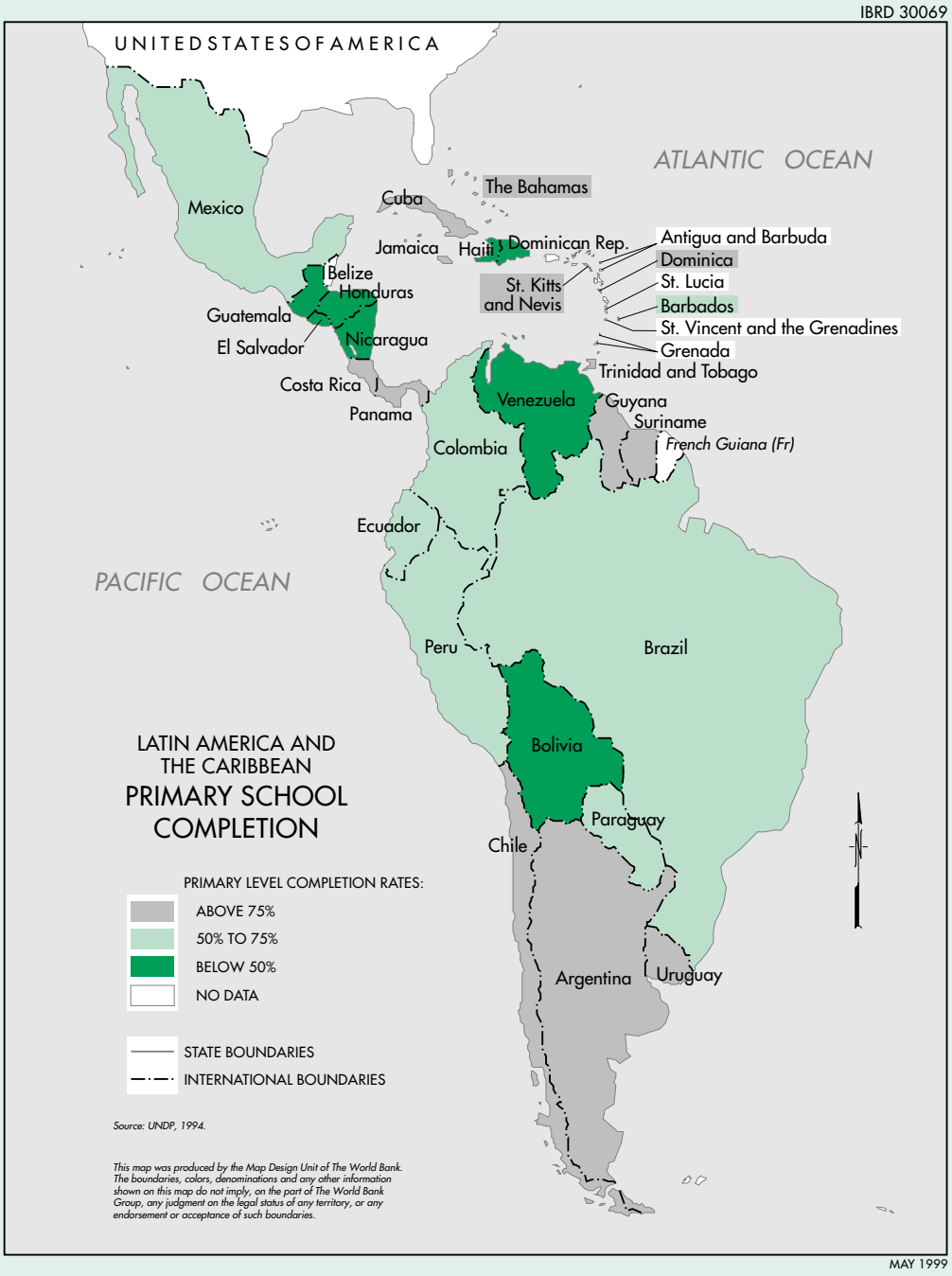
How will the Bank determine application of its strategic priorities?

In addressing the regional agenda the World Bank can bring its experience with education throughout the world, it can marshal global knowledge to address the diverse educational challenges of LAC, and it can focus its own staff and other resources on priority areas. Each country has a unique set of circumstances, capabilities, policies and opportunities that condition the direction and possibilities of its partnership with the Bank. As illustrated in Figure 5.1, the countries of the region differ greatly in terms of their levels of educational development. Some countries in the region still face a significant challenge in terms of access to and/or retention in primary schooling, while the major challenge in other countries is in terms of access at the secondary and higher levels.

The World Bank does not intend to address all the strategic educational priorities described in Chapter 4 in every LAC country. The following criteria will guide the Bank in planning its strategic interventions in the region:

- The *needs* of the particular country in terms of, for example, its poverty incidence, the extent to which there are inequalities in access to educational opportunities, and the extent to which a lack of human capital is hampering economic growth. A consideration of a country's educational needs includes assessment of the diversity of needs within the country at the subnational level. The contribution of other donor agencies is also relevant in developing a strategy of coordination and collaboration.
- The country's *commitment* to educational improvement and change as demonstrated by

Figure 5.1



the existence of educational reform strategies, government willingness to make difficult decisions, government priorities as reflected in budgetary allocations and the tenure of key educational decisionmakers, and the support of the private and non-profit sectors for educational improvements.

- Whether the *country* has the capacity to undertake the program, in other words, the capacity to implement the program, provide

counterpart funds, and overcome political lassitude or resistance.

Each of these criteria contributes to the potential *impact* that a program has on its target population.

A good example of the application of these criteria to guide interventions is El Salvador. Although El Salvador has relatively low per capita income (US$1,580 in 1995) and still has quality and access goals to meet at the primary level, the World Bank recently approved a project in the country to improve access to and quality of upper secondary education. This project was financed because the demand for improved access and quality of secondary education is large, especially among the poor, in part due to the success of earlier Bank support for basic education. Distance education for remote rural areas and scholarships for high-performing poor students, also, ensure the neediest children benefited from the project. In addition, El Salvador has shown a strong commitment to improving the quality and equity of education, and Government has collaborated with unions, private business groups, and NGOs in developing new policies and programs, thereby improving the chance that the benefits of the project will be sustained. Finally, an economic evaluation of the project demonstrated that the estimated benefits of the project would significantly exceed its costs.

A good upstream application of the criteria is found in the preparation of a country assistance strategy for the Bank for Brazil. This joint government-Bank exercise, carried out in 1997, selected a long-term sectoral priority – basic education – for Bank assistance. This focus emerged from a strong commitment on the part of government to improved educational outcomes as a necessary ingredient for long-term growth, poverty alleviation and reduced income disparities. It also corresponds with the Bank's essentially catalytic role in a country as complex as Brazil, where size and diversity of needs is great and a selective approach to Bank support is mandated. A continued policy to lend to individual states, based on assessment of fiscal and institutional strength as well as need, further reflects the application of the capacity criterion. In practice, the Bank would intervene with priority in the poorest states while simultaneously bolstering institutional capacity.

In cases such as Haiti, need is great but capacity and commitment have been lacking for a prolonged period. A trade-off exists between risk and potential impact which requires careful assessment in formulation of an assistance strategy. The current approach seeks a balance between the extremes of high risk and potential for wide impact in such circumstances. It provides technical assistance to maintain some continuity in capacity-building while readying a longer-term development program in preparation for a political opening for more comprehensive support.

The World Bank, therefore, will seek to apply its strategic priorities to its country programs through a consideration of each country's unique circumstances, including its needs, level of commitment, and capacity to implement educational interventions. The Bank will continue to evolve appropriate strategies in partnership with client governments, increasingly involving both primary and secondary stakeholders in targeting programs to ensure quality, equity, and efficiency in educational provision. One useful checklist for guiding the development of detailed country strategies is presented in the Bank-wide education strategy (World Bank, 1999) and summarized in the checklist in Box 5.1.

What is the Bank doing at present?

Education as a percentage of World Bank lending commitments to the region increased from 2.3 percent during the period 1980 to 1984 to 10.2 percent during the period 1995 to 1999. In fact, World Bank lending to the Latin America and Caribbean region for education has increased

Box 5.1

PREPARING A COUNTRY STRATEGY: CHECKLIST OF QUESTIONS

1. Are the long-term vision and medium- and short-term objectives clear and appropriate for what is being proposed for the next steps for this particular country?
2. Are the different levels of education being addressed adequately? Consider whether basic education policy and practice (especially in early child development and primary education, but also in lower secondary education and adult literacy) are strong enough to warrant strengthening upper secondary, tertiary (higher education and vocational/technical training) and advanced adult learning (work-related training, lifelong learning).
3. Are educational quality issues being addressed adequately?
4. Are equity issues being addressed adequately?
5. Are spending and financing issues and public-private roles being addressed adequately? Consider how best to target public resources to the poorest beneficiaries, and enable poor families to overcome the schooling cost barrier (which often includes the opportunity costs of forgoing the immediate benefits of their children's labor).
6. Is structural and management reform, including decentralization, being addressed adequately?
7. Where institutional capacity is weak, is it being strengthened adequately?
8. Is adequate attention being paid to linking education with the rest of the country's development? Consider links with the world of work and links with social development and cohesion, including the transmittal of values.
9. Is the strategy appropriate for this country at this moment, considering the prevailing political, economic, and social circumstances? Tools to help with such analysis include: typologies of country situations; the concepts of "room to improve and room to maneuver." Special situations also need to be understood: crisis response, post-conflict situations, and other turbulent conditions.
10. Are the emerging new opportunities being explored and utilized adequately?
11. Are appropriate choices being made in the design and implementation of programs and projects?
12. Are partnerships being utilized sufficiently and appropriately?
13. Is the strategy sufficiently and appropriately selective?
14. Is the strategy drawing sufficiently on pertinent knowledge—from other places and other sectors?
15. Is there sufficient provision for monitoring of progress, including measurable indicators?

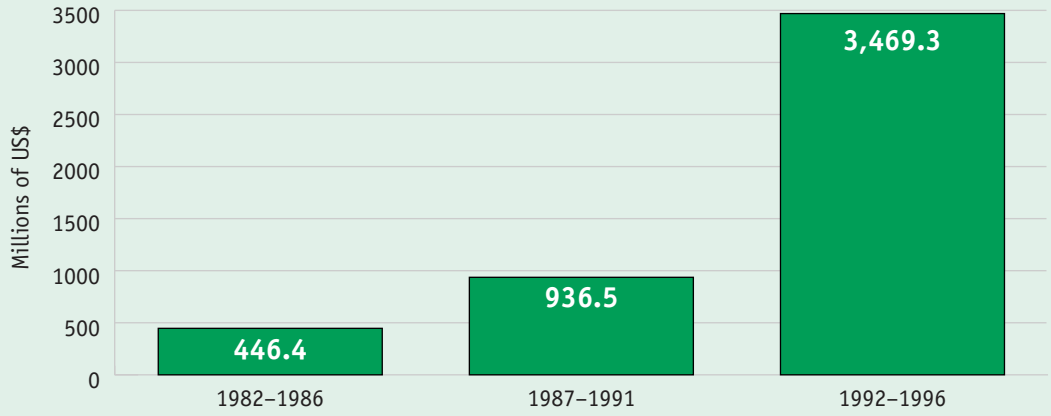
Source: World Bank Education Sector Strategy Paper, 1999.

almost eight times since the early 1980s (see Figure 5.2). This increase reflects the fact that most LAC countries have moved education to the top of their policy agendas in recent years.

While about two-thirds of total World Bank education lending in the region goes to the three large countries—Argentina, Brazil, and Mexico—larger countries do not necessarily receive more Bank education lending on a per capita basis. As shown in Figure 5.3, Brazil received only half the regional average per capita lending for education during 1994 to 1998 (see also Table 4 in Annex B).

The composition of the World Bank's education portfolio in the region has also changed over the past two decades. The emphasis on funding physical infrastructure in the early 1980s has shifted to an emphasis on supporting quality improvements. There has also been a shift away from

Figure 5.2 Volume of World Bank LAC Education Lending



vocational and technical training, which used to account for over half of the Bank's lending in the early 1980s, to primary and pre-primary education, which now account for 45 percent of the Bank's lending for education in LAC (Figure 5.4).

The Bank sees its role in supporting education sector reforms not only as a provider of funds but also as a source of relevant information that can help the governments of LAC to plan reforms, to implement action plans, and to evaluate the results. In some policy areas, the Bank can provide information on experiences in other regions of the world that might be applicable in LAC. However, in other policy areas, little is known about which innovations are likely to be effective. In these cases, the Bank is sponsoring research, study tours, conferences, and web sites to gener-

Figure 5.3 Cumulative lending per Capita for Education in LAC, FY94–FY98

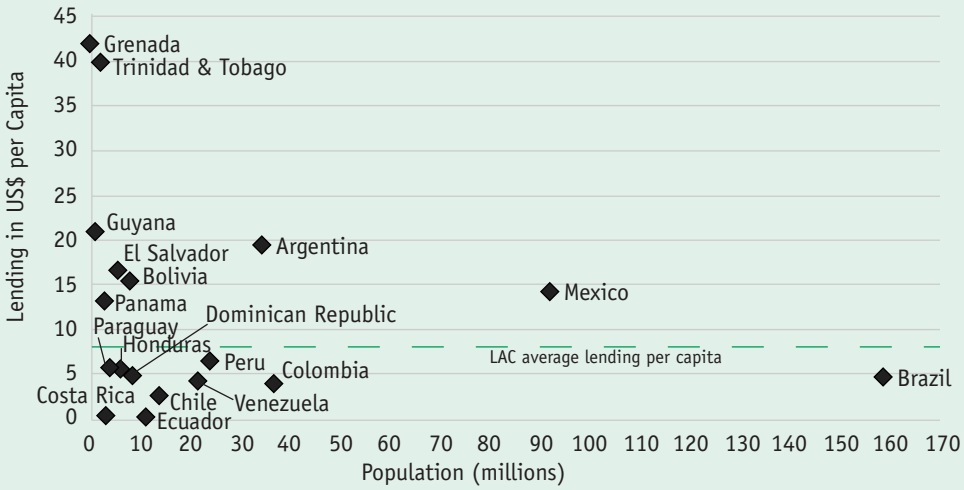
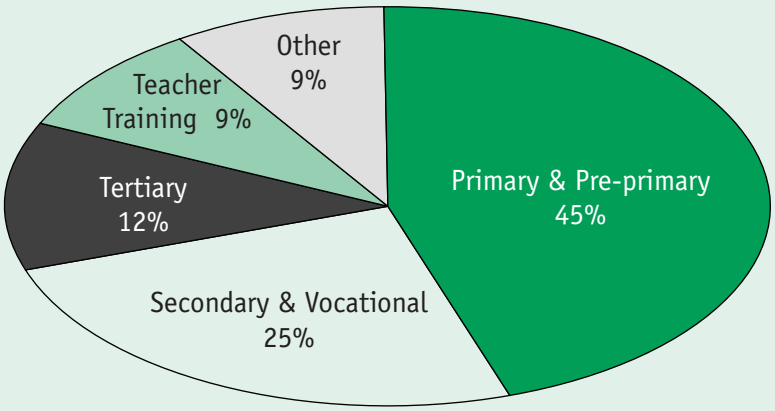


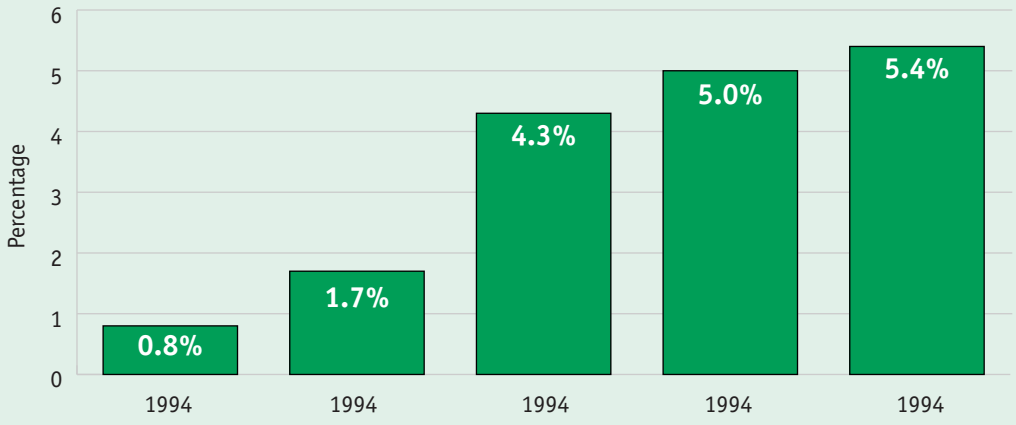
Figure 5.4 World Bank LAC Education Lending by Sub-Sector, FY92–FY96



ate and collect knowledge to fill these information gaps and stimulate sectoral policy dialogue.

The Bank adds to the store of knowledge about development by producing or sponsoring national and cross-national research and studies of specific interventions and of a wide range of educational issues. At the country level, the Bank undertakes economic and sector work (ESW) to support and inform its country lending programs. In the 1990s, there has been a steady increase in the percent of ESW in the LAC region devoted to education, paralleling the increase in lending to the sector (Figure 5.5). Regional studies on key issues in education are another contribution of the Bank to the knowledge base within the sector. For example, the Bank is currently preparing a study on the teaching profession in LAC that will pro-

Figure 5.5 Education as a Percentage of Total ESW Spending for the LAC Region



vide baseline data, analysis, and recommendations for policy making and for further research.

In addition to its work in knowledge creation, the World Bank actively seeks to disseminate information through conferences, specialized seminars, and working partnerships. The Bank organized and co-sponsored with other development entities and governments two conferences on teacher development in Spring 1999 as well as a conference on education in the Caribbean. For smaller audiences, country-tailored seminars bring Bank and regional experts to client countries to address specific issues, e.g., rural education and distance education in Peru and regional experience with reform of secondary education in the Dominican Republic.

Mutually reinforcing partnerships have been established through collaborative projects, joint learning activities, and secondments. Bank co-funding of projects, such as the basic education projects in El Salvador and the Dominican Republic has provided opportunities for the World Bank to learn from and share in learning processes with other donor organizations. Bank staff and project stakeholders participate in study tours to those countries that have successfully developed and experimented with educational innovations and reforms, such as educational decentralization in New Zealand and school inspection systems in Ireland. Bank staff members also share their knowledge and experience with clients when they are seconded to ministries of education, most recently in Bolivia and Chile.

What does the Bank bring to the table?

The World Bank's work over the last 50 years has made it a repository for development knowledge from all over the world because of its active involvement in development programs, its extensive contacts with research organizations, and its experience working with a wide range of governments, sectors, and local communities. In addition to providing financial resources in service of its clients, the World Bank brings together global knowledge and experience, neutrality and objectivity. It facilitates communication among key actors within and among countries.

The World Bank's Latin America and the Caribbean Human Development Unit includes staff representing qualifications and broad experience in various professional fields including education, public sector management, science and technology, economics, finance, and sociology. This skill mix, diverse knowledge base, and a broad geographic experience contribute to the analytic rigor of Bank research, project design, and policy advice. These attributes will help the Bank bring neutrality and objectivity to studies, policy advice, and monitoring and evaluation of work in development of the education sector in LAC. The World Bank supports the critical role of monitoring and evaluation in its lending operations which contributes to the development of accountability and transparency in the management of the education sector.

The World Bank has the capacity to bring various actors in the education sector to the table, stimulating the exchange of information by bringing together representatives from government departments, NGOs, and private organizations from various sectors in events at which they can learn from each other's experiences. For example, World Bank President James Wolfensohn called together officials from LAC ministries of education (the Bank's education partner) and ministries of finance (the Bank's chief interlocutor) in June 1998, enabling a rare opportunity for communication between core and sectoral ministries. The Bank brings civil society and government actors, beneficiaries and program designers together in research and policy dialogue activities, as in the case of Northeast Brazil, where collaborative research led to the publication of *Call to Action,* a research paper which the identified causes of critical deficiencies in the public schools of the

region and provides recommendations for policy action. The Bank recently facilitated a consultative workshop held at Harvard University where members of the Salvadoran National Assembly, the Ministry of Education, local universities, and NGOs worked together to define a vision for education for the next decade in El Salvador and ensure political consensus and support for the education reform and program objectives.

The Bank is increasingly seeking to systematize global knowledge around particular subject areas and issues relevant to developing countries. When information and experience within the Bank on a particular topic is thorough and extensive, access to information and resource sharing opportunities are provided through the Bank's participation in knowledge networks and consultative groups as well as on the Internet. For example, the Bank and other organizations are working with the Consultative Group on Early Childhood Care and Development to exchange experiences and lessons on the Internet on child development practices around the world. The Bank also has made knowledge resources on distance education and girls' education available through web pages (http://www.globaldistancelearning.com and http://www.worldbank.org/html/extdr/educ/eduequi/access.htm). The Bank further acts as a conduit for passing on to its clients global experience and knowledge of good development practices, thus equipping them to design and implement effective and sustainable social policies.

The LAC region has much to contribute to the global experience of educational practices and methods. The region has been very active in developing and experimenting with educational innovations (see Chapter 2). Models developed in El Salvador with community-based school management (the EDUCO model) and in Colombia with multigrade rural teaching (the *Escuela Nueva* model) are being adapted and applied outside of Latin America. The Colombian experience has inspired Guatemala, Panama, El Salvador, the Dominican Republic, and some Brazilian states to explore and adopt innovations developed through *Escuela Nueva* in their own educational reform efforts. The impact of *Escuela Nueva* reaches far beyond the LAC region, however. Delegations from Eritrea, Mozambique, Tanzania, Zambia, Nepal, India, Bhutan, Egypt, the Philippines, and several other African and Asian countries have attended seminars on elements of educational reform held by the World Bank Institute, followed by visits to three or four *Escuela Nueva* program sites.

Experience from outside LAC has likewise been adapted for use in the region. The experience of OECD countries was applied in Brazil. In this case, the World Bank served as an information broker, helping to develop a science and technology strategy. Brazilian policymakers invited scientists, entrepreneurs, government officials, and specialists from OECD countries to help to shape Brazil's science and technology agenda and policy framework. The ensuing discussions covered a broad spectrum of topics from the environment that businesses confront every day to long-term challenges such as developing human capital in science and technology.

As LAC continues to experiment and innovate in the education sector, the region's experience and accumulated knowledge about education will become increasingly valuable to countries in other regions of the world. The World Bank will continue to be a partner in development with the governments of Latin America and the Caribbean, helping to provide them with appropriate analytical and institutional tools and the global knowledge to assist them in realizing their respective agendas for education in the 21st century.

How will the Bank address the identified priorities?

The Bank will continue to support education development and reform in LAC using the lending and

non-lending mechanisms described in this chapter. These mechanisms are, however, evolving in line with changing country needs and requests. A guiding principle for lending will be greater flexibility, demonstrated in the recent development of new lending options. For lending as well as non-lending support, and for knowledge transfer, three central areas of focus will guide the Bank and help to determine priorities for action. These are: increasing emphasis on partnerships in the development process; a comprehensive vision of the development and reform process, intra- and inter-sectoral; and participation of all stakeholders in the process.

As part of its commitment to listening more closely to its clients, the World Bank has recently decentralized its activities by strengthening its resident missions in the countries of LAC. The resident missions represent the Bank, and the staff of the mission consult and communicate with client governments and stakeholders. It was decided to decentralize because this makes it easier for the Bank to be responsive to the specific needs of the countries served by the Bank and to conduct a dialogue at both the national and the local levels. Client governments now have access to a wide variety of different kinds of loans and interventions, ranging from long-term development efforts to pilot programs that encourage learning and innovation.

In the *Adaptable Program Lending (APL),* the Bank provides phased but sustained support for long-term development programs that address economic priorities and reduce poverty. The APL focuses on specific development objectives and releases loan funds in accordance with measured progress toward objectives. In this respect, it is more flexible than the Bank's traditional specific investment loans. In supporting long-term complex reform programs, such as CONAFE in Mexico, the APL provides continuous loan financing for consecutive phases of the program as it evolves, allowing for improvements and adjustments in the process of implementation.

A new kind of loan that is also flexible is the *Learning and Innovation Loan (LIL),* which supports small, time-sensitive projects with loans of up to US$5 million. The idea is to initiate pilot projects to test promising development initiatives based on a sound hypothesis, and to experiment at a local level before embarking on a larger-scale intervention. LILs include monitoring and evaluation components that facilitate demonstration effects before the project is replicated on a wider scale. One of the first projects of its kind to be approved under new funding mechanisms, the Colombian Youth Development Project employs a LIL.

The *International Finance Corporation (IFC),* a member of the World Bank Group, is an additional source of funding for private sector projects and has recently begun to work in the education sector. The IFC finances and provides advice for private sector ventures and projects in partnership with private investors. It provides not only project finance but it also raises additional funds from other sources (such as foreign commercial banks) for the project in question and provides technical advice. For example, one beneficiary of an IFC loan in the education sector is the University of Belgrano, a private university in Argentina. The loan was given to help the University to improve its services and fund student loans.

In employing a mix of conventional and newer lending instruments, complemented by non-lending services (analytic work, knowledge transfer) within a particular country program, the Bank should be better able to support evolving needs within the education sector. Similarly, the Bank is moving, and will continue to move increasingly towards forming partnerships both within and outside the countries of the region.

Collaboration between the World Bank and other donors in support of complementary efforts within a country is increasingly emphasized in the prepa-

ration of country assistance strategies (CASs) and lending operations. The aim is to serve in the country's best interests by supporting unified and increasingly comprehensive programs for economic and social development. Collaboration may come in the form of joint or multiple agency support for a single program of investment or research, or in individual contributions intended to complement rather than duplicate or possibly even contradict overall objectives. In the LAC region, examples of cooperation among donors often center on joint operations supported by the World Bank and the Inter-American Development Bank, but other official donors and international or local NGOs including UNICEF, UNESCO, and OREALC are increasingly involved as well. New partnerships are also being forged with the private sectors in countries in an effort to strengthen support for needed reforms as well as to garner additional resources.

Collaboration between the World Bank and NGOs has increased dramatically in recent years. Of the 241 Bank projects that were approved in 1995, 47 percent involved NGOs. NGOs are usually indirect recipients of Bank loans and credits that a borrowing government has channeled to them as either grants or loans. For example, several Latin American countries have set up "social funds" that fund projects that have been suggested by public, private, or voluntary organizations, and NGOs are often chosen to implement these projects, thus indirectly benefiting from the Bank's support of the social fund.

Within a country, the Bank is using a variety of participatory methods to become more responsive to the views of all stakeholders affected by its interventions and to achieve a sense of ownership of the solutions arrived at through such a process. These methods, while time-consuming, appear to pay-off in commitment and support. For example, the Bank prepares a Country Assistance Strategy (CAS) for every country to which it lends. Whenever possible, the Bank engages diverse stakeholders in the design of social interventions to ensure that they correspond to the explicit needs of beneficiaries. In the past, hidden needs and wants of primary and secondary stakeholders often acted as unrecognized constraints in the implementation of many projects. Through more participatory planning methods, innovative local solutions are incorporated that may not at first have appeared obvious in a more top-down planning approach.

Bank regulations require that a social assessment and a beneficiary assessment be conducted for every project at the planning stage, ensuring that interventions take social issues into consideration and that they involve a wide range of stakeholders in the design and management of the project. In beneficiary assessments, Bank staff listen to the views of those who will be affected by the outcomes of the intervention and take those views into account in the design and implementation of the project.

These assessments employ participatory methods such as focus groups, specialized questionnaires, field visits, rapid/participatory rural appraisal, and ethnographic studies, and are tools for understanding the values and interests of the people who will be affected by the project. They also help project planners to assess risks and to identify those issues that require further attention.

A process of stakeholder consultation and analysis also facilitated the design of appropriate and effective interventions for the improvement of public schools in Northeast Brazil. The participatory study involved students, parents, teachers, school principals, state secretariats of education and researchers. It yielded detailed information expanding on previous research and new insight on possible courses of action at a number of levels. Four major causes of school failure were brought to light by this study, and subsequent projects have been designed to address those problem areas (World Bank, 1997).

Annex A

Box 1

Summit of the Americas II

Goals of Summit of the Americas II for the year 2010:

- Universal access to and completion of quality primary education.
- Access for at least 75 percent of young people to quality secondary education, with increasing completion rates.
- Provision of life-long educational opportunities for all.

Commitments to attaining Summit goals:

- Implement targeted policies and programs focusing on the needs of the disadvantaged.
- Establish or strengthen systems to evaluate the quality of education.
- Develop integrated programs to increase the status and level of professionalism of teachers and educational administrators.
- Strengthen education sector management and institutional capacity at national, regional, local, and school levels, furthering decentralization where appropriate and promoting community and family involvement.
- Strengthen preparation, education, and training for the world of work, including the establishment of mechanisms for certification of job-related competencies.
- Improve educational strategies relevant to indigenous, immigrant, and multicultural populations, shaping modes for bilingual and intercultural basic education.
- Develop educational strategies for both inside and outside the classroom that foster democratic principles, human rights, gender equity, peace, tolerance, and respect for the environment and natural resources.
- Promote access to and use of the most effective information and communication technologies in education systems.
- Make efforts to increase the availability of teaching materials.
- Use technology to link schools and communities, encouraging the participation of higher education institutions that have advantages in this field.
- Foster scholarship and exchange programs for students, teachers, researchers, and educational administrators.

Box 2

Active Learning: Educational Reform in New Zealand and Australia

Both New Zealand and Australia have undertaken comprehensive education reform programs which highlight the student as the central focus of the education system. Curriculum, evaluation, teaching and learning methodologies have been redefined with one fundamental question in mind: "How will this affect and improve student learning?"

In the Level 3-4 classroom at Karori West School in New Zealand, students are working busily on their obstacle course designs. Each class has chosen a space on the school grounds to improve or beautify. The class projects vary in complexity, depending on the grade level, and vary again within each classroom, depending on individual student skill levels. The use of school-wide themes provides continuity across grades and stimulates student interest in learning, as curiosity leads students from different levels to share their work with each other informally.

The classroom environment also lends itself to collective learning. Students are seated in groups, sharing their work and soliciting feedback from their teammates. The teacher moves from group to group, asking and answering questions, providing guidance and offering words of encouragement and praise. "Beautiful work, Alison. Very nice lines. Now don't forget to include your legend." Alison's neighbor immediately displays her own obstacle course design, complete with legend, to show her friend how she has labeled the figures in her diagram so the reader can easily identify the objects to be included in the obstacle course. This peer teaching is happening all around the classroom and is encouraged by the physical setup of the room. There are no individual desks to be found. Students work together at large tables and a few pairs are comfortably settled on the rug. They are talking quietly with each other, pointing out things their partners have missed, asking questions, and expressing admiration for things done well.

The teacher explains that the students are arranged by skill level for each activity. The composition of the group is likely to vary, since each child has strengths in different areas. This is one of the motives for including two grade levels in each classroom. Automatic social promotion moves the students through New Zealand's "seamless" education system, where emphasis is placed on competence in the seven essential learning areas and the eight essential skills to be mastered at each level. The teacher is responsible for providing students with the opportunity and appropriate environment to develop those skills. In this way, students are not held back because of poor performance in one area and have the flexibility to work beyond the class level in areas in which they excel. The grouping of two grade levels provides greater opportunities for peer teaching and reduces the probability of stigmas for slow learners, since students are working on development of skills, not prescribed material labeled by grade.

Students evaluate their own work first, then the teacher adds a brief evaluation. Students choose samples of their work from each of the different learning areas to include in a personal portfolio. These student portfolios are used to mark their progress and are shared occasionally with the parents. As one of the students shows us her grade 3-4 portfolio and explains what she has done, she proudly points out the obvious advances she has made in her learning. The continuously increased depth and complexity of her reading, writing and thinking skills are very clear.

In the Level 3-4 classroom at Essendon North School in Australia, students are engaged in a variety of activities. Some are working in pairs at the computer, inputting their maps of the campground where they stayed as a group a week earlier. Others are completing math worksheets and other independent activities. One girl is curled up in a chair in the reading corner, totally absorbed in her book. The setting is similar to that of the classroom at Karori West School. There are very few individual desks, and most students are working with a partner or in a group. The teacher has adopted the role of facilitator, encouraging student learning as she moves around the classroom, answering questions and offering feedback, guidance and praise.

Two innovations in this school are worth noting. First, the teachers strive to teach children to use different thinking and learning styles to make the most of each educational experience. This is done through the use of hats. Students in each class are divided into six "hat" groups (Red - feelings; White - information: Black -- judgment; Green - creativity; Yellow - benefits; Blue - thinking). At least once a week, the teacher will, ask for input from the different groups. For example, a student team will present a research project, book report or math problem they have been working on, and the hat groups will respond or ask questions. The Red hats will talk about how the presentation made them feel, the White hats will share what facts they learned, the Black hats will offer constructive criticism, and so on. Students rotate from group to group during the school year so they have the opportunity to explore each thinking style.

The second innovation is that the students set their own schedules. The teacher gives general lessons on new material and provides the students with a list of work to be completed by the end of the week. The students then organize their time on a Time Management Plan and use the checklist to monitor their progress during the week as they work independently.

In both schools, the students are given significant responsibility for their own learning. The teachers give them the tools they need to acquire knowledge, and students work at their own pace to attain proficiency in identified essential skills and learning areas. Active learning occurs because students are involved in the learning and teaching process. The teacher encourages the students to be teachers as well and facilitates peer teaching through the use of teamwork in groups or with partners. In order for active learning to take place, the teacher must be willing to step away from the traditional role of imparting knowledge and allow students to explore independently, arranging the physical layout of the classroom to encourage this. Finally, the teacher -must develop a tolerance for less "order" and an increased noise level as students become more involved in peer teaching and sharing. When given the appropriate conditions, students of all ages show that they are capable and eager to actively participate in the learning and teaching process.

Annex B

Figure B.1 Progress in Educational Attainment, Jamaica, Nicaragua, El Salvador

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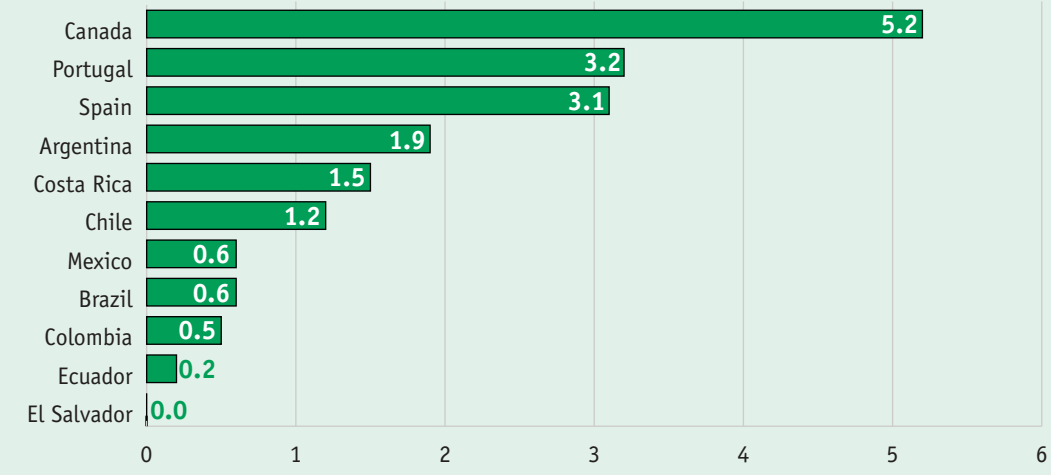
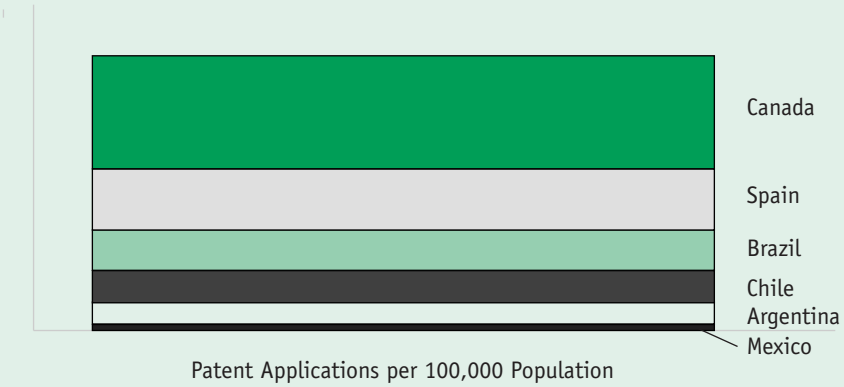
Figure B.2 Number of Full-Time Researchers per Thousand Labor Force 1993–96, Selected Countries



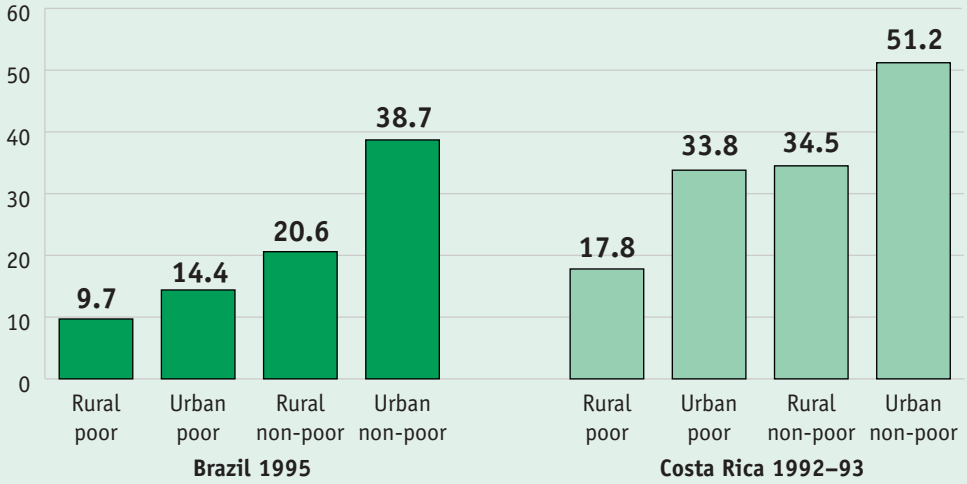
Source: RICYT, 1997.

Figure B.3 Inventiveness Coefficiant, 1994, Selected Countries



Source: RICYT, 1997.

Figure B.4 Secondary Net Enrollment Rates in Brazil and Costa Rica: Poor vs. Non-poor (%)

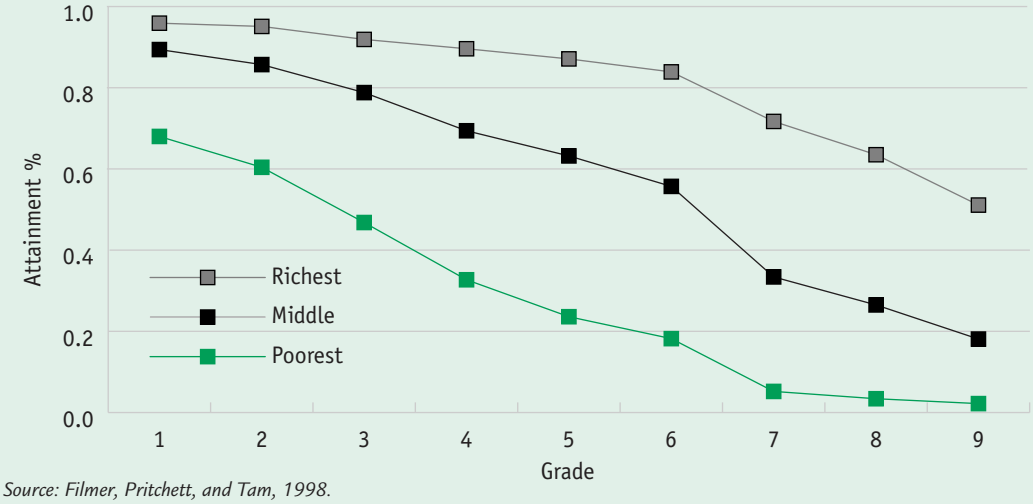


Source: World Bank, 1997.

Figure B.5 Educational Attainment in the Dominican Republic, 1996 (Highest Grade Attained by Youth Aged 15–19)

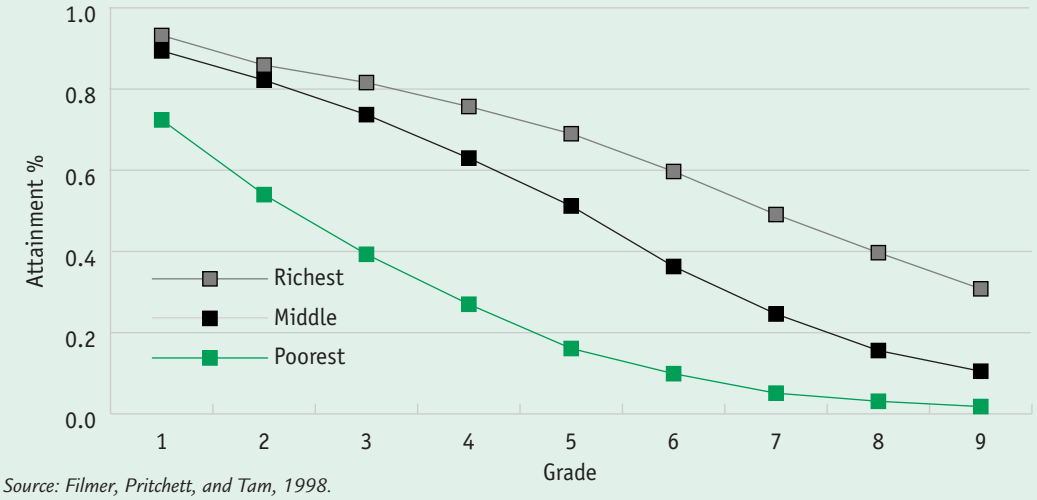
Source: Filmer, Pritchett, and Tam, 1998.

Figure B.6 Educational Attainment in Guatemala, 1995 (Highest Grade Attained by Youth Aged 15–19)



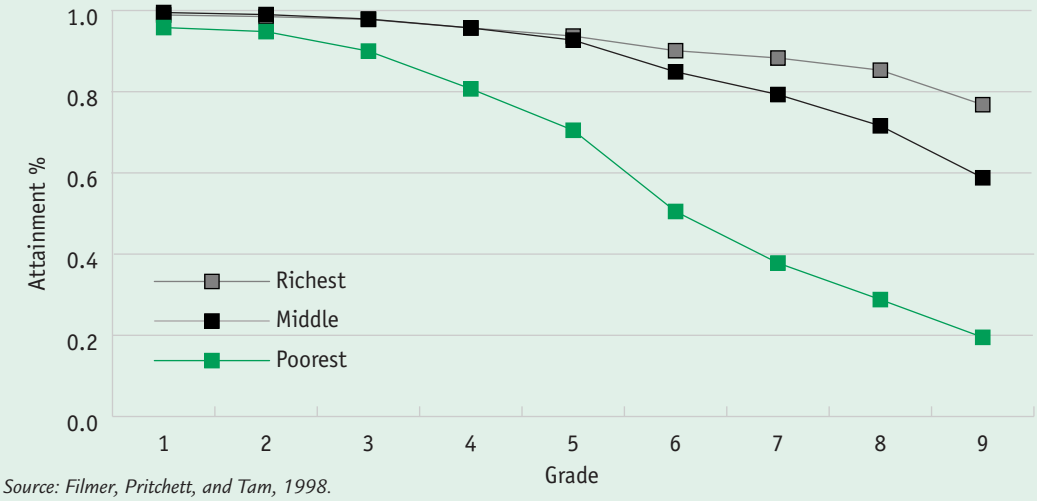
Source: Filmer, Pritchett, and Tam, 1998.

Figure B.7 Educational Attainment in Haiti, 1994–95 (Highest Grade Attained by Youth Aged 15–19)



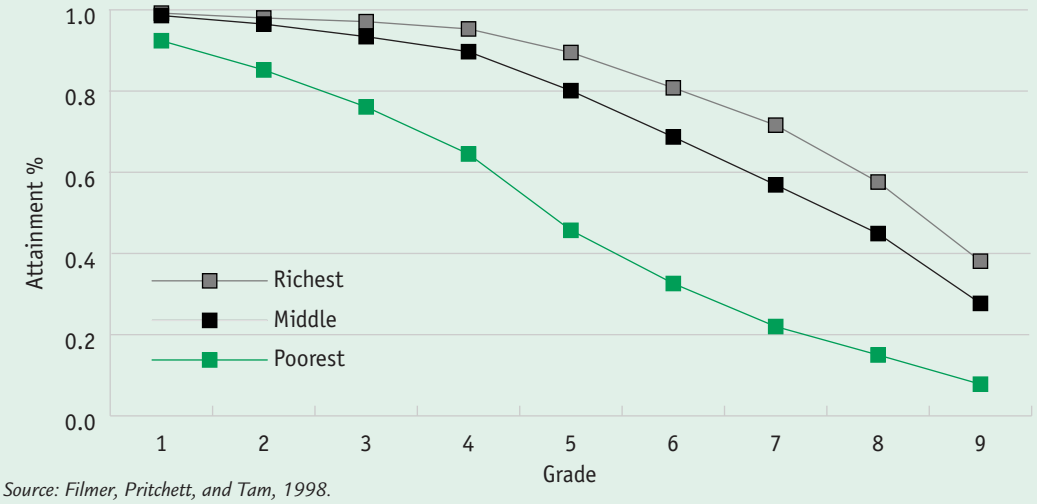
Source: Filmer, Pritchett, and Tam, 1998.

Figure B.8 Educational Attainment in Bolivia, 1993–94 (Highest Grade Attained by Youth Aged 15–19)



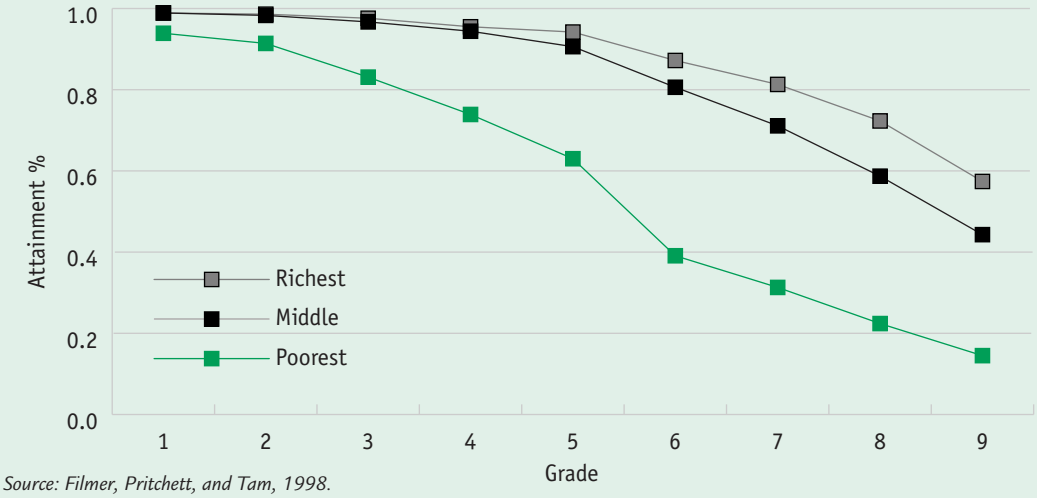
Source: Filmer, Pritchett, and Tam, 1998.

Figure B.9 Educational Attainment in Brazil, 1996 (Highest Grade Attained by Youth Aged 15–19)



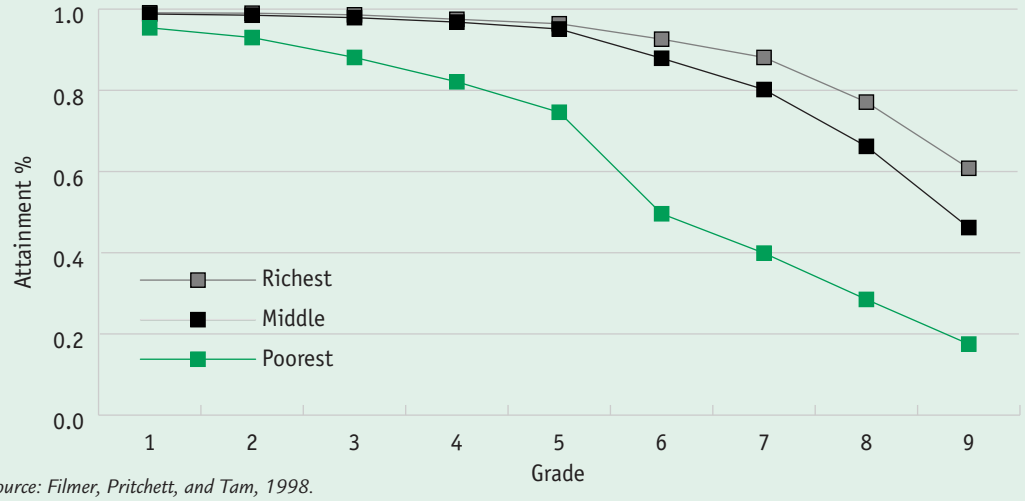
Source: Filmer, Pritchett, and Tam, 1998.

Figure B.10 Educational Attainment in Colombia, 1995 (Highest Grade Attained by Youth Aged 15–19)



Source: Filmer, Pritchett, and Tam, 1998.

Figure B.11 Educational Attainment in Peru, 1996 (Highest Grade Attained by Youth Aged 15–19)



Source: Filmer, Pritchett, and Tam, 1998.

Figure B.12 Dispersion of Educational Attainment Over Time: Twenty-Five-Year-Olds in Nicaragua and Jamaica

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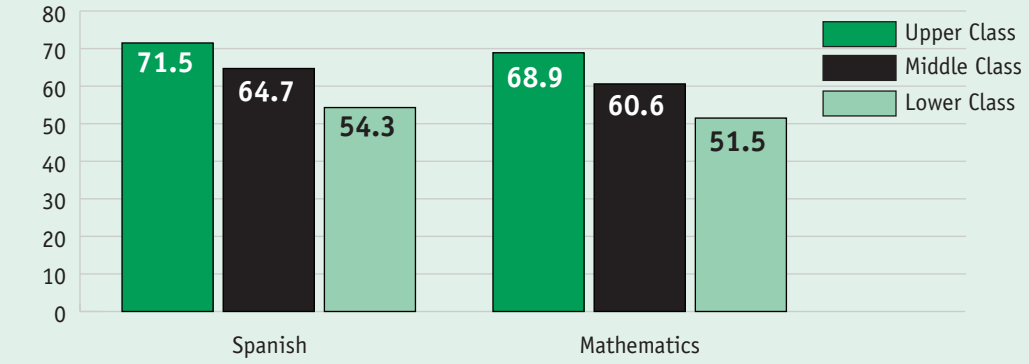
Figure B.13 Mathematics and Spanish Achievement Test Scores in Chile by Socioeconomic Status



Source: Lehmann, 1994, in Larrañaga, 1997.

Figure B.14 World Bank Spending in LAC Education, Selected Indicators: Disbursements in the LAC Education Sector (FY86–FY97)

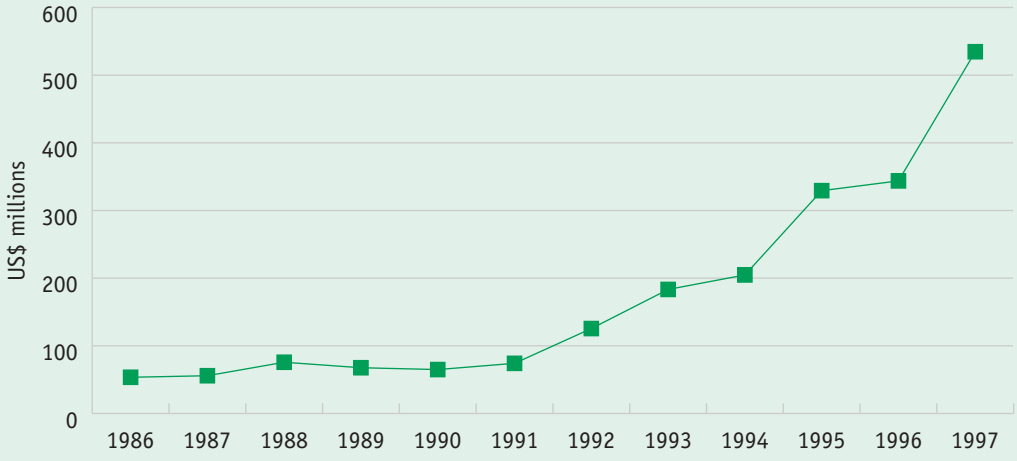


Figure B.15 World Bank LAC Education Lending Portfolio by Subsectors, FY81–FY86

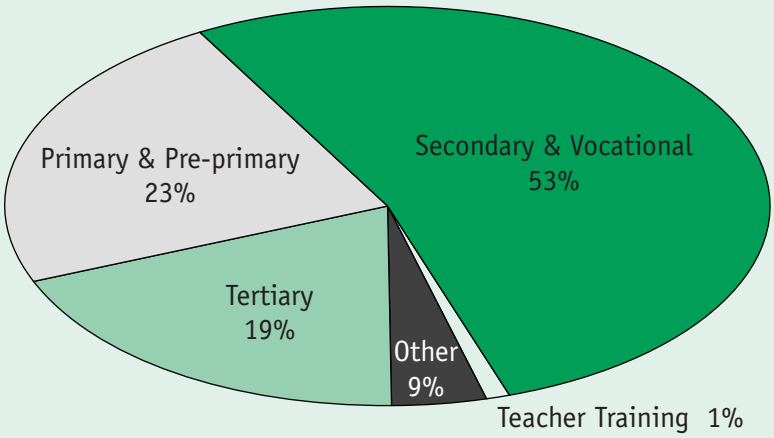


Figure B.16 World Bank LAC Education Lending Portfolio by Subsectors, FY87–FY91

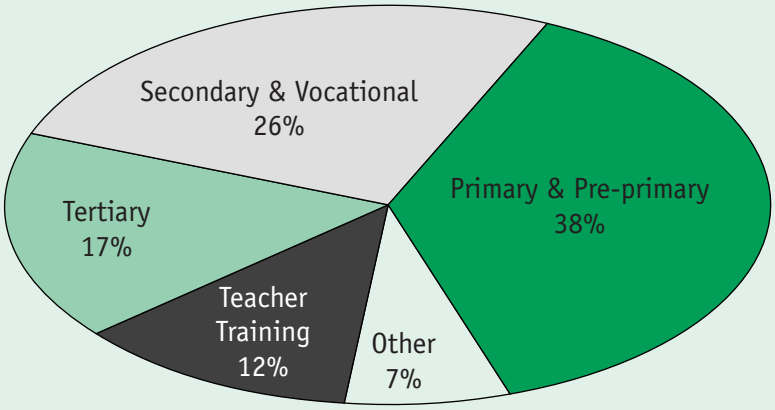


Figure B.17 World Bank LAC Education Lending Portfolio by Subsectors, FY92–FY96

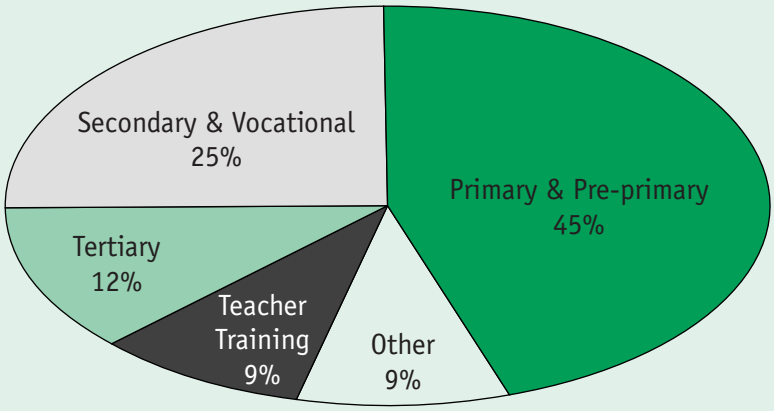


Table B-1. Latin American Testing Systems

	Year of Initiation	Subjects	Grades	Sample or Universal	Analysis of Critical Factors
Argentina (SINEC)	1993	Math, Language, Natural and Social Sciences	3,7-Basic 2,5-Middle	Sample	x
Bolivia (SIMECAL)	1997	Math, Language	3,6	Sample	x
Brazil (SAEB)	1990	Portugese, Math, Science	3,5,7	Sample	x
Minas Gerais, Brazil	1992	Math, Portugese, Reading, Physics, Chemistry, Biology	3-Basic 5,8-Fundamental 2-Middle	Universe	x
Parana, Brazil	1995	Portugese, Math, Science, History, Geography	4,8-Fundamental 2-Middle	Universe	x
Sao Paulo, Brazil	1996 (SAREAP)	Portugese, Math, Science, History, Geography	3,7-Fundamental	Universe	x
Chile (SIMCE)	1988	Spanish, Math, Science, History	4,8	Universe	x
Colombia	1991	Language, Math	3,5	Sample	x
Costa Rica	1986–88 1995	Math, Spanish, Science, Social Studies	3,6,9	Sample	x
Dominican Republic	1991	Spanish, Math, Natural and Social Sciences	4,8-Basic 3-Adult Ed	Universe	
Ecuador (SINHELA)	1996	Language, Math	2,6,9	Sample	x
El Salvador	1993	Language, Math, Social Studies, Science, Health, Environment	1-6	Sample	
Guatemala (SINHELA)	1997	Math, Language	3,6	Sample	
Honduras	1997	Spanish, Math	3,6	Sample	
Mexico (SNEE)	1992	Spanish, Math, Social and Natural Sciences	1-9	Sample	x
Nicaragua	1997	Math, Spanish (pilot)	4-Primary 3-Secondary	Sample	
Panama	1997	Math, Spanish, Natural and Social Sciences (pilot)	3,6	Universe	
Paraguay (SNEPE)	1996	Communication, Math	3,6,9	Sample	
Peru (CRECER)	1996	Math, Language	4,6	Sample	x
Uruguay	1996	Language, Math	6	Universe	
Venezuela (SINEA)	1997	Math, Language (pilot)	3,6,9	Sample	

Source: Rojas and Esquivel, 1998.

Table B-2. 1994 Public Expenditures on Education in LAC Countries

	Education Expenditures (% of GNP)	School-Age Population (% of total population)
Argentina	3.8	22.9
Belize	6.1	26.9
Bolivia	5.4	28.9
Chile	2.9	22.9
Colombia	3.5	26.4
Costa Rica	4.5	26.3
Dominican Republic	2.0	26.7
Ecuador	3.5	28.0
El Salvador (1995)	2.2	30.9
Guatemala	1.6	31.5
Guyana	4.4	24.7
Honduras	3.7	31.0
Jamaica (1995)	8.2	24.5
Mexico	5.3	28.1
Nicaragua	3.9	33.5
Panama	5.2	25.4
Paraguay	2.9	28.9
Peru	3.8	27.3
Trinidad & Tobago	4.5	26.2
Uruguay	2.5	19.8
Venezuela	5.2	27.5

Source: UNESCO, 1997.

Table B-3. 1994 Education Expenditures as % of GNP, Selected Countries

	Public	Private	Total	% Population School Age
Mexico	4.5	1.1	5.6	28.1
Colombia	4.2	3.6	7.8	26.4
Chile	3.1	2.6	5.7	22.9
Peru	2.4	2.0	4.4	N/A
Ireland	5.1	0.5	5.6	20.6
Korea	3.6	2.5	6.1	19.6
OECD Countries	4.7	1.2	5.9	N/A

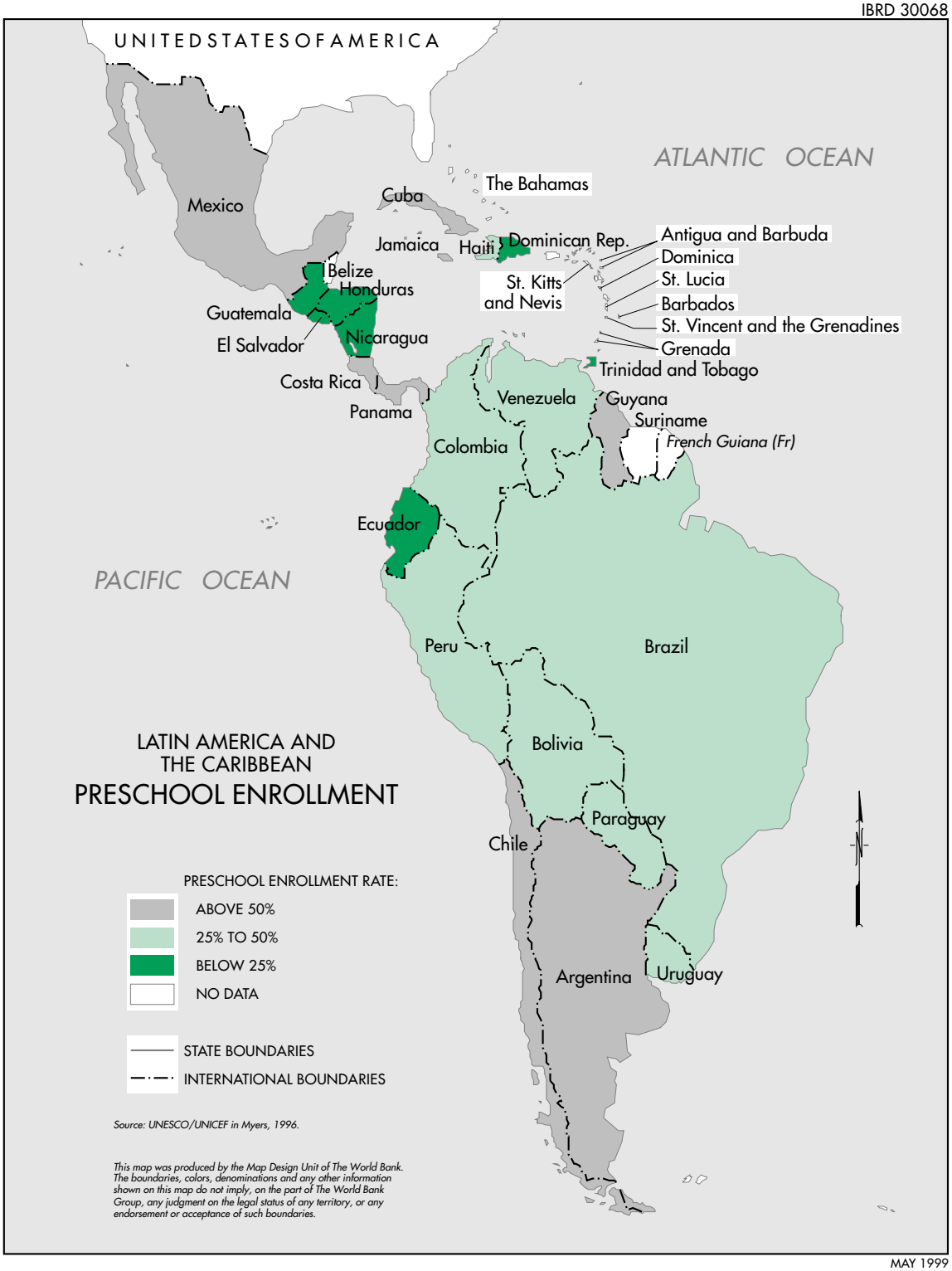
Sources: Mexico, Ireland, Korea. OECD - OECD, 1997. Colombia - Departamento Nacional de Planación, 1996. Chile - Ministerio de Hacienda and Banco Central, 1998.

Table B-4. World Bank Education Sector Lending to LAC Countries

Country	1995 Population (millions)	FY94-FY98 (millions of $US)	Cumulative Lending Lending per Capita ($US)
Argentina	34.7	670.5	19.3
Bolivia	7.4	115.0	15.5
Brazil	159.2	702.6	4.4
Chile	14.2	35.0	2.5
Colombia	36.8	137.2	3.7
Costa Rica	3.4	0.0	0.0
Dom. Rep.	7.8	37.0	4.7
Ecuador	11.5	0.0	0.0
El Salvador	5.6	92.0	16.4
Grenada	0.1	3.8	41.8
Guyana	0.8	17.3	20.7
Honduras	5.9	30.0	5.1
Mexico	91.8	1297.0	14.1
Panama	2.6	35.0	13.3
Peru	23.8	146.4	6.1
Paraguay	4.8	24.5	5.1
Trinidad & Tobago	1.3	51.0	39.6
Venezuela	21.7	89.4	4.1
Region	433.4	3483.7	8.0

Annex C

IBRD 30068



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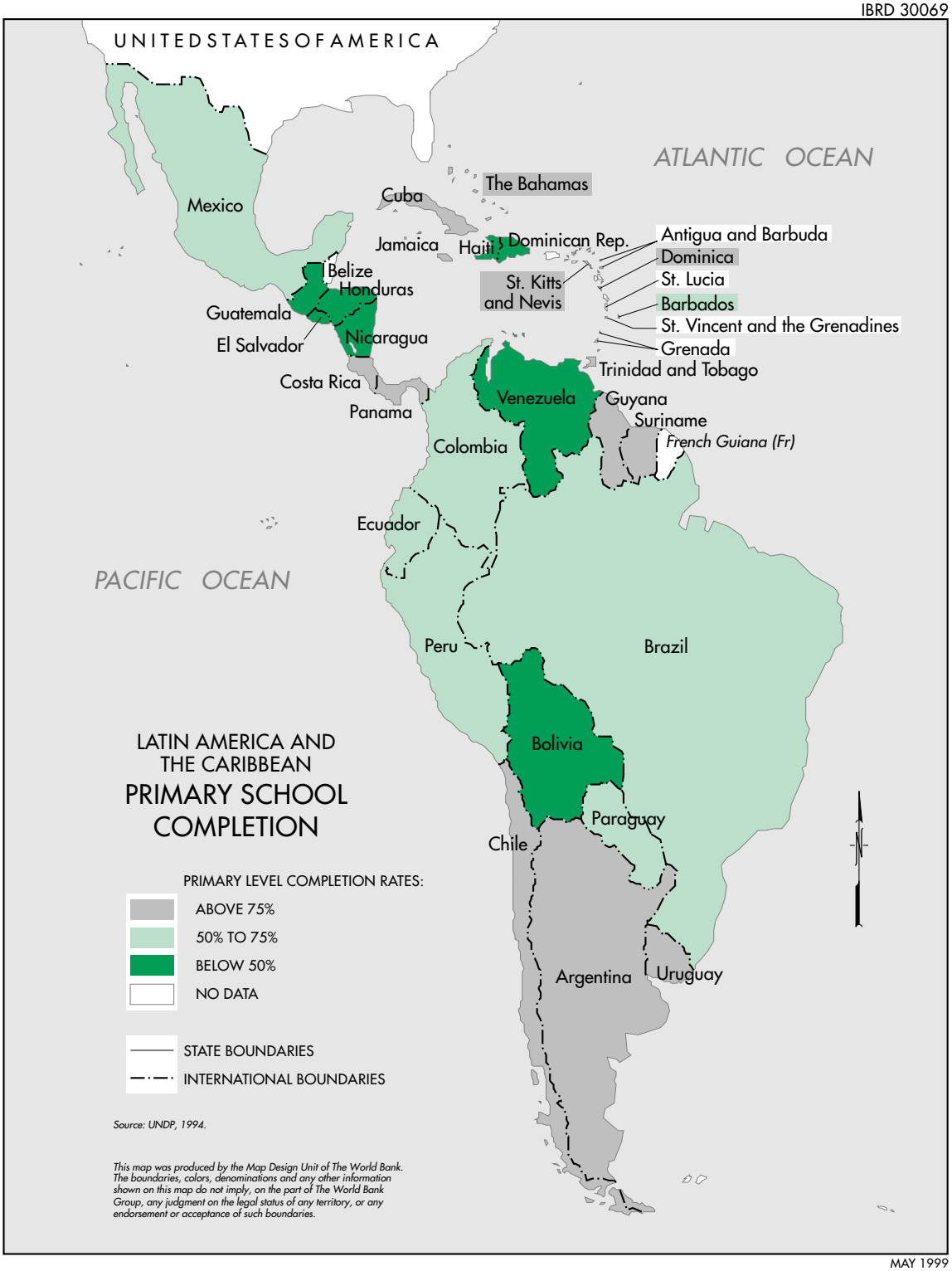

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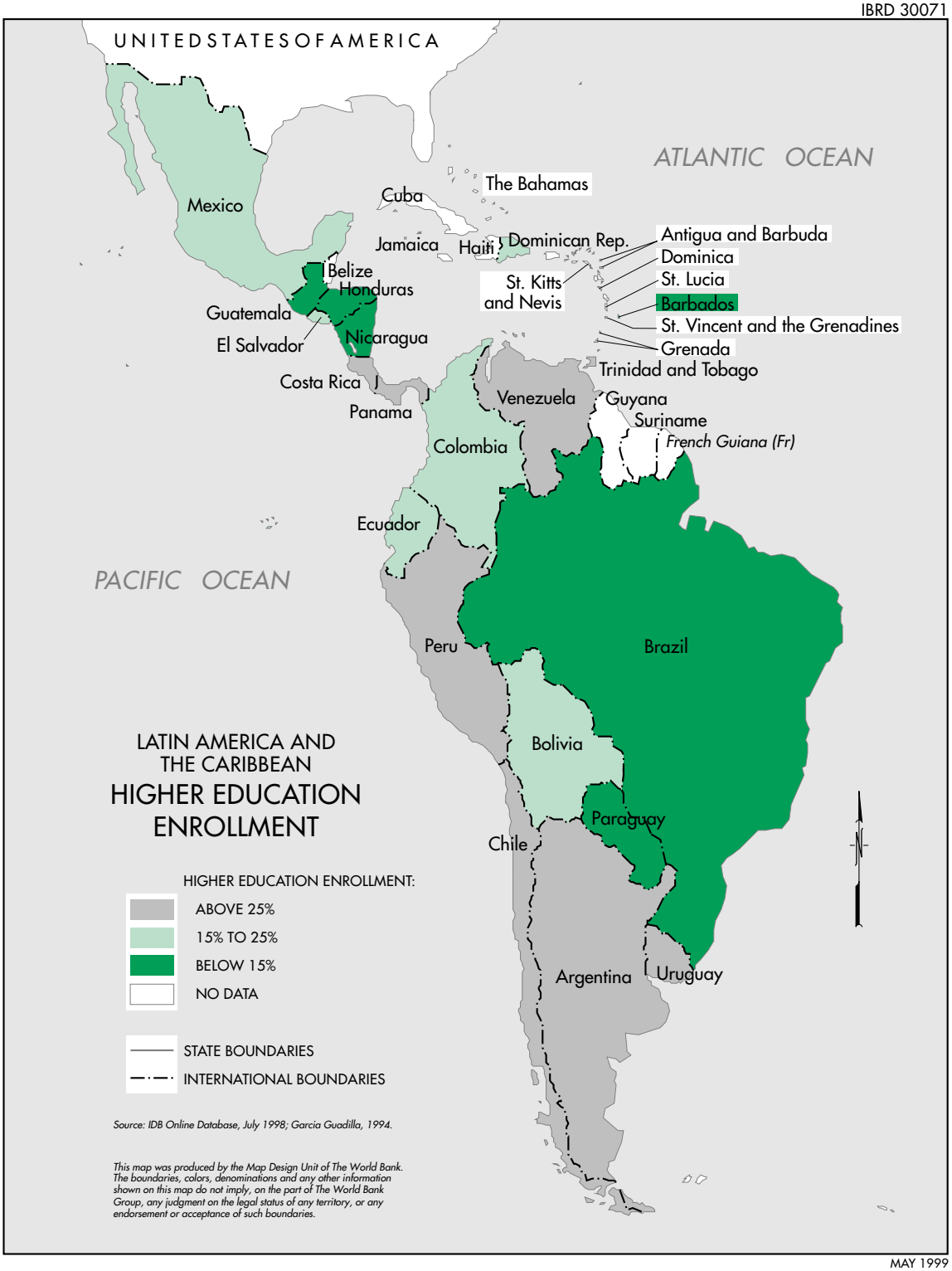

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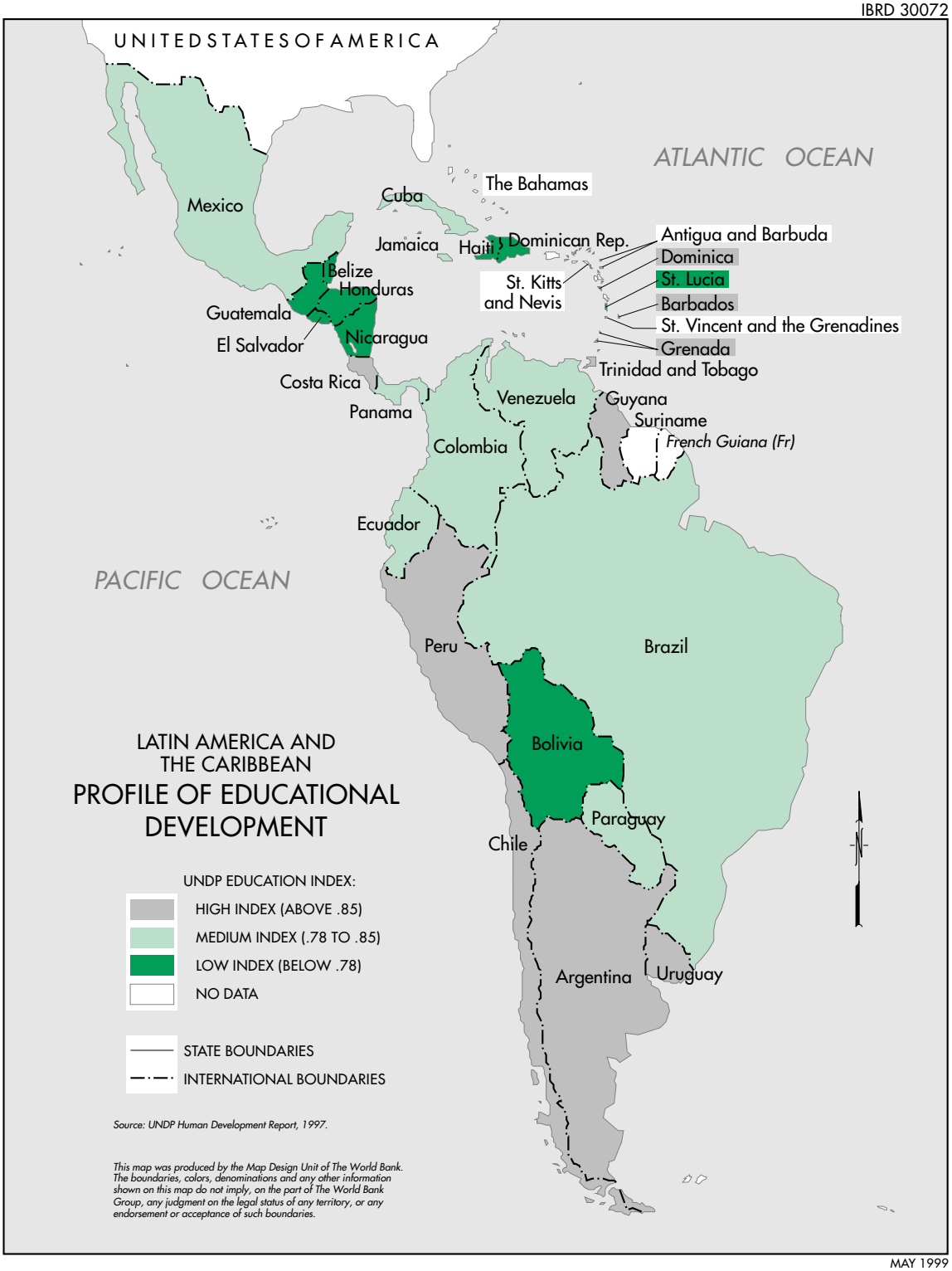

MAY 1999

Annex D: Household Survey Data

Average Years of Schooling of Household Head

Households with children: All Areas (Urban and Rural)

Country	Very poor	Poor	Non poor	Total
Brazil	2.7	3.3	7.5	5.4
Colombia	n/a	n/a	n/a	n/a
Costa Rica	4.9	5.5	8.7	7.1
Chile	6.9	7.2	10.3	8.7
Ecuador	3.9	4.5	8.0	6.4
El Salvador	2.1	2.4	5.6	4.1
Honduras	2.3	2.7	5.7	4.3
Jamaica	6.8	7.0	8.0	7.5
Nicaragua	1.2	1.8	5.6	3.9
Peru	5.5	6.3	10.0	8.3

Households with children: Urban

Country	Very poor	Poor	Non poor	Total
Brazil	3.2	3.7	7.7	6.1
Colombia	6.0	6.4	10.3	8.4
Costa Rica	5.7	6.5	9.5	8.4
Chile	7.7	8.0	10.7	9.4
Ecuador	4.7	5.4	8.9	7.9
El Salvador	3.1	3.5	6.5	5.7
Honduras	3.9	3.9	7.3	6.3
Jamaica	6.8	7.5	8.3	8.1
Nicaragua	2.4	3.2	6.4	5.6
Peru	6.1	7.2	10.5	9.4

Households with children: Rural

Country	Very poor	Poor	Non poor	Total
Brazil	1.8	2.3	5.0	2.7
Colombia	n/a	n/a	n/a	n/a
Costa Rica	4.5	4.9	7.1	5.7
Chile	5.2	5.2	7.2	5.7
Ecuador	3.5	3.9	5.4	4.4
El Salvador	1.8	1.9	3.0	2.2
Honduras	1.9	2.2	3.6	2.8
Jamaica	6.7	6.7	7.3	6.9
Nicaragua	0.9	1.2	3.3	1.8
Peru	5.2	5.4	6.7	5.7

Functional Illiteracy Rate of Household Head (percentage)

Households with children: All Areas (Urban and Rural)

Country	Very poor	Poor	Non poor	Total
Brazil	64.1	55.2	16.6	35.9
Colombia	n/a	n/a	n/a	n/a
Costa Rica	31.9	26.6	12.5	19.5
Chile	20.8	19.1	8.2	13.8
Ecuador	45.7	38.7	14.4	25.7
El Salvador	76.8	72.5	46.8	58.7
Honduras	71.9	66.7	40.6	52.2
Jamaica	19.6	18.1	23.1	20.6
Nicaragua	87.0	80.3	40.2	62.3
Peru	38.8	33.5	12.8	22.8

Households with children: Urban

Country	Very poor	Poor	Non poor	Total
Brazil	55.6	48.9	15.3	29.1
Colombia	25.7	22.7	9.3	15.9
Costa Rica	23.8	19.3	9.3	13.0
Chile	15.5	14.0	6.2	9.8
Ecuador	36.9	29.2	8.6	14.6
El Salvador	69.7	62.1	39.1	45.7
Honduras	53.3	51.4	26.4	33.3
Jamaica	21.0	21.1	24.5	23.3
Nicaragua	68.0	57.9	30.3	36.6
Peru	31.1	26.1	9.8	15.4

Households with children: Rural

Country	Very poor	Poor	Non poor	Total
Brazil	77.0	69.1	33.6	64.7
Colombia	n/a	n/a	n/a	n/a
Costa Rica	35.5	31.5	18.6	26.8
Chile	32.5	32.8	25.1	30.7
Ecuador	49.4	43.9	30.9	39.8
El Salvador	79.0	78.1	68.3	75.0
Honduras	76.8	72.3	58.7	66.5
Jamaica	19.1	16.5	20.6	17.9
Nicaragua	90.6	86.5	57.2	77.8
Peru	42.9	40.7	31.9	38.7

Pre-School Gross Enrollment Rates: All Areas

Boys

Country	Very poor	Poor	Non poor	Total
Brazil	49.5	56.0	77.5	62.7
Colombia	n/a	n/a	n/a	n/a
Costa Rica	4.5	3.4	13.0	7.1
Chile	24.8	25.9	40.7	32.2
Ecuador	20.7	22.1	36.4	28.0
El Salvador	30.3	31.1	55.4	40.6
Honduras	34.2	33.7	33.3	33.5
Jamaica	73.1	79.2	93.4	85.4
Nicaragua	6.9	10.8	40.9	24.5
Peru	33.7	34.0	51.2	40.5

Girls

Country	Very poor	Poor	Non poor	Total
Brazil	54.1	58.6	78.2	65.0
Colombia	n/a	n/a	n/a	n/a
Costa Rica	0.6	1.0	12.3	4.8
Chile	28.2	27.3	44.6	34.8
Ecuador	16.8	24.2	37.7	30.5
El Salvador	34.3	38.0	61.7	48.0
Honduras	29.3	27.3	34.9	30.9
Jamaica	77.3	79.0	89.3	83.1
Nicaragua	8.0	11.2	39.1	23.9
Peru	40.1	41.2	61.8	49.5

Total

Country	Very poor	Poor	Non poor	Total
Brazil	51.6	57.2	77.8	63.8
Colombia	n/a	n/a	n/a	n/a
Costa Rica	2.4	2.1	12.6	5.9
Chile	26.5	26.6	42.7	33.5
Ecuador	19.2	23.0	37.0	29.1
El Salvador	32.3	34.6	58.8	44.4
Honduras	31.7	30.5	34.1	32.2
Jamaica	75.3	79.1	91.4	84.2
Nicaragua	7.7	11.0	40.0	24.2
Peru	49.7	51.9	66.2	57.4

Pre-School Gross Enrollment Rates: Urban Areas

Boys

Country	Very poor	Poor	Non poor	Total
Brazil	57.4	62.0	78.8	69.4
Colombia	52.8	54.6	68.7	60.8
Costa Rica	8.6	5.3	17.7	11.4
Chile	30.8	31.2	42.9	36.8
Ecuador	23.3	27.7	39.1	34.2
El Salvador	44.5	42.9	65.9	56.0
Honduras	38.1	33.0	38.9	36.7
Jamaica	74.7	79.6	93.1	87.7
Nicaragua	15.9	22.1	46.3	38.3
Peru	36.6	36.7	50.7	43.9

Girls

Country	Very poor	Poor	Non poor	Total
Brazil	60.5	63.5	79.7	70.6
Colombia	46.7	49.7	70.4	58.6
Costa Rica	0.0	1.0	14.2	7.3
Chile	34.1	32.7	47.0	39.6
Ecuador	17.8	29.6	44.9	39.1
El Salvador	36.4	44.2	66.9	59.7
Honduras	27.4	29.5	40.2	36.3
Jamaica	84.6	87.0	93.3	90.4
Nicaragua	16.4	18.0	47.0	39.0
Peru	35.7	36.9	62.7	51.4

Total

Country	Very poor	Poor	Non poor	Total
Brazil	59.0	62.8	79.3	70.0
Colombia	49.7	52.1	69.5	59.7
Costa Rica	4.3	3.2	16.1	9.5
Chile	32.5	32.6	45.0	38.2
Ecuador	21.1	28.5	41.9	36.5
El Salvador	41.2	43.5	66.5	57.9
Honduras	32.2	31.3	39.6	36.5
Jamaica	80.1	83.6	93.2	89.1
Nicaragua	16.1	20.3	46.7	38.6
Peru	36.2	36.8	57.0	47.7

Pre-School Gross Enrollment Rates: Rural Areas

Boys

Country	Very poor	Poor	Non poor	Total
Brazil	38.8	42.4	61.9	42.9
Colombia	n/a	n/a	n/a	n/a
Costa Rica	2.3	2.0	3.6	2.4
Chile	10.5	10.6	22.4	13.3
Ecuador	19.6	18.8	29.9	21.6
El Salvador	25.6	25.1	31.3	26.5
Honduras	33.4	33.9	27.7	31.6
Jamaica	72.7	79.0	94.0	83.2
Nicaragua	4.5	6.2	28.5	12.0
Peru	32.2	31.2	56.2	33.9

Girls

Country	Very poor	Poor	Non poor	Total
Brazil	45.4	47.3	59.0	47.5
Colombia	n/a	n/a	n/a	n/a
Costa Rica	0.9	1.0	9.0	2.8
Chile	12.1	11.8	25.0	15.1
Ecuador	16.3	20.9	21.1	20.9
El Salvador	33.8	35.8	44.9	37.5
Honduras	29.8	26.5	29.9	27.9
Jamaica	74.8	74.2	80.9	75.9
Nicaragua	6.8	9.0	13.7	10.0
Peru	42.0	44.8	56.7	46.6

Total

Country	Very poor	Poor	Non poor	Total
Brazil	42.1	44.8	60.6	45.1
Colombia	n/a	n/a	n/a	n/a
Costa Rica	1.5	1.5	6.3	2.7
Chile	11.3	11.2	23.7	14.2
Ecuador	18.3	19.7	25.5	21.3
El Salvador	29.9	30.8	37.8	32.3
Honduras	31.6	30.2	28.9	29.7
Jamaica	73.8	76.5	87.8	79.5
Nicaragua	5.6	7.6	22.2	11.0
Peru	37.5	38.4	56.5	40.8

Primary Gross Enrollment Rates: All Areas

Boys

Country	Very poor	Poor	Non poor	Total
Brazil	81.4	85.6	96.5	89.3
Colombia	n/a	n/a	n/a	n/a
Costa Rica	75.2	80.0	89.7	84.0
Chile	94.6	95.9	98.1	96.8
Ecuador	89.6	91.7	96.0	93.6
El Salvador	73.6	79.2	90.2	84.2
Honduras	85.4	87.1	91.7	89.1
Jamaica	97.8	97.8	99.5	98.5
Nicaragua	48.4	57.1	86.5	70.9
Peru	92.9	94.3	99.0	96.3

Girls

Country	Very poor	Poor	Non poor	Total
Brazil	85.3	88.1	96.9	91.3
Colombia	n/a	n/a	n/a	n/a
Costa Rica	83.0	82.6	91.8	86.2
Chile	96.2	98.2	98.2	97.4
Ecuador	88.5	90.0	96.6	93.0
El Salvador	76.7	80.5	89.7	84.6
Honduras	88.9	88.3	95.2	91.6
Jamaica	99.1	98.8	98.6	98.7
Nicaragua	55.2	62.9	88.1	74.9
Peru	94.2	95.2	97.0	95.9

Total

Country	Very poor	Poor	Non poor	Total
Brazil	83.3	86.8	96.7	90.3
Colombia	n/a	N/a	n/a	n/a
Costa Rica	79.4	81.4	90.8	85.1
Chile	95.4	96.3	98.1	97.1
Ecuador	89.1	90.9	96.3	93.3
El Salvador	75.0	79.9	90.0	84.4
Honduras	86.9	87.6	93.5	90.2
Jamaica	98.5	98.3	99.0	98.6
Nicaragua	51.7	59.9	87.3	72.8
Peru	93.6	94.7	98.0	96.1

Primary Gross Enrollment Rates: Urban Areas

Boys

Country	Very poor	Poor	Non poor	Total
Brazil	83.9	87.7	97.0	92.0
Colombia	89.1	91.8	97.3	94.2
Costa Rica	78.9	85.1	91.0	88.6
Chile	96.0	97.2	98.5	97.8
Ecuador	88.2	91.8	97.4	95.3
El Salvador	82.9	88.5	92.3	90.9
Honduras	94.8	89.2	96.4	93.5
Jamaica	97.9	98.3	99.2	98.7
Nicaragua	58.0	73.3	87.6	83.3
Peru	95.1	95.8	99.4	97.7

Girls

Country	Very poor	Poor	Non poor	Total
Brazil	87.8	90.2	97.1	93.4
Colombia	92.3	93.4	97.6	95.2
Costa Rica	86.2	86.0	93.5	89.9
Chile	97.6	97.9	98.8	98.3
Ecuador	90.4	93.2	96.9	95.6
El Salvador	86.7	91.6	93.6	92.8
Honduras	91.6	91.6	95.7	94.2
Jamaica	98.3	98.3	99.2	98.8
Nicaragua	65.5	74.0	89.3	85.0
Peru	93.7	96.0	97.5	96.8

Total

Country	Very poor	Poor	Non poor	Total
Brazil	85.8	88.9	97.0	92.7
Colombia	90.7	92.6	97.4	94.7
Costa Rica	83.2	85.6	92.3	89.3
Chile	96.8	97.5	98.6	98.0
Ecuador	89.2	92.4	97.2	95.4
El Salvador	84.7	90.0	92.9	91.9
Honduras	93.3	90.3	96.0	93.9
Jamaica	98.1	98.3	99.2	98.8
Nicaragua	62.0	73.7	88.5	84.1
Peru	94.5	95.9	98.5	97.3

Primary Gross Enrollment Rates: Rural Areas

Boys

Country	Very poor	Poor	Non poor	Total
Brazil	78.2	80.9	91.2	81.0
Colombia	n/a	n/a	n/a	n/a
Costa Rica	74.1	77.4	87.0	79.9
Chile	91.6	92.8	94.1	93.0
Ecuador	90.2	91.7	92.8	92.0
El Salvador	70.9	74.7	85.4	77.7
Honduras	83.0	86.3	86.5	86.4
Jamaica	97.7	97.6	100.0	98.3
Nicaragua	46.1	50.7	83.3	58.5
Peru	91.3	92.7	96.5	93.3

Girls

Country	Very poor	Poor	Non poor	Total
Brazil	81.9	83.0	94.1	83.8
Colombia	n/a	n/a	n/a	n/a
Costa Rica	81.7	80.7	88.7	82.8
Chile	93.2	93.9	93.4	93.8
Ecuador	87.7	88.3	95.7	90.3
El Salvador	73.7	74.9	79.9	76.2
Honduras	88.1	87.1	94.7	89.8
Jamaica	99.4	99.1	97.9	98.7
Nicaragua	52.3	58.5	83.6	63.8
Peru	94.5	94.5	94.3	94.5

Total

Country	Very poor	Poor	Non poor	Total
Brazil	80.0	81.9	92.5	82.3
Colombia	n/a	n/a	n/a	n/a
Costa Rica	78.1	79.1	87.9	81.4
Chile	92.4	93.3	93.8	93.4
Ecuador	89.0	90.2	94.2	91.2
El Salvador	72.2	74.8	83.0	77.0
Honduras	85.3	86.7	90.4	87.9
Jamaica	98.6	98.3	98.9	98.5
Nicaragua	49.0	54.5	83.4	61.0
Peru	93.0	93.6	95.4	93.9

Secondary Gross Enrollment Rates: All Areas

Boys

Country	Very poor	Poor	Non poor	Total
Brazil	50.8	53.7	75.8	63.7
Colombia	n/a	n/a	n/a	n/a
Costa Rica	63.4	63.8	79.1	71.0
Chile	77.7	77.5	86.4	81.9
Ecuador	52.8	60.8	81.0	70.8
El Salvador	43.5	46.8	64.4	56.5
Honduras	44.6	43.2	62.0	52.6
Jamaica	68.6	67.7	76.3	71.6
Nicaragua	32.1	38.2	75.1	55.8
Peru	84.5	86.6	88.9	87.7

Girls

Country	Very poor	Poor	Non poor	Total
Brazil	57.2	60.9	80.2	69.8
Colombia	n/a	n/a	n/a	n/a
Costa Rica	63.2	63.3	79.8	71.5
Chile	77.0	78.2	88.3	82.9
Ecuador	63.2	64.1	80.6	72.1
El Salvador	34.9	39.8	56.5	49.2
Honduras	55.7	48.8	67.4	58.4
Jamaica	66.4	68.8	77.5	72.9
Nicaragua	39.0	45.0	77.8	62.6
Peru	79.4	80.5	88.1	84.2

Total

Country	Very poor	Poor	Non poor	Total
Brazil	53.9	57.2	77.9	66.7
Colombia	n/a	n/a	n/a	n/a
Costa Rica	63.3	63.6	79.4	71.2
Chile	77.3	77.9	87.3	82.4
Ecuador	57.9	62.5	80.8	71.5
El Salvador	39.6	43.3	60.4	52.8
Honduras	50.5	45.9	64.7	55.5
Jamaica	67.6	68.2	76.9	72.2
Nicaragua	35.2	41.4	76.5	59.2
Peru	82.0	83.5	88.5	85.9

Secondary Gross Enrollment Rates: Urban Areas

Boys

Country	Very poor	Poor	Non poor	Total
Brazil	55.4	58.4	78.3	69.2
Colombia	66.7	70.9	84.5	77.5
Costa Rica	77.0	80.9	88.0	85.2
Chile	83.7	84.2	90.8	87.8
Ecuador	64.5	69.2	86.1	80.3
El Salvador	52.6	59.9	70.9	68.0
Honduras	81.4	65.1	78.8	74.4
Jamaica	78.2	74.2	76.4	75.5
Nicaragua	42.8	56.7	82.8	74.3
Peru	88.9	90.7	89.6	90.0

Girls

Country	Very poor	Poor	Non poor	Total
Brazil	62.4	65.6	81.5	74.3
Colombia	73.4	76.4	88.6	82.3
Costa Rica	73.6	72.7	87.4	82.0
Chile	82.7	84.0	91.5	87.9
Ecuador	64.9	70.1	85.1	79.9
El Salvador	54.0	53.9	64.3	61.2
Honduras	70.7	67.0	78.4	75.2
Jamaica	52.5	68.2	78.6	74.8
Nicaragua	65.4	69.1	84.4	80.5
Peru	87.6	85.6	91.0	88.8

Total

Country	Very poor	Poor	Non poor	Total
Brazil	58.8	61.9	79.9	71.8
Colombia	70.3	73.7	86.6	80.0
Costa Rica	75.2	76.8	87.7	83.5
Chile	83.2	84.1	91.2	87.9
Ecuador	64.7	69.7	85.6	80.1
El Salvador	53.4	56.5	67.4	64.4
Honduras	75.6	66.0	78.6	74.8
Jamaica	67.2	71.2	77.6	75.1
Nicaragua	52.4	62.2	83.7	77.5
Peru	88.2	88.0	90.3	89.4

Secondary Gross Enrollment Rates: Rural Areas

Boys

Country	Very poor	Poor	Non poor	Total
Brazil	44.9	43.3	52.2	45.4
Colombia	n/a	n/a	n/a	n/a
Costa Rica	58.5	54.9	65.6	58.7
Chile	63.8	60.1	56.2	58.9
Ecuador	48.8	56.2	68.9	60.2
El Salvador	41.7	41.2	49.6	44.1
Honduras	35.2	35.6	43.0	38.5
Jamaica	65.6	64.7	76.2	68.6
Nicaragua	29.0	28.8	49.5	33.8
Peru	81.9	82.2	82.7	82.3

Girls

Country	Very poor	Poor	Non poor	Total
Brazil	49.6	49.2	64.0	51.8
Colombia	n/a	n/a	n/a	n/a
Costa Rica	58.6	57.8	65.4	60.5
Chile	64.8	63.7	62.3	63.3
Ecuador	62.4	60.3	65.6	61.7
El Salvador	28.2	30.4	35.2	32.1
Honduras	51.7	42.5	49.7	45.0
Jamaica	70.4	69.1	75.4	71.1
Nicaragua	32.1	34.6	54.1	39.8
Peru	74.0	74.5	69.2	73.4

Total

Country	Very poor	Poor	Non poor	Total
Brazil	47.1	46.0	57.2	48.3
Colombia	n/a	n/a	n/a	n/a
Costa Rica	58.6	56.3	65.5	59.5
Chile	64.3	61.9	58.8	61.1
Ecuador	55.0	58.2	67.5	60.9
El Salvador	36.1	36.2	42.7	38.5
Honduras	44.0	38.9	46.0	41.6
Jamaica	67.8	66.7	75.9	69.7
Nicaragua	30.4	31.6	51.9	36.7
Peru	78.0	78.4	75.1	77.8

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